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A Multivariate Exploration of School Counselor Engagement with Students with Disabilities

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Abstract

Students with disabilities are at risk for a myriad of academic and personal/social challenges. School counselors are in a unique position to act as advocates for students with disabilities and their families to ensure that they have the educational and community supports they need for healthy academic, career, and personal/social development. Unfortunately, the professional school counseling literature highlights that school counselors are not adequately trained to effectively engage with students with disabilities. This study explored the predictive factors that may play an influential role in the engagement of school counselors in school counseling activities with students with disabilities. Variables explored included number of students with disabilities on current school counselor caseload, quality of contact with individuals with disabilities, graduate education in disability, attitudes towards individuals with disabilities, feelings of preparedness to engage students with disabilities, and school counselor cognitive complexity. Path analysis and exploratory factor analysis were used to examine the influence of these variables on school counselor engagement with students with disabilities. Implications for school counselor educators, and future avenues of research are discussed.
A MULTIVARIATE ANALYSIS OF SCHOOL COUNSELOR ENGAGEMENT WITH STUDENTS WITH DISABILITIES

By

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Dissertation

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Para dos hombres increíbles,

Antonio Abraham y Jaime H. Castillo
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Chapter I

Introduction

Students with disabilities are at risk to experience disability harassment (Holzbauer, 2004), segregation (Arman, 2002; Hayes 2001; Patterson, McKenzi, & Jenkins, 1995), negative school experiences (i.e. bullying, stigmatization, and presumed incompetence) (Milsom, 2006; Reis & Colbert, 2004), social maladjustment and risk-taking behaviors (i.e. substance use, suicide, and sexual activity) (Putnam, 2007), peer rejection (Bruce, Shade, & Cossairt, 1996), low self-esteem, and poor academic self-concept (Arman 2002; Leichtentritt & Shechtman, 2010; Pearl & Bay, 1999; Reis & Colbert, 2004). In 2012, the United States Department of Education reported 5.8 million students aged 6 to 21 being served under the Individuals with Disabilities Education Act (IDEA) (United States Department of Education, 2014). This accounts for 8.4% of the entire student population within that age range (United States Department of Education, 2014).

Based on this most recent report, the three most represented disability categories of students were specific learning disabilities (40.1%), speech or language impairments (18.2%), and other health impairments (13.2%) (United States Department of Education, 2014). The remaining categories included, autism (7.6%), intellectual disabilities (7.3%), other disabilities combined (i.e. deaf-blindness, developmental delay, and traumatic brain injury) (7.3%), and emotional disturbance (6.2%) (United States Department of Education, 2014). Thus, there are nearly 6 million students with disabilities receiving supports for education through IDEA who are at-risk of experiencing social and academic issues. As such, school counselors are in a unique position as school leaders to ensure equal access, positive experiences, and the inclusion of all students in comprehensive school counseling programming (Carpenter, King-Sears, & Keys,
1998; Myers, 2005; Milsom, 2006; Reis & Colbert, 2004). However, school counselors are not prepared with the pre-service training and education needed to confidently provide students with disabilities the services they need (Lofaro, 1982; Milsom, 2006; Milsom & Akos, 2003; Myers, 2005; Scarborough & Deck, 1998).

Despite not being adequately prepared, school counselors are in the position to facilitate change systemically by addressing how disabilities are perceived by school professionals, parents, and peers of students (Scarborough & Deck, 1998). In a study by Reis and Colbert (2004) the students who identified as academically gifted and learning disabled and their parents reflected on significant negative and traumatic experiences from elementary and secondary schooling due to the intersection of their abilities and identified disabilities. In this qualitative inquiry, participants reflected on teachers who punished them for having difficulty completing work without accommodations, severe bullying from peers, and suicidal ideations (Reis & Colbert, 2004). Bringing the voices of students to light, Reis and Colbert’s study shed light on the importance of school counselors to be aware of the experiences of students with disabilities. Thus, Reis and Colbert asserted that school counselors who are aware of the needs of their students can develop and implement comprehensive programming to support their academic and personal social development.

Similarly, Scarborough and Deck (1998) provided a first-person account of one school counselor and how she met the needs of her students with disabilities. The school counselor developed in-service trainings for teachers and administrators to educate them on disabilities. She coordinated with special education teachers and developed a five session in-service training sequence that discussed definitions and special considerations of specific disabilities, organizational strategies, and effective classroom strategies engaging students with special
needs. Additionally, teachers reflected on their feelings towards the academic promise of students with disabilities, effective techniques in assisting these students, and perceived roots of disability. These examples provide a glimpse into the issues facing school counselors when engaging with students with disabilities and as a result, highlight a critical gap that needs to be addressed.

Understanding what factors or combinations of factors of school counselors that influence their level of engagement with students with disabilities can inform future counselor education and training. Furthermore, it has the potential to positively impact the future career, academic, and personal/social development of nearly 6 million students with disabilities as more school counselors will engage students with disabilities in more vocational preparedness activities, academic support programs, and psychosocial development activities throughout their education. Factors such as graduate education and training (i.e. courses or practical experiences that have integrated disability), as well as previous contact with individuals with disabilities have been examined with regards to feelings of preparedness to engage students with disabilities (Milsom, 2002) and overall attitudes towards individuals with disabilities (Goreczney, Bender, Caruso, & Feinstein, 2011; Gill, Kroese, Rose, 2002; Klooster, Dannenberg, Tall, Burger, & Rasker, 2009; Yazbeck, McVilly, Parmenter, 2004). Cognitive complexity has never been investigated in terms of its impact on a school counselor’s engagement with students with disabilities, but has shown to positively influence counselors across a multitude of clinical skills and judgment.

Cognitive complexity has been discussed in the counseling literature as an indicator of a counselor’s cognitive development and reasoning. Granello (2010) defined cognitive complexity as “the ability to absorb, integrate, and make use of multiple perspectives” (p. 92). Similarly,
Dolan, Perz, McComb, and Kirkpatrick (2013) referred to cognitive complexity as “an individual’s ability to synthesize disparate perspectives” (p. 538). Bieri (1955) theorized that individuals perceive the social world through a system of constructs, with individuals who possess a system of constructs that differentiate more significantly as more cognitively complex. Research in cognitive complexity in counseling and counselor education has utilized three cognitive developmental theoretical frameworks—Conceptual Systems (Harvey, Hunt, and Schroder, 1961), Perry’s Theory of Intellectual and Ethical Development (Perry, 1970), and Ego Development (Loevinger, 1976). These frameworks describe individuals moving across stages of cognitive development where they move from more concrete, rule following positions, to those that are more flexible and open to integrate diverse streams of information. How these theoretical frameworks are integrated into counselor cognitive complexity is discussed in greater detail in the succeeding chapter. Welfare and Borders (2010) stated that high domain specific cognitive complexity (i.e. cognitive complexity specific to the field of counseling) can lead to counselors who are able to develop more astute conceptualizations of their client’s needs and provide better treatments. This study focuses on this domain specific cognitive complexity.

Blaas and Heck (1978) recognized that the counseling process involves an exchange and processing of complex verbal and nonverbal communications between the counselor and client. As such, Blaas and Heck posited that differences in counseling outcomes could be observed between clinicians demonstrating different levels of cognitive processing skills. Welfare and Borders (2010a) stated that cognitively complex counselors are able to synthesize and conceptualize the needs of clients at an advanced level. Mclennan (1995) highlighted that within the counseling relationship it is critical for counselors to be able to (a) make differentiations in the statements and behaviors shared by the clients, (b) be selective in deciding the level of
importance of the information provided, and (c) integrate the information to best meet the current needs of the client. Therefore, it is possible that school counselors with higher cognitive complexity will be more likely to include student with disabilities in school counseling related activities because they will be able to adapt information and interventions to meet the unique needs of this student population.

In summary, the needs of students with disabilities span across multiple domains of development, and school counselors are in a position to advocate for the supports and resources to meet these needs. Therefore, it is important to explore the current scope of school counselor engagement with students with disabilities, as well as what accounts for the variance in the level of engagement of school counselors with students with disabilities. Traits and characteristics that have demonstrated to influence engagement or attitudes towards individuals with disabilities, such as graduate education and training, quality of contact with individuals with disabilities, attitudes towards individuals with disabilities, and overall feelings of preparedness to engage students with disabilities. In addition, school counselor cognitive complexity will also be included to explore the correlations among these variables in predicting engagement with students with disabilities.

Background of the Study

Mandate of Disability Legislation

Over the last 40 years, congressional legislation has transformed the attention to and availability of community and educational supports for individuals with disabilities (Americans with Disabilities Act of 1990; Education for All Handicapped Children Act of 1975; Individuals with Disabilities Act of 1990; Rehabilitation Act of 1973). Programs that receive federal support (i.e. schools) must ensure that individuals participating in that program are afforded equal access
to program activities, thus, prohibiting discrimination against individuals with disabilities under Section 504 of The Rehabilitation Act of 1973. The passing of the All Handicapped Children Act (EHC) of 1975 ensured that all students with disabilities would have a free and appropriate public education that met the needs of the individual students and their families. In schools, students with disabilities now received an individual education program (IEP) that outlined their unique academic needs, and had systemic supports and access to services (i.e. speech and occupational therapy, counseling) available to them to cultivate their learning and development (Education for All Handicapped Children Act of 1975).

In 1990, two congressional Acts were passed that continue to address discrimination against individuals with disabilities, and at the time, began to mandate access to federal supports. The Americans with Disabilities Act (ADA) recognized the unique political and cultural barriers faced by individuals with disabilities, the unfortunate results of negative stereotypes perpetuated by society and not indicative of an individuals true potential to be an active member in their community. Furthermore, IDEA supported school systems in meeting needs of students with disabilities by providing financial assistance so students with disabilities can access the academic and related educational supports. School counselors are in a key position in schools to play a critical role in lives of students with disabilities by enacting change through a comprehensive delivery of services to students, families, teachers, administration, and school-wide stakeholders.

**School Counselors and Students with Disabilities**

School counselors have been identified as social justice change agents (Humes, 1974; Ratts, DeKruyf, & Chen-Hayes, 2007; Trusty & Brown, 2005). Furthermore, Trusty and Brown (2005) acknowledged that the work of the school counselor is grounded in advocacy. As such, Brown and Trusty (2005) provided professional school counselors with a set of Advocacy
Competencies to guide their work. The Advocacy Competencies for Professional School Counselor organize school counselor advocacy across three domains—disposition, knowledge, and skills. These domains outline the importance of school counselors maintaining a critical understanding of ethical codes, having an awareness of resources available at different systemic levels in their communities, and demonstrating effective communication, collaboration, and self-care skills to empower students and family development. The American School Counselors Association (ASCA) Ethical Codes and published Position Statements for working with Students with Disabilities communicate specific professional competencies for school counselors to ensure that academic, career, and personal/social needs of all students are met (ASCA, 2013).

In the last decade, more and more research in school counseling has focused on understanding the preparedness of school counselors in engaging with students with disabilities. Completion of graduate coursework and training in disabilities has been shown to improve school counselor’s attitudes towards disability (Erhard & Umanksy, 2005; Milsom, 2006) and increase their sense of preparedness to engage with this student population (Milsom, 2002). Even though additional education and training has contributed to higher self-efficacy in engaging with students with disabilities, the majority of counselor preparation programs do not have courses in disability/special education (Milsom & Akos, 2003). Additional factors have been found to play a part in school counselor engagement with students with disabilities.

Increased contact with individuals with disabilities has demonstrated strong associations with positive attitudes (Goreczney et al., 2011; Gill et al., 2002; Klooseter et al., 2009; Yazbeck et al., 2004) and decreases in misconceptions and stereotypes surrounding disability (Barr & Bracchitta, 2008; Barr & Bracchitta, 2014; Tervo, Palmer, & Redinius, 2004). Having negative attitudes towards individuals with disabilities, unfortunately, has not only demonstrated to
negatively impact clinical judgment, but also the effectiveness in a counselors’ work with individuals with disabilities (Strohmer, Biggs, Haase, Purcell, 1983; Spengler & Strohmer, 1994; Walker & Spengler, 1995; Wong, Chan, Cardoso, Lam, & Miller, 2004).

**Cognitive Complexity and Engagement**

Counselors who have demonstrated higher levels of cognitive complexity have been shown to establish positive counseling relationships with clients (Goldberg, 1974), manage complex client affect (Kimberlin & Friesen, 1980; McAuliffe & Lovell, 2006), and demonstrate more consistent empathic responses (Lutwak & Hennessy, 1982; McAuliffe & Lovell, 2006). Counselors with higher cognitive complexity have also been more open to multiple perspectives and less reliant on concrete rules or external authority figures for decision-making (Harvey, et al., 1961). Lastly, counselors who have higher levels of cognitive complexity have demonstrated an ability to adapt interventions to meet the individual needs of clients, and show flexibility in their interventions during challenging situations (Sias, Lambie, & Foster, 2006).

Establishment of positive counseling relationships, management of complex client affect, consistent empathy, openness to multiple perspectives, and an ability to adapt and be flexible with interventions are important traits to engaging with individuals in a counseling relationship. Thus, if individuals who demonstrate higher levels of cognitive complexity have also demonstrated more consistency in these clinical skill areas, it is possible that such consistencies and cognitive flexibilities may also increase one’s engagement with individuals with disabilities. Students with disabilities present school counselors with a unique set of needs, and school counselors with higher cognitive complexity may be more flexible in their thinking, adapt interventions, or identify methods of including students with disabilities in school counseling opportunities that individuals with lower complexity may overlook.
Statement of the Problem

School counselors and school counselor educators have acknowledged the need for increased training and professional development in special education in order to work more effectively with students with disabilities (Lofaro, 1982; Milsom, 2006; Milsom & Akos, 2003; Myers, 2005; Scarborough & Deck, 1998). As students with disabilities are faced with challenges that might hinder their academic and personal/social growth, school counselors need to be prepared to work alongside these students and offer the appropriate resources. There has been evidence from teachers and school counselors that indicate even minimal pre-service training and/or collaboration with special education teachers increases a sense of disability competence in school counselors (Milsom, 2006; Myers, 2005; Scarborough & Deck, 1998). Myers (2005) also stated that school counselors who collaborated with teachers, and administrators, were more likely to continue collaborating.

There have been no empirical investigations on the predictors of professional school counselors with regards to the frequency of their engagements with students with disabilities (i.e. how many times an activity has been performed by a school counselor for a students with a disability in the last month). Thus, it is critical to address this gap in the literature if we are to better train practicing professionals and prepare pre-service school counselors to engage with students with disabilities. Additionally, cognitive complexity has demonstrated a positive influence on clinical skills in undergraduate and graduate students, counselors-in-training, and professional counselors; however, there have been no empirical studies about the influence cognitive complexity on the work of practicing professional school counselors. It is important to understand the variables that positively or negatively influence a school counselor’s engagement and frequency of engagement with students with disabilities if we are to ensure that all students
have the same opportunities to reach their academic, career, and personal/social potential.

**Purpose of the Study**

The purpose of this research is both descriptive and exploratory. First, it is descriptive in order to understand the distribution of certain characteristics of professional school counselors surrounding graduate disability education, professional development in areas of disability, engagement in clinical supervision, quality contact with individuals with disabilities, attitudes towards individuals with disabilities, and cognitive complexity. Second, it is exploratory as it seeks to examine potential causal relationships between a set of independent predictor variables of school counselors, with their engagement, and the frequency of their engagements with students with disabilities. The unique predictor variable under examination in this study is school counselor cognitive complexity. The criterion variable is engagement with students with disabilities. This study is a quantitative design utilizing a cross-sectional survey methodology. A path analysis will be completed to provide estimates of the magnitude and significance of hypothesized causal relationships among the predictor and criterion variables.

This study seeks to expand the literature on cognitive complexity to include professional school counselors as it is currently non-existent. More specifically, there have been no investigations on the impact of cognitive complexity in a school counselor’s engagement with students with disabilities. Furthermore, of the variables that have demonstrated to influence a school counselors’ feelings of preparedness towards engaging students with disabilities, or past engagement, there have been no empirical investigations on the impact of these variables (i.e. graduate disability education, quality of contact with individuals with disabilities, attitudes towards individuals with disabilities, and school counselor cognitive complexity) on the frequencies (i.e. number of times in last 30 days) of those engagements.
Significance of the Study

The significance of the study lies in that students with disabilities are at-risk for experiencing academic and social issues (Arman 2002; Bruce, et al., 1996; Hayes, 2001; Holzbauer, 2004; Leichtentritt & Shechtman, 2010; Milsom, 2006; Patterson, et al., 1995; Pearl & Bay, 1999; Putnam, 2007; Reis & Colbert, 2004). As such, there is an explicit call for school counselors to be better prepared to meet the needs of students with disabilities (Lofaro, 1982; Milsom, 2006; Milsom & Akos, 2003; Myers, 2005; Owens, Thomas, & Strong, 2011; Scarborough & Deck, 1998); however, over the last 10 years the research in this area has slowed. This study will provide a contemporaneous scope of the work school counselors are doing with students with disabilities. Additionally, this study will be the first to examine the direct and indirect relationships between a set of identified predictor variables and the frequency of a school counselor’s engagement with students with disabilities.

Furthermore, it is the first to include cognitive complexity as a predictor variable in an examination of a school counselor’s engagement with students with disabilities. Investigating the aforementioned relationships can inform future counselor education curriculum requirements. School counselor educators can include activities or introduce course content related to the variables and/or experiences that are found to influence how school counselors engage with this student population. If cognitive complexity is found to contribute to the path model, this can inform future counselor education pedagogy so as to include experiences that promote cognitive development. Lastly, this study provides a snapshot to the current scope of school counselor engagement with this student population.

Research Questions and Hypotheses
**Research Question 1:** What is the scope of school counselor engagement with students with disabilities?

**Hypothesis 1:** Descriptive statistics will demonstrate the scope of school counselor engagement with students with disabilities.

**Research Question 2:** What are the direct and indirect effects between the predictor variables (caseload, quality of contact with individuals with disabilities, attitude towards individuals with disabilities, graduate education and training, overall feelings of preparedness to engage students with disabilities, and cognitive complexity) and the reported scope of school counselor engagement with students with disabilities?

**Hypothesis 2:** The predictor variables will demonstrate significant direct and indirect pathways to the criterion variable (engagement with students with disabilities).

**Research Question 3:** What is the dimensionality of school counselor engagement with students with disabilities?

**Hypothesis 3:** Underlying conceptual categories of school counselor engagement activities will be identified.

**Research Question 4:** What are the direct and indirect effects between the predictor variables (caseload, quality of contact with individuals with disabilities, attitude towards individuals with disabilities, graduate education and training, overall feelings of preparedness to engage students with disabilities, and cognitive complexity) with the frequency of school counselor engagement in the dimensional categories of school counselor engagement with students with disabilities?

**Hypothesis 4:** The predictor variables will demonstrate significant direct and indirect pathways to the criterion variable (frequency of engagement with students with disabilities).
Conclusion

Almost six million students with disabilities receive federal support for education. In addition, students with disabilities experience social and academic challenges such as peer rejection (Bruce, et al., 1996), negative school experiences (Milsom, 2006; Reis & Colbert, 2004), low self-esteem (Arman 2002; Leichtentritt & Shechtman, 2010; Pearl & Bay, 1999; Reis & Colbert, 2004), and disability harassment (Holzbauer, 2004) that may hinder development opportunities in school settings. School counselors are in a key position as school leaders to advocate for the academic, career, and personal/social needs of all students, including students with disabilities. Professional associations such as ASCA outline important advocacy and professional competencies within their Ethical Codes and Position Statements that give school counselors a foundation for, and professional supports to meet the unique needs of all students. Even though it is recognized that there is a need to ensure school counselors engage students with disabilities, the literature highlights a lack of readiness and preparation of school counselors to confidently work with this student population.

Higher education and training in disability/special education coursework, previous contact with individuals with disabilities, and positive attitudes towards individuals with disabilities have demonstrate to positive correlate with higher feelings of preparedness to engage with students with disabilities. Furthermore, research in cognitive complexity has demonstrated that individuals with higher cognitive complexity have more empathic responses to clients, as well as showing increased adaptability and flexibility in their clinical conceptualizations and interventions. Thus, this study seeks to explore not only what factors or experiences of school counselors contribute the most to their engagement with students with disabilities, but also, if school counselor cognitive complexity also plays an influential role. The findings for this study
have the potential to inform future counselor education coursework with regards to disability, as well as demonstrate a need for integrating pedagogies that cultivate cognitive complexity in school counselors in training. Most importantly, the findings of this study can ensure that students with disability have the opportunity to participate in regular school counseling activities in order to meet their developmental needs.

**Definition of Terms**

**Disability:** In terms of individuals, a disability is recognized as a physical or mental impairment that may pose limitations to an individual’s life activities (Americans with Disabilities Act [ADA], 1990). ADA outlines that Students with disabilities includes autism, deaf-blindness, developmental delay, emotional disturbance, hearing impairments (including deafness), intellectual disability (formerly mental retardation), multiple disabilities, orthopedic impairments, other health impairments, specific learning disabilities, speech or language impairments, traumatic brain injury, visual impairments (including blindness), and who by reason thereof, needs special education and related services (Milsom, 2002).

**School Counselor Characteristics:** Unique individual demographic characteristics of participating professional school counselors.

**Quality of Contact with Individuals with Disabilities:** The way in which an individual views their relational experiences with an individual with disability.

**Attitudes Towards Individuals with Disabilities:** A person’s belief structure towards disabilities that drives the way in which a person behaves towards individuals with disabilities (Roberts & Smith, 1999).

**Graduate Education in Disability:** The opportunities professional school counselors had during their graduate education and training on topics related to disability and/or special education.
Overall Feelings of Preparedness to Engage Students with Disabilities: A school counselor's general feelings of preparedness to provide and engage in school counseling related activities with students with disabilities (Milsom, 2002)

Cognitive Complexity: The ability of counselors to identify and integrate a set of unique characteristics of their clients into a “meaningful framework that informs effective treatment planning and implementation” (Welfare & Borders, 2010b, p. 188). Cognitive complexity has also been defined as an ability to hold and integrate multiple perspectives (Granello, 2010).

School Counselor Engagement with Students with Disabilities: The American School Counseling Association (ASCA) states that school counselors must provide a comprehensive school counseling program that meets the academic, career, and socio-emotional needs of students of all abilities.
Chapter II: Literature Review

Introduction

The purpose of this literature review is to provide a context of the central constructs under examination in this study—school counselor engagement with students with disabilities and cognitive complexity. Both constructs have been discussed in their representative fields; however, this chapter aims to provide a synthesis of the literature in order to provide a conceptual framework on which this study will build. The first section will provide a historical context of disability legislation, as well as a thorough examination of the literature pertaining to school counselors and students with disabilities. Through an analysis of previous empirical investigations and critique of the literature, this chapter will then provide a comprehensive review of the construct of cognitive complexity. The final section of this chapter will briefly discuss the research surrounding the impact of attitudes towards, contact, and quality of contact with individuals with disabilities.

The Preamble of the ASCA Ethical Standards states that school counselors have a professional responsibility to ensure that students of all ability/disability have access to comprehensive school counseling programming (ASCA, 2010). As previously discussed, students with disabilities are a vulnerable population and have historically experienced academic and social issues (Arman 2002; Bruce, et al., 1996; Hayes 2001; Holzbauer, 2004; Leichtentritt & Shechtman, 2010; Milsom, 2006; Patterson, et al., 1995; Pearl & Bay, 1999; Putnam, 2007; Reis & Colbert, 2004). A review of congressional legislation surrounding individuals with disability provides a context for understanding the demands placed on school counselors. A discussion of advocacy competencies developed for professional counselors and school counselors frames the methods in which these demands need to be met. A review of literature
pertaining to school counselor preparation, training, and attitudes towards students with disabilities will provide context for the current state of practice with that student population.

A Brief History of Disability Legislation

Section 504 and the Education for All Children Act

The availability and delivery of supports for students with disabilities in education has been greatly impacted by federal legislation over the last 40 years (West & Whitby, 2008). Since 1973, Section 504 of The Rehabilitation Act of 1973 prohibits discrimination of individuals with disabilities from receiving equal access to services within programs that receive federal financial assistance, such as schools. Despite the introduction of Section 504, however, the United States Congress identified that more than half of students with disabilities in the United States were not accessing educational resources. In addition, one million students with disabilities were being excluded from the public school system when compared to their peers identified as not having a disability (Education for All Children Act of 1975); therefore, if a student was identified as having a disability, school districts had the choice of whether they would allow that child to attend their school. Thus, students with disabilities often failed to receive education (Apling & Jones, 2005). As a result, Congress passed Public Law 94-142, also known as the Education for All Handicapped Children Act (EHC) in 1975. EHC states that:

- All handicapped children have available to them…a free appropriate public education which emphasizes special education and related services designed to meet their unique needs, to assure that the rights of handicapped children and their parents or guardians are protected, to assist states and localities to provide for the education of all handicapped children, and to assess and assure the effectiveness of efforts to
educate handicapped children” (Education for Handicapped Children act of 1975, Sec.3.c).

In EHC, special education refers to classroom instruction, home instruction, physical education, and instruction in hospitals and institutions. Related services include speech pathology, occupational therapy, and psychological and counseling services. EHC guarantees that a free appropriate public education (FAPE) for preschool, elementary, and/or secondary schooling is to be provided in accordance to the individualized education program (IEP). IEP was introduced in EHC and is a statement that outlines a student’s educational performance, annual goals, objectives and evaluation criteria. The IEP also provides an overview of the educational services to be provided and the extent to which they will be able to participate in regular programming. Blenk and Fine (1995) reflected on how instrumental EHC was in ensuring that students with disabilities had the right to receive education supports in the least restricted environment available, ultimately allowing for inclusion to emerge as the standard in education for students with disabilities. Congress later amended EHC by passing the Handicapped Children’s Protection Act of 1986. This amendment ensures families and/or guardians be awarded any attorney fees accrued in the clarification of EHC (Handicapped Children’s Protection Act of 1986). Entirely, EHC protects the rights of students with disabilities by guaranteeing FAPE, access to supportive services, and providing families and caregivers an opportunity to challenge inclusive practices of their child’s school without the financial burden of legal representation.

The professional school counseling literature began to reflect the recent legislative changes to students with disabilities. Kameen (1979) commented that an “expansion and redirection of the school counselor’s traditional counseling, consulting, and coordinating
functions will be needed” (pp. 150-151). Westling and Joiner (1979) shared that school
counselors must act as consultants to teachers and administrators in order to assist in creating the
least restrictive environments for students with disabilities. Noble and Kampwirth (1979) and
Kameen and Parker (1979) provided an outline and case examples of how school counselors can
assist in developing IEPs for their students.

As EHC and Section 504 began to shift how educators engaged students with disabilities,
it also brought new challenges to the roles of school counselors (Dunn & Baker, 2002; Greer,
Greer, & Woody, 1995). Hosie, Patterson and Hollingsworth (1989) recognized several
challenges that both school and rehabilitation counselors faced as services for students with
disabilities evolved in the school settings. These challenges included not having sufficient
knowledge of new services available, an increased awareness of “disabling” language used in
current discourse, a recognition of the impact of disability within the family system, and a
recognition of the importance of interdisciplinary collaboration (Hosie et al., 1989).
Novak, Wicas and Elias (1977) commented that although the school counseling profession had initially
felt unprepared and left out of the conversations with special education policymakers; they
reflected that school counselors should view these shifts as a time of great opportunity, not
misfortune.

**Americans with Disabilities Act**

In the years that followed, Congress acknowledged the historical and continual
discrimination of individuals with disabilities in employment, public accommodations,
education, health services, transportation, and access to public services (Americans With
Disabilities Act of 1990). Congress recognized that individuals with disabilities:
Are a discrete and insular minority who have been faced with restrictions and limitations, subjected to a history of purposeful unequal treatment, and relegated to a position of political powerlessness in our society, based on characteristics that are beyond the control of such individuals and resulting from stereotypic assumptions not truly indicative of the individual ability of such individuals to participate in, and contribute to, society (Americans with Disabilities Act of 1990, Sec. 12101.a.7).

Thus, in order to provide clear, enforceable, and comprehensive standards that address the discrimination of individuals with disabilities, the Americans with Disabilities Act of 1990 (ADA) was passed. The ADA prohibits schools from discriminating against any individuals identified as having a disability, thus seeking to eliminate any barriers that might prevent individuals with disabilities from utilizing schools and other educational services (Parette & Hourcade, 1995).

**Individuals with Disabilities Education Act**

In addition to ADA, Congress also passed the Education of the Handicapped Act of 1990, which renamed EHC to the Individuals with Disabilities Education Act (IDEA). IDEA promises financial support to State and local education systems for students with disabilities, ages 3-21, to receive special education and other related services. IDEA includes the additions of autism and traumatic brain injury to the list of recognized disabilities, as well as an expansion of the definitions of *special education* and *related services* (Aleman, 1991). Special education now includes instruction conducted outside of traditional education settings. Related services now include social work services, therapeutic recreation, and rehabilitation counseling. IDEA states that students with disabilities must be educated with children who are not identified as having a disability to the maximum extent appropriate. In other words, students with disabilities should
only be educated separately when supplemental materials to the general curriculum are not successful due to the severity of the disability (West & Whitby, 2008). West and Whitby further commented that with the introduction of the No Child Left Behind Act of 2002 (NCLB) students with disabilities have been able to demonstrate high levels of achievement if proper supports and expectations are provided.

**No Child Left Behind Act**

NCLB aims to improve the academic achievement of disadvantaged students, such as students with disabilities, as well as close the achievement gap between high and low performing students (No Child Left Behind Act of 2001). West and Whitby (2008) stated that NCLB has contributed to three key areas in the education of students with disabilities—awareness, access, and achievement. First, NCLB raised the awareness of students with disabilities as a distinct learning group as they are required to test as their peers identified as not having a disability do. Second, students with disabilities have more access to general education curriculum than ever before. Third, students with disabilities are being recognized as being capable of achieving high standards because schools are required to assess the achievement gaps in their schools, thus placing expectations on all student groups.

With the assistance of congressional legislation over the last 40 years, a public framework has been established to prevent the discrimination of individuals with disabilities from life opportunities such as employment, access to public transportation, access to health services, and education. Rights and access to educational opportunities and supports for students with disabilities have also been established. EHC guaranteed students with disabilities FAPE and access to education supports in the least restricted environment. IDEA promoted inclusion of students with disabilities into regular education classrooms with their peers. NCLB highlighted
the achievement potential of students with disabilities. As the introduction of ADA, IDEA, and NCLB shifted how individuals and students with disabilities accessed education, professional counseling associations, such as the American Counseling Association (ACA) and ASCA, established professional competencies, and ethical codes, outlining how professional counselors and school counselors could meet the needs of their clients/students from a social justice perspective. The ACA is the largest professional association dedicated to the field and practice of professional counselors. ASCA is an official division of ACA that is dedicated to the professional activities and services of professional school counselors.

Advocacy Competencies for Counselors and School Counselors

Counseling researchers have recognized the “width, breath, and widespread impact” of social justice to the field of professional counseling (Ratts, 2009). School Counselors have been identified as agents of change (Humes, 1974) and social justice advocates (Ratts et al., 2007; Trusty & Brown, 2005). Ratts et al. (2007) highlighted that for school counselors, social justice advocacy is “warranted to right injustices, increase access, and improve educational outcomes for all students” (p. 90). Recent literature has highlighted the needs for school counselors to be advocates for students with disabilities (Bruce, et al., 1996; Erhard & Umanksy, 2005; Milsom, 2007; Mitcham, Portman, Dean, 2009; Newmeyer & Newmeyer, 2004), as well as assist them in developing their skills to become self-advocates (Owens et al, 2011). This section discusses how the ACA Advocacy Competencies, Advocacy Competencies for Professional School Counselors, ASCA Ethical Standards, ASCA Position Statements, and ASCA Student Standards outline the roles of professional counselors and school counselor in order to meet the needs of all clients/students.

Advocacy Competencies for Counselors
The development of the ACA Advocacy Competencies (ACA, 2003), and the infusion of social justice advocacy into the ACA Code of Ethics and CACRP standards (Manis, 2012; Chang, Crethar, & Ratts, 2010), have demonstrated that the leaders of the counseling profession are aware of the importance of being guided by a social justice perspective. Similar to Brofrenbrenners (1979) ecological model, the Advocacy Competencies (ACA, 2003) provide a structure to raise the awareness of counselors of the interplay between clients and the systems in their environments. The competencies highlight that advocacy can occur at the micro and macro levels, and that counselors have the ability to act with or on behalf of their clients in order to best meet their needs. The ACA adopted a set of Advocacy Competencies that outline three key domains for advocacy where counselors can engage for and with their clients. The three domains are client/student, school/community, and public arena levels, each which contain two subgroups of competencies that will be discussed.

**Client/Student.** This domain includes competencies for promoting client/student empowerment and advocacy. Counselors can encourage development of client/student self-advocacy skills, identification of strengths or resources available, and/or identification of external barriers that impact development. School counselors may use these competencies to engage students in classroom guidance, group, or individual activities that support students in identifying personal strengths and resources unique to their life systems. School counselors can assist students navigate systemic barriers that prevent access to needed resources by advocating to administrators on their behalf, as well as supporting students in strengthening their voice and empowerment skills as self-advocates.

**School/Community.** This domain includes competencies in community collaboration and systems advocacy. Counselors can identify environmental factors that impact development,
and act as leader in coordinating with community groups to enact change. School counselors can meet these competencies by recognizing community strengths and resources and coordinating with stakeholders to reduce environmental barriers that impact student development. Developing partnerships within the school allows school counselors to have a voice within the school community when challenging systemic issues is needed (Singh, Urbano, Haston, & McMahon, 2010).

**Public Arena.** This domain highlights the ability of counselors to inform the broader public of systemic or environmental barriers that impede individuals from a healthy development. Counselors may organize and collaborate with community allies, legislators, or other socio/political advocates to disseminate information that can inform the public at a macro-level. Scarborough and Luke (2008) recognized marketing skills as essential for school counselors to promote their roles, shift perspectives, and raise awareness their school counseling programs to the greater communities.

Overall, the Advocacy Competencies offer professional counselors framework to guide their work from a social justice perspective. Although the Advocacy Competencies do not directly speak to the work of professional school counselors parallels linking with the role of professional school counselors are made. The next section, however, will discuss the Advocacy Competencies for Professional School Counselors. The Advocacy Competencies for Professional School counselors provide attributes necessary of school counselors who act as advocates for their students.

**Advocacy Competencies for Professional School Counselors**

Trusty and Brown (2005) asserted that because “advocacy cuts across multiple school counseling roles, occurs on multiple levels, and is conceptualized broadly” (p.259) it makes
sense that much of the work of school counselors is advocacy. As such advocacy Brown and Trusty (2005) presented advocacy competencies for professional school counselors organized within three domains—dispositions, knowledge, and skills. This section will overview the Advocacy Competencies for Professional School Counselors.

**Dispositions.** Trusty and Brown highlight professional school counselors must acknowledge and embrace their roles by maintaining advocacy, family support/empowerment, social advocacy, and ethical dispositions. School counselors can maintain advocacy dispositions by taking risks to support the needs of their students, and family support/empowerment dispositions by utilizing the strength and resources of the families to empower student and family development. Social advocacy dispositions seek to identify systemic barriers that inhibit all individuals from reaching their potential. Lastly, having a critical understanding of ethical codes and an ability to navigate advocacy dilemmas demonstrates a school counselor’s professional mores and ethical disposition.

**Knowledge.** Knowledge of resources, parameters (i.e. school policies, legal rights of students), dispute resolution mechanisms, advocacy models, and systems of change comprise the Knowledge domain. Altogether the elements of Knowledge competencies outline the importance of professional school counselors to have awareness of the resources, policies, and models within their school and public communities to provide direction towards enacting positive social change.

**Skills.** Brown and Trusty (2005) identified five skills necessary for professional school counselors in their roles as advocates—communication, collaboration, problem-assessment, problem-solving, organizational, and self-care skills. Professional school counselors may use a combination of these skillsets as they establish supportive partnerships with students, families,
and community members. Assessing challenges, and an having an ability to engage in problem-solving discussions with teachers, families, and/or other school community stakeholders that are supportive of multiple perspectives are critical to advocacy efforts for professional school counselors.

In conclusion, these domains emphasize for professional school counselors what is needed to not only demonstrate advocacy at the professional level, but also as an individual. Brown and Trusty (2005) integrated the dispositions found in Fiedler’s (2000) Advocacy Competencies for Special Education Professionals into the these competencies for professional school counselors. Thus, competencies for professional school counselors have been informed by those of special education professionals. This highlights a critical link in advocacy competencies between the two education professionals.

**ASCA Position Statements and Standards**

With the passages of Section 504 and IDEA, legislation continues to address needs of students with disabilities in education as schools are required to ensure students with disabilities have the educational services they need (Nichter & Edmonson, 2005). The Advocacy Competencies discussed for counselors and professional school counselors highlight how counseling professionals can enact social justice advocacy for their clients and students across many levels. Similarly professional organizations such as ASCA and ACA have begun to integrate professional standards, ethical guidelines, and competencies that ensure the needs of vulnerable populations are reflected in the professional discourses of counselors and school counselors. These steady changes in professional discourse demonstrate how the roles and responsibilities of school counselors have transformed. This section will discuss the ASCA
positions statements for students with disabilities, as well as the ASCA Ethical Standards and National Standards for Students.

**ASCA Position Statements**

ASCA released several position statements supporting school counselors’ work with various student populations, including school counselors’ work with students with disabilities (adopted 1999; revised 2004, 2010, & 2013). This statement ensures the commitment of professional school counselors in assisting all students in recognizing and exceeding their academic potential, no matter their level of identified ability. The position statement also clarifies the role of school counselors in their engagement with students with disabilities. This was important because the role of the school counselor with students with disabilities had been largely undefined (Sakiz, Woods, Sart, Erşahin, Aftab, Koç, & Sariçam, 2015).

The roles as outlined by ASCA align with IDEA in stating that the responsibilities of school counselors may include (a) providing school counseling curriculum lessons, individual and/or group counseling to students with special needs within the scope of the comprehensive school counseling program; (b) providing short-term, goal-focused counseling in instances where it is appropriate to include these strategies in the IEP; (c) encouraging family involvement in the educational process; (d) consulting and collaborating with staff and families to understand the special needs of a student and understanding the adaptations and modifications needed to assist the student; (e) advocating for students with special needs in the school and in the community; (f) contributing to the school’s multidisciplinary team within the scope and practice of the comprehensive school counseling program to identify students who may need to be assessed to determine special education eligibility; (g) collaborating with related student support professionals (e.g., school psychologists, physical therapists, occupational therapists, special
education staff, speech and language pathologists, teachers of deaf and hearing impaired) in the delivery of services; and (h) providing assistance with developing academic and transition plans for students in the IEP as appropriate. The outlined tasks provide school counselors with a scope of practice for engaging students with disabilities. Additionally, the position statement demonstrates to community and school stakeholders that the school counselor’s role with students with disabilities is multifaceted and involves action, advocacy, and collaboration across many levels.

**ASCA Ethical Standards and National Standards for Students**

A close look at the Preamble of ASCA’s Ethical Standards demonstrate a relationship with the core principles of inclusion as outlined in IDEA. The ASCA Ethical Standards state that school counselors have a professional responsibility to ensure all students access to comprehensive school counseling programming (ASCA, 2010). First, A.1.a of the ASCA Ethical Standards states professional school counselors have a “primary obligation to the students, who are to be treated with dignity and respect as unique individuals” (ASCA, 2010, p. 1). Second, A.1.b. asserts professional school counselors should be focused on the “educational, academic, career, personal and social needs and encourage the maximum development of every student” (ASCA, 2010, p.1). Thus, ensuring equal access to supports for the developmental growth of students, and creating an environment free of discrimination is embedded into the ethical standards of the school counseling profession.

The ASCA National Standards for Students are a set of developmentally appropriate needs of students that school counselors can use to guide their development of a school counseling program. The National Standards are organized into three domains—academic, career, and personal/social. Each domain addresses student needs from three distinct
perspectives; however, the personal/social domain specifically identifies competencies that acknowledge the importance of recognizing and promoting the individual strengths of all students, as well as learning to accept individual and cultural differences among peers. Examples of competencies within this domain include (a) develop positive attitudes toward self as a unique and worthy person (PS:A1.1); (b) identify and express feelings (PS:A1.5); (c) demonstrate cooperative behavior in groups (PS:A1.9); (d) identify personal strengths and assets (PS:A1.10); (e) identify and discuss changing personal and social roles (PS:A1.11); (f) recognize that everyone has rights and responsibilities (PS:A2.1); (g) recognize, accept, and appreciate individual differences (PS:A2.3); and (h) recognize, accept, and appreciate ethnic and cultural diversity (PS.A2.4) (ASCA, 2004).

The Comprehensive School Counseling Program position statement (adopted 1988; revised 1993, 1997, 2005, 2012) states that school counselors are to enhance the academic, career, and personal-social development of all students by developing and delivering a data-driven, systemically integrated, comprehensive program. The ASCA National Model (2005) was developed to provide school counselors with a framework to guide their comprehensive programming. The model states that a comprehensive program should address four key areas of foundation, management, delivery, and accountability. Foundation refers to identifying student outcomes and competences, and professional competences. Management refers to school counselors utilizing organizational assessment tools for evaluating programs. Delivery communicates the direct and indirect services school counselors provide to students, families, and the school community. Accountability reflects how data is used to demonstrate the effectiveness of a program. ASCA has provided the field of professional school counseling with a National Model, Position Statements, National Standards, and Ethical principles to guide their
work in engaging students needs of all abilities in meaningful activities that promote developmental growth across all levels.

Furthermore, Ratts et al. (2007) stated that the ACA Advocacy Competencies and the themes of the ASCA National Model aligned in a way that can assist school counselors focus on social justice issues connected to improving the academic, career, and personal/social developmental needs of all students. As such, Erhard and Umanksy (2005) stated that school counselors are expected shift from roles as helpers to roles of proactive leaders and advocates.

**School Counseling with Students with Disabilities**

Mitcham et al. (2009) stated that school counselors need to grow as leaders to ensure that students with disabilities strive for future academic and career success. The ‘Delivery’ component of the ASCA National Model identifies that school counselors can engage students in direct services (individual and small-group counseling) and indirect services (consultation and collaboration with parents, teacher, and community) within the school and local communities to support the needs of their students (ASCA, 2005). Recent literature has highlighted examples of direct and indirect services school counselors could engage in, as well as examples of services that have been utilized with students with disabilities. This section will provide an overview of these activities. First, individual and group models of intervention, and second, collaborative/consultative relationships with families, community, and school stakeholders.

**Individual and Group Interventions**

For engaging students individually, school counseling researchers and practitioners have recommended narrative approaches, (Lambie & Milsom, 2010), art therapy (McEachern & Bornot, 2001), cognitive-behavioral approaches (McEachern, 2004), guided imagery (Bowen & Glenn, 1998), brief counseling (Thompson & Littrell, 1998), family systems-oriented models
(i.e. Belin-Blank Center, Structural-Strategic, and Imaginative-Postmodern)(Thomas & Rey, 2006). Recent literature highlighted six group models for engaging students with disabilities in in psycho-educational work in schools, including self-advocacy training (Hatch, Shelton, & Monk, 2009; Mishna, Muskat, & Wiener, 2010; Pocock, et al., 2002), postsecondary transition (McEachern & Kenny, 2007; McWhirter & McWhirter, 1996; Milsom, Akos, & Thompson, 2004), as well as two process oriented models. One utilizing brief group counseling (Arman, 2002) and another that uses reality therapy (Lawrence, 2004) to increase resiliency and self-determination. Group work with this population can assuage teasing and bullying (Reis & Colbert, 2004), promote respect of differences among peers (Milsom, 2006), and increase peer-to-peer interactions (Hayes, 2001; Mishna et al., 2010; Myers, 2005; Leichtentritt & Shechtman, 2010). Readers should, however, be aware that the literature highlighting individual and group interventions is a mix of empirical evaluations, anecdotal experiences, and conceptual models.

Disability should not be the only focus of counseling interventions (Humes, Szymanski, & Hohenshil, 1989). Participation in groups offers students an opportunity to develop self-awareness and leadership skills (Pocock et al., 2002; McWhirter & McWhirter, 1996), increase resiliency (Arman, 2002), and build peer-to-peer social skills (Hayes, 2001; Leichtentritt & Shechtman, 2010; Mishna, et al., 2010; Myers, 2005; Odluyrt, Tekin-Iftar, & Ersoy, 2014; Shechtman & Katz, 2007). Of the 11 therapeutic factors outlined by Yalom and Leszcz (2005), group cohesion and catharsis were identified as the most significant factors in groups with students with disabilities (Leichtentritt & Shechtman, 2010; Shechtman & Katz, 2007). Hayes (2001) stated that group counseling in elementary, middle, and high school can be beneficial for students in all aspects of their lives.

Consultation & Collaboration
McMillan and Jarvis (2013) asserted that to encourage the development and wellbeing of students with disabilities, it requires a coordinated approach across all levels. In an ethnographic study of three professional school counselors, collaboration was described as the most important skill for working with students with disabilities (Myers, 2005). Relationships with special education teachers (Deck, Scarborough, Sferrazza, & Estill, 1999; Myers, 2005; Tarver-Behring, Spagna, & Sullivan, 1998) and parents/family (Bowen & Glenn, 1998; Durodoye, Combes, & Bryant, 2004; Myers, 2005; Quigney & Studer, 1998) were identified as the most critical collaborative and consultative relationships for school counselors to establish when meeting the needs of students with disabilities.

As consultants school counselors have been recognized as being critical to providing education and training to parents, teachers, and administrators in order to raise the awareness and sensitivities of the needs of students with disabilities in the educational communities (Philips & Ridley, 1996; Quigney & Studer, 1998; Scarborough & Deck, 1998). However, research has demonstrated that school counselors feel that they have not been adequately prepared with the pre-service training and/or graduate education in disability/special education to engage in these activities (Lofaro, 1982; Milsom, 2006; Milsom & Akos, 2003; Myers, 2005; Scarborough & Deck, 1998).

**Education & Training in Special Education and Disability**

School counselors play a crucial role in lives of students with disabilities (Studer & Quigney, 2005); however, there is a resounding need for school counselors to be better prepared to confidently provide students with disabilities the services they need (Lofaro, 1982; Milsom, 2006; Milsom & Akos, 2003; Myers, 2005; Scarborough & Deck, 1998). If school counselors are to provide comprehensive inclusive programming, such as individual and group counseling,
professional collaboration and consultation, facilitate classroom guidance instruction to students, and provide in-service trainings regarding the needs of students with disabilities to students, school community and families, then more attention needs to be made to the education and training school counselors receive. According to ACA (2012), only six states require additional coursework with regards to the education of children with disabilities—Connecticut, Georgia, Iowa, Missouri, Nebraska, Nevada, and Virginia.

**Course requirements.** Six studies have examined the extent in which school counselor preparation programs required course content in special education and/or disability. One of the first studies, Parker and Stodden (1981), surveyed the Departments of Education in all 50 states and found that only two required coursework in special education. Frantz and Prillaman (1993) followed up twelve years later when they asked state supervisors of teacher certifications if elementary school counselors were required to take any special coursework, if it was part of a state approved programs, and whether a requirement was being planned for the future. Of the 46 states who returned data, 25% required at least one course in special education in order to receive certification, and 36% were in the process of revising certification requirements, which would include special education requirements. Lastly, 36% neither had requirements nor were expecting any revisions in the near future.

Milsom and Akos (2003) further extended the exploration of disability coursework in counseling programs in their examination of the types of disability coursework provided in counseling programs, rather than strictly investigating the presence of disability course offerings. Milsom and Akos (2003) surveyed 318 school counselor education program coordinators to investigate the types of disability courses and experiences offered to students in order to determine the impact of accreditation on disability training, and to examine differences in
content within disability courses housed within special education programs to those within counseling programs. Of the 43% \((n = 137)\) coordinators representing 42 states that responded, 43% \((n = 59)\) required a disability course in their program, and 29% \((n = 39)\) recommended disability courses as electives. The vast majority of respondents \((n = 135)\) indicated that disability content is integrated into core coursework such as multicultural counseling, human growth and development, and basic school counseling courses. Practical experiences that included opportunities to engage individuals with disabilities were required in 25% \((n = 35)\) of programs. No significant differences in course offerings were found between CACREP and NCATE programs. Disability courses within special education programs included significantly more content in general disability information, legislation, and transition plans than counseling program courses. However, the percentage of counseling program courses that contained strategies specifically for counselors was significantly higher than disability courses. It was concluded that the observed increase in programs requiring school counselors to complete disability courses should result in graduates feeling more prepared to work with this population \((Milsom & Akos, 2003)\). Only counseling program coordinators were surveyed; therefore, results were limited to the self-reported perspectives of those individuals. Data on the impact of these courses from students' perspectives could increase the external validity of the results and offer more credibility in terms of what training was experienced.

Expanding from Milsom and Akos (2003), Studer and Quigney (2005) sought to survey practicing school counselors rather than program coordinators and inquire on the amount of pre-service training received, specific topics in special education that were discussed, and the amount of in-service training received. Four hundred school counselors were randomly selected from ASCA’s membership list, with a final response rate of 19.5% \((n = 78)\). Participants were asked to
identify their engagement in 34 activities with students with disabilities across legal/ethical issues, guidance/curricular issues, staff/professional development, and family/community involvement. Participants also completed a 5-point Likert scale to indicate the amount of time spent in various pre-service workshops regarding the engagement activities.

Results demonstrated that school counselors either had no course or workshop, or only one pre-service workshop with regards to 58.8% of the activities on the list. Meaning, for the majority of the activities listed that could be done to engage students with disabilities, the participants had not received any or very minimal pre-service training in over half of them. The highest-ranking activities included individual and career counseling, and assistance with behavioral issues. On the other hand, the lowest ranking skills included participation in IEP’s, collaboration with special education faculty and other faculty, and consultation with community partnerships. These rankings are worrying as they are the most recognized roles for school counselors when working with students with disabilities (ASCA, 2005; Carpenter et al., 1998; Greer et., 1995; Quigney & Studer, 1998; Milsom, 2007).

Regarding in-service training, 24.6% reported receiving considerable training, with the majority stating it had occurred within the last five years; however, 35.4% reported that they had not received any in-service training. Though these findings are important to consider, it is critical to consider the low external validity due to sample size. Second, with the demographic information collected (i.e. age, years of professional school counseling experience, experience in education, and community type), an analysis utilizing demographics as independent variables could have added personal context to the participants’ responses and added complexity to the interpretation. Although the findings of Studer and Quigney (2005) indicate low school counselor completion and/or participation in disability or special education profession
development, Dunn and Baker’s (2002) survey of elementary school counselors in North Carolina demonstrate conflicting findings. Dunn and Baker (2002) surveyed elementary school counselors in North Carolina and found that of 168 respondents, 61% indicated receiving disability coursework in graduate school, 25.8% received training as non-matriculating graduate students, 76.8% had completed professional development opportunities, and an overwhelming 78% had engaged in independent opportunities outside of education to enhance their preparation with student with disabilities.

The research of Pérusse and Goodnough (2005) provided a different view towards coursework, they asked practicing school counselors to rank the importance of the courses they completed during their graduate training. Pérusse and Goodnough (2005) completed a national survey randomly selecting 1000 professional school counselors from the ASCA membership database. From the 636 returned surveys, 569 were used in the analysis. Pérusse and Goodnough developed a list of 24 content areas using CACREP Standards, past counselor education survey research that inquired about required courses, and reviews of relevant literature. Participants rated each of the content areas using a 5-point Likert scale (1 = not important to 5 = very important). Final rankings were based on the mean score of each course. Of the 24 course content areas, special education coursework ranked 18th for elementary school counselors, and 15th for secondary school counselors; though, the mean differences of these ranking was not significant between the two groups of counselors.

Courses below special education included research and grant proposal, curriculum instruction, psychopathology, and public relations. Participants also had the opportunity to write additional comments such as suggested course work. Within these additional comments, 37% were requests for additional course work (9.1% in personal/social issues, 4.7% in special
education, and 7.5% in school law). Although participants did not view special education as important as other content areas such as theories in counseling or multicultural counseling, their additional suggestions say that there are some school counselors who believe more attention to special education is warranted. Unfortunately, generalizability is difficult with this study as no participant demographics are provided to provide characteristics of the sample (i.e. age, student/counselor ratio, school type, years in practice, number of participants per state).

Combined with the literature in the rising prevalence in disability courses in preparation programs, Pérusse & Goodnough (2005) found that even though practicing school counselors identified courses in special education as of low importance in relation to their current practice, it was an area that was requested for additional coursework for the future. Thus, school counselors are recognizing a need for more education and training in this area suggesting to further enhance preparedness.

Students with disabilities have been recognized for being at-risk for experiencing academic and social issues during their school-aged years (Arman 2002; Bruce et al., 1996; Hayes 2001; Holzbauer, 2004; Leichtentritt & Shechtman, 2010; Milsom, 2006; Patterson et al., 1995; Pearl & Bay, 1999; Putnam, 2007; Reis & Colbert, 2004). As such, school counselors are in a position as school leaders to ensure equal access, positive experiences, and the inclusion of all students to comprehensive school counseling programming (Carpenter et al., 1998; Myers, 2005; Milsom, 2006; Reis & Colbert, 2004). Scholarship examining the preparation and training of school counselors for this student population highlights critical need for counselor preparation and training programs to address. However, coursework and other professional development opportunities are not the only factor that can contribute to preparation and training as limited
exposure to working with students with disabilities in school counselor training research may also contribute to lower school counselor self-efficacy in working with students with disabilities.

**Attitudes and Influences of Preparedness**

Completion of coursework and training in disabilities has been shown to increase school counselor’s attitudes towards inclusion (Erhard & Umanksy, 2005), create positive school experiences for students labeled with a disability (Milsom, 2006), and provide recommendations for effective counseling strategies (Myers, 2005). Attitudes towards working with students with disabilities have also been identified as “important qualities of a professional, ethical, and multiculturally competent school counselor (Milsom, 2006, p. 69). Bowen and Glenn (1998) and Durodoye et al., (2004) acknowledged that school counselors’ attitudes towards disability could have an influence in how they view their roles in meeting the needs of students with disabilities. Lack of education and training for school counselors can lead to negative attitudes towards students with disabilities and result in avoidance of engaging students in services, and as a result, discourage students with disabilities from pursuing post-secondary careers and/or education (Milsom, 2006). In this section, six studies are discussed that investigated correlations between various demographic variables of school counselors (i.e. number of courses taken, years of experience, and number of practical experiences) with their attitudes towards and engagements with students with disabilities (Dunn & Baker, 2001; Erhard & Umanksy, 2005; Helms & Katsiyannis 1992; Isaacs, Greene, and Valesky, 1998; Milsom, 2002; Nicheter & Edmonson, 2005).

Dunn and Baker (2002) inquired elementary school counselors in North Carolina about their actual versus perceived roles with students with disabilities, how prepared they felt, and how they perceive the expectations of their roles by others versus the expectations they have of
themselves. A total of 168 (47%) elementary school counselors participated from an original sample of 355. Dunn and Baker developed and administered the Survey of Elementary School Counseling Services with Students with Disabilities. The instrument consisted of seven sections that collected quantitative (i.e. number of courses in disability taken, amount of time spent providing services to students with disabilities, identify their feelings of understanding of central concepts in inclusion legislation, identify how others perceive their roles, and how they perceive their roles) and qualitative by asking participants to compare the roles identified between others and themselves.

Results indicated that participants devoted more time to students not identified as having a disability in consultation, direct services, and observations, while more time in paperwork was spent for students with disabilities. When describing their roles, two themes were identified by the 168 participants—positive and negative attitudes. School counselors identified positive attitudes toward advocating, consulting, and coordinating. Negative attitudes were directed towards being seen as an expert without appropriate training, time constraints, and not having access to students with disabilities. Even though a majority of participants in this study (61%) had coursework in disability during their graduate studies, practitioners continued to feel inadequate in their engagement with students with disabilities. It is possible that school counselors may always feel inadequate; there may also be other variables contributing to the feelings of inadequacy yet to be explored, such as school counselor cognitive complexity.

Furthermore, this study only provided descriptive statistics on the frequencies and perceptions of the school counselor’s activities with students with disabilities. Performing more rigorous statistical analysis of the school counselor’s engagement with students identified as having a disability and those not identified as having a disability would provide an empirical
understanding of the differences in school counselor engagement across the two groups. For example, Dunn and Baker (2002) stated that it was understandable that school counselors engaged in more direct services with students identified as not having a disability because this student population greatly outnumbered the ratio of students identified as having a disability. Performing inferential statistics could control for student ratio and add greater depth to understanding school counselor performance across the two student groups.

Helms and Katsiyannis (1992) facilitated a similar study with elementary school counselors’ within a single state surrounding coursework in disability/special education, and their comfort in engaging students with disabilities. Helms and Katsiyannis (1992) surveyed elementary school counselors in Virginia and found that 93% of 140 respondents felt comfortable providing services to students with disabilities, though 76.1% indicated a need for more training. Individual counseling was identified as important for students identified as not having a disability by 63% of counselors and 51% for students with a disability. Further data highlighted that 70% percent of counselors spent less than 10% of their time engaging students with disabilities, and only 8% of responding counselors spent over 25%. There were several significant cross-tabulations such as counselors with more education and training indicating more comfort with IDEA, characteristics of the population, and in facilitating workshops for members of the school community. Unfortunately though, most counselors who indicated their comfort in facilitating workshops did not follow through in conducting them. Lack of time, training, or school-wide expectations were identified as potential barriers to this discrepancy. Nonetheless, counselors who spent more time in activities related to students with disabilities were more comfortable counseling this student population and had received the most preparation
in disability. An important limitation to consider however lies in weak external validity as participants were only sampled from the state of Virginia.

Although Helms and Katsiyannis demonstrated statistical correlations between variables, Erhard and Umanksy (2005) utilized multiple regression analysis to examine the magnitudes of the relationships between individual school counselor characteristics and disability attitudes. Erhard and Umanksy (2005) investigated the variables influencing the attitudes and involvement of 220 middle and primary school counselors in the inclusion of students with disabilities in regular classrooms in Israel. Institutional (i.e. school level, and inclusion ratio) and individual variables (i.e. age, special education training, and years of counseling experience) were used to predict the level of school counselor involvement in inclusion. Inclusion practices were measured using a 5-point Likert scale (1 = no involvement to 5 = very high involvement) on activities that included (a) developments of IEP, (b) individual and group counseling, (c) administrative committees, and (d) collaborating with parents, teachers, and/or other interdisciplinary teams. Attitudes were measured by adapting a 15-item 5-point Likert scale originally developed for assessing the attitudes of teachers towards inclusion practices.

Using multiple regressions for analysis, special education training (number of courses taken) and positive attitudes held accounted for the most variance in school counselor involvement in inclusion practices. Completion of special education courses significantly contributed to collaboration with teachers ($\beta = .31$) and school administrators ($\beta = .25$) almost by itself. Special education courses also predicted school counselor involvement in social-emotional responses to students (i.e. individual and group counseling) ($\beta = .33$). Teaching experience ($\beta = .39$), age ($\beta = .34$), school level ($\beta = .21$) and attitudes ($\beta = .21$) all contributed to collaboration with students on top of special education courses ($\beta = .33$).
Although positive attitudes held significant variance throughout the study, special education training contributed the most to explaining the variance than any other variable. These findings provide school counselors and school counselor educators an indication of the strength and influence of specific training and experiences have on a school counselor's attitudes and involvements with students with disabilities. Collaboration with school stakeholders and engaging students in direct and indirect services have been recognized as critical to the role of the school counselor when working with students with disabilities, thus this study provides empirical evidence of the experiences that can contribute to more school counselor engagement in those activities.

The instrument used to assess attitudes towards inclusion was originally standardized for teachers utilizing dichotomous yes/no responses. This instrument was revised for the study regarding school counselors, and the item responses were changed to a 5-point Likert scale. The instrument measuring involvement in inclusion was developed for the study, therefore, it had not been subject to rigorous standardization procedures to ensure instrumentation reliability and construct validities. These modifications impact both the reliability and validity of the measure. First, teachers and school counselors are different populations with different education and training. A measure developed and validated for measuring teacher attitudes may demonstrate different underlying factors when administered to school counselors. Second with regards to the measure, revising the data point to be collected from a dichotomous to 5-point Likert also adds variance to scale reliability. Furthermore, school counselors represented mainstream primary and secondary schools in Israel and did not include Arabic-Israel or Ultra-orthodox sectors as they were perceived to be not as developed regions. Furthermore, those individuals who agreed to participate in the study may have done so because of their positive experiences with inclusion
practices. These sampling and instrumentation limitations should be considered when discussing
the findings. Nonetheless, the links between education and positive attitudes on school counselor
involvement in inclusive practices is of importance. School counselors can be the catalysts for
attitude and perspective changes in their school systems for students with disabilities.

Isaacs et al. (1998) investigated how attitudes and training impacted professional self-
efficacy and task performance in school counselors towards inclusion with students with
disabilities in 569 school counselors in Florida. Using Bandura’s (1982) perspective of self-
efficacy as a theoretical base, Isaacs et al. (1998) hypothesized successful performance of
inclusive tasks would be predicted by positive attitudes towards their self-efficacy. Participants
completed a 31-item questionnaire that included a section regarding consultation activities and
another regarding inclusion activities. Years of experience, highest degree earned, number of
special education course completed, number of regular education courses with modifications for
students with special needs, number of field experiences, and number of days of in-service in last
three years about inclusion were used as predictor variables.

Overall, participants who had taken more special education courses, as well as those who
had field experiences had more positive attitudes. When all of the variables were inputted into a
stepwise regression, field experiences, special education courses, and attendance in an in-service
accounted for 22% of the variance on the attitudes towards consultation; whereas, none of the
variables held a significant contribution to inclusive activities. An interesting finding was that
years of professional experience did not contribute to positive attitudes, suggesting that attitudes
and self-efficacy towards engaging students with disabilities requires a different type of learning
experience, or that other variables better contribute than were measured here. For example, in a
study of mental health practitioners, Strike, Skovholt, and Hummel (2004) found that disability-
related experience contributed more to self-reported disability competence than only years of professional experience. Similar to Erhard and Umanksy (2005), limitations to this study surrounded the use stepwise of regression in the analysis. Developing a sequence grounded in theory and using multiple regressions could have provided a more rich analysis of the data. Lastly, this is another study that investigates attitudes and/or feelings of preparations and activities one should do, rather than those counselors have done.

Milsom (2002) designed a study to begin to address this critical gap in the literature. Milsom (2002) recognized that there was a need for the field of school counseling and school counseling educators to capture the perspectives of practicing school counselors about the tasks they actually perform with students with disabilities and how prepared they have felt to engage in them. To that end, Milsom developed The School Counselor Preparation Survey-Revised (SCPS-R) for use in her study to measure school counselor activities engaged with students with disabilities, their feelings of preparedness to engage students with disabilities, and their education, such as graduate courses, workshops/conferences, and practical experiences. The definition of disability used in the measure was the one included in IDEA and the list of activities for counselors to engage students was developed using the roles identified in the ASCA position statements. Furthermore, in order for a participants’ data to be used in the analysis, Milsom required that participants have completed their graduate work and been employed as a school counselor between 1994-2000. This selection criteria was set in order for adequate time to have passed following the passage of IDEA for school counselor education programs to integrate disability and special education aspects into their curriculums (Milsom, 2002).

A total of 400 members of the American Counseling Association (ACA) was randomly sampled from individuals who indicated that they were currently working in schools. There were
224 (57%) responses, of which, 100 (26%) met the outlined selection criteria. Results demonstrated that over 75% of the participants had completed seven of the eleven activities in the list with students with disabilities. Providing individual/group counseling (82.8%), making referrals (81.8%), and service on a multidisciplinary team (80.8) were the top three activities; whereas, service as consultant to parents/staff (55.6%), providing social skills training (49.5%), and assisting with transition plans (40.4%) were the performed the least. Overall, participants felt somewhat prepared to engage in all activities, though providing individual/group was ranked as the highest and assisting with transition planning the lowest. Three significant models were identified using multiple linear regressions to investigate the relationships between education and feelings of preparedness to provide services. Model 1 (number of graduate courses completed regarding students with disabilities, number of practical experiences with students with disabilities in graduate preparation, number of conferences/workshops regarding students with disabilities) accounted for 17% of variance. Model 2 (number of graduate courses and conferences/workshops) accounted for 15%. Lastly, Model 3 (number of graduate courses) accounted for 12% of the variance in participants’ feelings of preparedness. These results reiterate past findings of the contribution of school counselor education in disability towards more positive attitudes or feelings of preparedness to engage students with disabilities.

Milsom (2002) sampled school counselors who were members of ACA, thus data does not reflect members who do not hold professional memberships, or those who might be members of ASCA. Frequency of activities occurring and timeframe of when activities occurred are not provided. In the survey, participants were asked to indicate number of activities they “currently engage in”; however, without a specific timeframe, it is possible that how participants define “current” may be vastly different. Though demographic variables were collected (age, ethnicity,
disability contact), they were not included in the regression models as potential predictors.

Nichter and Edmonson (2005) aligned with the work of Milsom (2002) when they also found that feelings of preparedness increased as school counselors completed more training and more experiences with students with disabilities. Nichter and Edmonson (2005) sampled 100 school counselors in Texas to examine the types of services with students with disabilities they provided, assess feelings of preparedness to engage those students, and to identify the specific experiences shared by the school counselors that have contributed to their levels of preparedness to work with students with disabilities. A seven-item survey was developed for the project that included four forced-choice questions and three open-ended prompts. Of the 66 (66%) individuals who responded, 61 (92%) stated individual counseling with students with disabilities and teacher consultation were the most frequent activities engaged in with and for students with disabilities. Testing (39.4%) and group counseling (37.9%) were cited as the least frequently occurring activities. In terms of feelings of preparedness, 36 (54.5%) felt prepared and 23 (34.8%) felt unprepared to provide counseling services. Participants identified teaching experience (31%) and workshops/seminars (24.2%) as the top two most important sources of preparation for working with students with disabilities. Eighty-nine percent of the participants agreed that more training would make them feel better prepared, with special attention to further education in legal issues, characteristics of the population, medications, and interventions. Participants recommended that counselor educators should invite special education teachers to speak in courses, as well as there being a requirement for special education in counselor education curriculum.

Overall, the scholarship examining the impact of school counselor preparation on attitudes towards and engagement with students with disabilities is positive (Erhard & Umanksy,
This suggests that although there is a continuous call from practicing school counselors for an increase in coursework in topics of special education and disability, the practitioners who have completed such education and training have demonstrate more positive attitudes. Thus, as this study will be examining potential causal relationships among variables that may influence whether a school counselors engages with students with disabilities, and/or the frequencies of those engagements, it is critical for the model to include variables that have already established contributions, such as coursework and attitudes.

**Critique of School Counseling Literature**

Despite the prevalence of disability coursework in school counselor preparation programs has been increasing over the last 30 years (Dunn & Baker, 2002; Frantz & Prillaman, 1993; Milsom & Akos, 2003; Parker & Stodden, 1981; Studer & Quigney, 2005), school counselors and school counselor educators continue to voice the need for additional education and training in special education and disability (Lofaro, 1982; Milsom, 2006; Milsom & Akos, 2003; Myers, 2005; Scarborough & Deck, 1998). The exploration of school counselors working with individuals with disabilities is also beginning to emerge as a small group of dissertations have been conducted examining perceptions of such work (Cannella, 2015; Torrence, 2012).

Torrence (2012) explored the relationship between school counselors’ self-efficacy and attitudes towards students with disabilities on their perceptions of preparedness to provide services to this student population. Torrence utilized the School Counselor Preparation Survey-Revised (Milsom, 2002) to capture preparedness on a 6-point Likert scale (completely unprepared to completely prepared); the Attitudes Toward Disabled Persons Scale (Yuker, Block, & Campbell, 1960) form O was used to capture attitudes; and the School Counselor Self-
Efficacy Scale (SCSE) (Bodenhorn & Skaggs, 2005) was used to capture self-efficacy (43-item measure, 5-point Likert scale). A total of 116 professional school counselors from Pennsylvania, response rate 16%, completed the instruments. Mean school counselor rating of preparedness was \( M = 4.68 \), identifying their preparedness between “somewhat” and “prepared.” A moderately strong correlation between school counselor self-efficacy and feelings of preparedness to work with students with disability \( (r = .543, p < .001, r^2 = .30) \), demonstrating that school counselors with higher self-efficacy perceived themselves as being more prepared to engage students with disabilities (Torrence, 2012). The correlation between attitudes towards disability and preparedness was not significant \( (r = .023, p = .809) \). When self-efficacy was regressed on perceptions of preparedness, controlling for attitudes, it was found to be a significant predictor variable \( (B = .20, SE, .03, p < .001) \). Lastly, when both self efficacy and attitudes were regressed onto preparedness, they contributed to a significant 30% increase in the variance \( (\Delta R^2 = 31, F(2,113) + 25.48, p < .001) \).

Cannella (2015) examined three research questions pertaining to school counselors’ work with students with disabilities. First, Cannella explored the relationship between a school counselors’ disability competence and their sense of self-efficacy. Second, the difference between a school counselors’ disability competence between individuals who were and who were not required by their states to complete pre-service disability training was explored. Lastly, Cannella examined the influence of work/personal experience, special education coursework/professional development, disability training, and school counselor self-efficacy predicted disability competence. Items from the Counseling Clients with Disabilities Survey (CCDS) (Strike, 2001) and the SCSE (Bodenhorn & Skaggs, 2005) were combined into a single instrument for this study. The CCDS contains a total of 68 items on a 6-point Likert scale (
strongly disagree to strongly agree) that ask school counselors to rate their perceived disability competence in three areas—self-awareness/beliefs/attitudes towards disability, perceived knowledge of disability and related issues, and self-perceived skills for working with individuals with disabilities (Canella, 2015). A total of 155 professional school counselors from Connecticut and New Jersey completed the survey, a response rate of 11.62%.

Results demonstrated a significant relationship between school counselors’ self-efficacy and disability competence ($r = .57, p < .001$) (Canella, 2015). After controlling for required pre-service training in disability, the relationship between self-efficacy and competence remained significant ($r = .56, p < .001$). With regards to the impact of previous education and training in disability, required pre-service training in disability did not demonstrate a significant relationship to competence; whereas, completion of coursework where disability was the primary focus of training or a large part of training was significant ($r = .43, p < .001$). Finally, multiple regression was run with variables that were found to be significantly correlated in a Spearman’s rho with disability competence to explore their ability to predict school counselor disability competence. As such, self-efficacy, disability as primary focus of coursework, previous work experience with deaf/hearing disabilities, work with mobility/orthopedic disabilities, work with blind/low vision, work with mental/psychiatric disabilities, years of counseling experience, and knowing an individual, were entered into the model. The model was found to be significant and account for 54.8% of the variance with regards to school counselors’ disability competence ($F = 11.055, p < .001$). All variables but years of counseling experience, knowing an individual with a disability, and previous work with either mental/psychiatric and/or blind/low vision disability were found to be significant predictors in the model.
Both dissertation studies sampled professional school counselors practicing in either one state (Torrence, 2012) or two states (Canella, 2015), thus generalization to a national population is limited. The research foci of these unpublished dissertation studies, however, has not yet translated into an examination of how school counselors enact such work with students with disabilities within the counselor education and school counseling discourse. Canella (2015) reported participant disability training through identifying state of participant employment and completion of graduate degree. It is possible participants had completed such education and training outside of their graduate training. Furthermore, no data was collected with regards to quality and/or quantity of education and training pertaining to disabilities. Thus, asking participants directly of their education experiences may have yielded difference findings. Lastly, both studies asked participants to report their thoughts on their preparedness or competence with regards to disability. These studies may be subject to social desirability biases, thus asking individuals to report on their actual completed engagement with students with disabilities may have generated alternative findings with self-efficacy or attitudes.

Research investigating school counselors’ engagement with students with disabilities has focused primarily on perception data such as attitudes and feelings of preparedness (Erhard & Umanksy, 2005; Helms & Katsiyannis 1992; Isaacs et al., 1998; Milsom, 2002; Nicheter & Edmonson, 2005). In studies that have examined school counselor direct and indirect service engagement with students with disabilities (i.e. providing counseling services and collaborating with teachers) (Erhard & Umanksy, 2005;) participants were either asked to indicate whether or not they engaged in specific activities (Milsom, 2002; Nicheter & Edmonson, 2005), or to rate their involvement using a 5-point scale (1 = very low involvement; 5 = very high involvement). In these studies, participants were asked to reflect on their previous work with students with
disabilities without any identified timeframe. Thus, the frequency of completed activities is unknown. Understanding the frequency of engagement activities could provide more in-depth data on the behaviors of counselors and an additional unit of analysis.

Survey methods research was most often used, though external validities of data were weakened as samples were often drawn from limited sampling frames (i.e. Helms & Katsiyannis; 1992; Issacs et al., 1998). When predicting the attitudes or feelings of preparedness, regressions were used (i.e. Erhard & Umanksy, 2005; Milsom, 2002); however, utilizing multivariate analysis could provide more rigorous statistical conclusion validity as it can appropriately separate individual from institutional level variables. Of the studies that did utilize regressions, the highest amount of variance explained was about 30% (Erhard & Umanksy, 2005), thus, a lot of variance is still left unaccounted for. As such future avenues of research could assist in identifying other variables that contribute to the remaining variance (Milsom, 2002). Milsom also asserted that future research in the work of school counselors with students with disabilities should “examine feelings of preparation or competence in relation to actual performance” (p.336). This study proposes to address these gaps, and address missing variance by introducing the variable of cognitive complexity to the model.

**Cognitive Complexity**

Examining cognitive complexity in counselor trainees has found a small but established niche in the counselor education and supervision literature. Research has recognized the complex, ambiguous, and multifaceted experiences of counselors (Duys & Hedstrom, 2000; Welfare & Borders, 2010a) and has called for counselor educators to integrate pedagogies that promote cognitive development into preparation programs (Choate & Grandello, 2006; Duys & Hedstrom, 2000; Goldberg, 1974; Granello & Underfer-Babalis, 2004; Hillerbrand, 1989;
Welfare & Borders, 2010a). This section will provide an overview of the key cognitive developmental frameworks utilized within the research of cognitive complexity. In the second section, the literature of surrounding the impact of cognitive complexity on a myriad of counseling skills is reviewed and critiqued. In the final section, counselor education pedagogies for promoting counselor cognitive development are provided.

Cognitive-Developmental Frameworks

**Conceptual Systems.** Harvey et al. (1961) defined a conceptual system as “a schema that provides the basis by which the individual relates to the environmental events he experiences” (p. 244-245). Harvey et al. stated that by knowing one’s conceptual level a better understanding of a person’s situational behaviors can occur. In other words, we can make sense of how individuals interact in their environment by understanding where they are positioned conceptually. Harvey et al. identified four sequential stages of conceptual development whereby individuals progress from concrete stages to those represented by more cognitive flexibility. These latter stages are characterized by more openness to multiple perspectives, and less reliance on concrete rules or external authority figures for decision-making.

**Perry’s Theory of Intellectual and Ethical Development.** Research in cognitive complexity in counselor development has also used Perry’s (1970) theory of intellectual and ethical development as a foundation (Granello, 2002; McAuliffe & Lovell, 2006; Granello, 2010). Within this model, Perry (1970) identified nine total stages of cognitive development. These nine stages range from the most simplistic (dualistic) to the most complex (committed relativistic). According to Perry, individuals who demonstrated dualistic thinking were described as being absolute in their thinking and views. Individuals described as committed relativistic, however, were described as having the ability to make decisions based on their previous
knowledge, and personal and ethical beliefs (Perry, 1970).

**Ego Development.** Lovinger’s (1976) ego development is a stage theory that integrates theories of cognitive, moral, character, interpersonal, and self-development. Stages are identified by one’s increasing ability to differentiate and integrate alternative views of self, others, and the world through 10 stages. Individuals at the early conformist stage are motivated by rule following, social acceptance, appearance, and disapproval (Lovinger, 1976). Individuals who accept individual differences, conflict, and are able to cope with ambiguity and complexities reflect the highest stages—autonomous and integrated.

Cognitive developmental frameworks have been used to examine cognitive complexity in undergraduates and graduate students, counselors-in-training, and professional counselors. Utilizing these frameworks to conceptualize cognitive complexity, scholarship examining cognitive complexity in counseling has demonstrated to have positive influences on counseling skills, such as empathy, and hypothesis formation. Additionally, increases in cognitive complexity have been associated with education and training. The next section will further discuss the literature investigating the cognitive complexity related to the aforementioned counseling skills.

**Counseling Skills**

The most widely investigated relationship has been between cognitive complexity and demonstration of empathy. There are 10 studies that have demonstrated that individuals with high cognitive complexity engaged in more consistent empathic responses to clients than individuals with lower cognitive complexity (Alcorn & Torney, 1982; Benack, 1988; Blaas & Heck, 1978; Goldberg, 1974; Heck & Davis, 1973; Kimberlin & Friesen, 1980; Lutwak & Hennessy, 1982; McAuliffe & Lovell, 2006; Lutwak, 1993; Strohmer et al., 1983).
Influence on Empathy. Heck and Davis (1973) investigated the impact of cognitive complexity on the empathy scores of 40 counseling graduate students. Cognitive complexity was defined using Harvey et al.’s. (1961) conceptual levels and the Paragraph Completion Test (PCT: Hunt, Kingsley, Massari, Shore, & Sweet, 1967) was the instrument to measure cognitive complexity. Participants’ empathy were rated by trained doctoral students based on the participants’ responses to 12 client statements. Client statements varied across two levels—concrete (low cognitive complexity) and abstract (high cognitive complexity). Results demonstrated that participants with higher conceptual levels displayed high levels of empathy across both client statement levels (p < .01). Though this study demonstrated a significant link between cognitive complexity and empathy, the analogue nature of this study limits generalizability to real world settings.

Goldberg (1974) continued this area of research when he examined the impact of cognitive complexity on more specific counselor trainee counseling skills. Goldberg investigated the relationship between an individual’s conceptual system and one’s style of relating to simulated client situations. Goldberg had 86 master’s-level counseling students complete an instrument measuring conceptual level and respond to a series of 20-simulated expressions of help to simulate counseling behavior. Results found those students placed in higher conceptual systems were more likely to respond to client affect, display an understanding towards the client, (encourage client exploration, and maintain attention to core issues. Goldberg concluded that verbal interactions were indicative of one’s ability to establish a positive counseling relationship, and that conceptual levels predicted such verbal interactions. Counselor educators, therefore, could implement pedagogies that better develop the conceptual levels of students. Similar to Heck and Davis (1973), this design has limited practical generalizability of the results.
as it assumed that the behaviors of individuals would be similar in real sessions as they were in;

Blaas and Heck (1978) addressed this limitation when they investigated the influence of cognitive complexity on four counseling process variables—counselor-client congruency, counselor empathy, counselor verbal role, and counselor subrole. Thirty-three first-semester counseling graduate students from a single central state university completed simulated counseling sessions with two different role-playing clients. Following the counseling task the participants completed cognitive complexity measures. Prior to analysis, the participants were clustered into two groups, high-complexity and low-complexity, based on their scores on the cognitive complexity measures. A discriminant analysis indicated that the two groups were significantly different in cognitive complexity (p < .01). Results indicated that cognitive complexity did not significantly discriminate the measures of the counseling process variables; however, where was a significant difference between groups in performance across counselor verbal role, subrole, and accurate empathy demonstrated across the two counseling role-play clients.

There was a significant interaction effect between low-complexity counselors and accurate empathy, although no significant interaction within the high-complexity group. This suggests that low-complexity counselors demonstrated significantly higher empathy for one of the two role-play clients; whereas the high-complexity counselors demonstrated consistent empathy across both conditions. Blaas and Heck posited that cognitive complexity of counselors may not be the sole contributor to counselor behaviors; rather differences within the client dispositions may play a larger role than originally perceived. Even though generalizability is narrow due to the limited sample size, the use of role-play clients is a strength when compared to the previous analogue methods (Goldberg, 1974; Heck & Davis, 1973).
Kimberlin and Friesen (1980) integrated varied client dispositions in their investigation of an individual's sex, conceptual level, and type of client affect (ambivalent/non-ambivalent), in relation to individual's empathic ability. Kimberlin and Friesen examined 80 undergraduate students were selected from a sample of 340 based on their scores on the PCT. The final sample consisted of high conceptual level students (top 40%; \( n = 40 \)) and low conceptual level students (lower 40%; \( n = 40 \)). Both groups received empathy training for an hour a week for two weeks then were asked to provide helpful responses to 20-videotaped role-plays after the third week. The most significant effect was the interaction found between student conceptual level and type of client affect. Significant effects in the participants' ability to provide empathy was dependent on the participants' conceptual level \( F(1,70) = 3.99, p < .05 \), sex \( F(1,70) = 4.74, p < .05 \), and type of client affect \( F(1,70) = 4.96, p < .05 \). Those who demonstrated a lower conceptual level were limited in their abilities to display consistent empathic responses to those clients displaying complex affect, consistent with Blaas and Heck (1978). Furthermore, females students reported higher empathy scores than male students.

This study utilized undergraduate students; therefore, generalizing to graduate students in counselor or professional counselors is limited. Additionally, the use of the top and bottom 40% provides an exaggerated sample to ensure distinction between groups; however, it disregards the middle 20% of data for consideration. Nonetheless, these results continue to support the literature correlating high conceptual levels with ability to engage in consistent empathic behaviors in counseling.

Lutwak and Hennessy (1982) continued this area of research though required participants to submit a tape of their clinical work, thus deviating from analogue methods. Lutwak and Hennessy utilized ninety-seven participants, including first-year graduate students and advanced
undergraduate students, to investigate conceptual levels and empathic behaviors. Participants completed a conceptual level measure at the start of a thirteen-week interview skills training program. At the conclusion of the program participants were asked to submit a 10-minute tape for review with an individual who was not a relative or a counselor-in-training. Raters utilized an empathy scale to measure empathic responses of counselors in the tapes. Results indicated that differences in observed empathy were related to the conceptual level of the participants, even though all were subject to the skills training. These results suggested that more than just completing a skills training was accountable for competence and engagement in complex clinical functioning. In both real and simulated environments individuals with a lower conceptual level performed the skills less consistently than their higher conceptual leveled peers. Utilizing a setting more analogous to a natural counseling environment and utilizing a sample of mostly graduate level counseling students, Lutwak and Hennessy designed a study that improved on the external and internal validity concerns (Goldberg, 1974; Heck & Davis, 1973; Kimberlin & Friesen, 1980).

Strohmer et al. (1983) sought to understand the factors that might contribute to engaging in empathy with clients with disabilities, in order to inform future training and education with individuals with disabilities. Strohmer et al. added to Kimberlin and Friesen (1980) as they included a client specific variable, disability condition, and counselor variable, anxiety, to the model. Strohmer et al. (1983) examined the influence of cognitive complexity, counselor anxiety, and the disability condition of the client, to the accurate empathy in a sample of 28 graduate counseling students.

Participants viewed eight counseling vignettes of actors portraying clients, four of the vignettes represented a client with a disability (i.e. upper extremity amputee, paraplegia, speech
handicap, and facial disfigurement). Of the three independent variables investigated, cognitive complexity was the only significant main effect on empathy ($p < .05$) with students who demonstrated higher complexity displaying a higher mean of empathy. High complexity students demonstrated their highest empathy score with clients with disabilities when under low anxiety, and lowest mean empathy scores when under high anxiety ($p < .01$). Students who demonstrated low cognitive complexity exhibited the highest mean empathy with clients without disabilities under low anxiety, and lowest mean with clients without disabilities under high anxiety, thus the empathy scores between the two cognitive complex student groups were opposites. This study demonstrated that potential engagement with clients with disabilities may be linked to level of anxiety and cognitive complexity in counselor trainees. Limited sample size, and the subjectivity of the external raters for participant empathy, and anxiety pose threats to greater external validity.

Alcorn and Torney (1982) expanded the scope of the research in cognitive complexity and empathy by including professional practitioners. Alcorn and Torney recruited 40 professional social workers to examine the relationship between cognitive complexity of self-reported emotional experience and empathy. Cognitive complexity was measured by scoring the differentiation in emotional subcategories participants identified to describe their emotional experiences with regards to fear, anger, happiness, contempt, and depression. Participants listened to pre-recorded excerpts of client interviews and chose emotional descriptions from a word list developed by the researchers. Emotions from the word list were weighted based on prior judge ratings who created a standard for accurate emotional identification. In addition, the Wechsler Adult Intelligence Scale was also completed to correlate participant cognitive complexity with verbal ability. Significant Pearson’s product-moment correlations were found
between cognitive complexity and empathy \( (p < .01) \), as well as with verbal ability \( (p < .05) \).

Unlike previous studies investigating cognitive complexity and empathy who used undergraduate or graduate students, this study demonstrated a link between cognitive complexity of one’s emotional self-awareness to one’s empathic abilities in professional mental health practitioners.

Benack (1988) completed three studies in her article “Relativistic Thought: A Cognitive Basis for Empathy in Counseling” where she investigated the relationship between dualistic and relativistic epistemologies of students (Perry, 1970), with their level of empathy in counseling experiences. Benack (1988) found that in each of the three studies, relativistic thinkers demonstrated more accurate empathic understandings of others. For example, in one study graduate students who scored as relativist thinkers (high in cognitive complexity) demonstrated the most significant differences \( (p < .001) \) to dualist thinkers in their engagement in non-directive counseling interventions, and in their overall ability to demonstrate empathy. In another study, Benack had 24 undergraduate students without prior counseling experience provide responses to hypothetical counseling situations. The students were asked to also discuss the potential benefits of their initial responses, and then asked to provide a second response they felt would be more desirable than their first. Although the majority of the students in this scenario provided directive responses (83%) and did not express empathy (79%); there was a significant difference between the two student groups \( (p < .02) \) in providing non-directive interventions. This significance favored relativistic thinkers. In addition, relativistic thinkers demonstrated an understanding of their client significantly more often than dualistic thinkers \( (p < .05) \). These studies utilized a small sample of graduate and undergraduate students, some of which were not in the field of counseling, which is a limitation.
Lutwak (1993) also investigated the influence of cognitive complexity on clinical interactions. Lutwak examined the role of conceptual level with a counselors ability to understand and integrate cognitive and affect information when developing clinical interventions with clients, a process termed therapeutic responsiveness. Lutwak questioned if empathy could be predicted by a counselors therapeutic responsiveness to real counseling sessions with 69 graduate students in counseling. Results showed that conceptual levels were significantly correlated with therapeutic responsiveness. Conceptual level was also significantly correlated with empathy ($p < .01$). When compared to participants who demonstrated low cognitive complexity, higher cognitively complex participants were more significantly able to identify feelings and develop effective counseling interventions (Lutwak, 1993). Limited psychometric properties of instrumentation used, and the unknown contribution of potential confounds (i.e. graduate status, engagement in supervision) were not considered. Additionally, the use of graduate students limits the generalization of the findings to practitioners.

Lyons and Hazler (2002) investigated the relationship on the development of affective/trait-based empathy and cognitive/skill-based empathy with the cognitive complexity of master’s level counselors-in-training. Lyons and Hazler utilized a cross-sectional sample of first and second year counseling students ($n = 162$) enrolled in five CACREP accredited counseling training programs in Ohio. The Learning Environment Preferences (LEP; Moore, 1987) was used an instrument used to assess an individual’s cognitive complexity and positioning within Perry’s (1970) model. Second-year students scored significantly higher on affective empathy ($p = .02$) and cognitive/skill-based empathy ($p < .01$) than their first-year peers. No significant relationships, however, were found between affective empathy, cognitive/skill-based empathy, and cognitive developmental level. Additionally, there were no significant differences in the
Perry positions between first and second year students. Lyons and Hazler (2002) analyzed the scores of students who scored low and high in complexity, removing the middle data points. Although this analysis of extreme scores demonstrated a significant relationship with affective empathy ($p = .02$), cognitive/skill based empathy was not significant across the high and low complexity groups.

More second year students were positioned the highest stage of cognitive development according to Perry’s (1970) stages; whereas, more first year students were positioned in the lowest stage. Even with these observed differences, a chi square analysis identified these group differences was not significant (Lyons & Hazler, 2002). These findings suggest that empathy can be learned, as well as anecdotal evidence of increases in cognitive development over the course of training. The interaction between the two variables was only demonstrated when central scores were removed, which suggests the phenomena may be present. Limitations to sampling confine generalizability to programs and students outside of Ohio and outside of CACREP accredited programs.

Overall, the research examining the relationship between empathy and cognitive complexity has demonstrated that individuals with higher cognitive complexity display more consistent empathic responses (Alcorn & Torney, 1982; Benack, 1988; Blaas & Heck, 1978; Kimberlin & Frieson, 1980; Lutwak & Hennessy, 1982; McAuliffe & Lovell, 2006; Lutwak, 1993; Strohmer et al., 1983). This body of research highlights how a critical skill for counselors has demonstrated to be influenced by cognitive complexity; however, the limitations must be acknowledged. Of the ten studies presented, only Alcorn and Torney (1982) examined empathy and cognitive complexity within professional practitioners; however, this sample was made of social workers and not professional counselors. Additionally, because the remaining studies
sampled undergraduate and graduate students, it is difficult to extend these findings to professional counselors, and even more difficult to professional school counselors. Nonetheless, the findings discussed demonstrate a consistency in the phenomena and warrants further examination. The next section discusses the influence of cognitive complexity on a range of clinical interactions that occur between a counselor and client.

**Clinical Interactions**

Six studies have investigated cognitive complexity and its influence on the clinical interactions between counselors and clients. In these studies, individuals who demonstrated higher cognitive complexity demonstrated more structural complexity of counselor responses (Hurndon, Pepinsky, & Meara, 1979), more varied responses to clients (Lichtenberg & Heck, 1979), toleration ambiguity (Holloway & Wampold, 1986; McAuliffe & Lovell, 2006), and a demonstration of unbiased clinical judgments (Holloway & Wolleat, 1980; Spengler & Strohmer, 1994; Walker & Spengler, 1995).

Hurndon et al. (1979) correlated the scores of conceptual level and structural complexity in language to examine whether conceptual level predicted specific behavior or structure in the language of a counselor. Computer-Assisted Language Analysis System (CALAS) was used to determine the structural properties of participants’ responses. Together, the PCT and CALAS were used to gain insight into the cognitive complexity of the participants. Using stepwise multiple regression, the authors found that the variance between individuals of different conceptual levels were significantly explained by the quantity of language used in writing and in-person interviews. In other words, individuals with a higher conceptual level were more likely to write and speak more than a peer with a lower conceptual level. Hurndon et al. concluded that significant relationships between measures of structural complexity and conceptual level scores
existed. However, these findings should be interpreted with caution, since there was no analysis of the content of the language. An analysis of content could have added more validity to the results than reporting only frequencies. Lastly, stepwise multiple regression is an exploratory methodology whereby the order of the predictor variables entered are determined by a computer algorithm, rather than in a sequential order grounded in theory or logic. A methodology with stronger correlational potential (i.e. sequential or simultaneous regression) would strengthen these findings.

Lichtenberg and Heck (1979) acknowledged that differences existed among counselors in their interaction processes with clients, and examined counselor cognitive complexity as a potential variable. Lichtenberg and Heck questioned if differences existed between two groups of counselors—high and low cognitive complexity—and their in-sessions interactions with clients. Thirty second semester master’s-level counselors-in-training were recruited to participate. After completing cognitive complexity measures, the participants were separated into homogenous clusters, high and low cognitive complexity. Eight participants were then randomly selected from each cluster to comprise the final sample. Participants submitted videotapes of two counseling interviews with three different clients. The primary units of analysis in the counseling interaction were the transitions between counselor and client responses. A $\chi^2$ analysis demonstrated consistency within the two interactions across both complexity groups. Meaning, within each counselor group, there were no significant differences in how high complexity counselors engaged across both interactions, and no significant differences in how low complexity counselors engaged across both interactions. However when compared across groups, there were significant interaction process differences between the first and second interviews ($\chi^2 (81) = 108.277$), and when viewed across both groups and both interviews ($\chi^2 (81) = 151.418$. The
study demonstrated that counselors of higher cognitive complexity provided clients with more varied responses than counselors of low complexity. A strength of this study was the use of real counseling sessions, a deviation from the often used analogue methodology.

Holloway and Wolleat (1980) examined if counseling student conceptual level and/or professional counseling experience influenced integration of client information in their clinical hypothesis formation. Holloway and Wolleat had 37 first semester master’s level counseling students completed a the PCM to measure conceptual levels then viewed a 20-minute vignette of a counseling session and completed a clinical assessment questionnaire. Results highlighted significant relationships between conceptual level and the participants’ quality and clarity of expression in forming and substantiating their clinical hypothesis ($p < .002$). Professional counseling experience was not significant. Holloway and Wolleat stated that cognitively complex individuals were more likely to identify and integrate information from different sources, than remain fixed on one source. Similar to other studies, small samples, use of graduate students, and use of counseling vignettes opposed to real situations limit the external validity of the findings.

Spengler and Strohmer (1994) continued the investigation of clinical hypothesis formation and investigated cognitive complexity as a moderator of clinician’s clinical judgment biases in case vignettes of clients with disabilities and corresponding psychopathology information. Spengler and Strohmer’s sample included 119 participants, which included professional counseling psychologists, counselor educators, and clinical/educational/rehabilitation psychologists. Participants received one of two case descriptions of a client who met the diagnostic criteria for schizophrenia. The only manipulation of the case description for those who received the experimental description was added
information describing intellectual development and functional behavior. Spengler and Strohmer found counselors’ cognitive complexity significantly moderated the interaction with client’s intellectual level. Counselors with low cognitive complexity were three times more likely to disregard the clinical symptoms of schizophrenia and focus only on the intellectual and developmental characteristics than their peers who demonstrated higher complexity. Thus individuals with high complexity were less likely to stereotype client presentations and better able to integrate potentially incongruent client information in their clinical judgments.

Walker and Spengler (1995) examined if a similar clinical bias as observed by Spengler and Strohmer (1994) would be present in the clinical judgments of practicing clinical and counseling psychologists with a vignettes of clients exhibiting depression and diagnosed with AIDS. In Walker and Spengler’s (1995) study, participants received a vignette of a client with major depression and one of three medical conditions (AIDS, terminal cancer, or no medical issue), and were asked to rate the likelihood of (a) 10 psychological diagnosis and (b) treatment options (i.e. antidepressant medication). Multiple regressions revealed that the presence of AIDS in the client vignette had a significant impact on the counselors recommendation for antidepressant medications $F(2, 170) = 3.44, R^2$ change $= .04, p < .03$. Additional analysis demonstrated that counselors with low cognitive complexity were more likely to suggest medication for depression for clients with terminal cancer or no medical condition, than for the client described as having AIDS. Cognitive complexity as a moderator of clinical judgment was supported in this study, suggesting that counselors with higher cognitive complexity were able to differentiate client information and seek alternative hypotheses. This study had strengths in using practicing clinicians; however, a relatively low response rate of 38% of a sample of $N = 450$, and the use of analogue vignettes limits generalizability. Furthermore, it is difficult to determine if
clinician thoughts and behaviors about clinical judgments would be consistent across analogue and real client cases.

McAuliffe and Lovell (2006), however, examined if a relationship existed qualitatively between a counselor-in-trainings developmental-epistemological position within Perry’s (1970) model, and their counseling behavior. McAuliffe and Lovell utilized the LEP to identify participants’ cognitive complexity and place them within one of Perry’s (1970) positions. In order to ensure differences among participants’ “Perry positions” in this study, only those who scored within extremes were used for analysis. In other words, only participants who scored within stage one (dualism) and four (committed relativism) were included in the final sample (n = 12). Five categories of counselor-in-training interview behaviors emerged (a) source of point of view, (b) depth, (c) reflectiveness, (d) relationship to ambiguity, and (e) use of evidence. Dualistic trainees (a) had difficulty separating their point of view from their clients or from another authority figure, (b) had an inability to probe for mixed feelings or implicit emotions/meanings in client behavior, (c) displayed conventionality (i.e. engaged in rote skill application), and (d) had a tendency to look for definite answers. Committed Relativist trainees were able to (a) distinguish their view from others, (b) probe personal meanings and consider alternative coping methods, (c) embrace ambiguity and not foreclose on conceptualization, and (d) display intentional interventions (McAuliffe & Lovell, 2006). Although the sample was very small, the characteristics of the counselors-in-training were consistent within Perry’s model of intellectual and ethical development.

Level of cognitive complexity has shown to impact a myriad of clinical skills as discussed in this section. Individuals with higher cognitive complexity demonstrated how clinical assessments of clients could be impacted (Holloway & Wolleat, 1980; Spengler & Strohmer,
1994). Furthermore, varying levels of cognitive complexity in counselors also was found to impact the amount of content shared (Hurndon et al., 1979), and variation of the responses to clients (Lichtenberg & Heck, 1979). The most resounding limitation of this work is the extensive time gap. Although the findings offer critical significance to clinical practice, the most recent study (i.e. Walker & Spengler, 1995) was published 20 years ago. With that said, this work highlights another area of clinical practice that can be affected by a counselor’s level of cognitive complexity. Furthermore, it demonstrates how low cognitive complexity can lead to clinical misjudgments, and bias against clients. This section has examined how cognitive complexity can impact clinical skills; the next section will expand on the literature surrounding the variables that predict cognitive complexity.

Counselor Characteristics

Within the counseling literature, six studies examined predictors of counselor cognitive complexity utilizing individual demographics and professional characteristics. This section will synthesize this research to highlight personal and professional characteristics that predict an individual’s level of cognitive complexity. Sias et al. (2006), for example, examined the relationship between level of cognitive complexity, education, counseling experience, recovery status, age, and gender in substance abuse counselors. A random sample of substance abuse counselors (n = 900) was drawn from the state of Virginia, 21% (n = 188) percent of whom returned completed surveys. Results of a multiple regression found a significant positive relationship between counselors cognitive complexity and education, experience, recovery status, age, gender, and race $F(6, 168) = 2.25, p < .040$, accounting for 7.5% of the total variance. Independent $t$-tests found education level to be a significant predictor of counselor’s cognitive complexity ($p < .045$); however years of counseling experience, and recovery status were not.
Thus, with more education, counselors can expect to increase in cognitive complexity, a finding that supports integrating pedagogies into counselor education and training programs that develop cognitive development.

Continuing to examine the relationship between cognitive complexity and professional characteristics, Lambie (2007) conducted a path analysis to test the relationship between the ego development levels of professional school counselors, and their level of burnout. Lambie surveyed 550 members of ASCA, receiving a return rate of 40.9% \((n = 225)\). Contradicting with the original hypothesis, the path model testing ego development level and burnout did not fit the data. Thus, the data indicated that school counselors with higher ego development did not experience less burnout. Additional linear regressions were run using the three subscales of the burnout measure (Maslach Burnout Inventory-Human Services Survey; Maslach & Jackson, 1996), emotional exhaustion, depersonalization, and personal accomplishment to predict ego development level. Of the three subscales, only personal accomplishment held a significant relationship to ego development level \(F(3,217) = 2.414, p = .048 (R^2 = .033, \text{adjusted } R^2 = .019)\), indicating that school counselors positioned in higher ego developmental levels (higher cognitive complexity) demonstrated higher levels of personal accomplishment. A strength of this study was the use of multivariate procedures to examine the direct and indirect effects of ego development and burnout. Also, a moderate response rate with large sample of practitioners is strength within the context of this dissertation.

Sheaffer, Sias, Toriello, and Cubero (2008) investigated the relationship between ego development, a construct of cognitive complexity, and attitudes towards individuals with disabilities. First year graduate students in rehabilitation counseling, communication science disorders, occupational therapy, and physical therapy were sampled \((n = 102)\). Attitudes towards
individuals with disabilities was measured using The Preferred Social Distance Scale (Bogardus, 1932) which asks participants to specify the closest relationship they would be willing to have with an individual identified as having one of 21 disabilities. Ego development was measured using the Washington University Sentence Completion Test (WUSCT: Hy & Loevinger, 1996). A significant inverse relationship for preferred social distance and ego development was found using general linear modeling $F(1,3) = 8.447, p = .005$. In other words, individuals who demonstrated higher ego development preferred less social distance from individuals with disabilities; whereas, participants who demonstrated lower ego development preferred higher social distance. Although rehabilitation counselors demonstrated significantly lower preferred social distance of the four student groups sampled, the group as a whole did not exhibit high preferences of social distance.

The results of this study demonstrate that cognitive complexity, measured via the construct of ego development, does have an influence on ones need for social distance when engaging individuals with disabilities. As such, this study supports the need for more education and training that cultivates cognitive development in order to encourage students to challenge their attitudes and assumptions of this client population. Limitations for generalizations for the counseling literature are limited due to the convenience sampling and representation of graduate students of allied health professions outside of counseling. Granello (2010), however, examined the cognitive complexity of a sample comprised solely of practicing counselors.

Granello (2010) assessed 122 licensed counselors using the LEP to measure cognitive complexity. Stepwise multiple regression was used to predict the effect of years in the counseling profession, years as a practicing counselor, age, gender, race, and highest degree earned in the counseling profession, on cognitive complexity. Number of years in the counseling
profession, accounting for 10% of the variance, emerged as the most significant variable in predicting one’s cognitive complexity. Surprisingly, the number of years in counseling practice was not a significant indicator. Furthermore, whether an individual was a supervisor, educator, or administrator, individual roles were not found to influence cognitive complexity. That is, time in the profession in general was more influential in predicting cognitive complexity than any one individual role.

Granello (2010) also noted an alarming finding that 17% of those individuals who were currently supervisors were in the lowest stage of Perry’s (1970) model. Granello (2010) posited whether other experiences outside of years of professional experience could contribute to cognitive growth. Although this study provided initial insight into the potential indicators of cognitive complexity, limitations regarding sample characteristics and statistical methodology were evident. Limitations involving stepwise multiple regression, as discussed earlier in the critique of Hurndon et al. (1979), were also present.

Welfare and Borders (2010a) examined the extent of specific counseling related variables contributed to cognitive complexity. Counselors-in-training and professional counselors who graduated from CACREP programs were sampled for this study (n = 120). Domain specific complexity was measured using Counselor Cognitions Questionnaire (CCQ; Welfare & Borders, 2007), which measures a counselor's ability to list client characteristics (differentiation) and then categorize those traits (integration). The WUSCT was utilized to measure a counselor’s general level of ego development. Counseling experience, supervisory experience, counselor education experience, and highest counseling degree completed significantly predicted cognitive differentiation ($R^2 = .34$, adjusted $R^2 = .31$, $F(4, 111) = 14.08, p < .01$) and integration ($R^2 = .23$, adjusted $R^2 = .20$, $F(4, 112) = 8.28, p < .01$) scores. Domain specific cognitive complexity did
not predict general cognitive complexity, thus suggesting that counselors who demonstrate higher levels of general cognitive complexity might not also demonstrate high counseling specific cognitive complexity. The use of small convenience sampling and CACREP only programs limits external validity. Because it is a new instrument, the use of the CCQ lacks sufficient psychometric validation; however, it is a measure specifically developed to capture domain specific counselor cognitive complexity, signifying strength.

Lambie, Iva, Mullen, and Hayes (2011) recognized the need for practicing school counselors to have developed skills in ethical decision-making, as well as a strong foundation of ethical and legal knowledge to navigate the multi-faceted responsibilities encountered in the school environment. Lambie et al. (2011) hypothesized that school counselors with higher ego development would demonstrate stronger ethical decision-making and have ethical and legal knowledge, aligning with previous ego development research in counselors and counselors-in-training (Borders & Fong, 1989; Lambie, 2007; Lambie, Smith, & Ieva, 2009; Sheaffer et al., 2008). A total of 186 professional school counselors from three school districts in Florida participated in the study, with a response rate of 81.2%. Lambie et al. (2011) found that older participants had a significantly higher level of ego development; however, younger and less experienced participants demonstrated significantly higher levels of ethical and legal knowledge. When ego development was entered into a regression with ethical knowledge and ethical decision-making as predictors, 5.2% of the variance was explained, with ethical knowledge being the only significant predictor \( (p = .007) \). Although much variance is left unexplained, this finding indicates a relationship between ego development, ethical decision-making, and knowledge of ethics and legal principles. Thus, this finding supports that cognitive complexity of counselors can be increased during counselor education and training. A strength of the study was
the high response rate of the sample; however, because participants only represented three school
districts in Florida, extensive generalizability of the findings are limited.

Greater education levels (Sias et al., 2006; Welfare & Borders, 2010a), years in the
counseling professional (Granello, 2010), and higher amounts of counseling, supervisory, and
counselor education experience (Welfare & Borders, 2010a) have contributed to higher cognitive
complexity. Additionally, individuals who demonstrated higher cognitive complexity displayed
higher levels of personal accomplishment (Lambie, 2007), preferred lower social distance from
individuals with disabilities (Sheaffer et al., 2008), and higher legal and ethical knowledge
(Lambie et al., 2011). Combined, these studies highlight a relationship between higher education
levels and counseling related experience with higher cognitive complexity. Granello (2010)
found role in the counseling profession to not be a significant predictor of cognitive complexity.
Fong, Borders, Ethington, and Pitts (1997) and Lyons and Hazler (2002) also found counselors-
in-training did not demonstrate a significant increase in cognitive development within their
training program. However, Welfare and Border’s (2010a) study did display a relationship with
counseling specific experiences. One possible explanation with these contradicting finding might
be the result of instrumentation measuring too general of a cognitive construct. Welfare and
Borders (2010a) were the only study to utilize a measurement of cognitive complexity
specifically for the counselor population. The following section will further outline discussions
within counselor education that provide methods of engendering cognitive complexity in
counselor training programs.

**Promoting Cognitive Complexity**

Research has recognized the complex, ambiguous, and multifaceted experiences of
counselors (Duys & Hedstrom, 2000; Welfare & Borders, 2010a), as well as on how counselor
trainees acquire and apply higher order cognitive skills into their counseling behaviors (Fong et al., 1997; Fuqua, Johnson, Anderson, & Newman, 1984; Goldberg, 1974; Hillerbrand, 1989; Welfare & Borders, 2010a). Engagement in a counseling training program has been found to increase cognitive complexity of counselors-in-training (Duys & Hedstrom, 2000; Fong et al., 1997; Little, Packman, Smaby, & Maddux, 2005). As such, many have advocated for counselor educators to integrate pedagogies that promote cognitive development into counselor training (Choate & Granello, 2006; Duys & Hedstrom, 2000; Goldberg, 1974; Granello & Underfer-Babalis, 2004; Hillerbrand, 1989; Lambie et al., 2011; Lovell, 1999; Lutwak & Hennessey, 1982; Sias et al., 2006; Welfare & Borders, 2010a). Individual (Glosoff & Durham, 2010) and group supervision (Granello & Underfer-Babalis, 2004; Hillerbrand, 1989) have been identified as opportunities for counselor educators to enhance cognitive complexity by increasing the flexibility and openness to multiple perspectives of their supervisees.

**Supervision and Program Experiences.** Hillerbrand (1989) suggested that group supervision provided an opportunity for a novice scaffolding process, as individuals observed supervisor processes, receive feedback, and begin integrating new cognitive processes into their own practices. Peers are also able to observe and model a wide spectrum of skills among themselves. Hillerbrand offered several strategies for consideration by counselor educators to utilize in-group supervision to enhance cognitive skill acquisition in counselors-in-training. These included: (a) encouraging individuals to talk out loud during their reasoning process to make cognitive processes overt; (b) having individuals identify why, when, and how particular counseling skills were used in sessions; and (c) articulating the metacognitive skills used to assess their own memory, attention, comprehension, problem-solving, hypothesis-testing, and progress towards goals. He highlighted the benefits of acquiring higher cognitive abilities and
provided methods for counselor educators to integrate such teaching strategies into their pedagogy.

Granello and Underfer-Babalis (2004) posed an approach which also situated opportunities for cognitive developmental growth in group supervision. The model is based on the Taxonomy of Educational Objectives (Blooms Taxonomy) (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956). Bloom et al. (1956) identified six sequential levels of cognitive domains of learning (a) knowledge, (b) comparison, (c) application, (d) analysis, (e) synthesis, and (f) evaluation. Granello and Underfer-Babalis (2004) suggested that supervisors could base supervisory interventions based on Bloom’s Taxonomy to enhance supervisee cognitive complexity. As supervisors become aware of the cognitive level of their supervisees, they can engage in intentional interventions (i.e. role plays, modeling, direct questions) that facilitate cognitive growth to the next level. The use of Blooms Taxonomy allows supervisors to increase the intentionality of their interventions in supervision to ensure the development of cognitive complexity in trainees (Granello & Underfer-Babalis, 2004).

Choate and Granello (2006) proposed a slightly different model that included faculty advisors as the facilitators of cognitive development. In this model, the faculty advisor is “reconceptualized as that of a person who helps coordinate and facilitate student cognitive development across the program” (Choate & Granello, 2006 p.121). The model asks faculty advisors to meet with advisees at three key points during their time in the program to facilitate cognitive growth—upon admission, pre-practicum and internship, and pre-graduation. At initial meetings, Choate and Granello suggest that advisors provide structure for students (i.e. providing student handbooks, program information), promote professional identity (i.e. connect students with mentoring), and show interconnectedness of program coursework. They also remind faculty
advisors not to assume cognitive complexity in all students, even adult learners, as age alone has not been a significant indicator of cognitive complexity in the literature. Therefore, it is important to recognize that all new students must pass through the early stages of cognitive growth in counseling (Choate & Granello, 2006, p.121).

As students progress from pre-practicum to an internship, faculty advisors are encouraged to provide support as the initial experiential experiences create anxiety and heighten feelings of incompetence in students. Faculty advisors can also assist students in synthesizing feedback received from on-site supervisors and encourage students to integrate previous learning experiences into their current practice. In the final pre-graduation sessions, Choate and Granello (2006) suggest that faculty advisors assist their students with the transition from being a student to a professional. Advisors are also encouraged at this point to instill their students with the drive and commitment for lifelong learning.

Obviously this model places additional responsibilities on faculty; therefore, the reality of the academic environment should be considered in its application. All counselor education programs are unique and may not have the extra resources to fully embrace such a model. However, counselor educators should recognize the importance of cognitive development and move toward a model that promotes such growth into their curriculum. Whether it is integrated throughout each course (as some chose to teach ethics), individually through more advanced faculty advisory roles, or as part of group supervision of supervision, the benefits of promoting high conceptual level and cognitive complexity in students is evident and should be embraced with supervisors-in-training.

**Summary and Critique of Cognitive Complexity**
It has been demonstrated that counselors with higher cognitive complexity establish positive counseling relationships with clients (Goldberg, 1974); tolerate ambiguity (Holloway & Wampold, 1986; McAuliffe & Lovell, 2006) manage complex client affect (Kimberlin & Friesen, 1980; McAuliffe & Lovell, 2006); demonstrate more consistent empathic responses (Alcorn & Torney, 1982; Benack, 1988; Blaas & Heck, 1978; Kimberlin & Friesen, 1980; Lutwak & Hennessy, 1982; McAuliffe & Lovell, 2006; Lutwak, 1993; Strohmer et al., 1983); were more open to multiple perspectives and less reliant on concrete rules or external authority figures for decision-making (Harvey et al., 1961), demonstrated fewer negative thoughts about their clients (Borders & Fong, 1989), and evidenced unbiased clinical judgments towards their clients (Holloway & Wolleat, 1980; Spengler & Strohmer, 1994; Walker & Spengler, 1995), then their peers of lower cognitive complexity.

Predictors of high cognitive complexity included higher education levels (Sias et al., 2006; Welfare & Borders, 2010a), more years in the counseling profession, including non clinical roles (Granello, 2010), and more supervisory and counselor education experience (Welfare & Borders, 2010a). Additionally, those with high cognitive complexity were more likely to have higher levels of personal accomplishment (Lambie, 2007), higher levels of ethical and legal knowledge (Lambie et al, 2011), and lower preferred social distance from individuals with disabilities (Sheaffer et al., 2008). Although the research surrounding cognitive complexity has demonstrated significant positive relationships with critical clinical skills, other scholars have found mixed results (Borders, 1986; Borders, Fong, & Neimeyer, 1986; Lyons & Hazler, 2002; Wendler & Nilsson, 2009). For example, Wendler and Nilsson (2009) investigated counseling trainees’ cognitive complexity and sociopolitical advocacy and found that cognitive complexity did not significantly predict their awareness and acceptance in the differences of
others. Additionally, Granello (2002) found that school counseling graduate students’ cognitive complexity decreased over the course of their graduate training. Their graduate student counterparts in community, clinical, rehabilitation, and marriage and family counseling, however, demonstrated an expected increase in cognitive development over their training (Granello, 2002). As such, it is important to consider the limitations of research in cognitive complexity in counselor education.

Sampling methodology is a consistent limitation as convenience sampling, as well as the use of non-counseling students, weakens true generalizability of findings. Utilizing analogue procedures for assessing counselor clinical skills, rather than real case also posed consistent limitations as counselor behaviors may vary when engaging with clients en vivo. There is also a need for improved and psychometrically validated measures for cognitive complexity constructs (Alcorn & Torney, 1982; Fuqua et al., 1984; Lutwak, 1993; Mcleannan, 1995; Wendler & Nilsson, 2009; Welfare & Borders, 2010a). Many instruments have been used to capture this construct (i.e. PCT, LEP, WUSCT). A limitation about instruments measuring cognitive complexity has been the possibility that instruments are measuring two constructs, cognitive differentiation and cognitive integration, rather than a one general construct (Van Hiel & Mervilde, 2003). Addressing these limitations to measurement may claim some of the variance in the findings. The CCQ was developed by Welfare and Borders (2010b) to begin to address the measurement limitation; however, the instrument is new and requires psychometric validation.

Even considering the limitations outlined surrounding cognitive complexity, the reviewed literature overwhelmingly supports the theory that individuals who demonstrate higher cognitive complexity demonstrate more effective counseling skills. Thus, cognitive complexity represents the central independent variable of this study, mediating the relationships between other
independent variables discussed in greater detail in the succeeding chapter, and the dependent
variables of school counselor engagement with students with disabilities. In the final section of
this chapter, however, I will briefly discuss the literature surrounding two other established
variables that have been recognized as influencing a person’s engagement with individuals with
disabilities—attitude and previous contact.

Attitudes Towards and Previous Contact with Individuals with Disabilities

Positive attitude towards disabilities has been identified as a critical characteristic for
school counselors as it can influence the roles they take in meeting the needs of students with
disabilities (Bowen & Glenn, 1998; Durodoye et al., 2004; Milsom, 2006). For school
counselors, completion of coursework in special education, and engagement with students with
disabilities in fieldwork experiences (i.e. practicum/internship) have both been predictors of
having positive attitudes towards disabilities (Erhard & Umansky, 2005; Isaacs et al., 1998;
Romano, Paradise, & Green, 2009). Negative attitudes towards disability, however, have been
found to affect clinical judgment and effectiveness in counselors’ work with individuals with
disabilities (Strohmer et al., 1983; Spengler & Strohmer, 1994; Walker & Spengler, 1995; Wong,
et al., 2004). Thus, understanding the impact of counselor attitudes towards disabilities is
important as it can increase awareness of the prejudices individuals with disabilities experience,
and lessen stigmatization (Thomas, Curtis, & Shippen, 2011).

Research investigating attitudes towards disability has represented a wide array of
populations including undergraduate students (Barr & Bracchitta, 2008; Barr & Bracchitta, 2012;
& Hunt, 2000; McManus, Feyes, & Saucier, 2010), counselors and counselors-in-training
(Carney & Cobia, 1994; Elston & Snow, 1986; Fish & Smith, 1983; Garske & Thomas, 1990;
Goodyear, 1983; Huitt & Elston, 1991; Wong et al., 2004), medical students and general practitioners (Ryan & Scior, 2014; Klooster et al., 2009; Gill et al., 2002; Tervo et al., 2004), and the general public (Yazbeck et al., 2004). In an extensive and rigorous review of seventy-five articles surrounding attitudes and beliefs about intellectual disabilities in the general public between 1990 and 2011, Scior (2011) identified age, contact, and education as three key variables that have consistently demonstrated to be significantly associated with positive attitudes.

Younger individuals held more positive attitudes and lower misconceptions towards individuals with disabilities than older individuals (Barr & Bracchitta, 2012; Goreczny, Bender, Caruso, & Feinstein, 2011; Yazbeck et al., 2004). Contact, (Strohmer, Grand, & Purcell, 1984), as well as quality of contact, has also demonstrated to be an important factor to how individuals feel towards disabilities (Barr & Bracchitta, 2012; McManus et al., 2010). There has been inconsistent findings with regards to gender as both females (Goreczny et al., 2011; Hergenrather & Rhodes, 2007) and males (Barr & Bracchitta, 2012) have been found to significantly predict positive attitudes; whereas, others have found gender to have no impact at all (Carney & Cobia, 1994; Tervo et al., 2004).

Much of the research in counseling in attitudes towards disabilities has occurred within the field of rehabilitation counseling. Garske and Thomas (1990) found a statistically significant positive relationship ($r = .29, p < .01$) between attitudes towards individuals with disabilities and self-esteem in a sample of graduate students in rehabilitation counseling. Differences in attitudes between rehabilitation, school, and community/mental health counseling students have been examined with mixed results. Carney and Cobia (1994) utilized the Attitudes Towards Disabled-People-Form A (ATDP-A) (Yuker et al., 1960) to explore the attitudes of counselors-in-training
towards individuals with disabilities. When compared to a normative sample mean ($M = 110.76$), the counselors-in-training sample had a significantly higher mean ($M = 131.98$), meaning more positive attitudes, $[t(189) = 18.57, p < .001]$. When examined across counseling tracks, Carney and Cobia (1994) found rehabilitation students scoring highest ($M = 141.4$; $[F(2, 187) = 4.821, p = .009]$) in attitudes followed by school counseling ($M = 134.2$), then community counseling ($M = 130$). However, Huit and Elston (1991) also utilized the ATDP-A and found no such relationship across counseling tracks ($F(2, 83) = .3765, p = .687$).

Wong et al. (2004) explored the attitudes of 98 rehabilitation counseling graduate students to examine factors that influence their attitudes towards individuals with disabilities. The study found that disability type, education, age, and ethnicity contributed significantly ($p < .0001$) to attitude formation of rehabilitation graduate students than gender or work status did. Students had more positive attitudes towards individuals with disabilities who were similar to themselves in gender, age, and cultural background (Wong et al., 2004). When comparing counselors to non-counselors, counselors-in-training were found to have more positive attitudes towards disabilities (Carney & Cobia, 1994; Huit & Elston, 1991). Thomas et al. (2011) examined the perceptions of disability across three groups of human service providers, teachers, rehabilitation providers, and counselors, that latter of whom were found to be the least receptive to individuals with physical disabilities. As such, Thomas et al. (2011) asserted that increasing contact and education of individuals in the human services field can have a positive impact on how disabilities are perceived.

Fish and Smith (1983) investigated the relationship between disability status of counselors-in-training and their attitudes towards disability, and counseling effectiveness. The results were mixed in that counselors-in-training who identified as having a disability scored
significantly higher ($t (18) = 2.32, p < .05$) in their attitudes towards individuals with disabilities; however, their peers who did not identify as having a disability demonstrated significantly higher ($t (18) = 3.29, p < .05$) counselor effectiveness (Fish & Smith, 1983). It should be noted that variables that have previously been found to influence attitudes towards disability, age, sex, and previous work experience, were not included in the analysis. Additionally, the sample was comprised of only rehabilitation master’s level counselors-in-training, thus extending these findings to populations of counselors who are not students, and not in rehabilitation counseling is limited.

Key limitations to attitudes literature include the use of (a) convenience sampling, (b) student populations, and (c) analysis reactions of individuals to hypothetical relationships rather than of lived experiences (Scior, 2011). There has been little empirical research surrounding the predictors and outcomes of attitudes towards disabilities in counselor education and professional school counselors. The current study includes the correlates of attitudes towards disability and contact with individuals with disability in its investigation of cognitive complexity and school counselor’s engagement with students with disabilities.

**Conclusion**

Over the last 40 years, congressional legislation has transformed the rights and access of individuals with disabilities to educational, occupational, and health opportunities. Students with disabilities receiving services under IDEA make up nearly 8.4% of the entire student population aged 6-21. What is worrisome is that students with disabilities are at-risk of experiencing significant academic and social issues that may hinder healthy development. As such, school counselors are in a unique position to advocate for students with disabilities (Scarborough & Deck, 1998; Studer & Quigney, 2005); however, school counselors have voiced a need for
increased preparation and training to confidently provide students with disabilities the services they need (Lofaro, 1982; Milsom, 2006; Milsom & Akos, 2003; Myers, 2005; Scarborough & Deck, 1998).

Additional coursework in disability has been positively associated with more positive attitudes towards engagement with students with disabilities (Erhard & Umanksy, 2005; Helms & Katsiyannis, 1992; Isaacs et al., 1998; Milsom, 2002), and having increased contact with individuals with disabilities has contributed to positive attitudes towards disability (Goreczney et al., 2011; Gill et al., 2002; Klooster et al., 2009; Yazbeck et al., 2004). Understanding what factors or combinations of factors of school counselors influence their level of engagement with students with disabilities can inform future counselor education and training, as well as impact the future development of students with disabilities. Thus, it is important to explore variables that contribute to school counselor variance in engagement. Cognitive complexity is one variable that has demonstrated to impact counselor flexibility in intervention application (Sias et al., 2006) as well as a myriad of clinical skills (i.e. empathic responding, holding multiple perspectives, and unbiased clinical judgments). However, cognitive complexity has never been explored in its relation to school counselor engagement with students with disabilities.

This study expanded upon prior research and utilized variables that have demonstrated to influence a school counselor’s work with students with disabilities, while introducing cognitive complexity. Hence, this study sought to explore the direct and indirect relationships between students with disabilities on caseload, graduate education and training in disability/special education, quality of contact with individuals with disabilities, attitudes towards individuals with disabilities, overall feelings of preparedness to engage with students with disabilities, and cognitive complexity, on the frequency of a school counselor’s engagement with students with disabilities.
disabilities. The next chapter will provide a detailed outline of the research methodology, operationalized definitions of the variables, sampling plan, review of instrumentation, research design, data analysis procedures, delimitations, and delimitations of the design.
Chapter III: Methodology

Introduction

School counselors play a vital role in ensuring the equal access, positive experiences, and inclusion of students with disabilities within comprehensive school counseling programming (Carpenter, King-Sears, & Keys, 1998; Myers, 2005; Milsom, 2006; Reis & Colbert, 2004). Therefore, it is critical to explore the factors that contribute to school counselor engagement with students with disabilities. Completion of coursework and training in disabilities has been shown to improve school counselor’s attitudes towards disability (Erhard & Umanksy, 2005; Milsom, 2006) and increase their sense of preparedness to engage with this student population (Milsom, 2002). Increased contact with individuals with disabilities has demonstrated strong associations with positive attitudes (Goreczney et al., 2011; Gill et al., 2002; Klooster et al., 2009; Yazbeck et al., 2004) and decreases in misconceptions and stereotypes surrounding disability (Barr & Bracchitta, 2008; Barr & Brachchitta, 2014; Tervo et al., 2004). One variable that has never been investigated in terms of its impact on a school counselor’s engagement with students with disabilities is a school counselor’s cognitive complexity. Examining cognitive complexity is important because it has been found to positively influence a myriad of clinical skills that are critical to cultivating the counseling relationship, as discussed in the previous chapter.

Counselors with higher cognitive complexity have demonstrated more consistent empathic responses (Alcorn & Torney, 1982; Benack, 1988; Blaas & Heck, 1978; Kimberlin & Frieson, 1980; Lutwak & Hennessy, 1982; McAuliffe & Lovell, 2006; Lutwak, 1993; Strohmer et al., 1983), fewer negative thoughts about their clients (Borders & Fong, 1989), and unbiased clinical judgments towards their clients (Holloway & Wolleat, 1980; Spengler & Strohmer, 1994; Walker & Spengler, 1995). Additionally, cognitive complexity has been predicted by
higher education levels (Sias et al., 2006; Welfare & Borders, 2010a), more years in the
counseling profession (Granello, 2010), and more supervisory and counselor education

This study utilized a cross-sectional survey design to investigate the relationships among
the variables that have demonstrated to influence school counselor engagement towards students
with disabilities (i.e. quality of contact, graduate education and training, attitudes, and overall
feelings of preparedness), while introducing the variable of cognitive complexity. The following
research questions were examined in this study:

**Research Question 1**: What is the scope of school counselor engagement with students with
disabilities?

**Research Question 2**: What are the direct and indirect effects between the predictor variables
(caseload, quality of contact with individuals with disabilities, overall attitude towards
individuals with disabilities, graduate education and training, overall feelings of preparedness to
engage students with disabilities, and cognitive complexity) and the scope of school counselor
engagement with students with disabilities?

**Research Question 3**: What is the dimensionality of school counselor engagement with students
with disabilities?

**Research Question 4**: What are the direct and indirect effects between the predictor variables
(caseload, quality of contact with individuals with disabilities, overall attitude towards
individuals with disabilities, graduate education and training, overall feelings of preparedness to
engage students with disabilities, and cognitive complexity) with the frequency of school
counselor engagement in dimensional categories of school counselor engagement with students
with disabilities?
Operational Definition of the Variables

Variables from previous research that have demonstrated a correlation between school counselors and their work with students with disabilities were integrated as independent variables, and school counselor engagement with students with disabilities was the dependent variable. The operational definitions of the variables are:

Dependent Variable

1. School Counselor Engagement with Students with Disabilities- This variable was operationalized in two ways. First, to address the scope of school counselor engagement, Research Question 1 and 2, participants responded Yes or No as to whether they have engaged with students with disabilities in 13 specific school counseling activities in the last 30 days. These activities were: (a) advocate in the school; (b) advocate in the community; (c) assist in planning for transitions to careers or to post-secondary educational opportunities; (d) assist with the establishment and implementation of IEP’s; (e) counsel parents and families; (f) make referrals to other appropriate specialists when necessary (i.e. school psychologists, physical therapists, special education staff, etc…); (g) provide school counseling curriculum lessons within the scope of the comprehensive school counseling program; (h) provide feedback on the social and academic performance to the multidisciplinary team; (i) provide individual counseling; (j) provide group counseling; (k) serve as a consultant to parents on the characteristics and special needs of students; (l) serve as a consultant to staff on the characteristics and special needs of students, (m) serve on the multidisciplinary team to identify and provide services. The number of Yes responses was recorded and summed for a total “scope” score; thus, total scope will range from 0-13.
For Research Question 4, engagement was operationalized as the frequency of completion of the 13 school counseling activities with students with disabilities for participants who answer “Yes” to having completed the activity. Exploratory factor analysis was used to identify broader dimensional categories of the 13 school counseling activities. Each unique conceptual category that was identified via the exploratory factor analysis was then utilized as discrete dependent variables in separate path model analyses. Thus, the 13 activities were grouped into common factors, and the frequencies (number of times) of each activity within each factor were summed together to form the conceptual dependent variable. For example, if the activities of individual counseling, group counseling, and parent and family counseling loaded on the same conceptual category (factor), the frequency the participant completed these three counseling activities in the previous 30 days would be summed together to represent the frequency dependent variable for school counselor engagement in counseling activities with students with disabilities. These engagement activities were recorded by participants in Section 3 of the School Counselor Preparation Survey-Revised SCPS-R.

Independent Variables

1. School Counselor Graduate Education in Disability was measured by participants’ self-report of the number of graduate education and training opportunities completed during graduate training. These experiences included completion of courses specifically focusing on students with disabilities during graduate training (i.e. special education, exceptional children, and/or rehabilitation counseling), courses where information about students with disabilities was presented in addition to regular course content, and if they had completed any practical experiences with students with disabilities during their graduate
training (i.e. practicum and/or internship). These items were recorded in Sections 5 and 6 of the SCPS-R as number of hours the participant has experienced the graduate education opportunity.

2. Caseload with students with disabilities was operationalized as the number of students with disabilities on the participants current student caseload. Participants self-reported the number of students with disabilities on their current student caseload in the first section of the SCPS-R. This variable also acted as a control variable.

3. Quality of Contact with individuals with disabilities was operationalized as participant self-report rating of the quality of their relationships with individuals with disabilities. Participants rated the quality of their contact with individuals with disabilities on a 11-point Likert scale ranging from Very Negative (-5) to Very Positive (+5).

4. Attitudes Towards Individuals with Disabilities is operationalized as participant self-report of their attitude towards individuals with disabilities. Six items from the Interaction with Disabled Persons Scale (IDP) (Gething, 1994) was used to capture the attitudes variable. The measure was developed and validated to measure attitudes towards individuals with disabilities on a personal level on a six-point Likert scale (Highly agree to Highly disagree). The full IDP is a 20 item instrument. Gething (1994), MacLean and Gannon (1995), Forlin, Fogarty, and Caroll (1999), Yoshida, Sonoda, and Zemke (2003) Thomas, Palmer, Coker-Juneau, and Williams (2003), Wallymahmed, McKay-Moffat, and Cunningham (2007) completed factor analyses of the measure and identified “Discomfort in Social Interaction” as the strongest factor (items 9, 11, 12, 16, 17, 18). These items contributed the most to the overall score of the IDP. For these items, participants are asked to indicate their level of agreement/disagreement on the following
statements: a) I feel uncomfortable and find it hard to relax, I can’t help staring at them, 
c) I feel unsure because I don’t know how to behave, d) I feel overwhelmed with 
discomfort about my lack of disability, e) I am afraid to look at the person straight in the 
face, and f) I tend to make contacts only brief and finish them as quickly as possible.
These items are in the participant demographics section.

5. Overall Feelings of Preparedness to Engage with Students with Disabilities was

operationalized as participant self-report of their overall feelings of preparedness to work
with students with disabilities on a 6-point Likert scale. The Likert scale ranged from
“Completely Unprepared,” “Unprepared,” “Somewhat Unprepared,” to “Somewhat
Prepared,” “Prepared,” “Completely Prepared” and was measured in Section 2 of the
SCPS-R. In Section 3 of the SCPS-R, participants used the same 6 point Likert scale in
Section 2 to self-report their feelings of preparedness on twelve school counseling
activities. The 13 school counseling activities were the same as described within the
dependent variable of School Counselor Engagement.

6. School Counselor Cognitive Complexity- School counselor’s ability to differentiate and
integrate specific student characteristics was measured by the Counselor Cognitions
Questionnaire (CCQ). The score of a participant’s cognitive complexity is a composite of
a differentiation score and integration score. The differentiation score was calculated by
trained raters who identified and added the number of total constructs and shared
constructs a participant utilized when describing a set of clients whom they felt they were
effective/ineffective with. Integration score was calculated by trained raters by coding the
participants’ ability to categorize the characteristics of the described clients into distinct
categories. The summation of the differentiation and integration score provided the total
cognitive complexity score of the participants. This Data was collected using the CCQ.

The CCQ is discussed in greater detail in the Instrumentation section of this chapter.

**Descriptive Variables**

School Counselor characteristics were recorded in order to describe the sampling population. These variables were not included in the model; however, they are displayed in a separate table utilizing descriptive statistics. School Counselor characteristics encompasses participants’ personal and school demographic information. The first two items of the SCPS-R ask if participants were currently employed as a school counselor, as well as to indicate their employment status (i.e. full-time, part-time, long term substitute). Additional characteristics recorded by participants in Section 1 of the SCPS-R and included setting of school (categorized as rural, urban, suburban, write in), school type (categorized as public, parochial/religious, private, charter, write-in), and grade level of current work setting (categorized as elementary, middle, elementary and middle, junior/senior high school, high school). Personal variables to be identified by participants included (a) length of time practicing as professional school counselor, (b) school counseling credentials held (i.e. state certification, multiple state certifications, licenses, multiple state licenses), (c) current age, (d) gender most identified with (male, female, transgender, write-in), (e) identified as having a disability (yes, no, preference to not respond), and (f) race/ethnicity identification (Black, Asian, Caucasian, Hispanic, Native American, Pacific Islander, write-in) were recorded in a demographic questionnaire following the final Section of the SCPS-R.

**Identification of Population and Sampling Procedures**

Professional School Counselors in the United States of America (USA) were the targeted population for this study. The population of this study included all Professional School
Counselors in the USA who were members of ASCA. More specifically, this population was individuals who had self-identified as being a school counselor in their ASCA online membership profile ($N = 20622$). This clarification was needed as individuals may have been members of ASCA even though they may serve in a role different than school counselor. For example, the roles provided by ASCA for members to choose from included administrator, college professor/instructor, director/coordinator/supervisor, paraprofessional, principal/assistant principal, retired, school psychologist, social worker, and student.

The survey population included all members of the ASCA online membership directory who had listed “Secondary/High school” as their work setting as of August 1, 2015 ($N = 6990$). The choice of including only secondary school counselors was due to two reasons. First, to provide an initial stratification of the total population to be sample in the online directory in order to make data collection manageable. Second, because more states require secondary school counselors than middle school or elementary school counselors. Thirty-four states mandate secondary school counselors (grade level 9-12); whereas, only thirty are required in elementary/middle school (grades K-8) (ACA, 2012). The population was first stratified by state, and then stratified once more into four lists that comprise four recognized geographic regions of the USA (West, Midwest, South, and Northeast). This was to increase external validity by ensuring individuals from each region were represented in the final sample.

The original membership lists from ASCA were organized alphabetically by last name; therefore, once stratified by region, each list was randomized to prevent periodicity (Babbie, 1990). The targeted sample size to ensure adequate statistical power was 365. This number was determined by utilizing a sample size table (Manheim, Boyd, & Buhsmer, 2006). The formula used to construct the sample size table was $n = X^2* N * P * (1-P)/(ME^2*(N-1)) + (X^2*P*(1-P))$
(Krejcie & Morgan, 1970). In this formula \( n = \) sample size, \( \chi^2 \) = Chi square for the confidence level identified by the researcher at 1 degree of freedom, \( N = \) population size, \( P = \) population proportion, and \( ME = \) desired Margin of Error). This sample size was calculated with a \( N = 6990, 95\% \) Confidence Interval, and a Margin of Error of 5\%. Erwin and Wheelright (2002) identified a mean response rate in counseling survey research of 53\% in the *Journal of Mental Health Counseling* and 51\% in the *Journal of Counseling and Development*. However, recent dissertation research with professional school counselors has demonstrated much lower response rates with 16\% (Torrence, 2012), 11.6\% (Cannella, 2015), and 4.8\% (Finnerty 2015). A total of \( n = 1000 \) observational units were selected from each region. Systematic sampling of every 10\(^{th}\) individual from each regional list generated the observational units for the study. See Appendix A for a model of this sampling frame. See Appendix B for the proposed timeline of this study.

There were limitations to utilizing this sampling frame. First, individuals who currently work in the secondary/high school level but had failed to update their membership status would not be included in the initial population from the online membership directory. Thus, the sampling frame was only inclusive of those individuals who had indicated a secondary/high school work setting as of August 1, 2015. Similarly, it was possible that individuals who had identified themselves as working in a secondary/high school work setting may no longer be employed as such and may be employed at the middle school or elementary level or no longer working as a school counselor. This will be controlled for in the survey, as participants will be asked to identify the grade level of their current workplace. Participants who do not select the appropriate grade level in the survey were excluded from the analysis.

Another issue to be safeguarded through the survey itself was the possibility that individuals included in the sampling frame may include graduate students, retirees, affiliates to
the school counseling profession, and/or counselor educators because the online directory does not show professional designations. To ensure only practicing professional school counselors completed the survey, the first question presented to participants in the survey following informed consent asked for current employment status. Individuals who identified that they were not currently working as professional school counselors were not able to access the survey beyond that point. The sample was also limited to those professional school counselors who have chosen to be members of ASCA; thus, generalization of the findings were limited to professional members of the organization.

Instrumentation

For the purposes of this study, two self-administered instruments, and one demographics questionnaire were utilized for data collection. The School Counselor Preparation Survey-Revised ([SCPS-R]; Milsom, 2002) captured school counselor data surrounding their feelings of preparedness and engagement with students with disabilities. See Appendix E for the original SCPS-R. The Counselor Cognitions Questionnaire ([CCQ]; Welfare, 2006) captured school counselor cognitive complexity. See Appendix F for the original CCQ. The computer software Qualtrics was used to format the instruments for online distribution. The authors of each instrument granted permission to adapt and administer the instruments in the electronic format. See Appendices C and D for these permissions. Instrument descriptions, revisions, and individual permissions to utilize these instruments will be discussed in this section.

School Counselor Preparation Survey-Revised

The School Counselor Preparation Survey-Revised (SCPS-R) was developed by Milsom (2002) to assess the activities school counselors perform for students with disabilities, how prepared they feel to work with students with disabilities, education and professional
development they have completed with regards to students with disabilities, and personal demographics. In total, the SCPS-R has six sections to capture data surrounding school counselor education, experience, and engagement with students with disabilities. Milsom utilized the 1997 Amendments of IDEA to provide the participants with the definition of students with disabilities. This definition identified autism, emotional disturbance, hearing impairment, specific learning disabilities, mental retardation, orthopedic impairment, speech/language impairment, traumatic brain injury, visual impairment, or other health impairments that impact educational performance (Milsom, 2002). In her development of the instrument, Milsom utilized ASCA position statements for school counselors and students with disabilities (ASCA, 1999; ASCA, 2000) as a foundation for the school counseling activities included within the instrument.

The psychometric properties of the SCPS-R are limited (Milsom, 2002). In her 2002 study, outside of identifying face validity, Milsom did not report psychometric data. No other empirical study has utilized the instrument other than one dissertation (Torrence, 2012). Torrence tested internal consistency reliability and reported a Cronbach’s alpha of $\alpha = .892$. Milsom granted permission for the use of the SCPS-R in this study and supported revisions to the instrument in order to reflect current trends and updates within the literature (A. Milsom, personal communication, February 2, 2015). See Appendix C for SCPS-R permission.

The first section of the original SCPS-R had two items that asked for participants to provide an estimate to the number of total students in their caseload, and the total students with disabilities in their caseload. Section 2 asked participants to identify their overall feelings of preparedness to provide services with students with disabilities on a six point Likert scale (i.e. 1 = Completely Unprepared to 6 = Completely Prepared). Section 3 utilized the same six point Likert scale in Section 2 to ask participants to describe their feelings of preparedness to perform
11 specific school counseling tasks with students with disabilities. The activities include advocating in the school or community, assisting in transition planning, assisting with establishment and implementation of behavior modification plans, counseling parents and families, making referrals to specialists when needed, providing activities to improve self-esteem, providing feedback on social and academic performance to a multidisciplinary team, providing individual and/or group counseling, providing social skills training, serving as a consultant to parents and staff on disability characteristics, and serving on a multidisciplinary team to identify and provide services for students with disabilities.

Section 4 asked participants to provide a “check” beside each of the eleven activities described above that they currently engage in for students with disabilities. Section 5 had three items that asked for the number of courses completed that have specifically focused on students with disabilities, courses where information about students with disabilities was integrated within core course content, and whether they had completed practical experiences with students with disabilities during their graduate training programs. Section 6 had two items that asked if participants had participated in school-sponsored in-service programs, or attended conferences/workshops regarding students with disabilities since being employed as a school counselor.

Several revisions were made to the SCPS-R for the current study in order to update the instrument in accordance with current trends in the literature. All revisions were approved by Milsom (Personal Communication, August 9, 2015). See Appendix C for revision approval. In Section 1, the definition of disability was updated in accordance to the ASCA 2013 updated position statement for school counselors and students with disabilities. These updates included deaf-blindness, developmental delay, intellectual disability (formerly mental retardation),
multiple disabilities, and who by reason thereof, needs special education and related services, into the definition of disabilities. In Section 1, two items were added that asked for participants to describe the setting of their school (i.e. rural, urban, suburban, or other), and the type of school they worked in (i.e. public, parochial/religious, private, or other). There were no revisions to Section 2.

Updates to Section 3 included revising statements that asked multiple questions. Fowler (2014) stated in survey question construction, items might ask two separate questions. These questions leave respondents in a difficult position as they may want to respond to one part of the question in one way and respond to the second part of the question in another way (Fowler, 2014). Babbie (1990) advised as a general rule to survey researchers to avoid such double-barreled questions. As such, the statement “advocate for students with disabilities in the school and/or community” was revised to two statements: “advocate for students with disabilities in the school” and “advocate for students with disabilities in the community.” The same revision was made for the statement asking if the participant provided “individual/group counseling.”

Two additional items in Section 3 were removed and replaced with a new item to reflect the expectations of school counselors as stated in 2013 ASCA Position Statement. The two items removed were activities to “improve self-esteem” and “social skills training.” These items were replaced with the item “provide school counseling curriculum lessons within the scope of the comprehensive school counseling program.” Additionally, the item “assist with the establishment and implementation of behavior modification plans” was revised to “establishment and implementation of IEPs” to reflect the ASCA position statement as well. The items in the updated Section 3 were carried to Section 4. A specific timeframe for participants to refer to when responding to the items in Section 4 (i.e. within the last 30 days) was added in order to
provide participants with a specific timeframe to reflect on their professional activities with students with disabilities.

In the original SCPS-R, Sections 5 and 6 asked individuals to report “how many” courses and/or workshops they had attended during graduate school and in their professional work as a school counselor. Section 4 asked individuals to identify if they had or had not engaged in specific school counseling activities. The revisions to Section 4, 5, and 6 combined the two question formats in order to capture (a) if participants had engaged in the school counseling activities and (b) the number of times they had completed those activities, courses, and workshops regarding students with disabilities. This question format is referred to as contingency questions (Babbie, 1990). In contingency questioning the second question provided is contingent on the participants’ answer to the first. In this case, if a participant responded that they had provided individual counseling to a student with disability, they were then asked to provide the frequency of those individual counseling sessions. Thus, participants’ presentations of the frequency questions were contingent on their response to their engagement or completion of the initial activity. As such, if a participant identified that they had not engaged in a specific activity, the survey did not prompt for frequency and instead, moved to the next school counseling activity. Lastly, an item asking for participant engagement in clinical supervision was added to Section 6. See Appendix H for the adapted SCPS-R within the full Qualtrics survey.

Counselor Cognitions Questionnaire

School counselor cognitive complexity was measured using the Counselor Cognitions Questionnaire (CCQ; Welfare, 2006). Welfare and Borders (2010b) developed this instrument because no instrument existed for measuring cognitive complexity in counselors. A critique of instruments measuring cognitive complexity has been that instruments developed to measure
general cognitive complexity actually are measuring two separate constructs—cognitive differentiation and cognitive integration—rather than a single one of general cognitive complexity (Van Hiel & Mervilde, 2003). Some have posited that this instrumental limitation may contribute to inconsistent findings within cognitive complexity literature. Thus, Welfare and Borders (2007) developed an instrument that measured cognitive complexity of a counselor’s cognitive system. The CCQ involves a two tasks—differentiation and integration. Both tasks are scored independently then combined to provide the total cognitive complexity score.

The first task, differentiation, asks counselors to list the traits of a client with whom they believe they were effective with. Counselors also complete a list for clients whom they were not effective with. This task measures cognitive differentiation (Welfare & Borders, 2007) as counselors are asked to differentiate client characteristics. Characteristics that describe client beliefs, mannerisms, qualities, traits, tendencies, behaviors, thoughts, feelings, motivations, fears, or concern are scored; however, general descriptions of age and gender are not as they are considered concrete demographics (Welfare & Borders, 2007).

To assess cognitive integration, counselors are asked to make conceptual connections between the characteristics identified in the differentiation task. Counselors are asked to review the lists of characteristics they identified for client, and then create as many categories as they can of those characteristics. Counselors create categories for the clients identified as “effective” and another group of categories for the characteristics of the client they identified as “ineffective.” During integration scoring, counselors receive one point if there is a balance of positive and negative characteristics. One point is also given if at least one characteristic can be categorized into one of five domains—cognitive, spiritual, emotional, contextual, and/or behavioral. Points are also provided for each unique category created. Lastly, the CCQ assigns
points if signs of the “counseling relationship” (i.e. self-awareness, open to treatment, and resiliency) are demonstrated (Welfare & Borders, 2007). The total cognitive complexity level of the counselors is determined by summing the differentiation and integration scores together.

Welfare and Borders (2010b) tested external and structural construct validity of the CCQ following instrument development. First, an examination of the relationship between a participants differentiation and integration scores was completed to provide insight into the instruments overall construct validity. Pearson product-moment correlations between differentiation and integration scores were \( r(31) = .48, p = .005 \). Second, scores of the CCQ and the established Role Category Questionnaire ([RCQ] Crockett, 1965) were compared in order to explore if cognitive complexity is domain specific. In other words, do complexity of thoughts about a client differ from those of a peer as the RCQ asks for participants to reflect on the characteristics of a peer. The RCQ only includes the differentiation component; therefore, only the differentiation component of the CCQ and the RCQ were examined. This provides insight into the discriminant validity of the measure. Pearson product-moment correlations between RCQ and CCQ differentiation scores yielded statistically non-significant results \( r(31) = .217, p = .225 \). This suggests that cognitive complexity is domain specific in that the way respondents thought about their peers was different than the way they thought about their clients.

Inter-rater reliability of raters for the CCQ was also calculated using a Pearson product-moment correlation to examine if consistency could be demonstrated. The inter-rater reliability of the two trained raters was significant for both differentiation (.99) and integration (.95) scoring.

Welfare and Borders (2010b) continued to test the psychometric properties of the CCQ with a larger sample. With a sample of 120 master students and post-masters counselors participated in this extended study of CCQ validation. Once more, a significant correlation was
found between differentiation and integration scores ($r(117) = .64, p < .01$), indicating that although the scores are related, complexity is not explained by only a single score. Post-masters students scored statistically significantly higher on both the differentiation ($F(1, 116) = 23.7, p < .01$) and integration ($F(1,117) = 14.49, p < .01$) components. Pearson product-moment correlations between the components of the CCQ and the Sentence Completion Test ([SCT] Loevinger & Wessler, 1970) were not statistically significant, supporting once more that cognitive complexity about clients differ from general cognitive complexity. Inter-rater reliabilities of the two raters for this larger sample were .99 for differentiation and .96 for integration. Although the CCQ is a new instrument, the psychometric analyses performed by Welfare and Borders (2010b) provide initial insight into the construct validity of the CCQ, as well as external construct validity between the CCQ and more general measures of cognitive complexity—RCQ and the SCT.

The CCQ is manually scored, thus research assistants need to be trained for scoring the instrument. Welfare and Borders (2007) provided a comprehensive scoring manual to guide rater training. Trained raters must reach an inter-rater reliability of .90 with the examples included in the manual prior to scoring live data (Welfare & Borders, 2007). Welfare and Borders recommended the use of multiple raters, and addressing scoring discrepancies among the raters prior to analysis of live data. An outline of the CCQ rater training is included in the Data Collection section of this chapter.

Permission to adapt the CCQ for online distribution and use for this study was granted by Welfare (L. Welfare, personal communication, February 4, 2015). Permission to revise “client” to “student” in instrument instructions was done as per the recommendation by Welfare (L. Welfare, personal communication, February 4, 2015). The CCQ as adapted for online use in
Qualtrics is nearly identical to the original pencil and paper format. The initial instructions are identical with the only revision being “student” replacing “client.” Additionally the same numbers of lines as the paper format, 25, are provided for counselors to describe client characteristics during the differentiation task. The most challenging adaptation was the integration section. In the original format, the list of characteristics in the differentiation task are numbered 1-25. During the integration task, counselors created categories by writing in a category on a separate page, then listing the number to refer to the characteristic(s) they would include in that category. Qualtrics did not have the capabilities to complete the integration task in this way. In the adapted version, the characteristics that the counselor created for each student were automatically carried forward to the integration section. Counselors were then asked to type into a box the category or categories they felt were appropriate for that characteristic, rather than listing the reference number of the trait(s).

The directions for the original integration task for effective and ineffective clients read:

Now review the characteristics you listed for each client. Consider if any of them group together or fit into categories. If so, write a label that describes the category and write the numbers of the characteristics that explain or fit within that category. You may use each characteristic in more than one category. You do not have to use all of the space provided (Welfare, 2006)

In order to reflect the revisions for the adapted CCQ, the instructions for this task were revised to:

Now review the characteristics you listed for the effective student. Consider if any of them group together or fit into categories. If so, create a label for that category that identifies the characteristics. Write the labels for the categories of the characteristics in
the white box. If a characteristic belongs to more than one category, please place a comma between labels.

No change in scoring methodology for the CCQ was needed, thus all scoring instructions remained the same. Final adaptations and revisions were presented to Welfare and authorized for use in this study (L. Welfare, personal communication, July 31, 2015). See Appendix D for instrument permission). See Appendix F for the original CCQ. See Appendix H for the Qualtrics adaptation of the instrument within the full survey.

**CCQ Rater Training, Supervision, and Scoring.** Two research assistants were trained as raters to score the CCQ. The raters attended four, 2-hour trainings over the Fall 2015 semester. Final rater training occurred during the scoring of the pilot surveys. The trainings included:

**Day 1:** Presentation and discussion of the research project.

**Day 2:** Introduction to the scoring manual, and complete 1 practice instrument and discuss discrepancies.

**Day 3:** Score 3 practice instruments and discuss discrepancies.

**Day 4:** Score 2 practice instruments and discuss discrepancies, address final questions.

Trained raters, as described in the data collection section, scored data from the CCQ manually. This researcher securely exported the CCQ data from Qualtrics to an excel file for the raters to score. The CCQ raters utilized the scoring forms developed in the CCQ scoring manual by Welfare (2007) to code and score this data. The two trained raters and this research met bi-weekly during the scoring of the survey data to discuss scoring discrepancies. According to the CCQ training manual, raters needed to achieve an inter-rater reliability of .90 prior to scoring live data (Welfare & Borders, 2007). Please refer to Appendix F for the scoring sheets.
**Demographic Questionnaire**

In addition to the SCPS-R and the CCQ, a eleven-item questionnaire at the conclusion of the survey captured demographic information. Eight items asked for participant age, gender, race/ethnicity, disability status, state of graduate education, state of current employment, professional credentials, and years as a practicing school counselor. One of the final three items asked for the participant to identify their attitude towards individuals with disabilities on a 6-point Likert Scale as described earlier. The tenth item asked for participants to identify if they have or had previous contact with individuals with disabilities. If the participant responded that they had, a follow up question asked for the participant to select the types of relationships experienced. The final item asked for individuals to rate the overall quality of their contact with individuals with disabilities, they referenced in the previous two items. These items were discussed in greater detail in the Operational Definitions of Variables section of this chapter. See Appendix H for the demographics items in the final section of the full survey.

**Data Collection Procedures**

**Recruitment Processes**

Data collection was completed using the online administration software Qualtrics. The benefits of transitioning to online data collection procedures included decreased financial cost and time, expanded reach of targeted population, and decreased chances of data coding and entry errors. The survey was distributed using Qualtrics Mailer, a confidential, non-anonymous distribution method. Qualtrics Mailer allowed for easy tracking of emails sent, surveys started, surveys finished, and time taken to complete survey. Qualtrics Mailer allowed for customization of sampling emails such as automatically including participant name into introduction of the email for greater personalization. Prior to distribution, all names and email addresses of the
participants of the sample were imported into Qualtrics Mailer. This allowed for follow-up and thank you emails to be sent directly within Qualtrics.

Prior to randomization of potential participants, careful examination and removal of duplicate entries from the ASCA online directory occurred. Further, missing email contact information was identified prior to randomization, and any entries that lacked this contact were removed and not eligible for the systematic sampling. Member listings that did not provide a state location were eliminated prior to sampling.

Upon stratification and random selection of participants from the ASCA directory, selected participants first received an introductory email alerting them that they had been selected to participate in this study. A link was provided to the survey page at the bottom of this introductory email. Participants who followed the link, were presented with an informed consent form on Qualtrics. Participants indicated acceptance of the informed consent by clicking yes at the bottom of the page. A follow-up email was sent to all participants who had not completed the survey one week after the introductory email. A total of three reminders at one week apart were sent to participants who had not started the survey. See Appendix H for Introductory emails, follow-up emails, thank-you emails, and informed consent. All data files were stored on the primary researcher’s password protected personal computer, and backed-up twice. First to a password protected external hard drive, and second, burnt to a password protected CD.

A pilot study was completed to test email distribution methods, survey completion time, data collection procedures, and data coding and analysis procedures. The materials were distributed via email to $n = 10$ graduate students in the Department of Counseling and Human Services at Syracuse University. A total of $N = 4000$ individuals were sent email invitations for participation to this study. Of the 4000 emails sent, 19 were returned to sender as undeliverable.
Of the 3981 emails that were delivered, 34% (1367) were opened. Of the 1367 emails that were opened, 31% (430) were started. Lastly, of the 430 surveys that were started, a total of 132 were finished. The number of completed surveys by geographical region was 34 (Midwest), 41 (Northeast), 33 (South), and 24 (West). This number included seven individuals who chose not to participate by clicking “No” on the informed consent page.

**Research Design**

In order to examine the relationships between the identified predictor variables and the dependent variables path analysis and factor analysis was utilized in this study. Path analysis was utilized to examine the scope of school counselor engagement with students with disabilities, and the indirect and direct effects of these engagements—Research Questions 2 and 4. Exploratory factor analysis was utilized to examine the dimensionality of school counselor engagement with students with disabilities—Research Question 3. The exploratory factor analysis was to provide dimensional categories for organizing the 13 school counseling activities included in the engagement variable. Research Question 4, examining the direct and indirect effects of the predictor variables on the frequencies of school counselor engagement with students with disabilities also utilized path analysis; however the dependent variable(s) were the dimensional categories identified by the exploratory factor analysis conducted for Research Question 3.

First, this section will provide an overview of path analysis as well as describe the rationale of the variable positions within the model for this study. Second, this section will discuss how exploratory factor analysis methodology was utilized to examine the dimensionality of school counselor engagements. Lastly, this section will outline the procedures for data analysis, CCQ rater training, and data screening.

**Path Analysis and Model**
Path analysis was utilized to examine the Research Questions 2, and 4 of this cross-sectional design survey. Path analysis is a component of structural equation modeling that focuses on examining the direct, indirect, and total effects among independent predictor and dependent variables (Keith, 2006). Path analysis provides an opportunity to explore potential causal relationships among variables, with the goal of providing estimates of the magnitude and significance of the hypothesized relationships (Stage, Carter, & Nora, 2004). A path diagram is constructed utilizing ovals to represent constructs, rectangles to represent variables, and straight arrows to denote the presumed cause and effect relationships between them (Keith, 2006; Stage et al., 2004).

The effects of the variable relationships in the path diagram are dependent on the variables that are included in the model, thus it is important for the researcher to identify and include all variables that may influence the effects across the variables (Stage et al., 2004). The arrowed lines between variables are indicators of hypothesized causal relationships that the researcher has identified from utilizing formal or informal theory, time precedence, and/or logic (Keith, 2006). See Figure 1 for the path diagram of this study.

The path model identifies the location and hypothesized causal ordering of the six independent variables (i.e. Caseload, Quality, Prof Dev., Attitudes, Prepare, and CC) and the single dependent variable (i.e. Engage) for this study. For operational definitions and methods of measuring each of these variable constructs, please refer to the Operational Definitions and Instrumentation sections of this chapter. This model should be read from left to right. The causal ordering of the variables in this model are grounded in both logic and theory, and were discussed in the literature in Chapter 2. The variable ordering will be will be highlighted succinctly in this section.
The first three constructs are placed in the order of Graduate Education, Caseload, and Quality. Specifically with school counselors, completion of coursework in special education, and engagement with students with disabilities in fieldwork experiences (i.e. practicum/internship) have been predictors of positive attitudes towards disabilities (Erhard & Umansky, 2005; Isaacs et al., 1998; Romano et al., 2009). Positioning the constructs in this manner, therefore, suggests
that quality of contact and graduate training influence school counselor attitudes towards individuals with disability as previous research has demonstrated. Caseload is positioned as the second variable as it follows graduate training temporally, school counselors will be impacted by their caseload after completing their graduate training. An alternative, however, could be positioning quality of contact with an individual with disability prior to their graduate education. This scenario is not reflected in this model as it was decided a priori to have graduate education as the initial construct for this model.

The fifth variable in the path, following attitudes, is school counselor overall feelings of preparedness to engage students with disabilities. This variable is positioned after attitudes because feelings of preparedness has been demonstrated to be positively influenced by education and training in disability and special education (Milsom, 2002). Thus, as attitudes towards individuals with disabilities are influenced by quality of contact, and graduate education; attitudes towards individuals with disabilities is hypothesized to influence feelings of preparedness. The final independent variable in the model is cognitive complexity. As discussed earlier, predictors of high cognitive complexity included higher education levels (Sias et al., 2006; Welfare & Borders, 2010a), more years in the counseling profession, (Granello, 2010), and more supervisory and counselor education experience (Welfare & Borders, 2010a). Furthermore, cognitive complexity is understood to be a construct capable of growth (Duys & Hedstrom, 2000; Fong et al., 1997; Little et al., 2005); thus, temporally and theoretically it is situated as the final independent variable in the model. Cognitive complexity is hypothesized to be influenced by the constructs that precede it, and in this model, account for variance above the other predictors.
Lastly, engagement with students is the final construct identified in the model. In combination, this diagram represents a model for understanding how this grouping of variables influences engagement with students with disabilities and is grounded theoretically in the school counseling literature. To explore the dimensionality of school counselor engagement (Research Question 3), an exploratory factor analysis will be performed to identify underlying categories present that may group the 12 school counseling activities.

**Exploratory Factor Analysis**

Exploratory factor analysis is used to explore and identify the number of distinct underlying constructs present within a measure that account for specific patterns among the variables (Fabrigar & Wegener, 2012). Additionally, factor analysis can be used in order to reduce and/or simplify factors from a larger set of variables (Mvududu & Sing, 2013). The underlying constructs that emerge and account for the patterns are called factors (Fabrigar & Wegener, 2012). In exploratory factor analysis, the method that will be used to investigate the dimensionality of school counselor engagement (Research Question 3), it is presumed that the measure being utilized also measures a smaller set of traits or constructs (Keith, 2006). Factor analysis identifies the shared variance of these smaller variable groupings; the more shared variance among the groupings, the stronger the variables load onto specific dimensions (Mvududu & Sink, 2013). As such, the factor loadings provide estimates of the strength and influence of each of the latent variable groupings. Fabrigar and Wegener (2012) stated that “the goal of factor analysis is to arrive at a relatively parsimonious structure of correlations” (p.6).

In exploratory factor analysis, each dimension should consist of homogenous variables that load strongly onto a single factor, and weaker on others. Exploratory factor analysis was utilized to examine Research Question 3 by examining what underlying factors are present
among the 13 school counseling activities within engagement with students with disabilities. Completing an exploratory factor analysis would not only provide the necessary dimensionality to explore Research Question 3, but also, each of the dimensions would be identified would be utilized as discrete dependent variables for Research Question 4—examining the direct and indirect effects of the predictor variables with the frequency of school counselor engagement with students with disabilities. Lastly, exploratory factor analysis also provides factorial validity and internal reliability metrics. These metrics will strengthen the psychometric properties of the measure (Mvududu & Sink, 2013).

**Delimitations of the Study**

This study was delimited to professional school counselors currently employed in the USA, who were members of ASCA, and had self-identified on their online ASCA member profile as working in the secondary/high school setting. This study was delimited to professional school counselors who had joined ASCA on or before August 1, 2015, and by those who had provided an electronic mail address. Electronic distribution of the instruments was chosen in order to reach a wider set of participants to maintain a low financial cost for distribution in order to have funding for research assistants and monetary incentives for participants.

As the instruments in this study were only available in English, this study was focused on those individuals who were able to read English. Similarly, the instruments were only available in reading text form and the software platform used for data collection is restricted to typed-text responses only. Therefore, this study was delimited to individuals who had access and abilities to use a standard computer keyboard. The SCPS-R asked for participants to reflect on their engagement with students with disabilities in the last 30 days. This specific timeframe was set in order to increase accurate recall of participant’s engagements, and provide a snapshot of current
school counselor activities. This decision to limit completion of activities with students with disabilities to the last 30 days, however, limited the generalization of the findings to that period of time. Thus, reports of participant engagement may be different if the study was completed at a different time the school year. As such, the findings of this study cannot be generalized outside of this temporal scope.

**Conclusion**

This study utilized cross-sectional survey methodology to explore the relationships between school counselor characteristics, quality of contact with individuals with disabilities, graduate education, attitudes towards individuals with disabilities, feelings of preparedness to engage students with disabilities, and cognitive complexity, on the school counselor engagement with students with disabilities. The design of this study utilized random sampling with systematic selection to identify a sample of professional school counselors who were representative of the greater ASCA membership population.

This study sought to extend current body of literature surrounding the work of school counselors with students with disabilities by exploring the relationships between previously identified variables (i.e. education and training in disability and special education, quality of contact with individuals with disabilities, and attitudes towards individuals with disabilities) with cognitive complexity. Understanding these relationships and their impact on school counselor engagement with students with disabilities could inform counselor education training programs by highlighting specific experiences and/or characteristics that promote future school counselor behavior. With nearly 6 millions students receiving services under IDEA (United States Department of Education, 2014), school counselors need to be adequately prepared to ensure the needs of these students are met. Likewise, school counselor educator pedagogies need to be
informed by contemporaneous research. This study is strengths based as it sought to learn from those school counselors who are engaging with students with disabilities and thus, identify the characteristics and experiences of their journeys in order to better inform future education and training practices.
Chapter IV

Results

The purpose of this chapter is to provide a thorough description and summary of the data analysis process. Accordingly, this chapter includes a discussion of data cleaning, coding, and a summary of the preliminary analyses. First, taking time to anticipate vulnerabilities in data collection prior to survey administration was critical for decreasing missing data. During instrument development in Qualtrics, as well as through running the pilot, potential errors in data collection were identified and addressed. Forced-choice responding was selected during item construction in Qualtrics for the CCQ and SCPS-R items. This feature prevented participants from proceeding through the survey without completing items with appropriate values. Thus, data gaps that would occur from participants during data collection were eliminated prior to data collection from the final sample. Upon closing of the survey, data were downloaded from Qualtrics and imported to Excel in a .csv file for inspection, coding, and analysis.

A total of 132 surveys were identified as complete prior to data cleaning. From that point, 12 participants were removed because they were not currently employed as a school counselor. Three additional participants were removed because they identified as being currently employed as an elementary or middle school counselor, not as a high school counselor. Finally, seven participants were removed as they declined the informed consent, although Qualtrics had initially originally identified them as completed surveys. Thus, the final sample for data analysis was \( n = 110 \), an 8% response rate. This response rate fell within the range of 4.8%-16% observed in recent doctoral dissertation research also utilizing a national sample of professional school counselors as participants and also sampling via email (Canella, 2015; Finnerty, 2015; Torrence,
Regional breakdown of responses from this sample were 27% Midwest (n = 30), 32% Northeast (n = 35), 23% South (n = 25), 17% West (n = 19), and < 1% unspecified (n = 1).

**Preliminary Analyses**

Prior to running analysis, it was important to handle missing data, examine internal consistency of scaled scores, and ensure that all variables meet the necessary conditions and statistical assumptions for multivariate analysis. All preliminary analyses were run on SPSS version 23.0. All data collected directly from participants underwent a missing value analysis. From the descriptive output of missing values, no missing values were identified. Items that required Yes/No responses were automatically coded at input in Qualtrics (1 = Yes; 0 = No). Items asking for frequencies of engagement and professional development were originally recorded in Qualtrics as numerical values; therefore, these values did not need to be coded.

Several variables had to be calculated from the dataset to form key predictor variables (i.e. attitudes towards individuals with disabilities and total graduate education and training that included topics of disability) and one of the dependent variables (i.e. scope of school counselor engagement with students with disabilities). The attitude variable was calculated by summing the six attitudes toward disability items as scored on a 6-point Likert scale, with a possible range per participant of 6-36. The variable of total graduate education and training that included topics of disabilities was calculated by summing the total number of courses that primarily focused on disability, courses that included disability with other course content, and practical experiences (i.e. practicum/internship). The possible score range per participant was 0-3. Lastly, the dependent variable for scope of school counselor engagement was calculated by summing all the “yes” responses to whether or not participants indicated engaging in each of the 13 school counseling activities. Possible range per participant was 0-13.
Next, internal consistencies of scaled scores were examined. Because composite scores of other items were used to indicate the aforementioned variables, internal consistencies were calculated to ensure the summed items measured the same construct. Cronbach’s Alpha for the scaled predictor variable attitude towards individuals with disabilities was $\alpha = .88$ and the Cronbach’s Alpha for total graduate education and training that included topics of disability was $\alpha = .69$. School counselor scope of engagement was $\alpha = .77$. Generally, $\alpha > .80$ is considered good, and $\alpha > .70$ is considered acceptable internal consistency (Constantine & Ponterotto, 2006; Loewenthal, 2001). As the scaled displayed acceptable internal consistencies, the composite scores for attitudes towards individuals with disabilities, total graduate education and training that included topics of disability, and the scope of school counselor engagement with students with disabilities were calculated for subsequent analysis. Limited psychometric information has been published with regards to the SCPS-R instrument, and because the measure underwent revisions for use in this study, internal consistency was assessed. Cronbach’s Alpha ($\alpha = .88$) demonstrated strong internal consistency of the SCPS-R measure. This aligns with previous Cronbach’s Alpha calculated ($\alpha = .89$) (Torrence, 2012).

Two trained raters calculated participant cognitive complexity. This researcher downloaded the CCQ data separately from Qualtrics to Excel in a .csv file. The raters scored these data independently. Both raters met with this researcher bi-weekly to discuss coding discrepancies. Raters coded total differentiation scores and total integration scores for each participant. Inter-rater reliabilities for this study were $\alpha = 1.00$ for the pilot, and $\alpha = .99$ for the final sample. Total differentiation and integration scores were then summed for each participant to calculate each individual’s total cognitive complexity score. The Person product moment correlation between the total differentiation score and total integration score was $(r(110) = .64, p$
< .001), highlighting a strong relationship between the two scores. In addition, this is a strong indicator of construct validity for the CCQ. Total cognitive complexity scores were then manually inputted for each participant into the Excel file.

Next, the univariate normality of continuous variables was examined with box plots, histograms, skewness, and kurtosis calculations. Excessive positive or negative skewness in continuous outcome variables within a distribution can decrease the validity of statistical analyses (Dollinger & DiLalla, 1996; Kline, 2016). Skewness (+/-2) and Kurtosis (+/-7) are recognized marked cutoffs to prevent excessive violations of normality (Curran, West, & Finch, 1996; Ryu, 2011). All variables in this study fell within these recommended cutoffs.

Next, Mahalanobis distance was calculated to determine multivariate normality. Mahalanobis determines if multivariate outliers exist as demonstrated by extreme scores on more than two variables (Kline, 2016). After the first run, three cases exceeded the critical value of 22.45 in a $\chi^2$ distribution ($df = 6, \alpha = .001$) and were deleted. After the second run, no other cases were identified as outliers. Thus, there were no remaining multivariate outliers and the data now met the condition for multivariate normality. A final sample of $n = 107$ was retained and used for the primary analyses after running the univariate and multivariate normality tests.

**Description of the Sample**

Descriptive statistics were utilized to examine the central tendencies of demographic data of participants. Participants’ years of professional practice as a school counselor ranged from less than 1 year to 38 years. Of the school counselors who had practiced for more than one year ($n = 106$), the variance in years of practice were $M = 13.84$ and $SD = 8.33$. One hundred and two participants (95.3%) held a school counseling credential, 89 (83.2%) held a state school counseling certification, 24 (22.4%) held multiple state school counseling credentials, 36
(33.6%) held a school counseling license, and 7 (6.5%) held multiple school counseling licenses. Participant ages ranged from 21-67 ($M = 46.61, SD = 11.37$), and they were employed in 37 states. States with the most representation included New Jersey ($n = 10, 9.3$%), New York ($n = 8, 7.5$%), Ohio ($n = 8, 7.5$%), Pennsylvania ($n = 8, 7.5$%), California ($n = 6, 5.6$%), Illinois ($n = 5, 4.7$%), Arizona ($n = 5, 4.7$%), and Georgia ($n = 5, 4.7$%). Total number of students per caseload ranged from 12-1200 ($M = 315.89, SD = 158.42$) with a mode of 250. Total number of students with disabilities on caseload ranged from 0 to 150 ($M = 43.51, SD = 32.74$) with a mode of 50. Most of the participants were Caucasian ($n = 92, 86$%) women ($n = 87, 81.3$%) and did not self identify with a disability ($n = 93, 86.9$%). The majority of participants were employed in a suburban setting ($n = 51, 47.7$%), and in a public school ($n = 85, 79.4$%). See Table 1 for detailed school counselor demographic information regarding school setting, school type, grade level of school, as well as gender, race/ethnicity, and self-reported disability status of the participants.
<table>
<thead>
<tr>
<th>Participant Characteristics</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>(n = 107)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>School Setting</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>38</td>
<td>34.5</td>
</tr>
<tr>
<td>Urban</td>
<td>15</td>
<td>14.0</td>
</tr>
<tr>
<td>Suburban</td>
<td>51</td>
<td>47.7</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>2.8</td>
</tr>
<tr>
<td><strong>School Type</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public</td>
<td>85</td>
<td>79.4</td>
</tr>
<tr>
<td>Parochial/Religious</td>
<td>5</td>
<td>4.7</td>
</tr>
<tr>
<td>Private</td>
<td>11</td>
<td>10.3</td>
</tr>
<tr>
<td>Charter</td>
<td>4</td>
<td>3.7</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>1.9</td>
</tr>
<tr>
<td><strong>Grade</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Junior/Senior High School</td>
<td>14</td>
<td>13.1</td>
</tr>
<tr>
<td>High School</td>
<td>93</td>
<td>86.9</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>20</td>
<td>18.7</td>
</tr>
<tr>
<td>Female</td>
<td>87</td>
<td>81.3</td>
</tr>
<tr>
<td>Transgender</td>
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<td>0</td>
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<tr>
<td><strong>Race/Ethnicity</strong></td>
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</tr>
<tr>
<td>Black</td>
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<td>3.7</td>
</tr>
<tr>
<td>Asian</td>
<td>1</td>
<td>.9</td>
</tr>
<tr>
<td>Caucasian</td>
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<td>86.0</td>
</tr>
<tr>
<td>Hispanic</td>
<td>5</td>
<td>4.7</td>
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<tr>
<td>Native American</td>
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<td>.9</td>
</tr>
<tr>
<td>Pacific Islander</td>
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<td>.9</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>2.8</td>
</tr>
<tr>
<td><strong>Self Identifies with Disability</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>93</td>
<td>86.9</td>
</tr>
<tr>
<td>Yes</td>
<td>11</td>
<td>10.3</td>
</tr>
<tr>
<td>No Response</td>
<td>3</td>
<td>2.8</td>
</tr>
</tbody>
</table>

*Note. % = Percent. Other types of race/ethnicity written included Mexican-American, Multicultural. Other types of School Types included reservation and boarding school. Other type of School Setting included public charter and independent.*
**Professional Development.** Eighty-two percent of participants \((n = 88)\) reported attending a school-sponsored in-service workshop on topics of disability. Mean number of times attending such events were \(M = 11.27\) \((SD = 17.74)\) for school sponsored in-service and \(M = 5.71\) \((SD = 5.87)\) for professional workshop/conference. Of the entire sample, 7.5% \((n = 8)\) reported having received clinical supervision in the past 30 days. Of the individuals who received supervision, participants averaged 2.25 hours of supervision \((SD = 1.39)\). Number of hours receiving supervision focused on topics of disability was \(M = 15.50\) \((SD = 19.97)\). Table 2 presents the frequencies and percent of participants’ graduate education focused on disabilities and completion of professional development directed towards students with disabilities. Over 50% of participants reported receiving some level of graduate education and/or training that included disability topics and/or experiences. Table 3 expands upon the frequencies and percent of education and professional development outlined in Table 2 and provides the mean number of course hours spent in graduate education experiences that included disability topics. The highest mean number of hours was reported as occurring during graduate practicum/internship experiences.
Table 2

_School Counselors Who Completed Graduate Education and Professional Development in Disability Frequencies_

<table>
<thead>
<tr>
<th>Graduation Education &amp; Professional Development</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completed courses specifically focusing on students with disabilities during graduate training</td>
<td>63</td>
<td>58.9</td>
</tr>
<tr>
<td>Completed courses where disability information was presented in addition to regular course content</td>
<td>71</td>
<td>66.4</td>
</tr>
<tr>
<td>Completion of practical experiences with students with disabilities during practicum or internship</td>
<td>75</td>
<td>70.1</td>
</tr>
<tr>
<td>Occurred during Practicum</td>
<td>48</td>
<td>44.9</td>
</tr>
<tr>
<td>Occurred during Internship</td>
<td>59</td>
<td>55.1</td>
</tr>
</tbody>
</table>

*Note.* % = Percent.
Table 3

Mean Time of Experiences of Graduate Education and Professional Development of School Counselors Who Reported Completing Coursework in Disability

<table>
<thead>
<tr>
<th>Graduation Education &amp; Professional Development</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours of courses completed specifically focusing on students with disabilities during graduate training</td>
<td>70.14</td>
<td>46.154</td>
</tr>
<tr>
<td>Hours of courses completed where disability information was presented in addition to regular course content</td>
<td>37.80</td>
<td>35.90</td>
</tr>
<tr>
<td>Hours of practical experiences completed with students with disabilities during practicum or internship</td>
<td>105.51</td>
<td>118.08</td>
</tr>
</tbody>
</table>

Note. SD = Standard Deviation

Feelings of Preparedness and Engagement with Students with Disabilities. Table 4 displays the mean Likert scale ratings of the participants’ feelings of preparedness for each individual school counseling activity. The activity with the highest rating of preparedness was providing individual counseling ($M = 5.21, SD = .87$), and the lowest was assisting planning for transitions to careers or to post-secondary educational opportunities ($M = 4.36, SD = 1.27$). Range of mean scores for preparedness was 4.36-5.21, communicating that participants felt between somewhat prepared and prepared to engage in each of the school counseling activities. On the single item asking participants to rate their overall feelings of preparedness to engage students with disabilities, participants responded as feeling somewhat prepared to prepared ($M = 4.75, SD = .706$).
Table 4

*Mean Likert Scale Ratings of School Counselor Feelings of Preparedness to Engage Students with Disabilities in Specific School Counseling Activities*

<table>
<thead>
<tr>
<th>Activity</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide individual counseling</td>
<td>5.21</td>
<td>.87</td>
</tr>
<tr>
<td>Advocate in the school</td>
<td>5.19</td>
<td>.72</td>
</tr>
<tr>
<td>Make referrals to other appropriate specialists when necessary (i.e. school psychologists, physical therapists, special education staff, etc...)</td>
<td>5.14</td>
<td>.88</td>
</tr>
<tr>
<td>Provide feedback on the social and academic performance to multidisciplinary team</td>
<td>5.01</td>
<td>.98</td>
</tr>
<tr>
<td>Counsel parents and families</td>
<td>4.98</td>
<td>.90</td>
</tr>
<tr>
<td>Provide school counseling curriculum lessons with the scope of the comprehensive school counseling program</td>
<td>4.84</td>
<td>1.00</td>
</tr>
<tr>
<td>Provide group counseling</td>
<td>4.69</td>
<td>.99</td>
</tr>
<tr>
<td>Assist with the establishment and implementation of IEP’s</td>
<td>4.64</td>
<td>.93</td>
</tr>
<tr>
<td>Serve as a consultant to parents and staff on the characteristics and special needs of students</td>
<td>4.62</td>
<td>1.18</td>
</tr>
<tr>
<td>Advocate in the community</td>
<td>4.41</td>
<td>1.00</td>
</tr>
<tr>
<td>Assist in planning for transitions to careers or to post-secondary educational opportunities</td>
<td>4.36</td>
<td>1.27</td>
</tr>
</tbody>
</table>

*Note.* This was a 6-point Likert scale where 1 = Completely Unprepared, 2 = Unprepared, 3 = Somewhat unprepared, 4 = Somewhat Prepared, 5 = Prepared, and 6 = Completely Prepared.
Cognitive Complexity. CCQ differentiation scores ranged from 2 to 42 ($M = 16.72, SD = 8.32$). Participants’ CCQ integration score ranged from 3-25 ($M = 12.96, SD = 3.70$). Total cognitive complexity of participants ranged from 5 to 79 ($M = 30.24, SD = 11.90$).

Quality of Contact and Attitudes Towards Individuals with Disabilities. Eighty percent ($n = 86$) indicated that they had had contact with an individual with a disability in their life. Table 5 displays the types of personal and/or professional contacts participants experienced with individuals with disabilities. Participants described their overall quality of contact with persons with disabilities as very positive ($M = 10.24, SD = 8.79$) on an 11-point Likert scale. Attitude towards individuals with disability indicated that participants held positive attitudes as they generally disagreed with the discomfort in social interaction items ($M = 8.37; SD = 2.69$). Lower scores on these items indicated more favorable attitudes.

Table 5

Types of Individual Contacts with Individuals with Disabilities

<table>
<thead>
<tr>
<th>Description of Relationship</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family member</td>
<td>62</td>
<td>57.9</td>
</tr>
<tr>
<td>Friend</td>
<td>46</td>
<td>43.0</td>
</tr>
<tr>
<td>Coworker</td>
<td>32</td>
<td>29.9</td>
</tr>
<tr>
<td>Neighbor</td>
<td>23</td>
<td>21.5</td>
</tr>
<tr>
<td>Teacher/Professor</td>
<td>15</td>
<td>14.0</td>
</tr>
<tr>
<td>Other</td>
<td>10</td>
<td>9.3</td>
</tr>
<tr>
<td>Counselor</td>
<td>6</td>
<td>5.6</td>
</tr>
<tr>
<td>Other health care provider</td>
<td>5</td>
<td>4.7</td>
</tr>
<tr>
<td>Romantic Partner</td>
<td>4</td>
<td>3.7</td>
</tr>
<tr>
<td>Supervisor/Boss</td>
<td>2</td>
<td>1.9</td>
</tr>
</tbody>
</table>

Note. % = Percent. Other types of contacts written in included students, families in the community, and the family member of a friend.
Statistical Analysis

Research Question One: Scope of School Counselor Engagement

Descriptive statistics were used to examine the scope of school counselor engagement with students with disabilities on 13 school counseling activities. These activities were: (a) advocate in the school; (b) advocate in the community; (c) assist in planning for transitions to careers or to post-secondary educational opportunities; (d) assist with the establishment and implementation of IEP’s; (e) counsel parents and families; (f) make referrals to other appropriate specialists when necessary (i.e. school psychologists, physical therapists, special education staff, etc…); (g) provide school counseling curriculum lessons within the scope of the comprehensive school counseling program; (h) provide feedback on the social and academic performance to the multidisciplinary team; (i) provide individual counseling; (j) provide group counseling; (k) serve as a consultant to parents on the characteristics and special needs of students; (l) serve as a consultant to staff on the characteristics and special needs of students, (m) serve on the multidisciplinary team to identify and provide services. Table 6 provides the frequencies and percent of the participants who indicated that they had engaged with students with disabilities in the corresponding 13 school counseling activities in the last 30 days. Eight of the activities (advocate in the school, provide individual counseling, assist in planning for transitions, counsel parents and families, providing feedback to multidisciplinary team, making referrals, serving on a multidisciplinary team, and assisting with IEP’s) were completed by more than seventy percent of participants. Advocating for students with disabilities in the school (92.5%) and providing individual counseling (91.6%) demonstrated the highest frequencies; whereas, advocating in the community (31.8%) and providing group counseling (19.6%) displayed the least.
Table 6

*Frequencies and Percentages of School Counselors Who Reported Engaging in Each Individual School Counseling Activity in the Last 30 Days*

<table>
<thead>
<tr>
<th>Activity</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advocate in the school</td>
<td>99</td>
<td>92.5</td>
</tr>
<tr>
<td>Provide individual counseling</td>
<td>98</td>
<td>91.6</td>
</tr>
<tr>
<td>Assist in planning for transitions to careers or to post-secondary educational opportunities</td>
<td>93</td>
<td>84.5</td>
</tr>
<tr>
<td>Counsel parents and families</td>
<td>90</td>
<td>84.1</td>
</tr>
<tr>
<td>Provide feedback on the social and academic performance to multidisciplinary team</td>
<td>85</td>
<td>79.4</td>
</tr>
<tr>
<td>Make referrals to other appropriate specialists when necessary (i.e. school psychologists, physical therapists, special education staff, etc...)</td>
<td>81</td>
<td>75.7</td>
</tr>
<tr>
<td>Serve on the multidisciplinary team to identify and provide services</td>
<td>75</td>
<td>70.1</td>
</tr>
<tr>
<td>Assist with the establishment and implementation of IEP’s</td>
<td>75</td>
<td>70.1</td>
</tr>
<tr>
<td>Provide school counseling curriculum lessons with the scope of the comprehensive school counseling program</td>
<td>61</td>
<td>57.0</td>
</tr>
<tr>
<td>Serve as a consultant to school staff on the characteristics and special needs of students</td>
<td>54</td>
<td>50.5</td>
</tr>
<tr>
<td>Serve as a consultant to parents on the characteristics and special needs of students</td>
<td>48</td>
<td>44.9</td>
</tr>
<tr>
<td>Advocate in the community</td>
<td>35</td>
<td>31.8</td>
</tr>
<tr>
<td>Provide group counseling</td>
<td>21</td>
<td>19.6</td>
</tr>
</tbody>
</table>

*Note.* % = Percent. SD = Standard Deviation
Table 7 represents those participants who first answered “yes” as to whether or not they engaged in the school counseling activity, and then indicated the number of times they actually engaged in the activities with students with disabilities over the last 30 days. Activities that demonstrated the highest number of occurrences included advocating in the school ($M = 12.97$, $SD = 17.26$), planning for transitions to careers or post-secondary educational opportunities ($M = 11.54$, $SD = 19.63$), and providing individual counseling ($M = 11.73$, $SD = 15.15$). Advocating in the community ($M = 5.67$, $SD = 5.50$) was again one of the two lowest completed activities. However, the activity that was reported to have occurred the least number of times was making referrals to other appropriate specialists when necessary ($M = 3.79$, $SD = 4.73$). Interestingly, making referrals ($n = 81$) and counseling families ($n = 90$) were among the highest reported activities being completed by participants; however, they ranked among the lowest activities for the number of times being completed. All of the activities displayed high standard deviations, signifying sizeable variation in the distribution of the data. Providing school counseling curriculum lessons, and counseling parents and families demonstrated the highest variation in mean number of occurrences, $SD = 22.48$ and $SD = 66.67$, respectively.
Table 7

*School Counselors Who Identified Completing School Counseling Related Activities and the Mean Frequencies and Standard Deviations of Occurrences in Last 30 Days Each Activity was Completed*

<table>
<thead>
<tr>
<th>Activity</th>
<th>n = Responded Yes</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advocate in the school</td>
<td>99</td>
<td>12.97</td>
<td>17.26</td>
</tr>
<tr>
<td>Provide individual counseling</td>
<td>98</td>
<td>11.73</td>
<td>15.15</td>
</tr>
<tr>
<td>Assist in planning for transitions to careers or to post-secondary educational opportunities</td>
<td>92</td>
<td>11.54</td>
<td>19.63</td>
</tr>
<tr>
<td>Provide school counseling curriculum lessons with the scope of the comprehensive school counseling program</td>
<td>61</td>
<td>10.90</td>
<td>22.48</td>
</tr>
<tr>
<td>Serve as a consultant to school staff on the characteristics and special needs of students</td>
<td>54</td>
<td>10.11</td>
<td>19.27</td>
</tr>
<tr>
<td>Serve as a consultant to parents on the characteristics and special needs of students</td>
<td>48</td>
<td>9.98</td>
<td>17.90</td>
</tr>
<tr>
<td>Provide feedback on the social and academic performance to multidisciplinary team</td>
<td>85</td>
<td>9.05</td>
<td>17.80</td>
</tr>
<tr>
<td>Assist with the establishment and implementation of IEP’s</td>
<td>75</td>
<td>7.96</td>
<td>9.33</td>
</tr>
<tr>
<td>Serve on the multidisciplinary team to identify and provide services</td>
<td>75</td>
<td>7.95</td>
<td>11.33</td>
</tr>
<tr>
<td>Counsel parents and families</td>
<td>90</td>
<td>6.67</td>
<td>66.67</td>
</tr>
<tr>
<td>Provide group counseling</td>
<td>21</td>
<td>6.14</td>
<td>8.78</td>
</tr>
<tr>
<td>Advocate in the community</td>
<td>33</td>
<td>5.67</td>
<td>5.50</td>
</tr>
<tr>
<td>Make referrals to other appropriate specialists when necessary (i.e. school psychologists, physical therapists, special education staff, etc...)</td>
<td>81</td>
<td>3.79</td>
<td>4.73</td>
</tr>
</tbody>
</table>

*Note. SD = Standard Deviation*
Research Question Two: Path Analysis of Engagement with Students with Disabilities

A path analysis was conducted to examine the direct and indirect effects between the predictor variables (caseload, quality of contact with individuals with disabilities, overall attitude towards individuals with disabilities, graduate education that included topics of disability, feelings of preparedness to engage students with disabilities, and cognitive complexity) and the scope of school counselor engagement with students with disabilities. In path analysis, a conceptual model of relationships between a set of observed variables is proposed and then evaluated to determine appropriate model fit. Scope of school counselor engagement was created by summing all of the “yes” responses to whether a participant engaged in that activity in the last 30 days. A Pearson correlation matrix for all 13 school counseling activities is provided in Table 8.

The school counseling activities demonstrate mainly low to moderate correlations. Individual counseling and advocacy in the school demonstrated a strong correlation ($r = .426, p < .01$). Being an advocate in the school for students with disabilities can take many forms, and as the primary education and training for school counselors is in counseling, it is reasonable to see high correlations between the two activities. Serving on a multidisciplinary team was highly correlated with assisting in IEP ($r = .465, p < .01$), and providing feedback on social and academic performance to the multidisciplinary team ($r = .526, p < .01$). Each of these activities require school counselors to engage as active members of a team within the school, thus, high correlations are expected among these variables. Lastly, serving as a consultant to the family on the characteristics and special needs of students was highly correlated with serving to school staff as a consultant in the same manner ($r = .555, p < .01$). These activities serve very similar
purposes, although the target audiences are different; therefore, correlations among consultant activities are logical.

The correlation matrix for the six predictor variables and school counselor scope of engagement (dependent variable) are presented in Table 9. This provides a simple display of the level and direct of the associations between all the variables. Low correlations among variables indicate that all variables measure distinct constructs. Overall feelings of preparedness to engage students with disabilities was significantly correlated with quality of contact with individuals with disabilities ($r = .232, p < .05$). Moderate correlations were demonstrated between scope of engagement and disability caseload ($r = .332, p < .01$), quality of contact ($r = .328, p < .05$), overall preparedness ($r = .303, p < .01$), and cognitive complexity ($r = .243, p < .05$). In other words, these correlations communicate positive associations between disability caseload, quality of contact, overall feelings of preparedness, and cognitive complexity, with the dependent variable scope of engagement.
### Pearson Correlation Matrix for School Counseling Activities

<table>
<thead>
<tr>
<th>Activities</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. AdvSch</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2. AdvCom</td>
<td>.190</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>3. AsstTrans</td>
<td>.295**</td>
<td>.095</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>4. AsstIEP</td>
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<td>.171</td>
<td>.089</td>
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</tr>
<tr>
<td>5. CounFam</td>
<td>.362**</td>
<td>.235*</td>
<td>.266**</td>
<td>.219*</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. MadeRef</td>
<td>.253**</td>
<td>.237*</td>
<td>.211*</td>
<td>.201*</td>
<td>.350**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. ProFeback</td>
<td>.383**</td>
<td>.290**</td>
<td>.261**</td>
<td>.324**</td>
<td>.285**</td>
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<td>8. IndvCoun</td>
<td>.426**</td>
<td>.129</td>
<td>.169</td>
<td>.023</td>
<td>.329**</td>
<td>.299**</td>
<td>.179</td>
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<td>9. GrpCoun</td>
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<td>.281**</td>
<td>.132</td>
<td>.169</td>
<td>.086</td>
<td>.170</td>
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<td>10. ProCurric</td>
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<td>.023</td>
<td>.149</td>
<td>.074</td>
<td>.151</td>
<td>.141</td>
<td>.134</td>
<td>.218*</td>
<td>.260**</td>
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<td></td>
</tr>
<tr>
<td>11. ConsultFam</td>
<td>.256**</td>
<td>.293**</td>
<td>.094</td>
<td>.302**</td>
<td>.341**</td>
<td>.292**</td>
<td>.273**</td>
<td>.138</td>
<td>.264**</td>
<td>.064</td>
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<td>12. ConsultSch</td>
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<td>.257**</td>
<td>.031</td>
<td>.333**</td>
<td>.234*</td>
<td>.180</td>
<td>.236*</td>
<td>.104</td>
<td>.301**</td>
<td>.044</td>
<td>.555**</td>
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<td></td>
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<td>13. MulTeam</td>
<td>.202*</td>
<td>.171</td>
<td>.148</td>
<td>.465**</td>
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<td>.106</td>
<td>.526**</td>
<td>.096</td>
<td>.117</td>
<td>.074</td>
<td>.302**</td>
<td>.169</td>
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</tr>
</tbody>
</table>

*Note. AdvSch = Advocate in the school; IndvCoun = Provide individual counseling; AsstTrans = Assist in planning for transitions to careers or to post-secondary educational opportunities; ProCurric = Provide school counseling curriculum lessons with the scope of the comprehensive school counseling program; ConsultSch = Serve as a consultant to school staff on the characteristics and special needs of students; ConsultFam = Serve as a consultant to parents on the characteristics and special needs of students; ProFeback = Provide feedback on the social and academic performance to multidisciplinary team; AsstIEP = Assist with the establishment and implementation of IEP’s; MulTeam = Serve on the multidisciplinary team to identify and provide services; CounFam = Counsel parents and families; GrpCoun = Provide group counseling; AdvCom = Advocate in the community; MadeRef = Make referrals to other appropriate specialists when necessary (i.e. school psychologists, physical therapists, special education staff, etc...).

***p < 0.001. **= p < .01. *= p < .05.
Table 9

*Correlation Matrix for Predictor Variables*

<table>
<thead>
<tr>
<th>Predictor Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Graduate Education and Training</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Disability Caseload</td>
<td>.180</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Quality of Contact</td>
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<td>.157</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9.42</td>
<td>1.84</td>
</tr>
<tr>
<td>4. Attitude Towards Disability</td>
<td>-.09</td>
<td>-.173</td>
<td>-.180</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8.21</td>
<td>2.53</td>
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<tr>
<td>5. Overall Preparedness</td>
<td>.189</td>
<td>.105</td>
<td>.232*</td>
<td>.059</td>
<td></td>
<td></td>
<td></td>
<td>4.74</td>
<td>.70</td>
</tr>
<tr>
<td>6. Cognitive Complexity</td>
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<td>.001</td>
<td>.096</td>
<td>-.136</td>
<td>.182</td>
<td></td>
<td></td>
<td>29.89</td>
<td>10.88</td>
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<tr>
<td>7. Scope of Engagement</td>
<td>.138</td>
<td>.332**</td>
<td>.328*</td>
<td>-.174</td>
<td>.303**</td>
<td>.243*</td>
<td></td>
<td>8.69</td>
<td>2.65</td>
</tr>
</tbody>
</table>

*Note.** = p < .01; * = p < .05*
When using path analysis, it is recommended that researchers consult multiple goodness of fit indices in order to make sound judgments regarding model fit (Crowley & Fan, 1997; Kline, 2016). Kline (2016) specifically recommended (a) model chi-square with degrees of freedom and significance level, (b) Steiger-Lind Root Mean Square Error of Approximation (RMSEA), and (c) the Comparative Fit Index (CFI), as fit indices. Generally, non-significant chi-square, RMSEA < .05, and CFI > .90, signify adequate model fit (Crowley & Fan, 1997; Kline, 2016). The standardized path coefficients in path analysis are equal to the Beta weights ($\beta$) one calculates in multiple regression. Standardized path coefficients are interpreted as units of standard deviation; whereby, a standard deviation increase in one independent variable will result in an increase of ($\beta$) on the corresponding dependent variable (Keith, 2006). The first model examined was the Conceptual Model (see Figure 2). This is a saturated model, meaning all possible parameters are free to be estimated, and leaving zero degrees of freedom. Error terms (also called disturbances) are paired with each endogenous variable in path models to represent outside influences in variable measurement (Kline, 2016).

First, the conceptual path model was entered into AMOS 23.0, and fit statistics were generated to test the model’s appropriateness. In just-identified (saturated) models the model perfectly fits the data; therefore, the observed covariance is equal to its predicted equivalent (Kline, 2016). As a result, the chi-square and $p$ value are equal to zero. See Table 10 for the standardized direct effects, Table 11 for the standardized indirect effects, and Table 12 for the standardized total effects.
Direct paths from disability caseload to scope of school counselor engagement was strong and significant ($\beta = .262, p < .01$), meaning school counselors with larger caseloads engaged students with disabilities in more activities. The path from quality of contact to feelings of preparedness was strong and significant ($\beta = .224, p < .05$), indicating that school counselors who rated their quality of contact with individual’s disabilities higher also felt more prepared to engage with students with disabilities. Quality of contact also demonstrated a strong direct effect to scope of engagement ($\beta = .208; p < .05$), indicating that school counselors who rated the
quality of their contact with individuals with disabilities higher also engaged students with disabilities in more activities. Lastly, the direct path from cognitive complexity to scope was moderate and significant ($\beta = .175; p < .05$). This means that school counselors with higher cognitive complexity were also likely to engage students with disabilities in more activities. Graduate education and training in disability indirectly effected scope through feelings of preparedness and scope, as well as through feelings of prepared to cognitive complexity to scope.

Table 10

*Standardized Direct Effects of Conceptual Model*

<table>
<thead>
<tr>
<th></th>
<th>ProfEd</th>
<th>DisCase</th>
<th>Quality</th>
<th>Attitude</th>
<th>PrepOver</th>
<th>CCTotal</th>
</tr>
</thead>
<tbody>
<tr>
<td>DisCase</td>
<td>.180</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality</td>
<td>.097</td>
<td>.139</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude</td>
<td>.039</td>
<td>-.155</td>
<td>-.161</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PrepOver</td>
<td>.152</td>
<td>.062</td>
<td>.224*</td>
<td>.112</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CCTotal</td>
<td>.030</td>
<td>-.055</td>
<td>.031</td>
<td>-.150</td>
<td>.183*</td>
<td>.175*</td>
</tr>
<tr>
<td>ScScope</td>
<td>.017</td>
<td>.262**</td>
<td>.208*</td>
<td>-.078</td>
<td>.197*</td>
<td>.175*</td>
</tr>
</tbody>
</table>

*Note.* **= $p < .01$. *= $p < .05$.

Table 11

*Standardized Indirect Effects of Conceptual Model*

<table>
<thead>
<tr>
<th></th>
<th>ProfEd</th>
<th>DisCase</th>
<th>Quality</th>
<th>Attitude</th>
<th>PrepOver</th>
<th>CCTotal</th>
</tr>
</thead>
<tbody>
<tr>
<td>DisCase</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>Quality</td>
<td>.025</td>
<td></td>
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<tr>
<td>Attitude</td>
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<td>-.022</td>
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<tr>
<td>PrepOver</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>CCTotal</td>
<td>.030</td>
<td>.044</td>
<td>.062*</td>
<td>.020</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ScScope</td>
<td>.121*</td>
<td>.056</td>
<td>.069*</td>
<td>-.001</td>
<td>.032*</td>
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</tr>
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</table>

*Note.* **= $p < .01$. *= $p < .05$
Table 12

Standardized Total Effects of Conceptual Model

<table>
<thead>
<tr>
<th></th>
<th>ProfEd</th>
<th>DisCase</th>
<th>Quality</th>
<th>Attitude</th>
<th>PrepOver</th>
<th>CCTotal</th>
</tr>
</thead>
<tbody>
<tr>
<td>DisCase</td>
<td>.180</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality</td>
<td>.122</td>
<td>.139</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude</td>
<td>-.009</td>
<td>-.177</td>
<td>-.161</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>PrepOver</td>
<td>.189*</td>
<td>.073</td>
<td>.206*</td>
<td>.112</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CCTotal</td>
<td>.060</td>
<td>-.010</td>
<td>.093</td>
<td>-.130</td>
<td>.183*</td>
<td></td>
</tr>
<tr>
<td>ScScope</td>
<td>.138</td>
<td>.318**</td>
<td>.278**</td>
<td>-.079</td>
<td>.229*</td>
<td>.175*</td>
</tr>
</tbody>
</table>

Note. **= p < .01. *= p < .05

In path analysis, model trimming occurs when a more complicated model is simplified by eliminating paths that were previously free parameters. The goal of model trimming is to identify a model that best meets the criteria set forth within appropriate goodness of fit indices and demonstrates a stable covariance structure (Kline, 2016). Following these guidelines, paths from graduate education to scope of engagement ($\beta = .017, p = .862$), graduate education to cognitive complexity ($\beta = .030, p = .794$), and quality of contact to cognitive complexity ($\beta = .031, p = .842$) were deleted as they were demonstrated the lowest standardized regression weights and the lowest statistical significance. The re-specified structural model (Model B) is shown in Figure 3 with standardized path coefficients, squared multiple correlations, and statistically significant paths. The Chi-square test was non-significant ($x^2[3] = .247, p = .970$), RMSEA = .00, and the CFI was 1.00, highlighting a strong goodness of fit.
After evaluating the pathways in Model B, more substantial model trimming occurred. During the second round of model trimming, all non-significant pathways were deleted. The final structural model (Model C) is shown in Figure 4 with standardized path coefficients and squared multiple correlation for the dependent variable. Note that during model trimming, the quality of contact variable became exogenous as no variables are leading into it. In structural equation modeling, the causes of exogenous variables are not specified; therefore, these variables are said to be free to vary and covary (Kline, 2016). This relationship is represented in structural
equation modeling, and in the final model in this study, as double-sided arrow connects the two exogenous variables—ProfEd and Quality.

The Chi-square test was again statistically non-significant ($\chi^2[10] = 7.452, p = .682$), RMSEA = .00, and the CFI was 1.00, indicating a strong goodness of fit and the model was more parsimonious than the previous two models. A chi-square difference test was calculated for Model B and Model C and no significant difference was found. Thus, the more parsimonious model was accepted, Model C (Brown, 2015, Keith, 2006). Table 13 provides a summary for each of the three models. The table includes the goodness of fit indices for the Conceptual Model (Model A), Re-specified Model (Model B), and the Final structural model (Model C). The standardized direct, indirect, and total effects of Model will be discussed next.

Table 13

*Goodness of Fit of the Three Models Tested*

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>$p$</th>
<th>RMSEA</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conceptual Model A</td>
<td>0</td>
<td>0</td>
<td>.000</td>
<td>.000</td>
<td>1.000</td>
</tr>
<tr>
<td>Re-specified Model B</td>
<td>.247</td>
<td>3</td>
<td>.970</td>
<td>.000</td>
<td>1.000</td>
</tr>
<tr>
<td>Final Model C</td>
<td>7.452</td>
<td>10</td>
<td>.682</td>
<td>.000</td>
<td>1.000</td>
</tr>
</tbody>
</table>

*Note. $\chi^2$ = Chi-square; df = degrees of freedom; $p$ = probability level; RMSEA = Root Mean Square Error of Approximation; CFI = Comparative Fit Index.*

Indirect effects were calculated in Amos using bootstrapping. See Table 14 for the standardized direct effects and Table 15 for the standardized indirect effects, and Table 16 for the standardized total effects of the Final Model. The predictor variables (graduate education, caseload, quality of contact, attitude towards individuals with disabilities, feelings of
preparedness, and cognitive complexity) accounted for 25% of the variance of school counselor scope of engagement in school counseling activities. See Figure 3 for the Final Structural Model C.

Figure 4. Final Model C

![Diagram showing the relationships between Quality, PrepOver, DisCase, ProfEd, Attitude, ScScope, and CCTotal with arrows indicating the strength and direction of the relationships.]

*Figure 4. Goodness of fit indices: RMSEA = .00, CFI = 1.00*
Table 14

**Standardized Direct Effects for Final Model C**

<table>
<thead>
<tr>
<th></th>
<th>Quality</th>
<th>ProfEd</th>
<th>PrepOver</th>
<th>Attitude</th>
<th>CCTotal</th>
<th>DisCase</th>
</tr>
</thead>
<tbody>
<tr>
<td>PrepOver</td>
<td>.212*</td>
<td>.164</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude</td>
<td>-.180</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CCTotal</td>
<td></td>
<td></td>
<td></td>
<td>.190**</td>
<td>-.147</td>
<td></td>
</tr>
<tr>
<td>DisCase</td>
<td>.180</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ScScope</td>
<td>.226**</td>
<td></td>
<td>.190*</td>
<td></td>
<td>.190*</td>
<td>.281**</td>
</tr>
</tbody>
</table>

*Note.* **= p < .01. *= p < .05

Table 15

**Standardized Indirect Effects for Final Model C**

<table>
<thead>
<tr>
<th></th>
<th>Quality</th>
<th>ProfEd</th>
<th>PrepOver</th>
<th>Attitude</th>
<th>CCTotal</th>
<th>DisCase</th>
</tr>
</thead>
<tbody>
<tr>
<td>PrepOver</td>
<td>.067*</td>
<td>.031*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CCTotal</td>
<td>.053*</td>
<td>.088*</td>
<td>.036**</td>
<td></td>
<td></td>
<td>-.028</td>
</tr>
<tr>
<td>DisCase</td>
<td>.180</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ScScope</td>
<td>.279**</td>
<td>.088*</td>
<td>.226*</td>
<td>-.028</td>
<td>.190*</td>
<td>.281**</td>
</tr>
</tbody>
</table>

*Note.* **= p < .01. *= p < .05

Table 16

**Standardized Total Effects for Final Model C**

<table>
<thead>
<tr>
<th></th>
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<th>ProfEd</th>
<th>PrepOver</th>
<th>Attitude</th>
<th>CCTotal</th>
<th>DisCase</th>
</tr>
</thead>
<tbody>
<tr>
<td>PrepOver</td>
<td>.212*</td>
<td>.164</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude</td>
<td>-.180</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CCTotal</td>
<td>.067*</td>
<td>.031*</td>
<td>.190**</td>
<td>-.147</td>
<td></td>
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<tr>
<td>DisCase</td>
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<tr>
<td>ScScope</td>
<td>.279**</td>
<td>.088*</td>
<td>.226*</td>
<td>-.028</td>
<td>.190*</td>
<td>.281**</td>
</tr>
</tbody>
</table>

*Note.* **= p < .01. *= p < .05

Quality of contact had strong significant direct effects on preparedness (β = .212, p < .05) and scope of engagement (β = .226, p < .01). School counselors who rated the quality of their relationships with individuals with disabilities more positively also demonstrated higher feelings of preparedness to engage with students with disabilities, as well as demonstrating more actual
engagement with students. Future studies may want to investigate the temporal/causality of these relationships. Number of students with disabilities on a school counselor’s caseload displayed a strong significant direct effect on scope of engagement ($\beta = .281, p < .01$). Thus, number of students with disabilities on caseload was a strong predictor of engagement in activities. Overall feelings of preparedness demonstrated moderate significant direct effects on cognitive complexity ($\beta = .190, p < .01$) and scope of engagement ($\beta = .120, p < .05$). As feelings of preparedness increased within school counselors, total cognitive complexity also increased. Additionally, school counselors who reported greater feelings of preparedness engaged in more activities with students with disabilities. Cognitive complexity demonstrated a moderate significant direct effect on scope of engagement as well ($\beta = .190, p < .05$). School counselors with high cognitive complexity engaged students with disabilities in more school counseling related activities.

Although not demonstrating a direct effect, graduate education and training in disability demonstrated small, but significant indirect effects on cognitive complexity ($\beta = .031, p < .05$) and scope of engagement ($\beta = .053, p < .05$). This means that graduate education indirectly influenced cognitive complexity through the feelings of preparedness. Additionally, graduate education influenced a school counselor’s engagement indirectly through feelings of preparedness and then to scope, as well as through feelings of preparedness, then cognitive complexity, then finally to scope. The impact of graduate education and training to the overall model is also highlighted through its significant total effects on cognitive complexity ($\beta = .046, p < .05$) and scope of engagement ($\beta = .088, p < .05$). Quality of contact also demonstrated significant indirect effects on cognitive complexity through feelings of preparedness ($\beta = .067, p < .05$), and scope via feelings of preparedness to scope and feelings of preparedness to
cognitive complexity to scope ($\beta = .053, p < .01$). Lastly, feelings of preparedness had an indirect effect on scope of engagement through cognitive complexity ($\beta = .036, p < .01$).

Quality of contact was a significant variable in the model overall, contributing significantly directly and indirectly to scope. Graduate education and training did not directly impact engagement; it did, however, demonstrate its importance to the model as an indirect influence. This indirect association suggests that graduate education and training in disability touches on a school counselor’s development at the emotional (feelings of preparedness) and cognitive (cognitive complexity) level, ultimately influencing their engagement with students with disabilities. Although disability caseload was the strongest direct influence of scope of engagement, this analysis demonstrated that graduate education and training in disability, quality of contact with individuals with disabilities, overall feelings of preparedness to engage students with disabilities, and total cognitive complexity, all evidence a significant role as well.

**Research Question Three: Dimensionality of School Counselor Engagement**

To examine the dimensionality of school counselor engagement with students with disabilities, an exploratory factor analysis was completed. In exploratory factor analysis, researchers are interested in theory development with regards to a specific phenomenon (Kiefer, 1999). The aim of exploratory factor analysis is to reduce a set of variables into a smaller set or underlying structure that might be present within a specific dataset (Crowley & Fan, 1997; Kiefer, 1999). The variables utilized to examine the dimensionality of school counselor engagement with students with disabilities were the 13 school counseling activities. These were: (a) advocate in the school; (b) advocate in the community; (c) assist in planning for transitions to careers or to post-secondary educational opportunities; (d) assist with the establishment and implementation of IEP’s; (e) counsel parents and families; (f) make referrals to other appropriate
specialists when necessary (i.e. school psychologists, physical therapists, special education staff, etc…); (g) provide school counseling curriculum lessons within the scope of the comprehensive school counseling program; (h) provide feedback on the social and academic performance to the multidisciplinary team; (i) provide individual counseling; (j) provide group counseling; (k) serve as a consultant to parents staff on the characteristics and special needs of students, (l) serve as a consultant to staff on the characteristics and special needs of students; and, (m) serve on the multidisciplinary team to identify and provide services.

Principal axis factor analysis with varimax rotation was conducted to assess the underlying structure of the 13 school counseling activities. The assumption of independent sampling was met, Kaiser-Meyer-Olkin (KMO) = .740. Greater than .70 indicates sufficient items for each factor (Leech, Barret, & Morgan, 2011). The assumptions of normality, linear relationships between pairs of variables, and the variables being correlated at a moderate level were checked. See Table 1 for correlation matrix of school counseling activities. Bartlett’s Test of Sphericity was significant (\(x^2 = 290.137, df = 78, p < .001\)). Generally, a statistically significant chi-square is a minimal requirement for performing factor analysis (Leech et al., 2011; Tinsely & Tinsely, 1987).

No minimum factors were requested, although coefficients smaller than \(|.30|\) were suppressed as factor loadings less than \(|.30|\) are regarded as low. Loadings of \(|.40|\) are considered moderate; loadings greater than \(|.50|\) are considered high (Brown, 2015; Leech et al., 2011). After rotation, four factors were identified. Factor 1 accounted for 24.14% of the variance, factor 2 accounted for 6.95%, factor 3 accounted for 6.82%, and factor 4 accounted for another 4.50%. The four factors accounted for 42.41 % of the variance. When determining the number of factors, Brown (2015) and Tinsely and Tinsely (1987) recommend the Kaiser-Guttman rule of retaining
eigenvalues > 1.00. Additionally, visual inspection of Cattell’s scree test can provide an additional measure for determining factor selection (Brown, 2015; Tinsely & Tinsely, 1987). The scree test visually plots the eigenvalues under the assumption that as the slope of the line reaches zero, the factors remaining to the right will represent error variance as opposed to unique factors.

Utilizing both methods of factor selection allows for identifying a factor model that balances parsimony and theoretical plausibility (Clemens, Carey, & Harrington, 2010). As such, eigenvalues and the scree test were examined to determine model factors. Eigenvalues for the four factor solution were 3.68, 1.48, 1.26, and 1.05, and visual inspection of the scree plot identified three to four factors (see Figure 5). Because the scree plot can be interpreted differently across researchers, it is important to make decisions regarding the number of factors utilizing both indices. In this case, Factor 4 does breach the eigenvalue > 1.0 cutoff; however, the scree test displayed the slope approaching zero between factor 3 and 4, suggesting a potential final factor solution of 3.
Table 17 displays the items, factor loadings, eigenvalues, and percent variance for the rotated factors of the initial EFA. The first factor, which appears to index advocacy and counseling in the school demonstrated strong loadings on all items. The second factor, consultation in the school, had two strong loadings (greater than .70). The third factor, teamwork in the school, demonstrated three strong loadings. Although the fourth factor had a strong loading (.860), it was comprised of only a single item.
Table 17

*Initial Exploratory Factor Loadings for the Rotated Factors for School Counseling Activities*

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advocate in the school</td>
<td>.588</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide individual counseling</td>
<td>.584</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Counsel parents and families</td>
<td>.545</td>
<td>.304</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make referrals to other appropriate specialists when necessary (i.e. school psychologists, physical therapists, special education staff, etc...)</td>
<td>.463</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assist in planning for transitions to careers or to post-secondary educational opportunities</td>
<td>.403</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide school counseling curriculum lessons with the scope of the comprehensive school counseling program</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serve as a consultant to school staff on the characteristics and special needs of students</td>
<td></td>
<td>.715</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serve as a consultant to parents on the characteristics and special needs of students</td>
<td></td>
<td></td>
<td>.704</td>
<td></td>
</tr>
<tr>
<td>Advocate in the community</td>
<td></td>
<td></td>
<td>.326</td>
<td></td>
</tr>
<tr>
<td>Serve on the multidisciplinary team to identify and provide services</td>
<td></td>
<td></td>
<td></td>
<td>.833</td>
</tr>
<tr>
<td>Provide feedback on the social and academic performance to multidisciplinary team</td>
<td></td>
<td>.395</td>
<td>.566</td>
<td></td>
</tr>
<tr>
<td>Assist with the establishment and implementation of IEP’s</td>
<td></td>
<td></td>
<td>.324</td>
<td>.475</td>
</tr>
<tr>
<td>Provide group counseling</td>
<td></td>
<td></td>
<td></td>
<td>.860</td>
</tr>
<tr>
<td>Eigenvalues</td>
<td>3.68</td>
<td>1.48</td>
<td>1.26</td>
<td>1.05</td>
</tr>
<tr>
<td>Percent Variance</td>
<td>24.14</td>
<td>6.95</td>
<td>6.82</td>
<td>4.50</td>
</tr>
</tbody>
</table>

*Note. Loading < .30 are omitted*
For specification, several rules of thumb can be applied. One may consider eliminating poorly defined or poorly behaved factors by removing factors with minimal loadings, items with small loadings, high loading items on multiple factors, or small loadings on all factors (Brown, 2015). In this case, and to assume the most parsimonious factor solution, the variable ProCurric (providing school counseling curriculum lessons within the scope of the comprehensive school counseling program) was further examined as it did not meet the > .30 cut off. Cronbach’s alpha was calculated with corresponding alpha calculations if scale item deleted. From this analysis, the variable ProCurric was identified as contributing the most to scale reliability increase if it was deleted ($\alpha = .771$ to $\alpha = .779$). Thus, the ProCurric item was deleted due to not meeting the sufficient loading requirements of $|.30|$, and contributing the most to reliability increase. The EFA was rerun with the remaining 12 school counseling activities.

Principal axis factor analysis with varimax rotation was again conducted to assess the dimensionality of the remaining 12 school counseling activities. Again, no minimum factors were requested, and a minimum factor loading of $|.30|$ was selected. The assumption of independent sampling was met, Kaiser-Meyer-Olkin (KMO) = .740. Bartlett’s Test of Sphericity was significant($x^2 = 276.731, df = 66, p < .001$). Three factors explained 38% of the variance and 100% of the common variance. Although total variance decreased from 42% to 38%, the percent contribution of each factor increased. Factor 1 accounted for 13.62%, factor 2 accounted for 13.28%, and factor 3 accounted for 11.77% of the variance. Only three factors had eigenvalues greater than 1, and visual inspection of the scree plot confirmed a three factor solution. Table 18 displays the final factor solution with corresponding eigenvalues and percent variance accounted for by each factor.
Table 18

*Exploratory Factor Analysis Final Factor Loadings for the Rotated Factors for School Counseling Activities*

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advocate in the school</td>
<td>.590</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide individual counseling</td>
<td>.577</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Counsel parents and families</td>
<td>.532</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make referrals to other appropriate specialists when necessary (i.e. school psychologists, physical therapists, special education staff, etc...)</td>
<td>.473</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assist in planning for transitions to careers or to post-secondary educational opportunities</td>
<td>.408</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serve as a consultant to school staff on the characteristics and special needs of students</td>
<td>.751</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serve as a consultant to parents on the characteristics and special needs of students</td>
<td>.671</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide group counseling</td>
<td>.383</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advocate in the community</td>
<td>.351</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serve on the multidisciplinary team to identify and provide services</td>
<td></td>
<td>.826</td>
<td></td>
</tr>
<tr>
<td>Provide feedback on the social and academic performance to multidisciplinary team</td>
<td>.401</td>
<td>.568</td>
<td></td>
</tr>
<tr>
<td>Assist with the establishment and implementation of IEP’s</td>
<td></td>
<td>.324</td>
<td>.484</td>
</tr>
<tr>
<td>Eigenvalues</td>
<td>3.62</td>
<td>1.42</td>
<td>1.24</td>
</tr>
<tr>
<td>Percent Variance</td>
<td>13.62</td>
<td>13.28</td>
<td>11.77</td>
</tr>
</tbody>
</table>

*Note.* Loading < .30 are omitted
Factor loadings ranged from .351 to .826, demonstrating moderate to high loadings across all dimensions. Factor 1 included 5 items that appeared to index activities surrounding advocacy and counseling in the school. With 4 items, factor 2 appeared to index activities surrounding consultation in the school. Lastly, factor 3 contained 3 items that indexed activities surrounding engagement in multidisciplinary teamwork in the school. The dimensionality of school counselor engagement activities, therefore, appears to be represented across three dimensions—advocacy, consultation, and teamwork in the school. See Table 19 for the means and standard deviations of the sum of the engagement factors as well as the individual activities that comprise each factor. This table displays the central tendencies for the number of times each individual activity occurred, as well as central tendencies for the sum of each group of activities that make up each factor.
Table 19

*Means and Standard Deviations of Summed Activities of Each Factor and Individual Activities within Each Factor*

<table>
<thead>
<tr>
<th>Item</th>
<th>( M )</th>
<th>( SD )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advocate and Counselor in the School Model</td>
<td>41.93</td>
<td>42.52</td>
</tr>
<tr>
<td>Advocate in the school</td>
<td>12.23</td>
<td>17.03</td>
</tr>
<tr>
<td>Provide individual counseling</td>
<td>19.95</td>
<td>14.93</td>
</tr>
<tr>
<td>Counsel parents and families</td>
<td>5.71</td>
<td>6.60</td>
</tr>
<tr>
<td>Make referrals to other appropriate specialists when necessary</td>
<td>2.92</td>
<td>4.45</td>
</tr>
<tr>
<td>(i.e. school psychologists, physical therapists, special education staff, etc...)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assist in planning for transitions to careers</td>
<td>10.11</td>
<td>18.76</td>
</tr>
<tr>
<td>or to post-secondary educational opportunities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consultation in the School Model</td>
<td>18.69</td>
<td>24.77</td>
</tr>
<tr>
<td>Serve as a consultant to school staff on the characteristics</td>
<td>5.17</td>
<td>14.68</td>
</tr>
<tr>
<td>and special needs of students</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serve as a consultant to parents on the characteristics and special needs of students</td>
<td>4.56</td>
<td>13.03</td>
</tr>
<tr>
<td>Provide group counseling</td>
<td>1.23</td>
<td>4.58</td>
</tr>
<tr>
<td>Advocate in the community</td>
<td>1.78</td>
<td>4.04</td>
</tr>
<tr>
<td>Teamwork in the School Model</td>
<td>12.74</td>
<td>26.34</td>
</tr>
<tr>
<td>Serve on the multidisciplinary team to identify and provide services</td>
<td>5.68</td>
<td>10.21</td>
</tr>
<tr>
<td>Provide feedback on the social and academic performance to multidisciplinary team</td>
<td>7.32</td>
<td>16.39</td>
</tr>
<tr>
<td>Assist with the establishment and implementation of IEP’s</td>
<td>5.69</td>
<td>8.66</td>
</tr>
</tbody>
</table>
Research Question Four: Path Analysis of Frequency of School Counselor Engagement

In order to examine the direct and indirect effects between the predictor variables (caseload, quality of contact with individuals with disabilities, overall attitude towards individuals with disabilities, graduate education, feelings of preparedness to engage students with disabilities, and cognitive complexity) with the frequency of school counselor engagement, the three dimensions (advocate in the school, consultation in the school, and teamwork in the school) served as three unique dependent variables. New variables were computed to form the frequency of engagement variables for each unique dimension. The total number of occurrences for each activity that comprised each of the three dimensions was summed. For example, for the teamwork variable, of the individuals who responded “yes” to engaging in (a) serving on a multidisciplinary team, (b) providing feedback on performance to the multidisciplinary team, and (c) assisting with the establishment of IEPS, the total frequency to which they completed the activity in the last 30 days were summed together to form a single composite score. This composite score then represented the frequency of school counselor engagement with students with disabilities for the “teamwork in the school” dependent variable. This process was done for each of the remaining two dimensional variables—advocate in the school and consultant in the school. Three different path analyses were conducted, one for each engagement dimensional variable to examine the direct and indirect effects of the predictor variables. Final Model C was used for each analysis with each dimensional variable (advocate, consultation, and teamwork) individually utilized as the dependent variables.

Advocate and Counselor in the School Model. The first model examined was the Advocate and Counselor in the School Model. The Chi-square test was statistically non-significant ($\chi^2[10] = 11.513, p = .319$), RMSEA = .038, and the CFI was .966, indicating a
strong goodness of fit. The squared multiple correlation for frequency of advocacy in the school activities was .25. This means that 25% of the variance of Advocate and Counselor in the School activities was explained by the predictor variables (see Figure 6). See Table 20 for the standardized direct effects, Table 21 for the standardized indirect effects, and Table 22 for the standardized total effects of the Advocate and Counselor in the School Model.

Figure 6. Advocate and Counselor in the School Model

Figure 6. Goodness of fit indices, RMSEA = .038, and the CFI was .966
Table 20

**Standardized Direct Effects for Advocate and Counselor in the School Model**

<table>
<thead>
<tr>
<th></th>
<th>Quality</th>
<th>ProfEd</th>
<th>PrepOver</th>
<th>Attitude</th>
<th>CCTotal</th>
<th>DisCase</th>
</tr>
</thead>
<tbody>
<tr>
<td>PrepOver</td>
<td>.193*</td>
<td>.169</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude</td>
<td></td>
<td>-.153</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CCTotal</td>
<td>.197**</td>
<td>-.159</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DisCase</td>
<td></td>
<td>.170</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advocate</td>
<td>.089</td>
<td>.135</td>
<td>.106</td>
<td>.443**</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. **= p < .01. *= p < .05*

Table 21

**Standardized Indirect Effects for Advocate and Counselor in the School Model**

<table>
<thead>
<tr>
<th></th>
<th>Quality</th>
<th>ProfEd</th>
<th>PrepOver</th>
<th>Attitude</th>
<th>CCTotal</th>
<th>DisCase</th>
</tr>
</thead>
<tbody>
<tr>
<td>PrepOver</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.062**</td>
<td>.033*</td>
</tr>
<tr>
<td>Attitude</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.033</td>
<td>.021</td>
</tr>
<tr>
<td>CCTotal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.197**</td>
<td>-.159</td>
</tr>
<tr>
<td>DisCase</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.170</td>
<td>-.017</td>
</tr>
<tr>
<td>Advocate</td>
<td>.033</td>
<td>.102*</td>
<td>.021</td>
<td>-.017</td>
<td>.106</td>
<td>.443**</td>
</tr>
</tbody>
</table>

*Note. **= p < .01. *= p < .05*

Table 22

**Standardized Total Effects for Advocate and Counselor in the School Model**

<table>
<thead>
<tr>
<th></th>
<th>Quality</th>
<th>ProfEd</th>
<th>PrepOver</th>
<th>Attitude</th>
<th>CCTotal</th>
<th>DisCase</th>
</tr>
</thead>
<tbody>
<tr>
<td>PrepOver</td>
<td>.193*</td>
<td>.169</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude</td>
<td></td>
<td>-.153</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CCTotal</td>
<td>.062**</td>
<td>.033*</td>
<td>.197**</td>
<td>-.159</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DisCase</td>
<td></td>
<td>.170</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advocate</td>
<td>.122</td>
<td>.102*</td>
<td>.156</td>
<td>-.017</td>
<td>.106</td>
<td>.443**</td>
</tr>
</tbody>
</table>

*Note. **= p < .01. *= p < .05*

Quality of contact had significant direct effect on feelings of preparedness ($\beta = .193, p < .05$). This means that of the school counselors who engaged in advocate and counselor in the school activities, those who rated quality of contact with individuals with disabilities higher also reported greater feelings of preparedness. Feelings of preparedness had a significant direct effect
on cognitive complexity ($\beta = .197, p < .05$). Of this group of school counselors, higher feelings of preparedness to engage students with disabilities also contributed to higher cognitive complexity. The strongest predictor on frequency of engaging in advocate and counselor in the school activities was disability caseload ($\beta = .442, p < .01$).

Similar to Model C, graduate education and training displayed significant indirect effects on cognitive complexity through preparedness ($\beta = .033, p < .05$), as well as to advocate and counselor in the school activities through preparedness and cognitive complexity ($\beta = .102, p < .05$). The indirect effects of graduate education on cognitive complexity and frequency of engagement in the activities is also displayed by viewing the standardized total effects of the variable pairs in Table 22. Again, this highlights the role of completing graduate education and training in disability may have in the frequency of engagement of school counselors with students with disabilities. Quality of contact also had an indirect effect on cognitive complexity through preparedness ($\beta = .062, p < .05$). Unlike Model C, cognitive complexity did not demonstrate any significant pathways to the criterion.

**Consultant in the School Model.** The second model examined was the Consultation in the School Model. The Chi-square test was statistically non-significant ($\chi^2[10] = 5.100, p = .884$), RMSEA = .00, and the CFI was 1.00, indicating a strong goodness of fit. Sixteen percent of the variance of frequency of Consultation in the School activities was explained by the predictor variables as indicated by the square multiple correlation (.16). Table 23 displays the standardized direct effects, and Table 25 displays the standardized total effects. Within this model, only Disability caseload demonstrated a strong significant direct and total effect on frequency of engaging in consultation activities with students with disabilities ($\beta = .376, p < .01$). Examining standardized indirect effects in Table 24, none of the predictor variables
demonstrated significant indirect effects towards the frequency of consultative activities, or
towards other predictor variables.

Table 23

*Standardized Direct Effects of Consultation in the School Model*

<table>
<thead>
<tr>
<th></th>
<th>Quality</th>
<th>ProfEd</th>
<th>PrepOver</th>
<th>Attitude</th>
<th>CCTotal</th>
<th>DisCase</th>
</tr>
</thead>
<tbody>
<tr>
<td>PrepOver</td>
<td>.161</td>
<td>.123</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude</td>
<td>.021</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CCTotal</td>
<td></td>
<td>.126</td>
<td>-.146</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DisCase</td>
<td></td>
<td>.220</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consult</td>
<td>.037</td>
<td>.029</td>
<td>.102</td>
<td>.376**</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.** = p < .01.*

Table 24

*Standardized Indirect Effects of Consultation in the School Model*

<table>
<thead>
<tr>
<th></th>
<th>Quality</th>
<th>ProfEd</th>
<th>PrepOver</th>
<th>Attitude</th>
<th>CCTotal</th>
<th>DisCase</th>
</tr>
</thead>
<tbody>
<tr>
<td>PrepOver</td>
<td>.017</td>
<td>.016</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude</td>
<td>.006</td>
<td>.088</td>
<td>.013</td>
<td>-.015</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 25

*Standardized Total Effects of Consultation in the School Model*

<table>
<thead>
<tr>
<th></th>
<th>Quality</th>
<th>ProfEd</th>
<th>PrepOver</th>
<th>Attitude</th>
<th>CCTotal</th>
<th>DisCase</th>
</tr>
</thead>
<tbody>
<tr>
<td>PrepOver</td>
<td>.161</td>
<td>.123</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude</td>
<td>.021</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CCTotal</td>
<td>.017</td>
<td>.016</td>
<td>.126</td>
<td>-.146</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DisCase</td>
<td></td>
<td>.220</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consult</td>
<td>.044</td>
<td>.088</td>
<td>.042</td>
<td>-.015</td>
<td>.102</td>
<td>.376**</td>
</tr>
</tbody>
</table>

*Note.** = p < .01.*
**Teamwork in the School Model.** The final model examined was the Teamwork in the School Model. The Chi-square test was statistically non-significant ($\chi^2[10] = 9.000, p = .532$), RMSEA = .00, and the CFI was 1.00, indicating an appropriate goodness of fit. With a squared multiple correlation of .07, the predictor variables explained the least amount of variance with regards to the frequency of teamwork in the school activities (7%).

The standardized direct effects for frequency of engaging in teamwork activities are displayed in Table 26. Similar to the Advocacy in the School and the Consultation in the School models, Disability caseload demonstrated to be a significant predictor of the frequency of engaging in teamwork activities ($\beta = .218, p < .05$). Thus, as the number of students with disabilities on a school counselor’s caseload increased, as did their frequency of engagement in teamwork activities with students with disabilities. Overall feelings of preparedness also demonstrated a significant direct effect on cognitive complexity ($\beta = .182, p < .05$), meaning that for the individuals who engaged in teamwork activities, those who felt more prepared to engage students with disabilities also demonstrated higher cognitive complexity.

Table 26

*Standardized Direct Effects of Teamwork in the School Model*

<table>
<thead>
<tr>
<th></th>
<th>Quality</th>
<th>ProfEd</th>
<th>PrepOver</th>
<th>Attitude</th>
<th>CCTotal</th>
<th>DisCase</th>
</tr>
</thead>
<tbody>
<tr>
<td>PrepOver</td>
<td>.145</td>
<td>.149</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude</td>
<td>-.091</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CCTotal</td>
<td></td>
<td></td>
<td>.182*</td>
<td>-.156</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DisCase</td>
<td></td>
<td>.188</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team</td>
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<td>.045</td>
<td>-.007</td>
<td>.218*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* $*= p < .05$
Table 27

**Standardized Indirect Effects of Teamwork in the School Model**

<table>
<thead>
<tr>
<th></th>
<th>Quality</th>
<th>ProfEd</th>
<th>PrepOver</th>
<th>Attitude</th>
<th>CCTotal</th>
<th>DisCase</th>
</tr>
</thead>
<tbody>
<tr>
<td>PrepOver</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude</td>
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<td>.027</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CCTotal</td>
<td>.006</td>
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<td>-.001</td>
<td>.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DisCase</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 28

**Standardized Total Effects of Teamwork in the School Model**

<table>
<thead>
<tr>
<th></th>
<th>Quality</th>
<th>ProfEd</th>
<th>PrepOver</th>
<th>Attitude</th>
<th>CCTotal</th>
<th>DisCase</th>
</tr>
</thead>
<tbody>
<tr>
<td>PrepOver</td>
<td>.145</td>
<td>.149</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude</td>
<td>-.091</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CCTotal</td>
<td>.040</td>
<td>.027</td>
<td>.182*</td>
<td>-.156</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DisCase</td>
<td>.188</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Team</td>
<td>.148</td>
<td>.048</td>
<td>.044</td>
<td>.001</td>
<td>-.007</td>
<td>.218*</td>
</tr>
</tbody>
</table>

*Note.* *= p < .05

To summarize the models that utilized the dimensionality categories of school counselor engagement with students with disabilities (Advocate and Counselor in the School, Consultation in the School, and Teamwork in the School), Table 29 provides the chi-square, goodness of fit indices, and squared multiple correlations. All of the three models examined met the goodness of fit indexes, suggesting an appropriate model fit to the data; however, the squared multiple correlations highlight clear differences in the amount of variance explained by the predictor variables. The predictor variables explained the most variance for the Advocate and Counselor in the School model (25%) when compared against both the Consultation in the School model (16%) and Teamwork in the School model (7%). This highlights that there may be differences in the role of the predictor variables across the school counseling activities. Most importantly, much of the variance is left unaccounted for across all models examined in this analysis.
Table 29

*Summary of Advocate and Counselor, Consultation, and Teamwork in the School Models*

<table>
<thead>
<tr>
<th>Model</th>
<th>$x^2$</th>
<th>df</th>
<th>$p$</th>
<th>RMSEA</th>
<th>CFI</th>
<th>SMC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advocate and Counselor in the School</td>
<td>11.513</td>
<td>10</td>
<td>.319</td>
<td>.038</td>
<td>.966</td>
<td>.25</td>
</tr>
<tr>
<td>Consultation in the School</td>
<td>5.100</td>
<td>10</td>
<td>.884</td>
<td>.000</td>
<td>1.00</td>
<td>.16</td>
</tr>
<tr>
<td>Teamwork in the School</td>
<td>9.000</td>
<td>10</td>
<td>.532</td>
<td>.000</td>
<td>1.00</td>
<td>.07</td>
</tr>
</tbody>
</table>

*Note. $x^2$ = Chi-square; $df$ = degrees of freedom; $p$ = probability level; RMSEA = Root Mean Square Error of Approximation; CFI = Comparative Fit Index; SMC = Squared Multiple Correlation.*

**Conclusion**

The focus of this study was to explore the general scope of school counselor engagement with students with disabilities, and examine the influence of six variables (graduate education, disability caseload, quality of contact, attitudes towards individuals with disabilities, feelings of preparedness, and cognitive complexity) on school counselor engagement. Participants for this study represented four distinct geographical regions of the U.S. (Midwest, Northeast, South, and West) totaling 37 different states. The majority of participants were from suburban settings, worked in public schools, female, Caucasian, and did not self-identify with a disability. The school counseling activities that were recognized as occurring the most frequently were advocating in the school, providing individual counseling, assisting in planning for transitions to careers or post-secondary options, counseling parents and families. Advocating in the community and providing group counseling were the two activities that were engaged in the least by school counselors.

After two rounds of evaluation and model trimming, Final Model C accounted for 25% of the variance of school counselor scope of engagement, and was the most parsimonious in the
path analysis. Disability caseload had the strongest direct effect on scope of engagement; however, quality of contact, feelings of preparedness, and cognitive complexity also demonstrated significant direct effects, albeit less than caseload. Graduate education and training did not display significant direct effects; however, it did demonstrate significant indirect effects on scope of engagement through feelings of preparedness and cognitive complexity. This finding highlights that education and training with foci in disability impacts future engagement.

An EFA identified three factors, Advocate and Counselor in the School, Consultant in the School, and Teamwork in the School, accounting for 38% of the variance. Three final path analyses were run using each of the factors as the frequency of engagement dependent variable. Advocate and Counselor in the School accounted for the most variance (25%), followed by Consultant in the school (16%), then Teamwork in the school (7%). The number of students with disabilities on a school counselor’s caseload appeared to be the most consistent predictor of the frequency of their engagement with students with disabilities.
Chapter V

Discussion

School counselors play a crucial role in lives of students with disabilities (Owens et al., 2011; Studer & Quigney, 2005); however, school counselor educators have identified a resounding need for school counselors to be better prepared to provide students with disabilities the services they need (Lofaro, 1982; Milsom, 2006; Milsom & Akos, 2003; Myers, 2005; Romano et al., 2009; Scarborough & Deck, 1998). Professional standards for school counselors call for school counselors to engage students with disabilities (ASCA, 2004; ASCA, 2005; ASCA, 2013); however, this has not been reflected in the recent professional literature. Students with disabilities experience social and academic challenges such as peer rejection (Bruce et al., 1996), negative school experiences (Milsom, 2006; Reis & Colbert, 2004), low self-esteem (Arman 2002; Leichtentritt & Shechtman, 2010; Pearl & Bay, 1999; Reis & Colbert, 2004), and disability harassment (Holzbauer, 2004). Unfortunately, these negative school experiences may obstruct pro-social development of students with disabilities in school settings. As such, school counselors are in a position as school leaders to ensure equal access, positive experiences, and the inclusion of all students to comprehensive school counseling programming (ASCA, 2005; Carpenter et al., 1998; Myers, 2005; Milsom, 2006; Reis & Colbert, 2004).

The purpose of this study was twofold. First, it was descriptive in order to understand the current scope of characteristics of professional school counselors surrounding disability education, professional development in areas of disability, quality of contact with individuals with disabilities, attitudes towards individuals with disabilities, feelings of preparedness to engage students with disabilities, and school counselor cognitive complexity. Gathering descriptive statistics from a national sample provides a snapshot of current professional practices.
of school counselors regarding their training and engagement with students with disabilities.
Second, this study was exploratory as it explored the direct, indirect, and total effects between a
set of independent predictor variables of school counselors, with their engagement, and the
frequency of their engagements with students with disabilities. Exploring how these variables
influence each other, as well as engagement with students with disabilities, can provide insight
into what specific characteristics and/or training experiences are important to ensure students
with disabilities receives adequate services. Furthermore, examining the web of direct and
indirect effects, and identifying the most parsimonious model for engagement, can provide
counselor educators with necessary data to inform future counselor education curriculum.

**Summary of Overall Respondent Demographics, Engagement, and Cognitive Complexity**

After data cleaning and checks for univariate and multivariate normality, the final sample
for this study was \( n = 107 \). Generalizing one’s data to the greater population of interest is the
goal of any researcher. Thus, comparing one’s demographics of the final sample to the general
population can provide insight into the nature of the fit. According to the Bureau of Labor
Statistics, as of 2014, there are 273,000 professional school counselors in the U.S. Unfortunately,
there is no dataset available that can reflect the true demographic outlook of the field of
professional school counselors; however, the College Board conducted a national survey of
school counselors in 2011 and 2012 that can be used to contextualize the demographic makeup
of this study. Over 8000 school counselors were surveyed by the College Board between 2011
and 2012 (College Board, 2011; College Board, 2012). College Board (2012) described that over
the two-year period, data with regards to national demographics changed very little.

The current study and the one completed by the College Board displayed nearly identical
gender ratios (3:1 female to male) and age ranges, 21-67 for current study and 25-65 by the
College Board. Race/Ethnicity make-up in the current study was predominately Caucasian (86%), followed by Hispanic (4.7%), and Black (3.7%). Thus, the current study was less representative of the Hispanic and Black school counselor populations. Comparatively, the College Board’s sample was described as Caucasian (77%), Hispanic/Latino (13%), and Black (10%). Eighty percent of the current study’s participants worked in a public school setting, and 10% identified working in a private school; both of these metrics are consistent with the comparative sample population. In both studies, over 83% of school counselors held a state school counseling credential. Average caseload for school counselors for this study (316) was lower than that identified by the College Board (352). Total number of students with disabilities on caseload ranged from 0 to 150 with a mean of 43.5, lower than the mean of 60.42 demonstrated by Torrence (2012). The majority of participants in the current study in this study were employed in suburban school settings (47%), followed by rural (34%), and urban (14%). Of the 107 participants, $n = 93$ (87%) self-identified as not having a disabilities; whereas, $n = 11$ (10%) did self-identify as having a disability. In summary, the demographics of the sample from the current study are comparable with the national survey of school counselors completed by the College Board. This provides credibility to the generalizability of the findings of the current study to a national sample of professional school counselors.

Fifty-eight percent of school counselors in the present study reported completing courses specifically focusing on students with disabilities during their graduate training, and 66% completed courses that included disability information in addition to course content. These data are similar to that found by Dunn and Baker (2002) when 61% of 168 elementary school counselors in North Carolina stated they completed coursework focused on disability. The completion rate of courses in disability in the current study is also higher than the 43% ($n = 59$)
of counseling program coordinators in 42 states that required disability courses in their program (Milsom & Akos, 2003). Although the findings of Dunn and Baker (2002) and Milsom and Akos (2003) are thirteen years old, covering a significant gap in time, the findings of the current study demonstrate a consistently upward trend in the availability and completion of graduate coursework in disability by school counselors.

Eighty-two percent of participants \( (n = 88) \) reported attending a school-sponsored in-service workshop on topics of disability, aligning closely to the 81.3% of school counselors who reported attending school sponsored in-service training on special education in the previous five years found by Studer and Quigney (2005). Twenty-five percent \( (n = 35) \) of school counseling program coordinators surveyed by Milsom and Akos (2003) stated the practical experiences in their programs were required to include opportunities to engage individuals with disabilities. Seventy percent \( (n = 75) \) of participants in the current study completed a practical experience with students with disabilities during practicum/internship, highlighting that more school counseling programs are including greater opportunities for emerging counselors to engage individuals with disabilities.

Range of mean scores of school counselor feelings of preparedness to engage students with disabilities was higher \( (4.35-5.22) \) than those observed by Milsom (2002) \( (3.59-4.54) \), indicating an increase in the recent years in the baseline feelings of preparedness for the individual school counseling activities. These differences may reflect current trends or sample differences. On the question asking participants to self-identify on their overall feelings of preparedness to engage students with disabilities, the range of school counselors in the present study \( (M = 4.75, SD = .71) \), was slightly higher than the feelings of preparedness found by both Milsom (2002) \( (M = 4.20, SD = .87) \) and Torrance (2012) \( (M = 4.68, SD = .76) \). Again this
demonstrates that as time passes, school counselors’ overall feelings of preparedness continues to increase. This may be attributed to increased inclusion of disability or special education courses in counselor education curriculum or required opportunities for engaging individuals with disabilities in practical experiences. Similarly, sampling differences could also contribute to differences in preparedness findings.

The current study was the first to examine counseling specific cognitive complexity among professional school counselors. Welfare and Borders (2010a) utilized the CCQ to explore domain specific cognitive complexity among counseling students and post-master’s counselors. Participants’ CCQ differentiation scores in the current study were lower \( (M = 16.72) \) than those reported by Welfare and Borders (2010a) \( (M = 22.03) \). However, current participants demonstrated greater CCQ integration scores \( (M = 12.96) \) than Welfare and Borders \( (M = 9.88) \). In a post-hoc analysis, Welfare and Borders found post-master degree participants had significantly higher integration scores than counselors-in-training; thus, the finding in the current study of professional school counselors having higher integration scores supports the finding of Welfare and Borders as professional school counselors have completed graduate training.

**Review of Research Questions and Hypotheses**

This study examined the engagement of school counselors with students with disabilities through four distinct research questions. Research question 1 posited, “what is the scope of school counselor engagement with students with disabilities?” The purpose of this question was to provide a general understanding for the current practice of professional school counselors with students with disabilities. Descriptive statistics of the frequency of school counselor engagement with students with disabilities on 13 school counseling activities were reported. Research question 2 asked, “what are the direct and indirect effects between a set of predictor variables
(caseload of students with disabilities, reported quality of contact with individuals with disabilities, overall attitude towards individuals with disabilities, graduate education, feelings of preparedness to engage students with disabilities, and cognitive complexity) and the reported scope of school counselor engagement with students with disabilities?” It was hypothesized that the predictor variables would demonstrate significant direct and indirect effects to the criterion variable—scope of school counselor engagement with students with disabilities. Scope of engagement was calculated based on whether participants answered “yes” to having engaged students with disabilities in each of the 13 individual activities.

Research question 3 asked, “what is the dimensionality of school counselor engagement with students with disabilities?” The purpose of this question was to explore the presence of underlying constructs within the 13 school counseling activities. The final research question was “what are the direct and indirect effects between the predictor variables (caseload, quality of contact with individuals with disabilities, overall attitude towards individuals with disabilities, graduate education, feelings of preparedness to engage students with disabilities, and cognitive complexity) with the frequency of school counselor engagement in specific categories of school counselor engagement with students with disabilities?” This question was identical to research question two except for how the dependent variables were defined. Research question 4 examined the direct and indirect effects of the predictor variables on the frequency of the school counseling activities; whereas, research question two examined the effects on whether or not the activities occurred.

**Discussion of Major Findings**

**Scope of School Counselor Engagement with Students with Disabilities**
Eight of the 13 explored school counseling activities were completed by more than seventy percent of participants. The activities that demonstrated the highest completion were advocating for students with disabilities in the school (92.5%), providing individual counseling (91.6%), and assisting with transition planning to careers or post-secondary educational opportunities (84.5%). In Milsom’s (2002) study, the three activities with the highest frequencies were individual/group counseling, service on a multidisciplinary team, and making referrals to school specialists. Nichter and Edmonson (2005) also found individual counseling with students with disabilities to be one of the most frequently completed activities. Studer and Quigney (2005) found individual counseling and career counseling to be two training foci with the highest-ranking frequency in pre-service trainings by school counselors. Advocating in the community (31.8%) and providing group counseling (19.6%) were at the bottom of the frequency of completion list in the current study.

In order to collect more detailed data, the current study separated Milsom’s (2002) items of providing individual/group counseling, advocating in the school/community, and service as a consultant to parents/staff, into separate items. As per ASCA, this was done to further specify the counseling, advocating, and consultation activities. Even after this separation, service as a consultant to parents (45.5%) and school staff (51.8%) remained fairly stable with Milsom’s 55.6% when it was combined. However, the disparities in the frequencies of group counseling and advocacy in the community in the current study with Milsom’s suggests the data in Milsom’s study may have been overcompensated by frequencies of higher individual counseling and advocacy in the school occurrences, with students with disabilities.

A worrisome finding in school counselor scope of engagement was that of group work with students with disabilities was the least frequently engaged activity. Group work with this
population has been found to assuage teasing and bullying (Reis & Colbert, 2004), promote respect of differences among peers (Milsom, 2006), and increase peer-to-peer interactions (Hayes, 2001; Mishna et al., 2010; Myers, 2005; Leichtentritt & Shechtman, 2010). The school counselor literature provides models for engaging students with disabilities in groups (Hatch et al., 2009; McEachern & Kenny, 2007; McWhirter & McWhirter, 1996; Milsom et al., 2004; Mishna et al., 2010; Pocock et al., 2002); however, the current study reiterates the finding that group counseling is the least frequently performed activity by school counselors with students with disabilities (Nichter & Edmonson, 2005). Steen, Bauman, and Smith (2008) found that 87% of 802 school counselors in ASCA indicated that they conducted groups. Convergent with the current study’s parameters, Steen et al. did not confine respondents to the last 30 days, nor did they specify if the groups conducted included students with disabilities. What was evident was the disparity between the finding of Steen et al. which communicated group work was overwhelmingly conducted by school counselors, and the current study, whereby group counseling with students with disabilities was unequivocally low.

The disparity between the frequency of individual counseling and group counseling completed by school counselors with students with disabilities might be grounded in the group work training received by school counselors during their graduate programs. Outside of group work course, it may be that emerging school counselors do not have the same opportunities to engage in group counseling with students with disabilities during their practical experiences. The study did not compare the frequency of groups completed by counselors with students with and without disabilities; thus, it is unknown at this point in time if group work was lower with all student populations, or if it is specific to groups with students with disabilities.
The finding that advocating in the school was the highest frequented activity by school counselors with students with disabilities reflects the literature highlighting the need for school counselors to be advocates for students with disabilities (Bruce et al., 1996; Erhard & Umanksy, 2005; Milsom, 2007; Mitcham et al., 2009; Newmeyer & Newmeyer, 2004). Although no specific tasks qualified the advocacy activity, 92% of school counselor participants reported engaging in activities they felt were categorized as advocating for students with disabilities. Trusty and Brown (2005) asserted “advocacy cuts across multiple school counseling roles, occurs on multiple levels, and is conceptualized broadly” (p. 259); therefore, it makes sense that much of the work of school counselors is advocacy.

The Advocacy Competencies for Professional School Counselors, ASCA Ethical Standards, ASCA Position Statements, and ASCA Student Standards outline the roles of professional school counselor to be advocates as they meet the needs of all students (ASCA, 2004; ASCA, 2010; ASCA 2013; Trusty & Brown, 2005). Thus, it is possible that school counselors have begun to view their work primarily as that of advocates for their students, as reflected in their professional discourse. The finding in the current study that the most frequented activity by school counselors with students with disabilities was that of being an advocate in the school supports Erhard and Umanksy’s (2005) expectation that school counselor’s roles as helpers will shift to roles of proactive leaders and advocates.

**Indicators of School Counselor Engagement with Students with Disabilities**

The initial path analysis explored the direct and indirect effects between caseload, quality of contact with individuals with disabilities, overall attitude towards individuals with disabilities, graduate education that included topics of disability, feelings of preparedness to engage students with disabilities, and cognitive complexity, and the scope of school counselor engagement with
students with disabilities. Three path models were run, and each underwent model trimming and chi-square difference testing to identify the most parsimonious model. The Final Model C demonstrated strong significant direct effects from disability caseload, quality of contact with individuals with disabilities, overall feelings of preparedness, and cognitive complexity on scope of engagement.

School counselors with more students with disabilities on their caseloads may be more aware of the needs of these students as they make up more of their overall caseloads than those school counselors with fewer students with disabilities represented in their caseloads. Increased numbers of students with disabilities on a caseload may also indicate that there is an overall population of students with disabilities at that school, thus it is possible that these schools may have more resources in place to accommodate these students in school counseling programming.

Quality of contact with individuals with disabilities also demonstrated a significant direct effect, highlighting those school counselors who rated their previous experiences with individuals with disabilities more positively, engaged students in more activities. Barr and Bracchitta (2012) and McManus et al. (2010) similarly found quality of contact to be an important factor of how individuals feel towards individuals with disabilities. School counselors who self-reported more positive engagements with individuals with disabilities may feel more comfortable in social interactions with an individual with disability, and as a result, seek out more opportunities. This could also be viewed in the current study as higher rates of quality of contact strongly predicted a school counselor’s overall feelings of preparedness to engage students with disabilities. This suggests that viewing the quality of one’s contact with an individual with a disability might impact school counselors at the emotional (feelings of preparedness) and behavioral (engagement in activities) levels with students with disabilities.
One explanation might be that experiencing a contact as more positive may lead to changes in a school counselor’s general perspective of disability or attitudes, leading to higher feelings of preparedness and actual engagement in activities. Although quality of contact has been strongly associated with attitudes (Page & Islam, 2015), the two variables did not demonstrate a relationship in the current model. Quality of contact also significantly influenced cognitive complexity and scope of engagement indirectly. As school counselors view their interactions with individuals with disabilities more positively, it could potentially shift a previous worldview. This shift may lead to greater acceptance of different student population, broaden conceptualization abilities, and lead to greater abilities in differentiating and integrating a wider set of student characteristics. A thorough examination of the school counseling literature pertaining to the impact of quality of contact with individuals with disabilities yielded no results; therefore, there is a need for work in this area.

The current study found that school counselors with higher cognitive complexity also engaged students with disabilities in more school counseling related activities. One potential reason for this that aligns with prior research is that individuals with higher cognitive complexity were more open to multiple perspectives, unlike individuals with lower cognitive complexity who were not (Harvey et al., 1961). For example, school counselors with lower cognitive complexity may be fixed in their conceptualizations of students with disabilities and the types of activities or methods of engagement the students could be open to. On the other hand, school counselors with higher cognitive complexity may be aware of the stereotyped negative/limiting conceptualizations of students with disabilities, but may not be rigid in their thinking that that is the only conceptualization; thus welcoming multiple views of how they perceive others.

Previous findings also suggest that individuals with higher cognitive complexity
demonstrated fewer negative thoughts about their clients (Borders & Fong, 1989), evidenced unbiased clinical judgments towards their clients (Holloway & Wolleat, 1980; Spengler & Strohmer, 1994; Walker & Spengler, 1995), tolerated ambiguity (Holloway & Wampold, 1986; McAuliffe & Lovell, 2006) and managed complex client affect (Kimberlin & Friesen, 1980; McAuliffe & Lovell, 2006). Aside from the aforementioned possibilities, it could be that school counselors with higher cognitive complexity were more flexible in their engagement and/or interventions in order to include more students with disabilities. It is also possible that individuals with higher cognitive complexity were more creative in their approaches and/or more likely to think more broadly as to how to ensure the needs of students with disabilities were met. Therefore, the significant finding of cognitive complexity on scope of engagement supports the integration of pedagogies that promote cognitive development in counselor education programs. Counselor educators have long called for such pedagogies to be integrated into training programs (Choate & Granello, 2006; Duys & Hedstrom, 2000; Goldberg, 1974; Granello & Underfer-Babalis, 2004; Hillerbrand, 1989; Lambie et al., 2011; Lovell, 1999; Lutwak & Hennessey, 1982; Sias et al., 2006; Welfare & Borders, 2010a). Choate and Granello (2006) proposed an integrated advising model that transforms the role of advisor from a clerical role to one that promotes cognitive development in advisees by engaging in advising methods that are developmentally focused. Participation in basic counseling skills course enhanced cognitive complexity of students; thus, Duys and Hedstrom (2000) advocated for (a) students to complete such skills courses early in their graduate program and (b) for counselor educators to infuse more experiential activities that utilize clinical skills into more courses. Granello and Underfer-Babalis (2004) provided counselor educators with a method of structuring supervision of group work utilizing Bloom’s Taxonomy as a method of enhancing cognitive complexity. As the current
study demonstrated the direct impact of cognitive complexity of school counselor engagement on scope of school counselor activities, it confirms this necessity for counselor education programs.

Overall feelings of preparedness significantly predicted scope of engagement; thus, school counselors who felt more prepared to engage students with disabilities actually engaged them in more variety of activities. This finding answers Milsom’s (2002) call by connecting a school counselor’s feelings of preparedness to engage students with disabilities in activities with their actual performance. In Milsom’s study, school counselors felt more prepared to engage students with disabilities when they had more education and professional training on disability/special education topics; however, this relationship was not supported in the current study.

Previous studies have demonstrated that completion of coursework in special education and engagement with students with disabilities in practicum/internship have been predictors of having positive attitudes towards disabilities (Erhard & Umanksy, 2005; Isaacs et al., 1998); however, the relationship between coursework and attitudes was not significant in the current study. Erhard and Umanksy (2005) sampled school counselors in Israel and Isaacs et al. (1998) sampled elementary school counselors from Florida; thus, sampling differences may be one way of understanding the differences in the current national sample of secondary school counselors. Additionally how attitudes of school counselors was capture varied in each study; therefore, instrumentation may have been a factor in observed differences in variable relationships. Erhard and Umanksy (2005) also recognized that completion of special education courses contributed the most to predicting school counselor collaboration with teachers and involvement with students with disabilities. Although education and training in disability/special education courses did not directly impact school counselor engagement with students with disabilities, or any other
variables, education and training significantly influenced scope indirectly through feelings of preparedness and cognitive complexity. The present study demonstrated that education and training influenced school counselor engagement indirectly by increasing their feelings of preparedness and cognitive complexity. One reason for this could be that education and training positively influences school counselor emotional and cognitive development pertaining to individuals with disabilities, which then leads to their later professional enactment. The quality and duration of the education in the current study was unknown; therefore, it is possible that quality, rather than sheer number of completed experiences, contributes more significantly to feelings of preparedness, cognitive complexity, and/or to scope of engagement directly.

**Dimensionality of School Counseling Activities**

The dimensionality of school counselor engagement with students with disabilities was examined through exploratory factor analysis (EFA) to determine latent constructs of the 13 school counseling activities. After the initial rotation, four factors were identified that accounted for 42% of the variance. Upon examination of the factor loadings, one item, “provide school counseling curriculum lessons with the scope of the comprehensive school counseling program” did not load because it did not meet the > .30 factor loading cutoff. Cronbach’s Alpha was calculated with corresponding alpha calculations if scale item deleted to examine scale reliability. It was determined that deletion of this item would contribute to an increase in scale reliability; thus, this item was deleted and another EFA was run.

After the second analysis and factor rotation, three factors were identified and accounted for 38% of the total variance, a slight decrease from the initial analysis; however, more concise factors were identified. The first factor was named “Advocate and Counselor in the School” because in examining the activities included on this factor, it is clear these activities revolve
around serving as an advocate and counselor for the students and/or families. By making referrals to specialists and assisting in transition planning, school counselors are advocating on behalf of a student with disability to ensure they have access to needed resources, as well as supports for education or employment in post-secondary. In providing individual and family counseling, school counselors serve as advocates by supporting the psychosocial developmental needs of their students and their families. School counselors have been identified as both agents of change (Humes, 1974) and social justice advocates (Ratts et al., 2007; Trusty & Brown, 2005). Furthermore, Ratts et al. (2007) stated that in order for school counselors to improve educational outcomes for all students, social justice advocacy was a necessity. This dimension supported this role.

Janson, Miller, and Rainey (2007) utilized Q methodology to explore pre-service school counselors’ attitudes towards working with students with disabilities. The cluster termed Advocate for systemic change, the strongest of three opinion groupings of the participants, accounted for 52% of the variance. School counselor advocacy was described as engaging in collaborative partnerships with school professionals, and advocating for students with disabilities by assisting to shift the perspective of the school community towards being strengths based. This factor in Janson et al. (2007) acknowledges and supports the advocacy role of school counselors in the school, as well as provides school counseling activities that most correlate within that dimension.

The second dimension on the EFA included four items, namely service as a consultant to school staff on the characteristics and special needs of students, service as a consultant to parents on the characteristics and special needs of students, providing group counseling, and advocacy in the community. Collectively named “Consultant in the School,” these items encompass activities
whereby school counselors engage with members of the school and local community in a consultative role. Philips and Ridley (1996), Quigney and Studer, (1998), and Scarborough and Deck (1998) spotlighted the importance of school counselors serving as consultants to parents, teachers, and administrators in order to raise the awareness and sensitivities of the needs of students with disabilities. Developing collaborative and consultative partnerships with special education teachers (Deck et al., 1999; Myers, 2005; Tarver-Behring et al, 1998) and parents and families (Bowen & Glenn, 1998; Durodoye et al., 2004; Myers, 2005; Quigney & Studer, 1998) have been identified as crucial relationships for school counselors to cultivate in order to meet the needs of students with disabilities, thus supporting the consultant in the school dimension identified in the current study.

Providing group counseling loaded on this factor, which warrants discussion as it would have been assumed to be included within the first factor which included individual and family counseling. One explanation for group counseling being included on this factor is that school counselors engage in group counseling with students with disabilities when specific needs are presented. For example, Arman (2002), Mishna et al. (2010), and Pocock et al. (2002) provided psychoeducational models that can be used in school settings to increase the social, behavioral, and self-advocacy skills of students with disabilities. It is possible that the work of school counselors in these situations could be considered acting as consultants for students as they are serving more in a teaching role to students. An examination of the functions of serving as a consultant to school staff on the characteristics and special needs of students, serving as a consultant to parents on the characteristics and special needs of students, and advocating in the community, might suggest that the action of “consulting” is that of teaching. Thus, by consulting with parents and staff on the characteristics and special needs of the students, school counselors
are serving as educators on the needs of students with disabilities. Continuing with advocating in the community, school counselors are advocating the community on the needs of students with disabilities by educating the community on the needs of this student population. Viewing the functions of the activities within the “Consultant in the School” dimension from a teaching perspective, providing group counseling to students with disabilities is an appropriate fit. A simpler possibility could be that school counselors collaborate with other school personnel (i.e. teachers, staff, interns, school counselors) during group experiences and therefore identify it as such.

The final dimension, “Teamwork in the School” included three activities. These activities included serve on the multidisciplinary team to identify and provide services, provide feedback on the social and academic performance to multidisciplinary team, and assist with the establishment and implementation of IEP’s. Geltner and Leibforth (2008) stated school counselors are critical team members as they provide a strengths-based perspectives in IEP meetings. Akos and Galassi (2004) and Galassi and Akos (2004) recognized school counselor as developmental advocates. As developmental advocates and engaging from a strengths-based perspective, school counselors focus on promoting development through a proactive, rather than reactive approaches (Akos & Galassi, 2004; Galassi & Akos, 2004; Galassi, Griffin, & Akos, 2008). As such, attention to identifying strengths and bolstering assets are the foci (Akos & Galassi, 2004).

**Indicators of Frequency of School Counselor Engagement**

The direct and indirect effects between caseload, quality of contact with individuals with disabilities, overall attitude towards individuals with disabilities, graduate education that included topics of disability, feelings of preparedness to engage students with disabilities, and
cognitive complexity, with frequency of engagement were explored. Three separate models were run, each using the frequency of engagement for the school counseling activities that comprised the dimensions of a) Advocate and Counselor in the School, b) Consultant in the School, and c) Teamwork in the School. Of the three models, the predictor variables accounted for the most variance for the Advocate and Counselor in the School model (25%). One reason that the Advocate and Counselor in the School model accounted for more variance than the Consultant in the School and Teamwork in the School model may be that a different set of predictor variables are responsible for consultative and teamwork activities. It is possible that the predictor variables in the current study were more representative of advocacy and direct counseling skillsets in school counselor rather than skillset in consultation and/or teamwork.

In this study, the number of students with disabilities on the caseload of a school counselor significantly influenced the status of their engagement in activities with students with disabilities. The higher the number of students with disabilities on a caseload, the more likely a school counselor was to engage them in activities. Therefore, higher numbers of students with disabilities on school counselors’ caseloads demonstrated to be the strongest predictor, and only significant direct effect of frequency of engagement in advocacy activities. This was unlike Final Model C where feelings of preparedness, quality of contact, and cognitive complexity also displayed significant direct effects on the dependent variables. This may because these school counselors engaged all of their students, not just students with disabilities, at higher frequencies. Larger caseloads with students with disabilities may also be an indicator of school student population characteristic that included higher numbers of students with disabilities, thus more opportunities for those students as stated earlier. Therefore, of the school counselors who engaged in advocacy activities, number of students with disabilities on caseload alone was a
major influence in their engagement. The Advocate and Counselor in the School activities aligned with the most frequented activities and those recognized as most engaged in; thus, it is possible that the relationship among predictor variables for this model aligned closer to that of those of school counselor scope of engagement.

Higher ratings of quality of contact again was a significant predictor of overall feelings of preparedness, a pathway that was maintained from Final Model C. However, feelings of preparedness did not directly impact frequency of advocacy engagement. Greater feelings of preparedness did again significantly contribute to cognitive complexity; although, cognitive complexity did not have a direct effect on frequency of advocacy engagement. Education and training demonstrated significant indirect effects on cognitive complexity and frequency of advocacy activities, indicating that with more education and training experiences in disability/special education, school counselors also displayed higher levels of cognitive complexity and frequency of engagement in advocacy activities. Although not directly impacting engagement, these findings support previous findings discussed previously (i.e. Erhard and Umanksy, 2005), that more education and training does influence school counselors’ engagement with students with disabilities. Because of the indirect effect of education and training on cognitive complexity, this provides evidence that additional training impacts the cognitive development of school counselors. One explanation of this might be that school counselors are expanding their understanding and conceptualizations of students with disabilities by completing coursework on these topics. Additionally, school counselors may be adjusting their expectations of engaging this student population as a result of practical experiences in their training (i.e. practicum/internship), thus shaping their perspectives of the needs of students with disabilities and their ability to engage them in school programming.
The model Consultation in the School accounted for less overall variance (16%) as compared to Advocate and Counselor in the School; whereas, the Teamwork in the School model accounted for the least of the three (7%). School counselors with higher numbers of students with disabilities on their caseload had the strongest, and only, direct effect on frequency of engagement in consultative (β = .376, p < .01) and teamwork (β = .218, p < .05) activities. The number of students with disabilities on a school counselor’s caseload appears to be the most consistent predictor of the frequency of their engagement with students with disabilities. As stated prior, it may be that with more students included on a caseload, the needs of those students are more readily recognized. Another explanation may be that having higher numbers of students with disabilities on one’s caseload influences the school counselor’s perspective, drive, or motivation to engage with this student population; however, an exploration of these more latent personality traits of participants was beyond the scope of this study.

Another finding within the Teamwork in the School model was that school counselors who communicated higher overall feelings of preparedness also demonstrated higher cognitive complexity. This finding was also observed in Final Model C and Advocate and Counselor in the School models. This may be because as feelings of preparedness increase, school counselors may feel more competent in their work with students with disabilities. Thus, able to provide more detailed conceptualizations of students with disabilities they have engaged with, a task that is part of the cognitive complexity measure (CCQ).

**Summary of Major Findings**

School counselors in the current study identified advocating for students with disabilities, providing individual counseling, and assisting with transition planning as the three most engaged activities with students with disabilities. These findings were similar to previous research
examining the activities of school counselors with students with disabilities (Milsom, 2002; Nichter & Edmonson, 2005; Studer & Quigney, 2005). Group work with students with disabilities was identified as the least engaged activity in the current study. Although school counselors have communicated their engagement in group work (Steen et al., 2008), the finding of the current study supported Nichter and Edmonson (2005) that group work was the least frequented activity performed by school counselors with students with disabilities.

Disability caseload, quality of contact, overall feelings of preparedness, and cognitive complexity demonstrated significant direct effects on scope of engagement. This finding highlights the importance of integrating experiences in counselor education programs that enhance feelings of preparedness, cognitive complexity, and critical reflection of one’s quality of relationship with an individual with disability. Three factors, Advocate and Counselor in the School, Consultant in the School, and Teamwork in the School, accounted for 38% of the variance as identified by an EFA of the school counseling activities. Three final path analyses were run utilizing each of the three EFA dimensions to examine the frequency of school counselor engagement. From these analyses, number of students with disabilities on caseload consistently demonstrated to be the most significant indicator. These findings highlight that the relationship and influence of among predictor variables is different between the two dependent variables—engagement and frequency of those engagements.

**Implications for School Counselors and Counselor Educators**

School counselors and counselor educators have both called for better preparation of school counselors to engage students with disabilities (Lofaro, 1982; Milsom, 2006; Milsom & Akos, 2003; Myers, 2005; Owens et al., 2011; Scarborough & Deck, 1998). As the research in disability education and training of school counselors has slowed considerably over the last 10
years, this study provides some practical points to consider for the future practice of school counselors as well as to inform counselor education training programs. The findings of the current study bridge this gap and provide specific recommendations for counselor educators and professional school counselors to promote better practices for school counselors to engage students with disabilities.

**Counselor Education Programmatic Implications**

To begin, school counselors may benefit from being aware of how they view their personal relationships/interactions with individuals with disabilities as well as their overall feelings of preparedness to engage students with disabilities. Both of these variables contributed significantly to the scope of engagement for participants in this study. Counselor educators may encourage this awareness by designing course experiences that cultivate critical self-reflection of emerging school counselors’ perception of their quality of relationships and perceived preparedness to engage with this population. For example, students may explore their perspectives of individuals with disabilities by writing detailed personal narratives of their experience (Kerl, 2002). Narratives provide an opportunity for counseling students to examine themes related to race, gender, and/or ethnicity that other pedagogical approaches may not (Kerl, 2002). In this case, emerging counselors may construct personal narratives specifically about engaging with individuals with disabilities. Writing prompts may include “Describe your relationship(s) or past engagement(s) with individual(s) with disabilities.” “Include a personal narrative that discusses your personal and cultural experiences that have shaped and currently shape your perception of disability.” “What contributes to how you evaluate the quality of your relationships with individuals, and with an individual identified with a disability?” Such narrative reflective practices will challenge counseling students to critically examine how they
construct/have constructed relationships throughout their lives and begin to make meaning of how it impacts their role as practitioners. This practice encourages students to not just be aware of various client populations, but begin to understand how dominant social discourses have shaped their own personal narratives throughout their life (Patrick & Connolly, 2013). In utilizing these teaching interventions, counselor educators will be expanding how students conceptualize individuals and relationships, and promoting the acceptance of multiple perspectives—key clinical skills for counselors in any environment.

Counselor educators may also seek to include pedagogies in training programs that promote cognitive development in trainees as increased cognitive complexity also directly predicted scope of engagement. For example, engaging in an environment where students are able to interact with course material with different senses, summarize their learning, and ground it in their personal experiences could allow students to synthesize knowledge at different levels of complexity. Counselor educators may utilize Bloom’s Taxonomy (Bloom et al., 1956) or Kolb’s (1984) Model of Experiential Learning as a theoretical pedagogical framework when developing classes or when facilitating discussions. Both models include elements of acquiring concrete knowledge tasks, evaluating information, deconstructing ideas, synthesizing meanings, and re-evaluating of ideas/information during the learning experience. Thus, school counseling students could undergo constant knowledge acquisition, experimentation, and integration, which may cultivate cognitive complexity.

Welfare and Borders (2010a) identified more supervisory and counselor education experience as a predictor of higher cognitive complexity. The use of individual and group supervision as a method in training programs for promoting cognitive flexibility and openness to multiple perspectives, both characteristics of higher cognitive complexity, has demonstrated
support in the literature (Glosoff & Durham, 2010; Granello & Underfer-Babalis, 2004; Hillerbrand, 1989). Counselor education faculty may also organize monthly group supervision for local professional school counselors to promote cognitive complexity of practicing counselors. These group supervisions could include complex case studies that encourage intergroup supervisee collaborations. Group supervision may also include case presentations using video recorded sessions or via written overviews when specific circumstances may limit the use of recording in professional school settings.

Counselor educators may utilize the Supervisee Cognitive-Developmental Assessment (Rigazio-Digilio, 1995) as a method of tracking and promoting cognitive complexity of supervisees. Four cognitive-developmental orientations are provided in the assessment, (i.e. sensorimotor/elemental, concrete/situational, formal/reflective, and dialectic/systemic) and specific intervention questions for the supervisor to utilize during supervision to promote development (Rigazio-Digilio, 1995). This professional group supervision may also include deconstructing contemporary literature in professional school counseling and examine future training needs. There has been no research that has examined the role of cognitive complexity of professional school counselors with regards to their professional behaviors; therefore, this study supports the use of developing curriculum and experiences in counselor education training programs that fosters cognitive complexity.

Advocate and Counselor in the School dimension contributed the most variance in the EFA; therefore, it is important for counselor educators and field supervisors to foster initiatives of advocacy in the pre-service training of school counselors. Field supervisors may encourage pre-service school counselors to develop assessment methods to understand the experiences of students with disabilities and assess their academic, career, and personal/social needs. Pre-
service school counselors may then utilize the data collected to advocate on behalf of students with disabilities as well as empower students with disabilities to self-advocate for initiatives/programs that better meet their needs.

Surprisingly, education and training in disability/special education did not have a direct effect on school counselor engagement with students with disabilities in any of the path models. However, education and training did impact indirectly, thereby demonstrating the importance of pre-service school counselors completing such experiences in their training programs. According to the models examined in this study, education and training indirectly effects cognitive complexity and engagement with students with disabilities, supporting the call that more training experiences focused on this student population positively impacts cognitive development of school counselors and their work with students with disabilities. Only six states require additional coursework with regards to the education of children with disabilities—Connecticut, Georgia, Iowa, Missouri, Nebraska, Nevada, and Virginia (ACA, 2012); therefore, counselor education programs should be required to include such coursework in their required curriculum and practical experiences. For example, coursework may be grounded in Disability Studies, a field that critically examines the social construct of disability by viewing disability as a cultural phenomena and not one that locates disability within the individual (Goodley, 2010).

Furthermore, the Council for Accreditation of Counseling and Related Educational Programs (CACREP) Standards could require training programs to include coursework and/or experiences with individuals with disabilities.

The CACREP Standards effective July 1, 2016 specify that students must complete 600 total clock hours of supervised internship, 240 of which must be direct service (CACREP, 2016). Future revisions of the CACREP Standards could require school counselors to complete 20 of
the 240 direct hours with students with disabilities. Counselor educators could develop specific student learning outcomes to ensure emerging counselors are completing such experiences and develop clear assessments to assess the counselor growth and competence Barrio-Minton & Gibson, 2012). Further, state boards could require pre-service school counselor experiences with students with disabilities as criteria for state certifications and licenses.

Encouraging school counselors during their practical experiences to collaborate with special education teachers can develop necessary collaborative and consultative skill sets with other specialized school professionals. Counselor education programs may also look to collaborate and partner with special education training programs to develop courses that support pre-service school counselors and teachers during their graduate training. The Comprehensive School Counseling Program position statement (adopted 1988; revised 1993, 1997, 2005, 2012) states that school counselors are to enhance the academic, career, and personal-social development of all students by developing and delivering a data-driven, systemically integrated, comprehensive program. Counselor educators may begin infusing these professional mores into pre-service school counselors by encouraging them to collaborate with pre-service teachers. For example, school counseling preparation programs and teacher preparation programs may create a collaborative partnership project for pre-service school counselors and special education teachers during training programs. This project could require pre-service educators/counselors to identify a need of students with disabilities in their local school community and develop an action plan that addresses this need. This project could lead to student-facilitated in-service workshops for teachers and counselors, community outreach projects, or service projects within the school. This project would also cultivate advocacy skills for pre-service teachers and school counselors.

**Clinical Experiences in School Settings Recommendations**
The most important recommendation based from the findings of this study is for counselor education programs to require that caseloads during practicum/internship include students with disabilities. Students should start to become familiar with engaging students with disabilities during their graduate training experiences. As their pre-service contact with students with disabilities increases, counseling students may feel more prepared to engage students with disabilities in regular programming. Ensuring that pre-service school counselors have experiences with students with disabilities during graduate training ensures that they have experiences engaging with students across all need levels. School counseling site supervisors could ensure that students with disabilities are included in individual counseling experiences and program initiatives during field placements. Such caseload requirements for practical experiences could be reflected in future iterations of the CACREP Standards and/or state certification requirements.

It is important to consider the development and implementation of groups that include students with disabilities. Group counseling can be beneficial in all aspects of the lives of students in elementary, middle, and/or high school (Hayes, 2001). As outlined earlier, students with disabilities can be positively impacted by process group work (Humes, Adanczyk, & Myco, 1969; Rankin et al., 1999; Leichtentritt & Shechtman, 2010; Shechtman & Katz, 2007); however, providing group counseling was the least engaged in activity with students with disabilities. Counselor educators may focus on developing training materials that prepare school counselors to facilitate groups with students with disabilities. For example, these materials could first outline specific accommodations school counselors should consider when initiating a group that is inclusive of students with disabilities. This might mean ensuring that location and content of the group is accessible for students who may have mobility, hearing, and/or visual needs. Also,
advising school counselors that disability should not be the sole criterion for inclusion/exclusion from group work would also be important to include in training materials. School counselors should ensure that students are referred to group based on personal goals rather than the presence/absence of disability. Counselor educators may integrate a group counseling component into practical experiences whereby students facilitate a group or groups that is inclusive of the needs of students with disabilities.

The findings of the current study lay a foundation for cultivating a field of professional school counselors who are prepared better meet the needs of students with disabilities. The professional school counseling literature has long called for strengthening the education and training of school counselors to engage students with disabilities, and the implications highlight key areas that can be implemented by counselor educators and professional school counselors. Counselor educators and professional school counselors are in key positions to transform the education and training experiences of pre-service school counselors. Counselor educators can integrate innovative pedagogical experiences that cultivate critical self-reflections of counseling students’ views and experiences with individuals with disabilities, as well as collaborating with teacher preparation programs to create collaborative learning experiences with pre-service school counselors and teachers.

Counselor educators can also provide direct service to the field of school counseling by facilitating group supervision for local school counselors and in-service trainings to local school district communities. Site supervisors can ensure that students with disabilities are included on the caseloads of pre-service school counselors, and that there are opportunities to engage students with disabilities in group work. Much can be done to enhance how school counselors
are prepared to engage students with disabilities, and this study provided a number of recommendations to address this training need.

**Limitations**

As is the nature of empirical research, the findings from this study should be viewed within the context of methodological limitations. The survey design of this study requires individuals to provide personal data on a voluntary basis through self-report. A limit of engaging in survey research is that it is limited to what potential participants are comfortable sharing and willing to share with regards to the specific research topic (Fowler, 2014). Likewise, findings in survey research cannot be extended beyond the scope of the population who are not included in the sampling population. Thus, these findings cannot be generalized outside of professional school counselors who were members of ASCA as of August 1, 2015. There were 21,045 members of ASCA who self-identified as being a school counselor via the ASCA online directory. The Bureau of Labor Statistics identified 273,000 professional school counselors in 2014, meaning self-identified school counselors who are members of ASCA make up just 7% of all professional school counselors in the U.S. Steps were taken to acquire a large random sample from four distinct regions in the United States of professional school counselors, a strength of this study; however, the 8% response rate was very low. Recent dissertation research with professional school counselors also experienced similar challenges to survey response rates (4.8%-16%) (Canella, 2015; Finnerty, 2015; Torrence, 2012). Nonetheless, the low response rate of this survey presents a limitation to external validity.

Limitations to instrumentation also need to be acknowledged. The SCPS was developed by Milsom in 2002, and limited psychometric data have been published outside of demonstrated face validity. Cronbach’s Alpha for the SCPS-R in this study (α = .88) closely resembled the
strong internal consistency also found by Torrence (2012) ($\alpha = .89$). Similarly, the CCQ was developed in 2007, and there are limited psychometric data outside of the original series of validation studies published by Welfare and Borders (2010b). A strength of this study, however, was the high inter-rater reliabilities for the measurement of cognitive complexity in the pilot ($\alpha = 1.00$) and final sample ($\alpha = .99$). Additionally, the CCQ demonstrated strong construct validity as indicated by Person product moment correlation between the total differentiation score and total integration score ($r(110) = .64, p < .001$). Both the SCPS-R and the CCQ demonstrated strong reliabilities in this study, but the lack of substantial psychometric analysis of both measures in the professional literature proves to be a limitation because it is unknown if the demonstrated reliabilities are consistent across numerous studies or if they are specific to the sample in the current study.

This study utilized path analysis to examine a set of predictor variables on a dependent variable that had two types. The first dependent variable was whether or not participants engaged in school counseling activities with students with disabilities. The second dependent variable was the frequency of their engagement in school counseling activities. As such, these findings refer only to a school counselor’s engagement in an activity and should not be mistaken for quality of engagement. This study only examined whether a school counselor engaged in a certain set of school counseling activities; thus, the predictor variables should only be viewed in their prediction to frequency of engagement and not the quality of engagement. Similarly, education and training was measured on completion of such experience, not on the participants’ view of the quality of the education and training. Lastly, this study asked for school counselors to reflect on the last 30 days; therefore, the data only provides a snapshot of professional practice within that specific timeframe. Studies that do not specify a firm timeframes, or those capturing data from a
earlier/later part of the school year may yield different findings. Future studies may explore these areas.

**Recommendations of Future Research Initiatives**

After identifying the limitations of the study, it is appropriate to provide recommendations for potential avenues of future research. This study made a number of revisions to the SCPS-R (Milsom, 2002), updating the items to reflect the current professional literature and legislations surrounding the work of school counselors with students with disabilities. Professional school counselors and counselor educators should utilize this instrument to further expand on the professional discourse of school counselors and their engagement with students with disabilities. This future empirical work can also add strength to the instruments’ psychometric properties.

The present study only examined the experiences of professional school counselors and their engagement with students with disabilities. Future studies may utilize the SCPS-R in addition to collecting data on the experiences of the students with disabilities in order to compare views of preparedness and engagement alongside the perspectives of students with disabilities. Research utilizing the perspectives of students with disabilities could provide insight into the quality of engagement with school counselors.

Since being developed in 2007, only one study has been published utilizing the CCQ (see Welfare & Borders, 2010a). The CCQ demonstrated strong construct validity in this study, and with thorough training and supervision, trained raters achieved superior inter-rater reliabilities. This supports the potential of the CCQ as an emerging reliable and valid measure of a counselor’s cognitive complexity. Future research should continue to explore predictors of
cognitive complexity in professional school counselors and school counselors-in-training in order to inform training program curriculum and pedagogies.

Research investigating the impact and perceptions school counselors engaging in group work with students with disabilities is needed. Exploring the perceptions and experiences of the school counselors and students with disabilities can provide much needed insight into the effectiveness of this practice, and inform future education and training of future school counselors. Future research should also examine reasons as to why group work with students with disabilities is low. Research may also focus on the school counselors’ perceived quality of their education and training as an operational definition of the graduate education variable. Perhaps school counselors who identify having higher quality educational and training experiences in topics of disability/special education may account for additional unexplained variance in the model. An exploration of why quality of contact demonstrated strong associations with feelings of preparedness and scope of engagement may also be warranted. Examining quality of contact with regards to anxiety and/or motivation may further detail how positive quality of contact with individuals with disabilities influences overall feelings of preparedness and scope of engagement. Such research may also be completed exploring the impact of quality of contact from other perspectives (i.e. students, family, teachers, and/or school administrators).

Conclusion

The United States Department of Education reported 5.8 million students aged 6 to 21 being served under the Individuals with Disabilities Education Act (IDEA), accounting for 8.4% of all students within that age range (United States Department of Education, 2014). Congressional legislation has transformed the attention to and availability of community and educational supports for individuals with disabilities over the last 40 years (Americans with
Disabilities Act of 1990; Education for All Handicapped Children Act of 1975; Individuals with Disabilities Act of 1990; Rehabilitation Act of 1973). As students with disabilities are faced with challenges that might hinder their academic and personal/social growth, school counselors need to be prepared to work alongside these students and offer the appropriate resources. The current study first explored the current scope of practice of school counselors with regards to their engagement with students with disabilities. Second, a path analysis was conducted to explore how a model of school counselor characteristics and experiences contributed to their engagement with students with disabilities. Third, an exploratory factor analysis of the school counseling activities was conducted to identify any latent constructs present among the activities. Lastly, a final set of path analysis was conducted utilizing the frequencies of the activities that comprised each of the three dimensions that were identified from the factor analysis.

Advocating in the school and providing individual counseling where the two most cited activities reported by school counselors in their work with students with disabilities. The two least engaged activities were advocating in the community and providing group counseling. School counselors with higher numbers of students with disabilities on their caseload engaged in more activities, as did individuals with higher cognitive complexity, higher overall feelings of preparedness, and more positive quality of contacts with individuals with disabilities. Education and training in disability/special education topics did not demonstrate a significant direct relationship; however, it did display its significant indirectly.

The EFA of the school counseling activities identified three dimensions. The dimensions were labeled “Advocate and Counselor in the School,” “Consultant in the School,” and “Teamwork in the School,” as the activities within them comprised that theme. A second round of path analyses with each of the three dimensions identified models that accounted for 25%
(Advocate and Counselor in the School), 16% (Consultant in the School), and 7% (Teamwork in the School) of the overall variance. In each of the three additional path models, only number of students with disabilities contributed directly to the dimensional dependent variable, highlighting a difference in the impact of the variables between whether or not school counselors engage in an activity, and the frequency of that engagement.

Recommendations for counselor educators to integrate critical self-reflections of one’s quality of contact with individuals with disabilities and feelings of preparedness into training programs were discussed. Recommendations highlighting a need for counselor educators to also integrate pedagogies that cultivate cognitive complexity in pre-service school counselors and practicing school counselors were also identified. Lastly, it was recommended that school counselor training programs seek to require coursework and practical experiences that focus on disability/special education topics. Professional associations such as ASCA outline important advocacy and professional competencies within their Ethical Codes and Position Statements that give school counselors a foundation for, and professional supports to meet the unique needs of all students. This study explored the work of school counselors with students with disabilities in order to inform future training curriculum to ensure pre-service counselors have the critical experiences they need to meet the needs of students with disabilities.
Appendix A
Sampling Frame

Appendix A. Sampling frame of present study. First, stratification of ASCA members by work setting. Second, stratification of members by state. Third, stratification of members by region. Fourth, randomization of regional lists. Fifth, systematic sampling of regional lists of every 10^{th} member to select 1000 participants from each region.
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<th>Date</th>
<th>Task Description</th>
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<td>August 2015</td>
<td>Acquire membership list from ASCA; Crosscheck membership list for duplicate entries and those with missing email contact information</td>
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<tr>
<td>9/17</td>
<td>Begin Counselor Cognitions Questionnaire (CCQ) coder training</td>
</tr>
<tr>
<td>10/26</td>
<td>Acquire Dissertation Committee Approval of Proposal</td>
</tr>
<tr>
<td>11/09</td>
<td>Acquire IRB approval</td>
</tr>
<tr>
<td>11/10-15</td>
<td>Pilot survey</td>
</tr>
<tr>
<td>11/16</td>
<td>Code pilot data and make revisions</td>
</tr>
<tr>
<td>11/16</td>
<td>Activate Survey for administration; Send official initial sampling emails; Begin scoring of CCQ &amp; SCPS-R as data is submitted</td>
</tr>
<tr>
<td>11/30</td>
<td>Send first email follow-up for non-respondents</td>
</tr>
<tr>
<td>12/07</td>
<td>Send 2nd email follow-up for non-respondents</td>
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<td>12/14</td>
<td>Close survey link; Send thank-you emails</td>
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<td>12/18</td>
<td>Complete CCQ &amp; SCPS-R scoring, thus completing data collection</td>
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<tr>
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<tr>
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Appendix C

School Counselor Preparation Survey-Revised Revision Recommendations & Permission

Re: School Counselor Preparation Survey

[Email body]

Re: School Counselor Preparation Survey

[Email body]

Re: School Counselor Preparation Survey

[Email body]
Appendix D
Counselor Cognitions Questionnaire Permission

Hi James, Congratulations on your progress! I cannot find a quatrics link but it easily could have gotten lost in my email account (I use Quatrics too so I have many emails related to Quatrics surveys). Maybe you could send me a screenshot or PDF? What you have described would be great and I support you using it in your research.

Laura E. Weisbrot, PhD, LPC, ACS
Associate Professor of Counselor Education
Virginia Tech
Assistant Professor of Interprofessional Education
Virginia Tech Carilion School of Medicine
VRUAC: 3570 South Dr, Suite 204
Blacksburg, VA 24060
540-441-7531

From: James Alejandro Castillo III <james.castillo3@vayu.edu>
To: Weisbrot, Laura
Subject: Re: Counselor Cognitions Questionnaire

Good afternoon Dr. Weisbrot,

I hope you are having a wonderful summer. I am emailing you to provide you with any progress in adapting the CCQ for online administration. When I began the process in Quatrics via Syracuse University I added your name to the collaboration list so I hope you received an email providing access instructions. If you have not received any notifications please let me know.

The CCQ I adapted for computer is nearly exact to the original format, including the same amount of lines and space to describe clients. The most challenging adaptation was the final section where participants are asked to create category labels for the characteristics. The software did not have the capabilities to adapt it to look like the original; however, after some playing around I found a feature that is able to capture the same data.
Appendix E  
School Counselor Preparation Survey-Revised

**Definition:**
For the purposes of this survey, "students with disabilities" is defined as individuals who would qualify for special education or related services based on them meeting criteria for one or more of the following: Autism, Emotional Disturbance, Hearing Impairment, Specific Learning Disability, Mental Retardation, Orthopedic Impairment, Speech/Language Impairment, Traumatic Brain Injury, Visual Impairment, or some Other Health Impairment which adversely affects educational performance (e.g., ADHD)

1. Approximately how many students are in your total caseload? ______
   Approximately how many students with disabilities are in your total caseload? ______

2. Using the scale below, please rate (circle 1-6) how prepared you feel **OVERALL** to provide services to students with disabilities.

   1 = Completely Unprepared  
   2 = Unprepared  
   3 = Somewhat Unprepared  
   4 = Somewhat Prepared  
   5 = Prepared  
   6 = Completely Prepared

3. Using the scale above, please circle the number (1-6) that best describes how prepared you feel to perform each activity.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advocate for students with disabilities in the school and/or community</td>
<td></td>
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<td></td>
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<tr>
<td>Assist students with disabilities in planning for transitions to careers or to post-secondary institutions</td>
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</tr>
<tr>
<td>Assist with the establishment and implementation of behavior modification plans for students with disabilities</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Counsel parents and families of students with disabilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make referrals to other appropriate specialists for students with disabilities when necessary</td>
<td></td>
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<tr>
<td>Provide activities for students with disabilities to improve their self-esteem</td>
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<tr>
<td>Provide feedback on the social and academic performance of students with disabilities to the multidisciplinary team</td>
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</tr>
<tr>
<td>Provide individual/group counseling to students with disabilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide social skills training to students with disabilities</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Serve as a consultant to parents and staff on the characteristics and special needs of students with disabilities</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serve on the multidisciplinary team to identify and provide services to students with disabilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. Please place a check beside each activity that you currently engage in for students with disabilities.

- [ ] Advocate for students with disabilities in the school and/or community
- [ ] Assist students with disabilities in planning for transitions to careers or to post-secondary institutions
- [ ] Assist with the establishment and implementation of behavior modification plans for students with disabilities
- [ ] Counsel parents and families of students with disabilities
- [ ] Make referrals to other appropriate specialists for students with disabilities when necessary
- [ ] Provide activities for students with disabilities to improve their self-esteem
- [ ] Provide feedback on the social and academic performance of students with disabilities to the multidisciplinary team
- [ ] Provide individual/group counseling to students with disabilities
- [ ] Provide social skills training to students with disabilities
- [ ] Serve as a consultant to parents and staff on the characteristics and special needs of students with disabilities
- [ ] Serve on the multidisciplinary team to identify and provide services to students with disabilities

5. During your school counseling graduate program, how many:

- [ ] Courses specifically focusing on students with disabilities did you complete (e.g., Special Education, Exceptional Children)?
- [ ] Courses where information about students with disabilities was presented in addition to regular course content did you complete (e.g., core courses)?
- [ ] Practical experiences with students with disabilities did you have (e.g., internship, practicum)?

6. Since being employed as a school counselor, how many:

- [ ] School-sponsored inservice programs related to students with disabilities have you attended?
- [ ] Conferences or workshops related to students with disabilities have you attended on your own?
Appendix F
Counselor Cognitions Questionnaire

Counselor Cognitions Questionnaire

This questionnaire is designed to explore how counselors describe their clients.

Please list two clients whom you know well. Use only an initial or symbol to represent each of them.

1. A client with whom you believe you were effective: __________________________
2. A client with whom you believe you were less effective: ______________________

Spend a few moments thinking about these clients and comparing and contrasting them. Think about your interactions with them and any attributes or characteristics which you might use to describe them.

In the first column on each page, describe the client as fully as you can by writing words or phrases that explain their defining characteristics. Do not simply put those characteristics that distinguish them from each other; rather, include all that come to mind. Describe each of them completely so that a stranger would be able to determine the kind of people they are from your description only. You do not have to use all of the space provided.

In the second column, indicate if the characteristic you listed is mostly positive (+) or mostly negative (-) in your impression of the client. If the characteristic is neutral, leave column two blank.

In the third column, indicate the importance of the characteristic to your overall impression of the client. A score of 1 = not at all important while 5 = extremely important.
Counselor Cognitions Questionnaire (page 2)

1. A client with whom you believe you were effective: 

<table>
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<tr>
<th>Characteristic</th>
<th>+/-</th>
<th>Importance of the Characteristic</th>
</tr>
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</tr>
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<td>1 2 3 4 5</td>
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</tbody>
</table>
Counselor Cognitions Questionnaire (page 3)

2. A client with whom you believe you were *less effective*: 

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>+/-</th>
<th>Importance of the Characteristic</th>
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</thead>
<tbody>
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<td>Low 1 2 3 4 5</td>
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</table>
Counselor Cognitions Questionnaire (page 4)

Now review the characteristics you listed for each client. Consider if any of them group together or fit into categories. If so, write a label that describes the category and write the numbers of the characteristics that explain or fit within that category. You may use each characteristic in more than one category. You do not have to use all of the space provided.

1. A client with whom you believe you were effective: 

<table>
<thead>
<tr>
<th>Category Label</th>
<th>Characteristics (e.g., #2 and #7 or #1 – 4)</th>
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2. A client with whom you believe you were less effective: 

<table>
<thead>
<tr>
<th>Category Label</th>
<th>Characteristics (e.g., #2 and #7 or #1 – 4)</th>
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Appendix G
Participant Communications

Introductory Email

Date

Dear (Participant name),

When I was school counselor doctoral intern at a rural high school in upstate New York, I found that although I wanted to engage students with disabilities in some programs, at times I faced many challenges. Currently, in my experiences supervising counselors-in-training, many school counselors in their practicum and internships have shared their challenges in engaging students with disabilities. I know that as a Professional School Counselor you may also experience challenges to engaging with this student population. I also know that there are school counselors who are doing great work to engaging students with disabilities in their schools. How do we understand what might account for engaging students with disabilities in our work?

My name is Jaime Castillo, and I am a doctoral candidate in Counseling and Counselor Education at Syracuse University. I am studying how we can better understand the factors that might influence a school counselor’s engagement with students with disabilities. What might predict such engagement, and what might not? How can such knowledge better prepare future school counselors?

You have been selected as a participant in this study; do you feel you would be willing to collaborate with me in this study and sharing your experiences? Participants who complete the survey will be entered in a drawing to win one $200 VISA gift card.

If you are interested in collaborating, I’d like for you to complete two questionnaires and should be no longer than ___ minutes. All of your information will remain confidential. Below is the link to the survey and informed consent.

If you might be interested but have any questions please feel free to email me at jhcastil@syr.edu, or by phone at (814)404-3182.

IRB#

SURVERYLINK HERE

Thank You,
Jaime

Jaime H. Castillo, MS, NCC, ACS
Doctoral Candidate
Department of Counseling and Human Services
Syracuse University
Follow-up Email 1

Date

Dear (Participant name),

Two weeks ago, I sent you an email because you were selected to participate in a survey regarding the school counselor’s engagement with students with disabilities. Every response greatly contributes to the future knowledge base that professional school counselors have with students with disabilities.

Completion of this survey will be no longer than ___ minutes. Please contact me via email or phone if you have any additional questions. Participants who complete the survey will be entered in a drawing to win a $200 VISA gift card. I have provided the link to the survey below, along with my contact information.

IRB#

SURVEY LINK HERE

Thank you,

Jaime

Jaime H. Castillo, MS, NCC, ACS
Doctoral Candidate
Department of Counseling and Human Services
Syracuse University
jhcastil@syr.edu
Cell: (814) 404-3182
Follow-up Email 2

Date

Dear (Participant name),

Do you feel you would be willing to collaborate with me in this study and sharing your experiences as a school counselor? Participants who complete the survey will be entered in a drawing to win a $200 VISA gift card.

Completion of this survey will be no longer than ___ minutes. Please contact me via email or phone if you have any additional questions. I have provided the link to the survey below, along with my contact information.

IRB#

SURVEY LINK HERE

Thank you,

Jaime

Jaime H. Castillo, MS, NCC, ACS
Doctoral Candidate
Department of Counseling and Human Services
Syracuse University
jhcastil@syr.edu
Cell: (814) 404-3182
Informed Consent

*This consent will be presented to the participants who click on the link in the introductory email. At the conclusion of this consent participants will have the opportunity to click yes or no to this consent. Only those individuals who select “yes” will be able to access the survey.

My name is Jaime Castillo, and I am a doctoral candidate in Counseling and Counselor Education at Syracuse University. I am interested in learning more about the factors that influence a school counselors’ engagement with students with disabilities in schools. If you agree to participate, you will be asked to complete two online surveys via Syracuse University Qualtrics totaling 30 minutes of your time.

You have been selected to participate in this study; however, involvement in the study is completely voluntary. This means you can choose whether or not to participate and that you may withdraw from the study at any time without penalty.

The information you share will be confidential. However, whenever one works with email or the internet there is always the risk of compromising privacy, confidentiality, and/or anonymity. Your confidentiality will be maintained to the degree permitted by the technology being used. It is important for you to understand that no guarantees can be made regarding the interception of data sent via the internet by third parties.

If you have any questions, concerns or complaints about the research please contact me via email at jhcastil@syr.edu. You may also contact Dr. Nicole R. Hill, my dissertation chair at nrhill@syr.edu.

By clicking YES at the bottom of the page, you consent that you are 18 years of age or older and that you wish to participate in this research study.

IRB#
Thank you,

Jaime H. Castillo, MS, NCC, ACS
Doctoral Candidate
Department of Counseling and Human Services
Syracuse University
Email: jhcastil@syr.edu
Phone: (814)404-3182

YES

NO
Appendix H
Full Survey
Informed Consent

My name is Jaime Castillo, and I am a doctoral candidate in Counseling and Counselor Education at Syracuse University. I am interested in learning more about the factors that influence a school counselors’ engagement with students with disabilities in schools. If you agree to participate, you will be asked to complete two online surveys totaling 30 minutes of your time.

You have been invited to participate in this study; however, involvement in the study is voluntary. This means you can choose whether or not to participate and that you may withdraw from the study at any time without penalty.

The information you share will be confidential. However, whenever one works with email or the internet there is always the risk of compromising privacy, confidentiality, and/or anonymity. Your confidentiality will be maintained to the degree permitted by the technology being used. It is important for you to understand that no guarantees can be made regarding the interception of data sent via the internet by third parties.

If you have any questions, concerns or complaints about the research please contact me via email at jhcastil@syr.edu. You may also contact Dr. Nicole R. Hill, my dissertation chair at nrhill@syr.edu. By clicking YES at the bottom of the page, you consent that you are 18 years of age or older and that you wish to participate in this research study.

IRB# 15-324
Thank you,

Jaime H. Castillo, MS, NCC, ACS
Doctoral Candidate
Department of Counseling and Human Services
Syracuse University
Email: jhcastil@syr.edu
Phone: (314) 404-3162

☐ Yes
☐ No

Survey Introduction

Thank you for agreeing to participate in this study.

Are you currently employed as a School Counselor?

☐ Yes
☐ No

Please indicate your employment status

☐ Full-time
☐ Part-time
☐ Long-term substitute
CCQ: Introduction

This questionnaire is designed to explore how school counselors describe their students.
You will be asked to list two students whom you know well. Use only an initial or symbol to represent each of them.

Using only initials, please list one student with whom you believe you were effective:

Using only initials, please list one student with whom you believe you were less effective:

Spend a few moments thinking about these students and comparing and contrasting them. Think about your interactions with them and any attributes or characteristics which you might use to describe them.

In the column on the next page, describe the student as fully as you can by writing words or phrases that explain their defining characteristics into the box.

Do not simply put those characteristics that distinguish them from each other; rather, include all that come to mind.

Describe each of them completely so that a stranger would be able to determine the kind of people they are from your description only.

You do not have to use all of the space provided.

Effective

Please list the characteristics of a student with whom you believe you were effective. You may write words or phrases. You do not need to use all the space that is provided.

1. Characteristic
2. Characteristic
3. Characteristic
4. Characteristic
5. Characteristic
6. Characteristic
7. Characteristic
8. Characteristic
In the first column, indicate if the characteristic you listed is *mostly positive* or *mostly negative* in your impression of the student. If the characteristic is neutral, please mark it as neutral.

In the second column, indicate the importance of the characteristic to your overall impression of the student. A score of 1 = not at all important while 5 = extremely important.

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<th>Characteristic</th>
<th>Negative (-) or Positive (+)</th>
<th>Importance of the Characteristic</th>
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<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
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<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
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<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>14. Characteristic</td>
<td>○ ○ ○ ○</td>
<td>○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○</td>
</tr>
</tbody>
</table>
Now review the characteristics you listed for the effective student. Consider if any of them group together or fit into categories. If so, create a label for that category that identifies the characteristics. Write the labels for the categories of the characteristics in the white box. If a characteristic belongs to more than one category, please place a comma between labels.

For example,

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Category Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Introverted</td>
<td>Interactions with others</td>
</tr>
<tr>
<td>2. Quiet</td>
<td>Interactions with others</td>
</tr>
<tr>
<td>3. Self-Critical</td>
<td>View of self</td>
</tr>
<tr>
<td>4. Avoidant of others</td>
<td>Interactions with others</td>
</tr>
<tr>
<td>5. Blames self</td>
<td>View of self</td>
</tr>
<tr>
<td>6. Victim mentality</td>
<td>View of self, interactions with others</td>
</tr>
</tbody>
</table>

You do not have to use all of the space provided
212

<table>
<thead>
<tr>
<th>18. Characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td>19. Characteristic</td>
</tr>
<tr>
<td>20. Characteristic</td>
</tr>
<tr>
<td>21. Characteristic</td>
</tr>
<tr>
<td>22. Characteristic</td>
</tr>
<tr>
<td>23. Characteristic</td>
</tr>
<tr>
<td>24. Characteristic</td>
</tr>
<tr>
<td>25. Characteristic</td>
</tr>
</tbody>
</table>

## Less Effective

Now you will be asked to provide descriptions of the less effective students.

In the column on the next page, describe the student as fully as you can by writing words or phrases that explain their defining characteristics into the box.

Do not simply put those characteristics that distinguish them from each other; rather, include all that come to mind.

Describe each of them completely so that a stranger would be able to determine the kind of people they are from your description only.

You do not have to use all the space that is provided.

---

Please list the characteristics of a student with whom you believe you were less effective. You may write words or phrases. You do not need to use all the space that is provided.

<table>
<thead>
<tr>
<th>1. Characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Characteristic</td>
</tr>
<tr>
<td>3. Characteristic</td>
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<tr>
<td>4. Characteristic</td>
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<tr>
<td>5. Characteristic</td>
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<td>6. Characteristic</td>
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<td>7. Characteristic</td>
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<td>8. Characteristic</td>
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<td>9. Characteristic</td>
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<td>10. Characteristic</td>
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<td>11. Characteristic</td>
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<td>12. Characteristic</td>
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<td>13. Characteristic</td>
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<tr>
<td>14. Characteristic</td>
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<tr>
<td>15. Characteristic</td>
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<tr>
<td>16. Characteristic</td>
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<tr>
<td>17. Characteristic</td>
</tr>
</tbody>
</table>
In the first column, indicate if the characteristic you listed is *mostly positive* or *mostly negative* in your impression of the student. If the characteristic is neutral, please mark it as neutral.

In the second column, indicate the importance of the characteristic to your overall impression of the student. A score of 1 = not at all important while 5 = extremely important.

<table>
<thead>
<tr>
<th>Negative (-) or Positive (+)</th>
<th>Importance of the Characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Neutral +</td>
<td>Not at all Important</td>
</tr>
<tr>
<td>» 1. Characteristic</td>
<td>○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>» 2. Characteristic</td>
<td>○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>» 3. Characteristic</td>
<td>○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>» 4. Characteristic</td>
<td>○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>» 5. Characteristic</td>
<td>○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>» 6. Characteristic</td>
<td>○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>» 7. Characteristic</td>
<td>○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>» 8. Characteristic</td>
<td>○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>» 9. Characteristic</td>
<td>○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>» 10. Characteristic</td>
<td>○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>» 11. Characteristic</td>
<td>○ ○ ○ ○ ○</td>
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<tr>
<td>» 12. Characteristic</td>
<td>○ ○ ○ ○ ○</td>
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<tr>
<td>» 13. Characteristic</td>
<td>○ ○ ○ ○ ○</td>
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<tr>
<td>» 14. Characteristic</td>
<td>○ ○ ○ ○ ○</td>
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<tr>
<td>» 15. Characteristic</td>
<td>○ ○ ○ ○ ○</td>
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<tr>
<td>» 16. Characteristic</td>
<td>○ ○ ○ ○ ○</td>
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<tr>
<td>» 17. Characteristic</td>
<td>○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>» 18. Characteristic</td>
<td>○ ○ ○ ○ ○</td>
</tr>
<tr>
<td>» 19. Characteristic</td>
<td>○ ○ ○ ○ ○</td>
</tr>
</tbody>
</table>
Now review the characteristics you listed for the less effective student. Consider if any of them group together or fit into categories. If so, create a label for that category that identifies the characteristics. Write the labels for the categories of the characteristics in the white box. If a characteristic belongs to more than one category, please place a comma between labels. For example,

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Category Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introverted</td>
<td>Interactions with others</td>
</tr>
<tr>
<td>Quiet</td>
<td>Interactions with others</td>
</tr>
<tr>
<td>Self-Critical</td>
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</tr>
<tr>
<td>Avoidant of others</td>
<td>Interactions with others</td>
</tr>
<tr>
<td>Blames self</td>
<td>View of self</td>
</tr>
<tr>
<td>Victim mentality</td>
<td>View of self, interactions with others</td>
</tr>
</tbody>
</table>

You do not have to use all of the space provided

<table>
<thead>
<tr>
<th>Characteristic</th>
</tr>
</thead>
<tbody>
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<td></td>
</tr>
</tbody>
</table>
School Counselor Preparation Survey-Revised: Section 1

This survey is to gather information regarding a school counselor’s experiences working with students with disabilities.

For the purposes of this survey, “students with disabilities” is defined as individuals who would qualify for special education or related services based on them meeting criteria for one or more of the following:

Autism, deaf-blindness, developmental delay, emotional disturbance, hearing impairments (including deafness), intellectual disability (formerly mental retardation), multiple disabilities, orthopedic impairments, other health impairments, specific learning disabilities, speech or language impairments, traumatic brain injury, visual impairments (including blindness), and who by reason thereof, needs special education and related services.

What would you describe the setting of your school?

- Rural
- Urban
- Suburban
- Other, please write in using the box below

Do you work in a:

- Public
- Parochial/Religious
- Private
- Charter
- Other, please write in using the box below

Please choose the one that best describes the grade level where you currently work.

- Elementary (grade K-4)
- Middle (grade 5-8)
- Elementary & Middle (grade K-8)
- Junior/Senior High School (grade 7-12)
High School (grade 9-12)

Approximately how many students are in your total caseload? Please use numeric digits (i.e. 50)

Approximately how many with students with disabilities are in your total caseload? Please use numeric digits (i.e. 50)

CPS-R: Section 2

<table>
<thead>
<tr>
<th>Please select the dot that best identifies how prepared you feel overall to provide services to students with disabilities.</th>
<th>Completely Unprepared</th>
<th>Unprepared</th>
<th>Somewhat Unprepared</th>
<th>Somewhat Prepared</th>
<th>Prepared</th>
<th>Completely Prepared</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CPS-R: 3

Using the scale to the right, please select the dot that best describes how prepared you feel to perform each activity.

For students with disabilities, how prepared do you feel to:

<table>
<thead>
<tr>
<th>Advocate in the school</th>
<th>Completely Unprepared</th>
<th>Unprepared</th>
<th>Somewhat Unprepared</th>
<th>Somewhat Prepared</th>
<th>Prepared</th>
<th>Completely Prepared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advocate in the community</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assist in planning for transitions to careers or to post-secondary educational opportunities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assist with the establishment and implementation of IEP’s</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Counsel parents and families</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make referrals to other appropriate specialists when necessary (i.e. school psychologists, physical therapists, special education staff, etc...)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide school counseling curriculum lessons within the scope of the comprehensive school counseling program.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide feedback on the social and academic performance to the multidisciplinary team</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide individual counseling</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide group counseling</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SCPS-R: Section 4

Please fill in (Yes/No) for each activity that you have engaged in with students with disabilities in the last 30 days.

In the last 30 days, I have:

**Advocated for students with disabilities in the school.**

- Yes
- No

**How many times per month have you advocated for students with disabilities in the school?**

- Please use numeric digits (i.e. 6)

**Advocated for students in the community.**

- Yes
- No

**How many times per month have you advocated for students with disabilities in the community?**

- Please use numeric digits (i.e. 6)

**Assisted students with disabilities in planning for transitions to careers or to post-secondary educational opportunities.**

- Yes
- No
<table>
<thead>
<tr>
<th>Question</th>
<th>Response Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many times per month have you assisted students with disabilities in planning for transitions to careers or to post-secondary educational opportunities?</td>
<td>Please use numeric digits (i.e. 6)</td>
</tr>
<tr>
<td>Assisted with the establishment and implementation of IEPs for students with disabilities.</td>
<td>Yes, No</td>
</tr>
<tr>
<td>How many times per month have you assisted with the establishment and implementation of IEPs?</td>
<td>Please use numeric digits (i.e. 6)</td>
</tr>
<tr>
<td>Counseled parents and families of students with disabilities?</td>
<td>Yes, No</td>
</tr>
<tr>
<td>How many times per month have you counseled parents and families of students with disabilities?</td>
<td>Please use numeric digits (i.e. 6)</td>
</tr>
<tr>
<td>Made referrals to other appropriate specialists for students with disabilities when necessary.</td>
<td>Yes, No</td>
</tr>
<tr>
<td>How many referrals to other appropriate specialists for students with disabilities?</td>
<td>Please use numeric digits (i.e. 6)</td>
</tr>
</tbody>
</table>
Provided feedback on the social and academic performance of students with disabilities to the multidisciplinary team.

○ Yes
○ No

How many times have you provided feedback on the social and academic performance of students with disabilities to the multidisciplinary team?

○ Please use numeric digits (i.e. 6)

Provided individual counseling to students with disabilities.

○ Yes
○ No

How many counseling sessions?

○ Please use numeric digits (i.e. 6)

Provided group counseling to students with disabilities.

○ Yes
○ No

How many groups have you facilitated for students with disabilities?

○ Please use numeric digits (i.e. 6)

Provide school counseling curriculum lessons within the scope of the comprehensive school counseling program.

○ Yes
○ No
How many occasions have you provided school counseling curriculum lessons to students with disabilities?

- Please use numeric digits (i.e., 6)

Served as a consultant to parents on the characteristics and special needs of students with disabilities.

- Yes
- No

How many occasions have you served as a consultant to parents on the characteristics and special needs of students with disabilities?

- Please use numeric digits (i.e., 6)

Served as a consultant to school staff on the characteristics and special needs of students with disabilities.

- Yes
- No

How many occasions have you served as a consultant to school staff on the characteristics and special needs of students with disabilities?

- Please use numeric digits (i.e., 6)

Served on the multidisciplinary team to identify and provide services to students with disabilities.

- Yes
- No

How many teams have you served on to identify and provide services to students with disabilities?

- Please use numeric digits (i.e., 6)
SCFS-R: Section 5

The next set of questions will be used to learn more about your graduate education and professional development. Please fill in (Yes/No) that best matches your experience(s).

During your school counseling graduate program,

Did you complete courses specifically focusing on students with disabilities during your graduate training (e.g., Special Education, Exceptional Children, Rehabilitation Counseling)?

☐ Yes
☐ No

Estimated number of course hours specifically focused on students with disabilities during your graduate training?
For example, a class that met for 3 hours in a traditional 15 week semester would be 45 hours.

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
<tr>
<td>----</td>
</tr>
<tr>
<td>Please slide to indicate the number of hours</td>
</tr>
</tbody>
</table>

Did you complete courses where information about students with disabilities was presented in addition to regular course content (e.g. core courses)?

☐ Yes
☐ No

Estimated number of hours spent in these core classes on information about students with disabilities?
For example, if disabilities were discussed for one class session within a multicultural course, it would be 3 hours.

<table>
<thead>
<tr>
<th>Hours spent in class</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
<tr>
<td>Please slide to indicate the number of hours</td>
</tr>
</tbody>
</table>
Did you have any practical experiences with students with disabilities during your graduate training (i.e. internship, practicum)?

- Yes
- No

Please identify which course these experiences occurred:

- Practicum
- Internship

Estimated number of hours of clinical work in practicum/internship with people who identified as having a disability.

<table>
<thead>
<tr>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
<tr>
<td>60</td>
</tr>
<tr>
<td>120</td>
</tr>
<tr>
<td>180</td>
</tr>
<tr>
<td>240</td>
</tr>
<tr>
<td>300</td>
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<tr>
<td>360</td>
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<tr>
<td>420</td>
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<tr>
<td>480</td>
</tr>
<tr>
<td>540</td>
</tr>
<tr>
<td>600</td>
</tr>
</tbody>
</table>

Please slide to indicate number of hours

Since being employed as a school counselor, have you:

Attended school-sponsored in-service programs related to students with disabilities?

- Yes
- No

How many school-sponsored in-service programs related to students with disabilities have you attended?

- Please use numeric digits (i.e. 6)
Attended any professional conferences or workshops related to students with disabilities on your own?

- Yes
- No

How many professional conferences or workshops related to students with disabilities have you attended on your own?

- Please use numeric digits (i.e. 0)

Have you received clinical supervision in the last month?

- Yes
- No

How many hours per month have you received supervision?

- Please use numeric digits (i.e. 0)

Estimated number of clinical supervision hours spent specifically focused on counseling students with disabilities.

<table>
<thead>
<tr>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
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<tr>
<td>10</td>
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<tr>
<td>20</td>
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<tr>
<td>30</td>
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<tr>
<td>70</td>
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<tr>
<td>80</td>
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<tr>
<td>90</td>
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<tr>
<td>100</td>
</tr>
</tbody>
</table>

Please indicate the number of hours

Participant Demographics

This final section is to learn more about who you are.

In what state did you complete your graduate training?
Attended any professional conferences or workshops related to students with disabilities on your own?

☐ Yes
☐ No

How many professional conferences or workshops related to students with disabilities have you attended on your own?

☐ Please use numeric digits (i.e. 6)

Have you received clinical supervision in the last month?

☐ Yes
☐ No

How many hours per month have you received supervision?

☐ Please use numeric digits (i.e. 6)

Estimated number of clinical supervision hours spent specifically focused on counseling students with disabilities.

<table>
<thead>
<tr>
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<tbody>
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Participant Demographics

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In what state did you complete your graduate training?
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○ Yes
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How many professional conferences or workshops related to students with disabilities have you attended on your own?

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Have you received clinical supervision in the last month?

○ Yes
○ No

How many hours per month have you received supervision?

○ Please use numeric digits (i.e. 6)

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<table>
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<td>80</td>
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<tr>
<td>90</td>
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<tr>
<td>100</td>
</tr>
</tbody>
</table>

Please indicate the number of hours

Participant Demographics

This final section is to learn more about who you are.

In what state did you complete your graduate training?
Have you been practicing as a school counselor for more than a full calendar year?

- Yes
- No

How many years have you been a practicing school counselor?

- Please use numeric digits (i.e. 6)

Do you currently hold any school counseling credentials (i.e. state certifications, licenses)?

- Yes
- No

Please identify all school credentials that you currently have.

- State certification
- Multiple state certifications
- Licenses
- Multiple state licenses

What is your current age?

- Please use numeric digits (i.e. 6)

In what state are you currently employed as a school counselor?

- [State]

Which gender do you most identify with?

- [Gender Options]
Male
Female
Transgender
If your gender is not represented, please write it in the box

What race/ethnicity do you most identify with?
Black
Asian
Caucasian
Hispanic
Native American
Pacific Islander
If your race/ethnicity is not represented here, please write it in the box

Do you self identify as having a disability?
Yes
No
No response

Please indicate your level of agreement/disagreement on the following statements with regards to individuals with disabilities.

<table>
<thead>
<tr>
<th></th>
<th>I highly agree</th>
<th>I agree</th>
<th>I agree little</th>
<th>I disagree little</th>
<th>I disagree</th>
<th>I highly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel uncomfortable and find it hard to relax.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I can't help staring at them</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I feel unsure because I don't know how to behave</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I feel overwhelmed with discomfort about my lack of disability</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I am afraid to look at the person straight in the face</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I tend to make contacts only brief and finish them as quickly as possible</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Have you had or currently have personal contact with an individual with a disability (i.e. friend, family member, partner, coworker)?
Yes
Please identify the type of contact with an individual with a disability. Please select all that apply.

The individual with a disability was/is a:

- Family member
- Friend
- Coworker
- Romantic Partner
- Teacher/Professor
- Supervisor/Boss
- Counselor
- Neighbor
- Other health care providers
- If your contact with an individual with a disability is not represented, please write it in the box

How would you rate the overall quality of your contact with the individual(s) with disability you identified?

<table>
<thead>
<tr>
<th>Very Negative (-5) to Very Positive (+5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>-5</td>
</tr>
<tr>
<td>___</td>
</tr>
</tbody>
</table>

Please rate the quality of the contact

Congratulations, you have completed the survey! Thank you for your time and dedication.

If you are interested in being considered for the $200 Visa gift card, please provide an email address in the space below

[Space for email address]

Thank you, have a wonderful day!
References


doi:10.1037/1082-989X.1.1.16


Education for All Children Act, 94 U.S.C. Public Law No. 94-142 (1975).


Doi:10.5330/PSC.n.2010-12.162


Gill, F., Kroese, B. S., & Rose, J. (2002). General practitioners' altitudes to patients who have learning disabilities. *Psychological Medicine, 32*(8), 1445-1455.

doi:10.1017/S0033291702006608


doi:10.1002/j.1556-6678.2010.tb00155.x


doi:10.1037/0022-0167.33.3.310


doi:10.1037/0022-0167.26.3.190


doi:10.1080/01933920701227190


doi:10.1017/jgc.2013.14


doi:10.1080/01933929608412242


doi:10.1023/A:1021899121418


Roberts, C. M., & Smith, P. R. (1999). Attitudes and behavior of children toward peers with


Torrence, J. N. (2013). The influence of attitudes toward students with disabilities and counselor self-efficacy on school counselors' perceptions of preparedness to provide services to students with learning disabilities (Unpublished doctoral dissertation). Marywood University, Scranton PA.


doi:10.1177/00343552040470040101


Jaime H. Castillo

EDUCATION

Syracuse University (CACREP Accredited)
Ph.D. Counseling and Counselor Education Candidate, anticipated completion Spring 2016
Cognate: Research Methods
Dissertation: A Multivariate Analysis of School Counselors Engagement with Students with Disabilities

The University of Scranton (CACREP Accredited)
M.S., School Counseling, 2008

Penn State University
B.S., Psychology, Biological Sciences, 2006

PROFESSIONAL CREDENTIALS

National Board of Certified Counselors
National Certified Counselor (N.C.C.) #240213
Approved Clinical Supervisor (A.C.S.) #2088

Pennsylvania Department of Education
Secondary School Counseling, Professional Certification #08618573

Syracuse University
Certificate in University Teaching (2016)

TEACHING

Lead Instructor
Developed course objectives, assignments, and syllabi for three masters level and two undergraduate level courses. Facilitated course discussions to create a supportive and experiential learning community with students.

Syracuse University, Syracuse, NY
COU 749 Leadership & Program Implementation: School Counseling Spring 2015
COU 758 Research Methods Spring 2014, 2015

University of Scranton, Scranton, PA
CHS 399 Counseling Boys and Men Spring 2008

McCann School of Business and Technology, Hazleton, PA
GS 101 Career Development Fall 2006, Spring 2007
GS 110 General Psychology Fall 2006, Spring 2007

Graduate Teaching Assistant
Supported the teaching professor in organizing course materials, facilitating discussions, and providing academic and clinical feedback to students.
Syracuse University, Syracuse, NY

COU 624 Theories of Counseling  Fall 2015
COU 600 School Counseling For College Access and Retention (online)  Summer, 2014
COU 644 Counseling Prepracticum  Fall 2012, Spring 2014

CLINICAL SUPERVISION

Doctoral Supervisor  Fall 2013-Present
Syracuse University, Syracuse, NY
Provided individual clinical supervision for 10 masters level counselors-in-training during their practicum and internship experiences. Utilizes a solution-focused and narrative framework to cultivate supervisee clinical skills and professional identity development.

COUNSELING

Mental Health Counselor  2015-Present
Hillside Children's Center, Varick, NY
Engages in individual, group, and family counseling with adolescent youths that is trauma informed, client-centered, and solution-focused. Provides clinical support and supervision to residential staff.

School Counselor, Doctoral Intern  2013-2014
Auburn High School, Auburn, NY
Met with students to provide individual counseling, as well as discuss career and college planning. Facilitated inclusive small group and classroom psycho-educational programming.

Mental Health Counselor, Doctoral Intern  2012-2013
Brownell Center of Behavioral Health, Syracuse, NY
Engaged clients in individual and family counseling in a community mental health setting.

Mental Health Counselor  2010-2012
Center for Specialty Therapy, New York, NY
Provided individual and family counseling to children and adults diagnosed with intellectual and developmental disabilities. Specialized in creating inclusive, person-centered, and solution-focused counseling for individuals and families.

Applied Behavior Specialist  2008-2012
YAI- National Institute for People with Disabilities, New York, NY
Developed individual behavior treatment plans for adults with developmental and intellectual disabilities. Facilitated weekly therapeutic groups for clients to increase social, coping, and advocacy skills. Supervised staff and clinicians on mental health planning and clinical skills.

PUBLICATIONS


Refereed Book Reviews

Non-Refereed Publications & Contributions


Manuscripts in Preparation


GRANTS

Research & Creative Grant ($400) 2015
*Awarded by Syracuse University, School of Education*
Received to support doctoral dissertation investigating school counselor engagement with students with disabilities.

Graduate Student Organization Travel Grant ($200) 2015
*Awarded by Syracuse University, Graduate Student Organization*
Received to support graduate student travel to professional conferences to promote research and engage in professional development activities.

Chapter Grant ($140) 2014
*Awarded by Chi Sigma Iota International*
Received to support the Sigma Upsilon Brown Bag Series to promote continuous professional development, collaboration, and engagement. [With Derek Seward]

College Access Challenge Grant ($49,000) 2013-2015
*Awarded by New York State Higher Education Services Corporation*
Received to develop and implement college access programming for low-income high school seniors, their families, school counselors and other school stakeholders in Jefferson and Lewis Counties, New York. [With Robert Wilson, Melissa Luke, & Amanda Alger]

School of Education Dean’s Office Grant ($400) 2013-2015
*Awarded by Syracuse University, School of Education*
Received to support doctoral student professional development at professional conferences.

Department of Counseling and Human Services Travel Grant ($400) 2012-2015
*Awarded by Syracuse University, CHS Department*
Received to support doctoral student travel to professional conferences to engage in professional service and promote research.

PRESENTATIONS

International

National


Regional


State


**HONORS & AWARDS**

<table>
<thead>
<tr>
<th>Association for Counselor Education and Supervision</th>
<th>2015</th>
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<tbody>
<tr>
<td>Outstanding Graduate Student Leadership Award</td>
<td>2015</td>
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<tr>
<td>Emerging Leader</td>
<td>2015</td>
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</table>

<table>
<thead>
<tr>
<th>North Atlantic Regional Association for Counselor Education and Supervision</th>
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<tbody>
<tr>
<td>Emerging Leader</td>
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<table>
<thead>
<tr>
<th>Council for Accreditation of Counseling &amp; Related Educational Programs</th>
<th>2013-2014</th>
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<tr>
<td>Research Fellowship</td>
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<table>
<thead>
<tr>
<th>Syracuse University</th>
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<tbody>
<tr>
<td>Graduate Fellowship Award</td>
<td>2012-Present</td>
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<table>
<thead>
<tr>
<th>University of Scranton</th>
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<tbody>
<tr>
<td>Outstanding School Counseling Graduate Award</td>
<td>2008</td>
</tr>
<tr>
<td>Graduate Assistantship Scholarship</td>
<td>2007-2008</td>
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**PROFESSIONAL SERVICE & LEADERSHIP**

<table>
<thead>
<tr>
<th>American Counseling Association</th>
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<tbody>
<tr>
<td>Conference Proposal Reviewer</td>
<td>2014</td>
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<tr>
<td>Weblog Contributor</td>
<td>2010-2012</td>
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<table>
<thead>
<tr>
<th>American School Counselors Association</th>
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<tbody>
<tr>
<td>Association for Counselor Education and Supervision</td>
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<tr>
<td>Conference Committee</td>
<td>2015</td>
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<table>
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<th>North Atlantic Regional Association for Counselor Education and Supervision</th>
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<tbody>
<tr>
<td>Graduate Student Committee</td>
<td>2013-Present</td>
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<table>
<thead>
<tr>
<th>Chi Sigma Iota</th>
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<tbody>
<tr>
<td>Chapter</td>
<td></td>
</tr>
<tr>
<td>Sigma Upsilon, President</td>
<td>2014-2015</td>
</tr>
<tr>
<td>Professional Member Chair</td>
<td>2013-2014</td>
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<tr>
<td>Chi Delta Rho, Secretary, University of Scranton</td>
<td>2007-2008</td>
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<table>
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<th>International</th>
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<tr>
<td>Professional Member Committee</td>
<td>2010-2014, 2015-Present</td>
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<tr>
<td>Award Panel Reviewer</td>
<td>2014</td>
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**UNIVERSITY & COMMUNITY SERVICE**

<table>
<thead>
<tr>
<th>Auburn High School</th>
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<tbody>
<tr>
<td>School Counseling Advisory Council</td>
<td>2014-Present</td>
</tr>
<tr>
<td>Meets with local stakeholders on a quarterly basis to begin developing a comprehensive school counseling program aligned with the ASCA National Model.</td>
<td></td>
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<table>
<thead>
<tr>
<th>Syracuse University</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>School of Education, Dean Search Committee</td>
<td>2014-2015</td>
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<tr>
<td>Served as the graduate student representative on a national dean search.</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Department of Counseling and Human Services</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Placements Co-coordinator: Clinical Mental Health Counseling, School Counseling, &amp; Student Affairs Counseling</td>
<td>2014-2015</td>
</tr>
</tbody>
</table>
Coordinated the internship and practicum placements for all master’s students during the 2014-2015 academic year. Worked with faculty program coordinators and community site supervisors to build supportive and engaging experiences for students.

Chi Sigma Iota, Organizer and curator of the bi-weekly “Brown Bag Series” professional development workshops, 2014-Present

PROFESSIONAL AFFILIATIONS
American Counseling Association
American School Counselors Association
Association for Counselor Education and Supervision
Chi Sigma Iota
North Atlantic Regional Association for Counselor Education and Supervision