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The Academic and Social-emotional Effects of Classroom Service Dogs/Specialized Therapy Dogs with Handlers on Student Learning and Behavior in K-12 Special Education Students in Emotional/Behavioral Disordered Placements as Perceived by their Teachers

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The Academic and Social-emotional Effects of Classroom Service Dogs/Specialized Therapy Dogs with Handlers on Student Learning and Behavior in K-12 Special Education Students in Emotional/Behavioral Disordered Placements as Perceived by their Teachers

A Dissertation by

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ABSTRACT

The Academic and Social-emotional Effects of Classroom Service Dogs/Specialized Therapy Dogs with Handlers on Student Learning and Behavior in K-12 Special Education Students in Emotional/Behavioral Disordered Placements as Perceived by their Teachers

by Sharon T. Kalkoske

Purpose: The purpose of this phenomenological study is to determine and describe the academic and social-emotional effects of classroom service dogs/specialized therapy dogs with handlers on student learning and behavior in K-12 special education students in Emotionally/Behaviorally Disturbed (EBD) placements as perceived by their teachers.

Methodology: This study utilized qualitative data from semistructured, open-ended interview questions to analyze the research questions regarding the perceptions of teachers and educators on service dogs/specialized therapy dogs with handlers on student learning and behavior in K-12 special education students in EBD placements. The population for this study included educators working in special education classrooms from three schools in New Jersey and one school in California.

Findings: The data collected from the 12 participants established that having therapy dogs with handlers in a classroom with K-12 special education students in EBD placements benefitted their academic engagement and time on task and positively affected the behavior of students. The effect of student success rates on statewide achievement tests was deemed negligible based upon participants' responses as unable to address this question due to little correlation in this area.

Conclusions: The findings from this phenomenological study led the researcher to conclude that despite the procedural challenges of implementing a service dog/specialized therapy dog with handler program, the overwhelming benefits supersede the difficulties. All participants pointed out the dogs' calming and destressing effect and how the therapy dogs often assisted students in averting an escalation of crisis behaviors. **Recommendations:** It is recommended that further research be conducted wherein the educators' perceptions be supported by empirical verification. Future studies should isolate core components and compare results in academic and social/emotional/behavioral domains between groups that had the therapy dog interventions and control groups with no dog present. Finally, the researcher recommends that a study of the perceptions of parents be conducted to determine student behavior changes at home and across environments.

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CHAPTER I: INTRODUCTION

The benefits of the human-animal bond began as early as humans domesticated wolves and continues today with guide dogs for the blind, post-traumatic stress disorder (PTSD) specialized therapy dogs for veterans of war, and service dogs that can detect a myriad of conditions from disease to emotional distress signals in people. Results from the peer reviewed studies on whether service dogs/specialized therapy dogs have an impact on students with emotional/behavioral disorder (EBD) concludes that placing service dogs/specialized therapy dogs with a handler in the classroom has a positive effect on students' emotional well-being as well as their academic engagement on task and overall academic success (Huss, 2011). The issue has become one of greater importance over the last 20 years as the increase in identification of students with autism, for example, has increased. Schools, parent stakeholder groups, and districts have had to collaborate on ways in which special education programs must be designed to meet the needs of the child. One of the interventions discovered to be particularly effective in working with not only autistic children, but students with EBDs is that of incorporating a service dog/specialized therapy dog with a handler into the classroom.

The Individuals with Disability Act (IDEA) of 1997 (IDEA, 2006) identifies best practices in working with special education students who suffer from emotional and behavioral disorders. Service dogs and therapy dogs are increasingly considered a viable component of a special education classroom. Additionally, the mainstream population can register personal animals for therapeutic reasons (Huss, 2011; Marx, 2014). Thus, evidence supports that service animals in academic settings such as K-12 classrooms and college campus classrooms have positive outcomes such as reducing students' anxiety

levels and increasing on task academic engagement (Von Bergen, 2015). The literature, however, shows a lack of empirically designed research to unequivocally support the efficacy of this intervention. Consequently, much of the research is anecdotal in nature and, while emotionally engaging, does not lend itself to hard science.

Additionally, the reported findings of Esteves and Stokes (2008) conclude that a body of research supporting the efficacy of service dogs on academic engagement is widespread beginning with the 1997 research work of Limond, Bradshaw, and Cormack (1997) who studied children with Down's syndrome and found that these children interacted more readily with the handler and directed their attention more to a live dog versus an imitation dog. The study was limited in that data was not collected regarding interaction with peers or other adults. A study conducted by Frenette (2016) suggested dogs that are highly skilled and expertly trained help students during such anxiety producing events as fire drills, crowded hallways, and standardized tests. Albeit while largely anecdotal in nature, the literature can assist the field of study in further examination of the relationships between humans and animals.

The topic of this study is the use of service dogs/specialized therapy dogs with handlers for individuals with emotional and behavioral disorders and the implementation of their use in school settings. While the research advances both theory and practice, there is anecdotal evidence of the benefits of these dogs in the classroom. Similarly, the implications of the benefits to students with EBDs in the classroom suggest that people in wider society may also find benefits. In order to combat personal levels of anxiety and stress, many people have their own pet registered as an emotional-support animal (ESA). Research in this field can assist practitioners by identifying emotionally disturbing

behaviors effectively responded to by service dogs that occur not only in the classroom, but also within society at large by exploring the effectiveness of service dogs in the classroom. A current area of controversy exists regarding the general public utilizing their pets as "therapy" animals. There is a specific process for this registration and while dogs are most frequently the types of animal registered in this capacity, people have also registered rabbits, snakes, rodents, pigs and even llamas (Marx, 2014). The duties of service dogs and specialized therapy dogs, however, are task specific and designed to pointedly meet the needs of an emotionally and behaviorally disabled individual or groups containing such individuals (Burkes, 2015; Froling, 2009). More information is needed to determine and describe the academic and social-emotional effects of a classroom service dog/specialized therapy dog with a handler on student learning and behavior in K-12 special education students in emotional/behavioral disorder placements.

Background

Historically, schools have served as a microcosm of the larger world. Within that strata there are all types of personalities, learners, and thinkers. Additionally, individuals with mental or behavioral disabilities have not always been welcomed into public schools in the United States. Prior to the 1970s, it was left to individual states to determine if individuals with disabilities could be enrolled in their schools (Berry & Katsiyannis, 2012). Fortunately, with the advent of the IDEA in 1972, those students were no longer at the mercy of state and local school officials and a Free and Appropriate Public Education (FAPE) was finally considered their right (Individual with Disabilities Education Act [IDEA], 2004). In addition, schools were required by law to see to it that students with disabilities had opportunities to interact with more typical peers to the

extent possible. These children were no longer to reside solely in the basement of the school away from the other students, as was a common practice of the 60s and early 70s (Switzer Vaughn, 2003).

Working with students with emotional and behavioral needs, however, poses additional challenges. The need for implementation of mental health interventions with students in the classroom has increased significantly over the course of the last decade (Von Bergen, 2015). Hawken, Bundock, Kladis, O'Keeffe, and Barret (2014); Mastropieri and Scruggs (2007); Rutherford, Quinn, and Mathur (2004); and Vejar (2010) note emotional disorders such as autism, anxiety, PTSD, adolescent schizophrenia and a myriad of other mental health challenges resulting in behaviors ranging from school avoidance to physical aggression which warrant classroom modifications designed to increase student learning and emotional stability and reduce maladaptive behaviors (Stuber & Dannells, 1996).

One intervention with promising anecdotal and theoretical support involves the use of service dogs in classroom programs serving these children's needs. Results from peer reviewed studies on whether service dogs have an impact on emotionally disturbed and behaviorally disordered students concludes that placing service dogs in the classroom has a positive effect on students' emotional well-being as well as their academic engagement on task and overall academic success (K. L. Anderson & Olson, 2006). Evidence supports that service animals in academic settings such as K-12 classrooms and college campus classrooms have positive outcomes such as reducing students' anxiety levels and increasing on task academic engagement (Von Bergen, 2015).

The background is presented in four areas with sub topics in each of the main topic sections. Understanding the nature of utilizing service dogs and specialized therapy dogs guided by handlers as an intervention in the classroom is paramount to the research. There is an explanation of terminology, providing of examples and identification of classroom systems where service dogs/specialized therapy dogs with handlers are placed. While not a prescriptive paper topic, the organizational elements necessary to instituting an intervention program which infuses these dogs and their handlers into the setting, is addressed (Suchetka, 2010).

The first section provides an overview of service dogs and specialized therapy dogs as an educational intervention. Within that area, the rationale, key terms, and variables affecting service animals working with emotionally disturbed students will be articulated. Service dogs/specialized therapy dogs provide support and interventions in classrooms seeking to address behaviors that can compromise student learning and lead to disciplinary consequences such as school suspension (Lawrenson & McKinnon, 1982). The key terms specific to this understanding provide clarity for practitioners in the field. Variables such as student behavioral characteristics stemming from troubled home life, mental health disorders, and limited access to quality interventions and supports are pivotal elements of recognizing the many challenges faced by these students. Additionally, as Poucher (2015) highlights in her paper discussing inaccurate mental health assessments on adolescents, a section on assessment and student accountability will be presented. Finally, there will be discussion on the historical base of addressing the purpose of animals as support systems for students and society.

The second area of the review will examine literature covering the history of service dogs in public facilities and in education. The sub areas will discuss literature surrounding the use of guide dogs for visual and hearing impairments, the 1992 American with Disabilities Act and litigation that influences the acceptability of a service dog and specialized therapy dog in the classroom. Also within the history section, the sub topic of Individual(s) with Disability Education Improvement Act (IDEIA) of 2004 will be reviewed. A section discussing the range of terminology applied to dogs providing support will be presented for clarity and understanding of the role of service dogs and specialized therapy dogs with handlers for anxiety and acting out disorders versus more general therapy dogs and highly trained psychiatric service dogs placed with specific individuals (Binfet & Passmore, 2016).

The third area discusses the efficacy of the service dogs/specialized therapy dogs and their handlers with students with disabilities and addresses anecdotal evidence or case studies, the theoretical benefits to children and schools and the challenges and lack of evidence-based support. An examination of the principles of placing a service dog/specialized therapy dog with a handler in the classroom with emotionally and behaviorally disturbed students is analyzed in this third area of the background. The third area will also present the criticisms and challenges to the program implementation. Slade et al. (2009) will provide an examination of the financial implications of having a service dog/specialized therapy dog with a handler as a classroom intervention.

Finally, the literature is reviewed about the sustainability of the program on school campuses with an emphasis on the review of literature discussing rationale(s),

policy roadblocks and flexibility and accommodations (Taylor, 2010). The chapter will conclude with a summary of the findings and recommendations for future studies.

Statement of the Research Problem

Special Education K-12 students who are diagnosed as emotionally disturbed and/or behaviorally disordered face a lifetime of challenges starting with their compulsory education and continuing into adulthood (Stuber & Dannells, 1996; Vejar, 2005). For some, the trajectory includes multiple school referrals, suspensions, school expulsions and can continue into adulthood where prison is sometimes the end of the line (Mallett, 2016a, 2016b; Poucher, 2015). Cuellar and Markowitz (2015), for example, pose that suspensions lead to crimes committed outside of school during the student's period of suspension. Threat assessments of students with emotional disturbance have found these children to have significantly more suspensions than regular education students and special education students with learning disabilities (Kaplan & Cornell, 2005). Consequently, learning time is compromised and the gaps in a student's education can lead to failure in gaining a high school diploma.

Additionally, the stress on special education teachers to meet the ever increasingly difficult developmental and mental health needs of an EBD student is significant (Baker, 2013; DeVoe & McMillen, 1994). The relationship between the student and the teacher is impacted with additional environmental stressors placed on the students in the classroom (Merrell, Buchanan, & Tran, 2006). According to Kaplan and Cornell (2005) the "threats of violence" in classrooms are ever present in classrooms for special education students identified as EBD. Researchers have examined various assessments and interventions to accommodate the emotionally and behaviorally disturbed student in

the classroom (Stuber & Dannells, 1996; Topping & Flynn, 2004). Similarly, financial impacts and reforms in special education are examined for efficacy of program implementation on school sites (Sigafoos et al., 2010). The challenge thus becomes discovering interventions to provide support for special education students with EBDs in order to facilitate their success in school and life.

One such intervention is the "human-animal" therapeutic connection and the physiological benefits animals can provide as a 21st century mental health treatment (Pop et al., 2014; Tedeschi, Garrity, & Garrity, 2009). Service animals, including horses and dogs, have been shown to decrease stress levels in their owners and increase emotional well-being (Butterly, Percy, & Ward, 2013). Guide dogs for the blind have their earliest roots in working with World War I veterans (Ostermeier, 2010). Today, handlers, including occupational therapists, are well represented in working with veterans of war (Fike, Najera, & Dougherty, 2012). A growing body of research on utilizing psychiatric service dogs with war veterans suffering acute post-traumatic stress disorders continues to unfold examining benefits and costs associated with providing a service animal to veterans (Fike et al., 2012; Ostermeier, 2010; Weinmeyer, 2015) yet, there is a dearth of research on utilizing service dogs and specialized therapy dogs with EBD students in the classroom and on school campuses (Von Bergen, 2015).

Consequently, there has been little to no research determining and describing the academic and social-emotional effects of a classroom service dog/specialized therapy dog with a handler on student learning and behavior in K-12 special education classrooms for students with EBDs. Additionally, what research is available is largely anecdotal in nature (Rothberg & Collins, 2015; Stevenson, Jarred, Hinchcliffe, & Roberts, 2015;

Suchetka, 2010; Walthall, 2012). However, there is research that has determined that the presence of therapy dogs on college campuses has been shown to reduce acute stress and anxiety in students during final exams (Schlosser, 2013). Moreover, therapy dogs have been found to be assistive in creating "social stories" with autistic students (Chris & Gatehouse News, 2011; Funahashi, Gruebler, Aoki, Kadone, & Suzuki, 2014; Grigore & Rusu, 2014; Hill, King, & Mrachko, 2014; Schoenbaechler, 2010). Trained service dogs working with autistic children have a positive impact on the child's behavior in the classroom. Again, however, the need for a service dog/specialized therapy dog with a handler that is more specifically trained for behavioral intervention also exists as there remains a population of students with special needs, the emotionally and behaviorally disordered student, who unilaterally does not receive these supports.

The increased behavioral incidences of students with emotional disturbances and the frequency with which those behaviors result in suspensions, expulsions, and their link to the "prison pipeline" phenomena is examined by the National Council on Disability (as cited in Houchins & Shippen, 2012). A brief examination of the literature on organizational leadership (D. Anderson & Anderson, 2010) logic models (Bamberger, Rugh, & Mabry, 2012) and system(s) development (Senge, 2004) as they relate to a psychiatric program implementation on a school campus are presented. Conclusions discuss the leadership required to inspire people to "action" (Degges-White, 2015, p. 14) and with modeling of positive behavior when, in this case, introducing a service dog/specialized therapy dog on campus. The review of this literature suggests a topic for future study.

No uniform legal statutes and protocols exist in supporting the use of a service dog/specialized therapy dog with a handler in the classroom and the intervention must be examined and solidified for proper program placement at school (Hill, King, & Mrachko, 2014; Hunt & Chizkov, 2014). Thus, the need to further define and examine the academic and social-emotional benefits of having a service dog/specialized therapy dog with a handler in the classroom is warranted as a possible intervention for students with special needs in emotional/behavioral disordered placements.

Purpose Statement

The purpose of this phenomenological study is to determine and describe the academic and social-emotional effects of a classroom service/specialized therapy dog with a handler on student learning and behavior in K-12 special education students in emotional/behavioral disorder placements as perceived by their teachers.

Research Questions

This phenomenological study will address the following questions:

Central Research Question

How do classroom teachers of K-12 special education students in placements for EBDs describe the academic and social-emotional effects of a classroom service dog/specialized therapy dog with a handler on student learning and behavior?

Research Sub-Questions

1. How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affect academic engagement and time on task?

2. How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect student success rates on statewide achievement tests?
3. How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect behavior of students in measurable ways?

Significance of the Problem

Like guide dogs for the blind and war veterans suffering from post-traumatic stress disorder, service dogs/specialized therapy dogs may provide cueing and support for an emotionally disturbed student who is accelerating in a negative direction in the classroom (Topping & Flynn, 2004). Investigating this possibility provides an opportunity to reconcile the gap in the literature and can contribute to the existing body of anecdotal research in the human-animal relationship as occurs in mental health capacities.

This study will add to the literature that examines service dogs in the classroom and the human-animal bond (Gavriele-Gold, 2011). Specifically, this study sought to fill the gaps in the literature by determining if placing service dogs/specialized therapy dogs in the classroom has a positive effect on students' emotional well-being as well as their academic engagement on task and overall academic success (Esteves & Stokes, 2008; Frenette, 2016; Fry-Johnson, Powell, & Winokur, 2009; Huss, 2011). An overlooked population in this area, however, are the special education students placed in classrooms

for EBDs. An investigation into the data of special education students in placements for emotional/behavioral problems will address gaps in research and literature in the field of utilizing service dogs/specialized therapy dogs with handlers as an intervention in a classroom setting. The IDEA of 1997 (IDEA, 2006) supports the use of therapy dogs in the classroom and identifies best practices in working with special education students who have special needs. Evidence supports that service animals in academic settings such as K-12 classrooms and college campus classrooms has positive outcomes such as reducing students' anxiety levels and increasing their on task academic engagement (Von Bergen, 2015). Current popular research in this area is centered on how the mainstream population can register their personal animals for therapeutic reasons (Huss, 2011; Marx, 2014; Muramatsu, Thomas, Leong, & Ragukonis, 2015). Service dogs and specialized therapy dogs are now considered a viable component of a special education classroom; yet, there is a paucity of research in utilizing these dogs in a 21st century classroom as an intervention for students with EBD.

Additionally, this study will examine the reported findings of Esteves and Stokes (2008) discerning the efficacy of service dogs on academic engagement is widespread ensuing with the research work of Limond, Bradshaw, and Cormack (1997) who studied individuals with developmental disabilities. Dogs that are highly skilled and expertly trained help students during such anxiety producing events as fire drills, crowded hallways and standardized tests (Fritz, 2011). The urgency for research on service dogs specifically intended to provide support for special education students in EBD placements, however, is great as they suffer extreme anxieties and angry outbursts which impact student safety (their own, peers, and school employees) and academic engagement

due to a myriad of mental health disorders (Berry & Katsiyannis, 2012; Lang, Jansen, Wertenauer, Gallinat, & Rapp, 2010; Parenti, Foreman, Jean Meade, & Wirth, 2013; Poucher, 2015; Suchetka, 2010; Von Bergen, 2015). Furthermore, the feeling of futility is felt by not only the student, but by the teachers who work with students with emotional and behavioral disorders, warranting research for supports and classroom interventions necessary to stave off staff burnout (Cavin, 1998; Lawrenson & McKinnon, 1982). Maintaining the safety and satisfaction of highly qualified teachers in this area and providing stability for students and stakeholders is another potential important contribution of research in this area (Beetz, 2013).

Moreover, student referrals, suspensions, expulsions, and a declining high school graduate rate in special education students identified with and placed in programs for EBD are a growing trend (Bradley, Doolittle, & Bartolotta, 2008; Lewis, Jones, Horner, & Sugai, 2010; Poucher, 2015; Topping & Flynn, 2004). Academic engagement, including time on task, and success rates on statewide achievement tests are compromised when a student is suffering behavioral issues which interfere with learning (Abel, Gadomski, & Brodhead, 2016). Collecting data on students with EBDs directly from school districts that have utilized service dogs and specialized therapy dogs in the classroom and examining that data to determine the impact of this under researched intervention on student outcomes is the study. The goal is to fill the gap in research through an investigation into the human-animal bond focusing on service dogs and specialized therapy dogs by examining the lack of research pertaining to this relationship with special education students place in classrooms due to EBD. Additionally, a gap

exists in the administrative procedures for placing a service dog in a public-school classroom and there is no uniform policy in this area (Bourland, 2009).

Definitions

Service Dog. Service dogs are generally considered to be dogs trained in supporting individuals with specific disabilities who are unable to manage activities of daily living as a result. The term includes dogs extensively and specifically trained to assist those with blindness or visual impairments and deafness, along with conditions such as diabetes, seizure disorders and autism along with psychiatric service dogs. In a broader sense, and for purposes of this study, however, the term is used to mean dogs with specific training in social, emotional and behavioral interventions for children and that work in classrooms under the supervision of their handlers (Rothberg & Collins, 2015; Sutton, 2015).

Therapy Dog. Therapy dogs are certified to accompany therapists in the physical or mental health domains in treating patients with a variety of diagnosed conditions. While these animals are certified, there is typically not a specific training requirement needed to secure this designation (Zilcha-Mano, Mikulincer, & Shaver, 2011).

Specialized Therapy Dog. A specialized therapy dog is a dog that is accompanied by a handler in the classroom or in a hospital setting and is more highly trained to provide assistive mental health support such as nuzzling, redirecting and guiding individuals who are suffering from anxiety, depression and other associative disorders that interfere with a person's quality of life (Friesen, 2010; Wieselthier, 2011).

Facility Dog. A facility dog is trained to work with a "professional partner" such as speech and language therapists, physical therapists and reading specialists to provide

motivation for the individual in the classroom and/or therapy session. The temperament of the facility dog requires that the dog stay calm in various situations, take direction and be able to interact with diverse populations at the direction of the handler (Hall, Gee, & Mills, 2016).

Psychiatric Service Animal/dog. Psychiatric service dogs are vetted and specifically trained to work with specific individuals identified with "disability-related needs" and those suffering from psychological and mental health disorders (Esnayra, Terry, & Edelson, 2012). Individual dogs with this designation are assigned to a single person and their access to a range of public and private facilities is protected by the ADA (Springer, 2008).

Cortisol Detection Dogs. Cortisol detection dogs are service dogs specifically trained to utilize their keen sense of smell to detect cortisol increases in individuals suffering from stress, anxiety, post-traumatic stress disorder or nervousness. These dogs signal the increase of cortisol to their handler who in turn seeks to minimize the response in the individual suffering the episode (Hall et al., 2016; Leitner, 2017).

Emotional Support Animal/Dog. Emotional Support Animals and Emotional Support Dogs are a type of service animal that provides comfort and emotional support and are considered companions to humans (Sutton, 2015).

Emotional Disturbance. Emotional disturbance is a diagnosis given to an individual who suffers from and demonstrates severe emotional, behavioral, and socially maladjusted problems (Bloom, 1983; Gresham, 2005).

Placements for Students with Emotional Disturbances. Intensive behavioral and emotional support for students identified with emotional disturbance and/or severe

behavioral disorders with students who typically spend 50% or more of their time outside of general education (mainstream) classroom placements (Kauffman, Cullinan, & Epstein, 1987).

Animal Assisted Therapy. Animals working with a therapist in psychotherapeutic sessions with patients dealing with emotional or maladaptive behavioral disorders (Hunt & Chizkov, 2014).

Students with Disabilities. Students who have been assessed by their local school districts who meet one of the 10 criteria for meeting eligibility: (a) autistic, (b) emotionally disturbed, (c) mental retardation, (d) other health impaired, (e) deaf/blind, (f) hard of hearing, (g) orthopedically impaired, (h) intellectually disabled, (i) multiple disabilities, and (j) speech and language impaired (Smith & Colon, 1998).

Special Education. A federally mandated set of services, supports and accommodations required to meet the needs of students identified with educational disabilities who are offered a free and appropriate public education as determined in their IEPs (Cloth, Evans, Becker, & Paternite, 2014).

Individuals with Disability Education Improvement Act. The federal law that, in 1975, established the rights, procedures and principles of special education and that has been reauthorized in 2004 (Coots, 2007).

Educational Interventions. Specific services, programs, supports and modifications designed to improve students' success and positively impact student learning and behavioral outcomes (Evans, Hallett, Rees, & Roberts, 2016).

Service Dog Programs. To qualify for inclusion in this study, a service dog program must include regular (three times per week) presence of a trained psychiatric

service dog with a certified handler (Hergovich, Monshi, Semmlert, & Ziegimayer, 2002).

Academic Benefits. Students will be observed in percentage of intervals in a 15-minute period in which student is engaged in appropriate academic behaviors. Teacher reports of progress (percentage of academic IEP goals met).

Social/Emotional Benefits. Percentage of social/emotional/behavioral goals met on IEPs observing a frequency count of number of aggressive behaviors that occur within a twenty-minute observation period. Aggressive incidents will be defined in both verbal and physical terms and identified by physical aggression including acts of hitting, kicking, throwing, etc.

Delimitations

This study was delimited to teachers of K-12 special education students in EBD placements on the east coast and in southern California. Specifically, this study was delimited to four schools, one in California and three in New Jersey, that house special education programs considered primary placements for students with an emotional/behavioral disturbance that are currently utilizing trained service dogs and specialized therapy dogs on a regular basis.

Organization of the Study

This dissertation is organized in five chapters. Chapter I introduces the study and the examination of the topic of the use of dogs for individuals with EBDs and the implementation of the service dog/specialized therapy dogs use in schools. Furthermore, Chapter I will introduce the background of the issue, the statement of the research problem, the purpose statement, research questions, significance of the problem,

definitions and delimitations of the study. Chapter II provides a review of the seminal works and pertinent literature for this research presenting definitions, themes and program design considerations. Chapter III highlights the research methods and procedures that will be utilized as well as articulating the support for the selected methodology. Chapter IV enumerates the findings of the study as they pertain to the research questions. Chapter V provides major findings, conclusions, ramifications, and recommendations for a future study.

CHAPTER II: REVIEW OF THE LITERATURE

"When paws touch hands in friendship, hearts are touched with joy."

--Michelle Rivera

Introduction

This literature review provides the research and theoretical background for the study as well as identifying the research gap. The examination of the literature is centered on service dogs and specialized therapy dogs that are accompanied by handlers in special education classrooms where students with EBDs are educated. Within the scope of the literature review, topics included in the review are the various genres and definitions (National Service Animal Registry [NSAR], 1995-2017) of service animals, the history of service animals in private and public educational organizations in the United States and internationally, animal assisted therapy and its applications to the educational realm, and animals in the classroom as a positive behavioral intervention (Hanselman, 2001).

This literature review chapter is vital in establishing the purpose and intent of the study on the efficacy of programs where service dogs and specialized therapy dogs with handlers work with students with emotional and behavior disorders in K-12 classrooms and explores the breadth of writing suggesting service dogs become a regular part of the school organization when warranted (Esteves & Stokes, 2008; Geist, 2014). The literature review establishes the rationale for why the study is important and allows for the definition of key terms to be used throughout the study (NSAR, 1995-2017). In this case, the purpose of the literature reviewed was to specifically examine the effectiveness of service animal programs as educational interventions in classrooms and examine

programs that “ensure that all children with disabilities have a free appropriate public education (FAPE)” (IDEA, 2004, p. 2). The review will examine literature regarding different age groups and disability groups to identify trends or factors associated with significant outcomes for a service dog intervention (Friedmann & Heesook, 2009). In this proposed research, the specific context will include public school programs for special education students in a non-public school in southern California and one public school and two private schools in New Jersey.

The literature is presented in four areas with sub topics in each of the main topic sections. The first section provides an overview of service dogs as an educational intervention (Hall, Gee, & Mills, 2016; Levinson, 1970). Within that area, the rationale, key terms, and variables affecting service animals working with EBD students will be articulated. The second area of the review will examine literature covering the history of service dogs in public facilities and in education. The sub areas will discuss literature surrounding the use of guide dogs for visual and hearing impairments, the 1992 American with Disabilities Act and litigation that influences the acceptability of a service dog in the classroom (Ostermeier, 2010). Also, within the history section, the sub topic of IDEIA of 2004 will be reviewed (Wieselthier, 2011). The third area reviews the efficacy of the service dogs with students with disabilities and addresses anecdotal evidence or case studies, the theoretical benefits to children and schools and the challenges and lack of evidence based support (Trotter, Chandler, Goodwin-Bond, & Casey, 2008). Finally, a review of literature is studied regarding the sustainability of the program on school campuses with an emphasis on the review of literature discussing rationale(s), policy

roadblocks, and flexibility and accommodations (Binfet & Passmore, 2016; Guesno, 2012). The chapter will conclude with a summary of the findings.

Scope of the Literature Review

The purpose of this literature review will be to develop a thorough understanding of the use and efficacy of service and therapy dogs in educational settings. As such, its emphasis will be on the range of interventions implemented in school settings, with particular emphasis on uses involving students with emotional and behavioral challenges (Roberts-Schneider, 2016). The review will not, therefore, catalogue an exhaustive list of additional interventions applicable with this population. In addition, an aspect of the administrative oversight of these programs will be examined.

Service Animals as Educational Interventions

School sites, for centuries, have served as a microcosm of the larger world. Within that strata there are all types of personalities, learners, and thinkers (Stone & Uretsky, 2016). Additionally, individuals with mental and behavioral disorders have always been part of the school organization (Jones, 1992). Fortunately, with the advent of the IDEA in 1972 (Switzer Vaughn, 2003) those students no longer reside in the basement of the school away from the other students, as was a common practice of the 60s and early 70s or worse, not allowed into school at all (Cloth, Evans, Becker, & Paternite, 2014; Coots, 2007). Working with students with emotional needs, however, poses additional challenges (Hanselman, 2001; Johnson et al., 1981).

The need for implementation of mental health interventions with students in the classroom has increased significantly over the course of the last decade (Von Bergen, 2015). Whitlock and Schantz (2008) note emotional disabilities such as autism, anxiety,

posttraumatic stress disorders, adolescent schizophrenia, and a myriad of other mental health challenges resulting in behaviors ranging from school avoidance to physical aggression warranting classroom modifications designed to increase student learning and emotional stability (Jones, 1992; Webber, Anderson, & Oteym, 1991). One intervention with promising anecdotal and theoretical support involves the use of highly trained service dogs with handlers in classroom programs serving these students' needs (Walthall, 2012; Wieseithier, 2011).

Theoretical Framework

This study draws on the reported findings of Esteves and Stokes (2008) which concludes that a body of research supporting the efficacy of service dogs on academic engagement is widespread. The particular focus of their work is on the social effect of emotionally disturbed children in the classroom Esteves and Stokes (2008). Burgoyne et al. (2014), indicates a potential causal relationship between a student's positive verbal, non-verbal and social engagement in a classroom containing a service dog and/or highly specialized therapy dog. Dogs that are highly skilled and expertly trained help students during such anxiety producing events as fire drills, crowded hallways, and standardized tests (Frenette, 2016).

Benefits of Service Dogs for Students with EBD

Results from peer reviewed studies on whether service dogs have an impact on EBD students concludes that placing service dogs with a handler in the classroom has a positive effect on students' emotional well-being as well as their academic engagement on task and overall academic success (Kogan, Granger, Fitchett, Helmer, & Young, 1999). These researchers report case studies which demonstrated the impact of an

Animal Assisted Therapy (AAT) approach on two boys identified with Emotional Disturbance with IEPs. They note that AAT was delivered as an adjunctive service, meaning that it was not the sole intervention utilized with these students but, instead, was integrated into the overall plan supporting the students that included a small classroom with about 10 students and additional staff support. Each child had a history of school-related behavioral problems and multiple schools of attendance by the time each reached fifth grade prompting placement in a district-wide special education program for students diagnosed with EBD.

Each student participated in weekly AAT sessions of 45-60 minutes in length for at least 11 weeks. The sessions were conducted by human-animal teams from the Human-Animal Bond in Colorado (HABIC) of Colorado State University. Specific details of the procedures used in the AAT sessions were reported and included rapport-building and animal training/presentation planning time. During the rapport-building portion animal handlers discussed positive and negative aspects of the child's week while the child petted and brushed the dog. Discussion was enriched by consultation between the handler and the child's parent and teacher, and the child was also allowed to introduce topics of discussion. The second aspect of the session involved having the child learn and practice training and commands with the dog utilizing positive reinforcement and included specific attention paid to specific aspects of trainer behaviors such as tone of voice, eye contact, patience, and positive reinforcement.

Data was collected using a rating scale for symptoms associated with Attention Deficit Disorder, direct observations of each child in the ATT sessions, videotapes analysis, and IEP goal review, along with post-intervention interviews. Both boys

demonstrated improvements in multiple areas with the first showing improvements in level of distractibility, fewer negative comments made by him, and better relationships with peers. The second student demonstrated improved sense of self control, fewer tantrums and pouting, improved peer relations, use of appropriate tone of voice, and eye contact. Limitations of the study included inability to isolate the specific effects of AAT from other aspects of the special education program and to control for improvements that may have been associated with other interventions. Follow-up was not conducted to determine if the changes were long-term. In addition, more rigorous case study methodology was not utilized to determine whether the impact of the AAT intervention was maintained or lost during a period of intervention removal and then increased when the intervention was reintroduced.

Class-wide impact of a dog within a classroom similarly designated for students with severe emotional disorders was examined by (Anderson & Olson, 2015). This study embedded a dog into a class and the research team collected data through observation, interview of students, parents and teachers, and specific trajectory of emotional crises on the part of students. Findings noted prevention and improved de-escalation of emotional crisis, improved student attitudes toward school and positive impact on student understanding of responsibility, respect and empathy.

Results from peer reviewed studies (Kogan et al., 1999) on whether service dogs have an impact on EBD students concludes that placing service dogs with a handler in the classroom has a positive effect on students' emotional well-being as well as their academic engagement on task and overall academic success (K. L. Anderson & Olson, 2006). Service dogs, specialized therapy dogs, and facility dogs with handlers are shown

to be assistive to teachers with EBD students in the classroom (Harris & Sholtis, 2016; Walther et al., 2017). Evidence supports that service animals in academic settings such as K-12 classrooms and college campus classrooms (Von Bergen, 2015) have positive outcomes such as reducing students' anxiety levels and increasing on task academic engagement.

Additionally, the reported findings of Esteves and Stokes (2008) conclude that a body of research supporting the efficacy of service dogs on academic engagement is widespread. The particular focus of their work is on the social effect (Esteves & Stokes, 2008) of emotionally and behaviorally disordered children in the classroom. Burgoyne et al. (2014) indicates a potential causal relationship between a student's positive verbal, non-verbal, and social engagement in a classroom containing a service dog with a handler. Dogs that are highly skilled and expertly trained (Frenette, 2016) help students during such anxiety producing events as fire drills, crowded hallways and standardized tests.

By the 1970s, researchers had established the special education category of student who displayed extreme emotional distress and problematic behaviors that impeded academic and developmental progress in the classroom (Merrell, Buchanan, & Tran, 2006). When the original IDEA was passed by Congress in 1975, educators and researchers established the special education category "severe emotional disturbance" (California Reading Association, 2010). EBD students are defined as presenting educators with many significant challenges and whose educational outcomes are among the poorest across all student subgroups (Mastropieri & Scruggs, 2007). The current IDEIA of 2004 defines emotional disturbance as one of 12 educational disabilities under

which students may be found eligible for special education services. In definitions unchanged from earlier versions, IDEIA (2004) identifies emotional and behavioral disturbance in the following manner:

> (i) The term means a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child's educational performance:
>
> (A) An inability to learn that cannot be explained by intellectual, sensory, or health factors.
>
> (B) An inability to build or maintain satisfactory interpersonal relationships with peers and teachers.
>
> (C) Inappropriate types of behavior or feelings under normal circumstances.
>
> (D) A general pervasive mood of unhappiness or depression.
>
> (E) A tendency to develop physical symptoms or fears associated with personal or school problems.
>
> (ii) The term includes schizophrenia. The term does not apply to children who are socially maladjusted, unless it is determined that they have an emotional disturbance. (IDEA, 2006, CFR 300.0 Child with Disability section)

Additionally, research has established that EBD students are those that are at the greatest risk of not graduating high school and who have one of the highest rates of matriculation into prisons (Cuellar & Markowitz, 2015; Mallett, 2016a). Special education K-12 students who are diagnosed as emotionally disturbed and/or behaviorally disordered face a lifetime of challenges starting with their compulsory education and continuing into

adulthood (Stuber & Dannells, 1996; Vejar, 2005). For some, the trajectory includes multiple school referrals, suspensions, school expulsions and can continue into adulthood where prison is sometimes the end of the line (Mallett, 2016a, 2016b; Poucher, 2015). Cuellar and Markowitz (2015), for example, pose that suspensions lead to crimes committed outside of school during the student's period of suspension. Threat assessments of students with emotional disturbance have found these children to have significantly more suspensions than regular education students and special education students with learning disabilities (Kaplan & Cornell, 2005). Consequently, learning time is compromised and the gaps in a student's education can lead to failure in gaining a high school diploma.

Additionally, the stress on special education teachers to meet the ever increasingly difficult developmental and mental health needs of an EBD student is significant (Baker, 2013; DeVoe & McMillen, 1994). The relationship between the student and the teacher is impacted by additional environmental stressors placed on the students in the classroom (Merrell et al., 2006). According to Kaplan and Cornell (2005) the threats of violence in classrooms are ever present in classrooms for special education students identified as EBD. Burnout is a significant risk for teachers in a classroom with emotionally disturbed and behaviorally disturbed students (Johnson et al., 1981). Stress, and threats of violence toward either teachers or peers with a challenging student population and a lack of promising interventions in a classroom with ED/EBD students, can lead to staff burnout in the classroom (Bloom, 1983; Kaplan & Cornell, 2005).

Farley, Torres, Wailehua, and Cook (2012) note that "The Individuals with Disabilities Education Act of 2004 promotes the rigorous use of scientifically based

research practices in the educational decision-making process for students with disabilities, including students with EBD" (p. 38). These authors identified two specific practices that have been shown to have robust impact on achievement levels for these students, peer tutoring procedures and self-monitoring interventions. Among other promising approaches with empirical support are applied behavior analysis, point and levels systems, and integrated therapeutic environments (Topping & Flynn, 2004). Research analyses have yielded empirical support for many additional intervention approaches, though collectively these results have failed to result in widespread improvement in educational outcomes for students identified with these disorders (Kauffman, Cullinan, & Epstein, 1987).

The promise of service and specialized therapy dogs as supports in the classroom, is being examined in current research (Irwin, 2013). Researchers have examined various assessments and interventions to accommodate the emotionally and behaviorally disturbed student in the classroom (Stuber & Dannells, 1996; Topping & Flynn, 2004). The desire to increase interventions in the classroom is increasing as evidence mounts regarding the increased risk for ED/EBD students for failing out of school (Evans et al., 2016). Similarly, financial impacts and reforms in special education are examined for efficacy of program implementation on school sites (Sigafoos et al., 2010). A focus on building inclusive school communities and creating canine interventions in the classroom at the secondary level is a current focus of research in the human-animal bond (Huss, 2011).

Program infrastructure is examined at an administrative level to bring about change in schools and organizations (Friesen, 2010; Froling, 2009; Grieve, 2014). Like

the Walter Reed Army Medical Center (Yeager & Irwin, 2012) which identifies the emotional fragility of the patient and pairs him/her with a suitable canine companion, canines in the classroom are vetted for disposition and suitability for classroom programs (Leitner, 2017). Part of administration of the program includes the types of behavioral assessments given to students in special education (Poucher, 2015). Identifying the students who would benefit from a service dog and/or therapy dog program in the classroom assists in creating the structure of the intervention program (Rivera, 2004). Further, a perceived outcome emerges that humane characteristics develop in a child who has a therapy dog in the classroom and in therapy groups with children (Rothberg & Collins, 2015).

AAT and the Human-Animal Connection

AAT is regarded as an intervention to assist Cognitive Behavioral therapists (CBTs) in decreasing a patient's level of anxiety due to arousal (Hunt & Chizkov, 2014) of negative stimuli produced by discussion and introduction of distressing information during therapy sessions. The animal provides a distraction, which in and of itself does not assist the CBT in their work with the patient; however, Hunt and Chizkov (2014) determined:

> AAT has been used to enhance the therapeutic alliance in residential drug treatments programs and to enhance self-efficacy and coping abilities in individuals with a range of psychiatric disorders. AAT has been shown to reduce anxiety in patients about to undergo electroconvulsive therapy.

> AAT typically produces moderate effect sizes in improving outcomes in the areas of autism-spectrum symptoms, medical difficulties, behavioral problems, and emotional well-being. (p. 457)

In working with an adult population, therapy dogs provide the necessary comfort to patients in order to allow productive interaction with the cognitive behavioral therapist. Hunt and Chizkov (2014) directly evaluated the impact of a therapy dogs presence on process variables considered important to the success of CBT approaches. Expressive writing was used as an analog of exposure therapy for adults suffering from anxiety and trauma disorders. The 107 adult study participants in the 2X2 experimental design were randomly assigned to one of two conditions where they wrote about either a trauma-based or a neutral/trivial (control) topic; half of each group participated with a therapy dog present in the room and half had no exposure to the dog. Statistical analyses revealed higher rates of post-writing anxiety in general in the group that wrote about traumatic events; however, within the trauma group, the group with the dog present had statistically lower reports of anxiety across time than those with no dog present. In addition, the dog present group demonstrated a drop in reported depression symptoms at follow-up when compared to those who wrote about trauma but had no dog present. The authors summarized that the study did not produce evidence that a dog's presence interferes with emotional processing. Rather, they concluded that the dog's presence appeared to buffer the degree of emotional arousal and distress felt during the processing of the experiences (Hunt & Chizkov, 2014).

Further, the authors posited that therapy dogs provide the necessary comfort to patients in order to allow productive interaction with the cognitive behavioral therapist (Hunt & Chizkov, 2014).

In the classroom with students suffering severe emotional disorders, Anderson and Olsen (2006) found positive psychosocial benefits include "decreased aggressive behavior, increased self-regulation (the ability to self-correct negative behaviors), and increased prosocial behaviors in their classroom over a four-week period in the presence of a certified therapy dog" (p. 35).

Berek (2013) discusses the work of (Friedmann & Heesook, 2009) which shows those who have pets live longer and have more satisfactory mental health and social relationships. A more intentional usage of dogs in a therapeutic role is known as animal-assisted therapy, a practice where the animal is in the presence of the individual in therapeutic circumstances and designed to elicit positive emotional feelings and responses (Calvo et al., 2016). The therapy was originally designed for use with schizophrenic patients, but the model has been embraced in classrooms and other environments, such as hospitals, with students with EBDs (Chandler, 2001). Psychoanalysts and therapists working with children with attachment disorder in a therapeutic setting have reported the benefits of a "trained companion animal" in the course of treatment (Sacks, 2008).

Hanselman (2001) found that outcomes of CBT intervention with adolescents could be enhanced by incorporating a form of AAT. Guided by a CBT framework and attachment theory model, seven adolescent boys from 14 to 17 years of age, some of whom had been referred for court mandated anger management, participated in a

comprehensive violence prevention group with pet dogs present that had been previously abused. Pre- and post-treatment measures were collected from participants of State-Trait Anger, Companion Animal Bonding, Mood Thermometer, and the Beck Depression Inventory. Observation and therapists' ratings of participants were also collected for validation purposes. Results demonstrated trends toward reductions in state and trait anger, higher scores for strength of animal human bonding, and increases in scores measuring tension, confusions, anger and depression on the mood thermometer ratings, along with a decrease in fatigue. The authors interpreted their findings as a reflection of the success of the intervention; however, findings were only marginally supportive where positive and some aspects of the results were counterintuitive, if not indicative of negative results. This study did not employ a control group and was hampered by a very small sample size.

Prosocial behavioral studies examine the interaction between the human and dog to best utilize the animal in therapy (Bräuer, Schönefeld, & Call, 2013). Using ostensive cues such as voice inflection and pitch alterations, in addition to eye contact, pointing gestures and the owner versus stranger, researchers developed an experiment to determine whether a dog is motivated to help a human without the sole reward of food. The design of the experiment is illustrated in Figure 1. The research design is for a door to open and a human, the experimenter (E), enters the target room to get a key. The dog could enter the target room by pushing a button and assisting the human in entering the room. The outcome of the experiment concluded that the dogs are intrinsically motivated to help the human if the human's goal is clearly illustrated to the dog using ostensive cues and pointing while communicating to the animal in a natural way (Bräuer et al., 2013).

The role of dogs in animal-assisted therapy situations involving adolescents in an "anger management group" were demonstrated to calm the adolescents and provide outlets for humor and positive socialization during the therapy session (Lange, Cox, Bernert, & Jenkins, 2006).

Levinson (1970) concludes that pets provide children the comfort and companionship, sans anxiety-producing expectations, that are crucial to the healthy emotional development of a child. This seminal author further identifies the human-animal connection of pets helping to form the developmental identities of not only an individual, but of cultures. The author suggests the social atmosphere (Levinson, 1978) is shaped by the presence of an animal or pet in a family. The author argues that animals are a natural part of an individual's and family's pro-social and healthy developmental progression. The symbiotic relationship of the dog with the human is supported throughout history and continues to be explored as an opportunity of positive intervention in therapy and in classrooms to assist individuals suffering physical, emotional and mental illness (Yeager & Irwin, 2012).

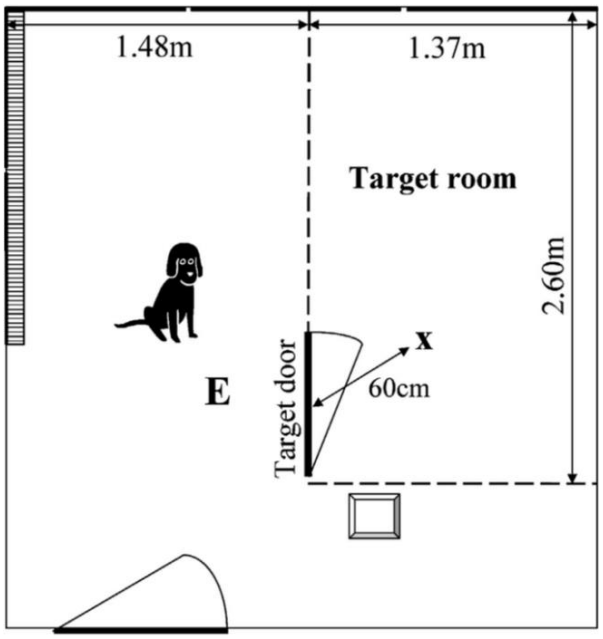

Figure 1. Overview of the testing room for the help conditions. X = Location of key; E = Position of the E; ☐ = Button. Adapted from "When do dogs help humans?," by Bräuer, Schönefeld, and Call, 2013. Copyright 2013 by B. V. Elsevier.

History of Service Dogs in Public Facilities and in Education

The seminal works of Levinson (1970) illustrate the benefits of utilizing a canine in therapeutic settings, coining the term "pet-oriented [child] psychotherapy" (p. xii) to describe his methods. Suchetka (2010) and K. L. Anderson and Olson (2006) discuss the history of service dogs in public facilities and in education. In a more contemporary vein, since the Iraq and Afghanistan wars, therapists, military personnel, and researchers have come to understand that psychiatric service dogs can be considered a valuable asset in the care of veterans dealing with PTSDs (Suchetka, 2010).

Service and guide dogs have long been used to support individuals with blindness, and, to a lesser extent, those with deafness, to navigate within their communities (Assistance Dogs International, 2017). Such use appears to have originated in post-war Germany following the end of the First World War (Chumley, 2012). This practice was institutionalized with the growth of schools for the blind, guide dog training facilities,

and the Braille Institute after Morris Frank, a young man who, in 1914, was left blind after a childhood illness and later, a boxing accident (Chumley, 2012). The Vanderbilt University student went to Switzerland where the first Seeing Eye Dog was trained and paired with Frank. His dog, Buddy, provided Frank with "the divine gift of freedom" (Kreiser, 2013, p. 1) and, thus, the "Seeing Eye" (Kreiser, 2013, p. 1) program was implemented. This practice was institutionalized with the growth of schools for the blind, guide dog training facilities, and the Braille Institute.

Guide dogs for the blind, including those for blind servicemen wounded in war, are presented as a viable intervention by Ostermeier (2010). The author writes of The Seeing Eye guide dog school which was the first guide dog school, opened in 1929, instituted after World War I and designed to provide wounded soldiers access to treatment, including the benefit of service dogs. The disposition of the dogs are carefully culled and a discussion of agency of the animal is found in Pearson (2013) as part of the examination of a dog's intent in working alongside a human.

Such support migrated across the Atlantic and took hold in the United States (Pearson, 2013). Training for service animals was typically provided to adults, though some use within schools has been documented dating back to the 1950s (Hosey & Melfi, 2014). Today, the new development utilizing service dogs for those with physical disabilities such as PTSD, is flourishing (Marshall, 2012). The various types of service and/or highly specialized therapy dogs with corresponding skills, areas of service, certifications and licensure protections are listed below (Parenti et al., 2013) (see Figure 2).

Functional Category	Assistance Related to Disability	Major Differentiating Factors			Scope of Current Access Protections
		Typical Level of Dog Skills	Assists Public Service, Military, or Health Professional	Certification or Standards Available	
Service Animal	Yes	Advanced	No	Yes	Broad*
Public Service or Military Animal	No	Advanced	Public service or military	Yes	Limited†
Therapy Animal	Varies	Varies	Health or allied health	Yes	None
Visitation Animal	No	Basic	No	Yes	None
Sporting, Recreational, or Agricultural Animal	No	Varies	No	Yes	None
Support Animal	Yes	Varies	No	No	Limited‡

Figure 2. Revised taxonomy for functional categories of assistance animals in society and major differentiating factors. * = Access to public locations is protected by Americans with Disabilities Act with some exceptions; † = Access for public service or military animals is limited in most states to locations where handler and animal are on duty and otherwise legally present; in some states, broad access is protected regardless of duty status; ‡ = Support animals have protection under Federal regulations to reside in both public and private housing (Fair Housing Amendments Act of 1988; Pet Ownership for the Elderly and Persons with Disabilities, 2008). Resident is required to verify that animal is needed to assist with physical, psychiatric, or emotional need. Adapted from "A Revised Taxonomy of Assistance Animals," L. Parenti, A. Foreman, J. Meade, and O. Wirth, 2013, *Journal of Rehabilitation Research and Development*, p. 748.

Though the Individuals with Disability Act of 1997 (IDEA, 2004) did not identify service animals among best practices in working with special education students who suffer from EDs, service dogs with handlers are now considered a viable component of a special education classroom (Schoenbaechler, 2010). The urgency is to build inclusive school communities that create interventions for students with ED/EBD (Evans et al., 2016). Additionally, the mainstream population can register their personal animals for therapeutic reasons (Huss, 2011; Marx, 2014). Within public and private K-12 education, the specific type of training and duties of psychiatric service dogs are designed to meet the needs of ED students (Service Dog Central, 2014).

College, Stress, and Therapy Dogs

Not only are service and highly specialized therapy dogs utilized in K-12 education, but they also play a role in the college student's life as an intervention for

stress relief during exams. Binfet and Passmore (2016) conducted a study of 86 college students who suffered homesickness and were on the brink of dropping out of college due to the "pull" (p. 3) of home. Utilizing animal-assisted therapy with college students over an eight-week period, with sessions lasting 45 minutes, the researchers worked with first year university students to determine the effects of having a therapy dog in sessions with them. The research was found to be most effective with students who have social anxieties and fewer friends than their more well-adjusted college peers. The purpose of the study was to increase the college students' positive "interpersonal connections" (Binfet & Passmore, 2016, p. 443) and, thus, diminish the overt levels of homesickness that the students suffered. With approval from the university oversight committees on human and animal care, a feasibility study was first implemented to warrant that homesickness, in fact, was the issue. The subsequent study delved deeper into the ways in which the homesickness in the college students could be addressed through animal-assisted therapy.

The study consisted of 12 volunteer dog handlers and their therapy dogs. After attending an orientation that included ways in which the dogs were to be attended on campus and how open-ended questions should be delivered in discussions, the handlers interacted with the first-year college students. Prior to the study ensuing, the college students completed surveys measuring "homesickness and life satisfaction" (Binfet & Passmore, 2016, p. 444). The measures included questions about homesickness from the questionnaire of McAndrew (1998) *Measure of Rootedness*, with questions such as "I frequently feel homesick" (p. 445) using a five-point scale with "1 (Disagree a lot) to 5 (Agree a lot)" (p. 445). Additionally, the survey measured "Satisfaction with life"

(McAndrew, 1998, p. 446) and "Connectedness to Campus" (McAndrew, 1998, p. 446). At the end of the eight-week study, the measurement was again administered and determined that the effects of the therapy dog intervention on homesickness revealed a "large" (McAndrew, 1998, p. 444) effect size and a "medium" (McAndrew, 1998, p. 444) effect size was reported on the measurement of life satisfaction.

Using both a quantitative and qualitative analyses, McAndrews (1998) identified major themes such as the sessions being referred to by the students as places where they "felt like home" (p. 44) and that the dogs were "nonjudgmental" (p. 44) which created a "social lubricant" (p. 44) for the students, resulting in their saying they found a sense of "community" (p. 44) through the therapy sessions with the dogs. The students stated that their participation in the study was overwhelmingly positive and that the "premise" (p. 44) that the "dogs facilitated the social interactions" (p. 44) was accurate.

Reynolds and Rabschutz (2011) present the findings of the University of Connecticut's Homer Babbidge Library on the Storrs campus as hosting therapy dogs during final exams. The purpose of the dogs is to bring stress-reduction to the students at the school during finals week. Bringing the dogs on campus was warranted after examining a 1998 survey about college stress where 50% reported final exams as the most stressful event and, how, 20 years later the stress is ever increasing for the students. Indeed, the authors note, that over 500,000 websites provide tips for students suffering college exam stress. The students were known to study throughout the night and their lack of sleep, coupled with intense periods cramming for exams, was taking a mental toll on their psychological well-being. The library brought in the Paws To Relax program which provided therapy dogs for students in the spring of 2010. Students were

overwhelmingly positive about the program saying things such as, “I can’t even express how much it meant to me to have that dog there” (Reynolds & Rabschutz, 2011, p. 360) after a particularly grueling final exam schedule and “please, please continue this program” (Reynolds & Rabschutz, 2011, p. 360) for the students.

Additionally, the authors discuss the logistical aspect of the program with such points as where to park when on campus (for easier handler/dog access), the room necessary to accommodate the students, handlers, and their dogs. They discussed how social media played a significant part in the success of the program as students texted each other that the “puppies” were in the library and that they should come over to the library to engage in puppy playtime. Calling the need to have a well-planned event as critical to the success of the program, the authors outline the costs as minimal and the rewards as maximal for the students’ emotional well-being during final exams (Reynolds & Rabschutz, 2011).

A New Paradigm for Service Animals: The Americans with Disabilities Act, 1992

In March 2011, the Americans with Disabilities Act (ADA) was passed putting into law~~s~~ the opportunity for service dogs to assist people with psychiatric and other mental disorders (Canines for Disabled Kids, 2017). Litigation, however, challenged school districts about incorporating dogs onto campus(es), as in the case of Sullivan v. Vallejo City Unified School District in 1990. Consequently, the Department of Justice changed the definition of a service animal in 2011 (effective 2012) to include work with a physical, sensory, psychiatric, intellectual, or other mental disability in a protected class of persons (Canines for Disabled Kids, 2017).

While the IDEIA (2004) is silent on the specifics of service dogs, it does mandate that Local Education Agencies (i.e., school districts) provide to each student with a disability with a free and appropriate public education consisting of educational instruction specially designed to meet the unique needs of the handicapped child, supported by such services as are necessary to permit the child "to benefit" from the instruction. A recent Supreme Court case, Endrew v. Douglas County, 2017, revised the standard applied to *required* educational benefit to "meaningful" from the more limited "more than de minimus" long held under the 1980 Rowley decision (Wright & Wright, 2017). IEPs and 504 Disability Plans need to list a dog as a related service or educational accommodation in order to include the service animal in the student's classroom. Notably, such practices required that accommodations for students with allergies to animals are also considered (K. R. Taylor, 2010). Therefore, accommodations for students with allergies to animals are also considered when placing a service dog and/or highly specialized therapy dog with a handler in the classroom.

Efficacy of the Service Dogs with Students with Disabilities

The efficacy of utilizing service dogs with students with disabilities will be addressed, as the topic of this study is the use of dogs for individuals with EBDs and the implementation of their use in schools. In order to combat personal levels of anxiety and stress, many people have their own pet registered as an ESA. There is a specific process for this registration and while dogs are most frequently the types of animal registered in this capacity, people have also registered rabbits, snakes, rodents, pigs, and even llamas (Marx, 2014). The duties of service dogs, however, are task specific and designed to pointedly meet the needs of an ED individual (Service Dog Centeral, 2006-2014).

The efficacy of the use of service dogs in school is limited to anecdotal evidence (Friesen, 2010; Walthall, 2012). The Campbell Law Review extrapolates upon the thousand year history of service animals, focusing specifically on the last century when service animals were used in the capacity of "guide dogs, hearing dogs, and service dogs" (Walthall, 2012, p. 153) for post-World War I veterans suffering emotional instability due to "shell shock" (Walthall, 2012, p. 153) in battle. In *The Early Childhood Educational Journal,* Friesen, (2010) examines the "therapeutic context in which animal-assisted programs with children in school" (p. 263) transpire and the results of these constructs upon the educational setting. They note that AAT is goal related for the child and meets standards of educational interventions.

In addition to AAT, one significant facet of Response to Intervention (RTI) incorporates the service dog into the classroom (Gresham, 2005). Additionally, RTI is examined along with the methods and procedures of existing interventions for children in the classroom. The interventions are examined for efficacy and sustainability as schools are hampered by state funding regulations (Fine, 2017). While support and evidence exists for the benefits of AAT, for example, widespread acceptance of service dogs and/or highly specialized therapy dogs in classrooms continues to be researched (Finn-Stevenson, 2016). Frenette (2016) shows the significant impact of one therapy dog in a program in New York that inspired seven more to be incorporated into the schools because of their positive impact on student emotional well-being, socialization and learning. Friedmann and Heesook (2009) say pets and animals reduce "psychosocial stress" (p. 294) and lessen the anxiousness that can be associated with a social situation for people. Children born with fetal-alcohol syndrome for example, are more able to

navigate (Fry-Johnson et al., 2009) the social world of school, and the family reports a more positive relationship among one another at home, with the advent of a service and/or therapy dog for the child.

Students with Autism and Therapy Dogs in the Classroom

Some research has examined the potential for dogs to be effective classroom partners, regardless of training. K. L. Anderson and Olson (2006) document the positive effects of an untrained pet in a special education classroom of six elementary age children with ED. The dog in question was a toy poodle who was the private pet of one of the paraeducators who worked in the classroom. Data was collected during the eight week period the dog was incorporated into the classroom activities and compared to pre-existing data including antecedent/behavior/consequences analyses, frequency and duration of emotional crises; student, teacher, and parent interview data was also collected and analyzed. All six children demonstrated significant reductions in the frequency and duration of emotional crises during the dog intervention when compared to pre-intervention baselines. Parents, teachers, and students described, in vivid terms, the positive impacts that dogs had on their emotional regulation and ability to empathize, experience happiness, attitudes about school, and self-esteem. Negative effects were not reported, though it is worth noting that the study employed several means to limit potential negative impacts, such as removing the dog from escalated situations until the child had demonstrated improved self-control, training the children on how to understand and act around dogs, checking for possible allergies in the children, and providing a clear dos and don'ts list of behaviors allowed around the dog. The dog was allowed to freely roam about the classroom and no handler was present.

Students across the socioeconomic, racial, and ethnic continuum with autism are known to present some of the biggest challenges, along with those with ED, to educations in the classroom (Durkin et al., 2017). Autism is a developmental disability known for deficits in communication, social relatedness, and for excesses in repetitive, ritualistic behavior (Abel et al., 2016). Students with this disability often demonstrate severe limitations in their interactions with adults and peers and can become unpredictably aggressive due to changes in routine or failure to have expectations met (Kanne, Christ, & Reiersen, 2009). The use of therapy and service animals with children with autism is in its infancy, as well, though initial findings are suggestive of significant benefits with the autistic population (Burgoyne et al., 2014; Funahashi, Gruebler, Aoki, Kadone, & Suzuki, 2014). Many, however, suffer from methodological limitations or very small sample sizes. For example, one preliminary work Butterly et al. (2013) used online surveys of dog handlers to evaluate expected and achieved results of placement of trained service dogs with the families of children with developmental disabilities, including autism and Asperger's syndrome, a related disorder. The five survey respondents identified a total of 14 areas of expected positive impact for the children and families they serviced; service dog providers. In fact, while all providers reported collecting outcome information, none of the expected areas were assessed by all five providers and many were assessed with unsatisfactory means and none utilized well validated and reliable clinical or research measures. The authors note a tendency to use highly subjective means of assessing outcomes that relied heavily on the emphasis on pre-intervention challenges for the children and offered providers of the intervention no quality checks on how well the intervention actually worked. Limitations of the study

were acknowledged to include the very limited sample size and the relatively low return rate (5 out of 17) of the survey. Implications for collaborative efforts of dog providers and researchers in this field for more research-based inquiries were discussed as well (Butterly et al., 2013).

Stevenson et al. (2015) examined the impact of sessions with a teacher and a dog on three elementary age boys with autism. Five therapeutic sessions in which the therapy dog was introduced to the child and the teacher was advised to encourage interaction between the dog and child. Variables included in the study included frequency of positive social interactions along with degree of isolating and self-stimulatory behaviors; these were measured both within the dog-assisted sessions and later, apart from the presence of the dog. This case study research design also examined for potential improvements in basic social interaction and social skills. Findings provided tentative support for the presence of the dog improving levels of student teacher interaction, visual interest and meaningful vocalizations. There was limited generalization to the classroom setting apart from the presence of the dog.

Grigore and Rusu (2014) examined the combined impact of AAT using dogs and social stories on social skill development in three seven to eight year-old children with autism. The three children each had mild to moderate autism which included a range of repetitive stereotyped behaviors and isolated social status. Participants engaged in two to three sessions of social story intervention weekly during which the child was presented with a brief, simple picture based story depicting them interacting positively with a peer such as making a greeting or responding to a question. Before and after each social story, the students each spent time with a therapy dog. The study demonstrated an increase in

appropriate social interactions around the targeted social skill in one of the three children when the dog was present for the social story intervention. In addition, the AAT was associated with a significant decrease in the level of prompting required by adults for the children to initiate social interaction. Furthermore, improvements in the children's initiation of social interaction were noted in all three cases following the AAT in conjunction with the social story intervention. While social stories have been an evidence-based approach found effective with these types of students by numerous prior studies, the authors interpret their results to demonstrate a magnification of these effects due to the presence of the therapy dog (see Figure 3).

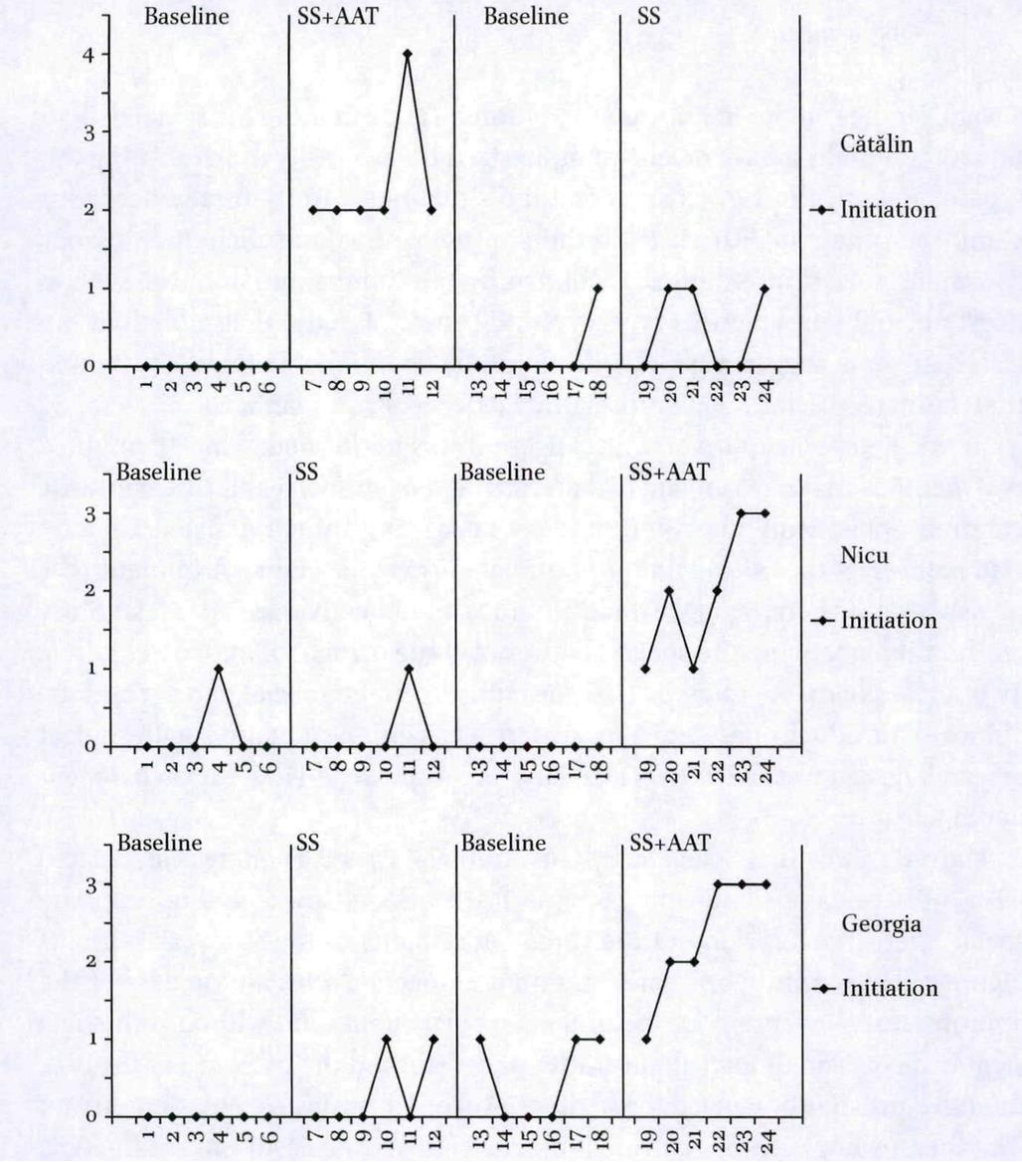

Figure 3. Initiation of the Social Interaction. Frequency of the initiations of social interactions (mean values) for Catalin, Nicu, and Georgia during the four phases of the experiment. Each intervention phase included six sessions. The target social skill for Catalin and Nicu was the ability to greet a new social partner, whereas the target social skill for Georgia was the ability to introduce herself to a new social partner. SS = Social Story intervention; SS + AAT = Social Story plus Animal Assisted Therapy intervention. Adapted from "Society and Animals," by A. A. Grigore and A. S. Rusu, 2014, page 252. Copyright of Society and Animals, 2014.

Highly Specialized Therapy Dogs in Schools and Hospitals for Children

Jalongo et al. (2004) present the influence of therapy dogs on children's learning and emotional well-being in classrooms and hospitals. The authors discuss empirical

research that shows a highly selected and trained therapy dog working with children in a classroom and/or a hospital setting, provides stress reduction indicators such as lower heart rate, blood pressure and visible signs of relaxation in the children. Citing the Reading Education Assistance® (R.E.A.D.) program (Intermountain Therapy Animals, 2017) for children to read to canines in the classroom, the authors point to an increase of two Lexile reading levels in the students who read regularly to the therapy dogs with their handlers in the classroom.

Moreover, the authors present the benefit of the therapy dog in assisting students with inclusion and general peer acceptance when a dog is a routine part of the child's learning experience. Citing one of the premises of Levinson (1997) that the canines act as a social lubricant in the life of the child, the authors proceed to discuss that children tend to talk and act more relaxed in the presence of a therapy dog. Jalongo, Astorino, and Bomboy (2004) support their theses with anecdotal discussion of the Green Chimneys residential treatment facility located in upstate New York (www.greenchimneys.org) and the highly successful assistive capacity of the canine in animal-assistive group and individual sessions (see Figure 4).

	 Companion animals	 Therapy animals	 Emotional Support Animals	 Assistance Dogs*
Handler	Multiple persons in the family	Usually one person	One person with disabilities	One person with disabilities**
Main beneficiary	Caregivers of the animal	Various people receiving AAI	Handler	Handler**
Training requirements in U.S. laws	No	No	No	Trained in tasks supporting the handler's disabilities
U.S. public access (U.S. DOJ 2010, 2011)	No	No	No	Yes
U.S. transportation access (U.S. DOT 2008)	No	No	Yes	Yes
U.S. housing access (U.S. HUD 2008)	No***	No	Yes	Yes

Figure 4. Roles, living situation, and legal status for access of companion animals, therapy animals, ESAs, and assistance dogs. ** = For persons with autism or Alzheimer's disease, family members may serve as handlers. *** = Elderly people are allowed to keep their companion animals if they live in government–assisted housing. Adapted from the "Handbook on Animal Assisted Therapy (4th ed.)," by L. Hart, 2014. Copyright by Lynette Hart and Mariko Yamamoto, 2014. Reprinted with permission.

Particularly relevant to the literature is what comprises AAT and separates it from regular therapy sessions with children. Animal-assisted activities are group oriented; whereas, AAT is performed with the individual. Having the dog in a classroom setting, in either capacity, requires three important characteristics:

1. *Certification and Insurance*. Training programs such as Therapy Dogs International, Inc. (http://www.tdi-dog.org) and the Delta Society (http://www.deltasociety.org), provide insurance coverage for the volunteers, handlers and their canine companions.

2. *Programming*. The dogs are part of a student's "educational goal" and, as in the R.E.A.D. program, are matched to the developmental level of the student. After goals are attained, the child can receive a "pawtograph" with the dog and after reading ten or more books, the child gets to keep that book that s/he read to the dog in the program. Additionally, "wellness goals" are articulated at the onset of the curriculum development plan and during hospital visits with the children.
3. *Collaboration*. Several institutions and organizations are involved in the development of animal-assisted programs for children. These include schools, libraries, and hospitals which then collaborate with canine training, health and veterinary programs that provide support for the handler and the canine in the organization. Additionally, community support from agencies such as

> Barnes and Noble and Home Depot collaborate in canine therapy programs by offering their retail stores as sites where trained animals can be field tested for their ability to adjust to new environment and interact with many different people in a public setting. (Jalongo et al., 2004, p. 11)

Additionally, Jalongo et al. (2004) cover the issues of sanitation and safety in their article. To eliminate dander and potential allergens, the dogs are bathed immediately prior to interacting with the students coming to the hospital and/or classroom. Additionally, in a hospital setting for example, the dog can be placed on a removable sanitation mat which eliminates the risk of leaving hair or saliva in the room. At all times, the dog's handler is responsible for the animal and carefully monitors the surroundings for potential allergic effects. Similarly, the temperament of the dog is

thoroughly vetted for a calm demeanor; however, the animal is always under the supervision of the handler and if there is an escalation in student behavior that warrants removal of the dog for the animal's safety, as well as the child's safety, then the handler immediately responds. To assuage children's fears of the animals, the authors point to the need for frontloading and student preparation to receive the dogs on the school grounds and in hospital settings. The procedures for introducing the animals is thorough and guided by the handlers who provide a forum for answering students' questions, as well as a meet and greet with the dog.

Specifically, the authors make four key recommendations for schools and/or hospitals who want to introduce a canine assisted therapy program.

1. Recommendation 1: Work exclusively with Registered Therapy Animals. Teachers or nurses are not advised to use their own animals as they are not covered by the same insurance through Therapy Dog International that covers handlers. Within this recommendation, the authors also suggest that permission slips and follow-up parental orientation be a part of the procedure for introducing a therapy dog on a school or hospital site. Finally, a highly trained therapy dog, along with its highly trained and experienced handler, provides positive stability for the fidelity of the program.
2. Recommendation 2: Prepare children for the canine visitors. Making time for an assembly and/or orientation for children before the animals become part of the program, is highly recommended. The handlers prepare a comprehensive program including time for question and answers, time for the children to "pet" the dog and share their own animal stories and, most importantly, to

teach the children the responsible behavior boundaries to which they must adhere when in the presence of the dog.

3. Recommendation 3: Assess individual children's suitability for interaction with the dogs. The dog and its handler must follow school and/or hospital protocol such as signing in upon arrival to the site. The staff must be acutely aware of those children who are not candidates to receive the dog in their classroom or hospital room (due to allergies or fear of dogs, for example). On the contrary, however, pairing the dog and handler with a child who would benefit from reading to the dog in the classroom, or having the dog assist in physical therapy (reaching for the dog, for example) in a hospital, is necessary and beneficial to the children. The school and/or hospital must maintain clear communication to areas off limits to the animal and handler to preserve fidelity of the program.
4. Recommendation 4: Consider the dog's safety and well-being. The children must be trained (as discussed in Recommendation 1) to interact appropriately with the dog. "Close supervision" is crucial and allows for social-emotional benefits to the children in the classroom and/or hospital. Part of that supervision includes anticipating the dog's fatigue level and protecting the dogs from physical injury around not only the child who might be having an explosive episode, but also the classroom furniture or hospital wheelchairs, for example. While the animals are highly trained to maneuver around obstacles of this nature, while also interacting with children, all of the adults' present must ensure the safety of the children *and* the dogs. (Jalongo et al., pp. 13-15)

Conclusively, the authors agree that the benefits of introducing a therapy dog team on a young child's learning and social-emotional well-being, far outweigh the organizational and procedural time with which the program must be considered for full implementation and fidelity. A comment on the human-animal bond (HAB) is at the center of the interaction between therapy dog with its handler and the children they serve. Jalongo et al. (2004) conclude with the idea that children are fascinated with dogs and capitalizing on this fascination in schools and hospitals provides social-emotional benefits that assist in producing healthy children. Similar to the work dogs and their handlers do in classrooms and schools, compliments the ideological connection that companion animals support healthy family functioning in life (Maharaj, Kazanjian, & Haney, 2016).

Sustainability, Flexibility, and Accommodations of Service and Highly Specialized Therapy dogs on School Campuses and in the Lives of Individuals with Disabilities

The sustainability of the program on school campuses was examined through the literature on challenges, outcomes, and laws affecting service dogs on campus both in public K-12 education and post-secondary education (Aiken & Cadmus, 2011). The authors discuss the concept of introducing a therapy dog on campus reducing stress from college exams and wards off the contributing physiological anomalies and negative psychological effects produced during exam time on campus. Furthermore, the authors write a program rationale examining policy roadblocks and the need for flexibility and accommodating potential change in the development of the program (Aiken & Cadmus, 2011).

Hergovich et al. (2002) studied the emotional effect of the presence of a dog in the classroom. They examined variables such as "field independence, social competence,

empathy with animals and social-emotional atmosphere" (Hergovich et al., p. 37). The study was conducted in Vienna and focused on a classroom of 46 first graders in two classrooms and was instituted in conjunction with the Interdisciplinary Research on the Human-Pet Relationship and the Institute of Zoology in Vienna. The authors discovered that the dog had a positive social-emotional effect on the children in the classroom and this led them to conclude that there are productive implications for having a dog in the classroom with children with emotional disturbance. The supposition is that by modifying the program structure, students with a multitude of emotional challenges could be positively affected by the dog in the classroom. The authors point out a limitation, however, in that one of the teachers who provided the dogs might be more motivated to produce positive results and, thus, the data could be skewed somewhat (Hergovich et al., 2002). Similarly, the program study was a brief three month study and the authors conclude more time might be necessary to gain a greater reliability of data to determine the program's sustainability.

Authors and psychologists, Ensminger and Thomas (2013) discuss the accommodation of writing letters to help patients with service and support animals. The authors discuss the diverse situations from addressing a letter about specific landlord requirements to theaters and schools. The contention is that each case of an individual with a service animal is unique and must be viewed as such by all parties involved. Ensminger and Thomas discuss the efficacy with which they must analyze the situations as their professional reputations are at stake. The authors comment that the letter written by the mental health professional is potentially one of the most instrumental in the case of supporting an individual with a service dog.

Legal Considerations and the ADA

More and more people struggle with mental illness and require service dogs in their lives. With that acknowledgement and responsibility, comes the realization that protections must be in place for both the dogs and their handlers (Cossler, 2011). School administrators, districts, and policy makers must navigate the often murky world of accompanying "complex disability laws" (Cossler, 2011, p. 23) and the pressure of sometimes "intense media coverage" (Cossler, 2011, p. 23) of a dog on a school campus. According to Cossler (2011) protections from the ADA were enacted in March 2011 and provide language that supports all persons with mental and/or any "individual with a disability," (p. 23) guidance in bringing a service dog that has been trained to perform a "specific task" onto the school campus. The recommendation is that administrators prepare their schools and districts to meet this ever-increasing request to have a dog accompany an individual with a mental disability on campus. Cossler (2011) discusses the definition of a service animal as one that meets a specific need of an individual with a disability. In addition to a trained service dog, the author also presents the trained miniature horse as a type of service animal, but she is clear to say, other species of animals are not qualified to be considered service animals. The tasks the animal performs must be related to the handler's disability and can include the following:

- Assisting individuals who are blind or have low vision with navigation and other tasks.
- Alerting individuals who are deaf or hard of hearing to the presence of people or sounds.
- Pulling a wheelchair.

- Assisting an individual during a seizure.
- Alerting individuals to the presence of allergens.
- Retrieving such items as medicine or the telephone.
- Providing physical support and assistance with balance and stability to individuals with mobility disabilities.
- Helping individuals with psychiatric and neurological disabilities by preventing or interrupting impulsive or destructive behaviors. (Cossler, 2011, p. 24)

The author is clear to point out that ESAs are not considered service dogs and, thus, not protected under the ADA guidelines.

Title II of the ADA "governs the use of service animals by individuals with disabilities at public entities" (Cossler, 2011, p. 24) with specific language to support the person who is suffering a mental impairment that limits their life function. New language amended into the ADA and designed to address the needs of the disabled person include: "(a) lessen[ing] the substantially limited threshold, (b) expand[ing] the definition of 'major life activity,' (c) bann[ing] consideration of mitigating measures, and (d) mandate[ing] that temporary or episodic impairments must be viewed as if they were active" (Cossler, 2011, p. 24). In other words, the person suffering the physical or mental impairment, need not be in an acute state in order to be understood as needing a service animal at his/her side. The only determination that a service dog is not welcome is if the animal is out of control and the handler is not managing the animal or if the animal is not housebroken. Otherwise, under the Title II protections of the ADA, that individual must

not be questioned about his/her integrity of the disability and the corresponding service animal's presence with the person.

Additionally, according to Cossler (2011) "miscellaneous provisions" (p. 24) include:

- Service animals must be leashed or harnessed when working unless 'tethering' prohibits the service dog from performing the assistive task to the handler.
- The Department of Justice has indicated that a service animal's handler 'is not necessarily the individual with a disability' (thus denoting that a service dog can accompany a trainer-handler into a program at a school working with students with emotional disturbance, for example).
- Attack dogs are excluded from protections, but dog breeds that are stereotypical of aggression cannot be excluded solely because of that perception.
- A public entity is not responsible for the care or supervision of a service animal.
- No size and weight limitations have been placed on service animals.
- The use of service dogs for psychiatric and neurological disabilities is explicitly protected under the ADA.

Finally, school districts must examine each request for a service animal on a case-by-case basis and the suggestion is to engage legal counsel (ahead of time to establish policy) in the procedures and protocols for a school. Like the privacy considerations of an individual in regular society, a school district may not ask for proof of a person's disability or require documentation that the animal has been certified.

Inherently, however, a student would likely be on an IEP and the disability would be considered when providing the least restrictive learning environment - which would include the service dog. Under the FAPE and IDEA or Section 504, even if a dog does not meet the specific definition of a service animal, the school district must still consider if the dog is necessary to fulfill the criteria and support the student with the disability. The author states that the IEP and/or 504 team makes that "decision in accordance with the law" (Cossler, 2011, p. 26) and suggest engaging legal counsel in examining "local or state laws" (Cossler, 2011, p. 26) regarding the animal's access on campus.

Emotionally and behaviorally disturbed students in school present educators with many significant challenges and educational outcomes are among the poorest across all student subgroups (Mastropieri & Scruggs, 2007). In March 2011, the ADA passed laws for dogs to assist people with psychiatric and other mental disorders (National Alliance on Mental Illness [NAMI], 2016). Thus, the dogs engage in positive corrective behaviors such as nuzzling the individual's hand in order to provide a distraction from self-destructive behavior or other aggressive behaviors. Considerations for implementation of service dog programs on campus requires leaders to be versed in special education laws as well as to understand campus safety parameters. The Fair Housing Act of 1988, determined that "reasonable accommodations" (as cited in Grieve, 2014, p. 8) be made for individuals with disabilities on [college] campuses and in campus housing. Similarly, the school's administrative leadership must follow guidelines while also adhering to campus safety protocols.

D. M. Taylor (2016) director of clinical services, made the decision to incorporate service dogs with handlers back into Pineland Learning Center (private) school. After

gathering a needs assessment for the program, she interviewed key stakeholders and designed an implementation plan that included:

- Therapy team recruitment
- Training and certification
- Campus preparation
- Team meetings
- Annual feedback (D. M. Taylor, para. 15).

A brief examination of the literature on organizational leadership (D. Anderson & Anderson, 2010), logic models (Bamberger et al., 2012) and system[s] development (Senge, 2004) as they relate to a service dog program implementation on a school campus are presented. Conclusions discuss the leadership required to inspire people to "action" (Degges-White, 2015, para. 4) and with modeling of positive behavior when, in this case, introducing a service dog on campus. The review of this literature suggests a topic for future study, that is, flexibility and accommodations (Berry & Katsiyannis, 2012).

Legal Authorization of Service Dogs in the Schools

Legal protections for individuals with disabilities and students in the classroom who require a dog for FAPE (Wieselthier, 2011) are often challenged. School districts sometimes argue that the student's IEP is being met without the consideration of the dog. Consequently, a complex web of considerations must be undertaken when determining if children are entitled to programs using service or therapy dogs in the public schools. Legal protections may be available under either the IDEIA or Section 504 of the ADA, though neither law specifically addresses the concept of service animals. Section 504 of the ADA is focused on discrimination and allows that students with a physical or mental

impairment that substantially limits a major life activity, such as learning. This legislation prevents "the exclusion of a qualified individual from participating in or receiving the benefits of or being discriminated under any program receiving Federal financial assistance" (Wieselthier, 2011, p. 765). Section 504 regulations have outlined the right to service dogs for individuals with some types of disability, including those with hearing impairment, seizure disorders and wheelchair confinement.

In contrast, under the IDEIA, school districts are responsible for providing a FAPE for each student with a disability that is "reasonably calculated to enable the child to receive educational benefit" (Wieselthier, 2011, p. 761). Arguments contending that students with disabilities require a dog for FAPE are often challenged; school districts sometimes argue that the student's IEP is providing FAPE without the consideration of the dog (Wieselthier, 2011).

However, Wieselthier (2011) argues, a determination of ongoing distress to the student coupled with evidenced success to the individual when accompanied by a service dog can make the issue of bringing a dog into the classroom a key piece of an IEP team's conversation. Indeed, case law and results of administrative hearings on this issue has been marked by several court decisions which have recognized the benefits, educational and otherwise, that a service animal has construed upon individual children (Wieselthier, 2011). While some of these decisions have been reached following lengthy and adversarial legal battles, the author opines that when a service animal is deemed necessary for the educational benefit of the student, and the positives are determined to outweigh the negatives, "changes must be made to both the IDEIA and the statutory definitions of service animals" (Wieselthier, 2011, pp. 782-783).

Indeed, cases also exist in which districts have recognized the benefit the animal offered to a given child and supported the involvement of the animal in the educational environment. Many of these cases, thus far, have involved students with autism; however, the potential for considering need and benefit to children with other classes of disability is ripe, particularly when procedures call for careful implementation protecting the safety to others, and addressing possible fears and allergic responses in others. These have not proven to be insurmountable legal or practical barriers. Based upon existing precedents, responsibility is incumbent upon the family or those representing the child to establish that a child is in need of the service dog in order to provide access to their educational program and to receive educational benefit. Wieselthier (2011) specifically notes the criteria for consideration set forth in the Bakersfield, California decision by the Department of Civil Rights in 2008 as a model for determination of whether a child is entitled to a service dog. School districts should take into account:

> All academic and behavioral functions taking place in the school setting for which [the service dog] is trained to assist the [s]tudent and the degree to which these functions are or are not currently fulfilled in the school setting by other means. The impact of the presence or absence of [the service dog] upon the availability of the student to function successfully and independently in an environment of non-disabled peers. The impact of the presence or absence of [the service dog] upon the social and adaptive behavior of the [s]tudent including his ability to develop and maintain constructive social relationships with his peers. [And] [t]he degree, if any, to which the separation of the [s]tudent from [the service dog] during the

school day would impair a transition to independent living skills in the [s]tudent. (Wieslthier, 2011, p. 785)

This set of criteria could stand as a test to determine if the service dog is required under IDEIA as a related service in the student's IEP in order for the child to receive educational benefit. In all cases, the recommendation is that service dogs must be considered with respect to the individual needs of a given child. What remains on the legal horizon is whether school districts can be required not simply to provide access to these animals for students already paired with service dogs by other agencies or private access, but to provide them as a school initiated service and cover needed costs.

The Gap in Literature

Like guide dogs for the blind and war veterans suffering from post-traumatic stress disorder, service dogs/specialized therapy dogs may provide cueing and support for an emotionally disturbed student who is accelerating in a negative direction in the classroom (Topping & Flynn, 2004). Investigating this possibility provides an opportunity to reconcile the gap in the literature and can contribute to the existing body of anecdotal research in the human-animal relationship as occurs in mental health capacities.

This study will add to the small body of literature that examines service dogs in the classroom and the human-animal bond (Gavriele-Gold, 2011). Specifically, this study sought to fill the gaps in the literature by determining if placing service dogs/specialized therapy dogs in the classroom has a positive effect on students' emotional well-being as well as their academic engagement on task and overall academic success (Esteves & Stokes, 2008; Frenette, 2016; Fry-Johnson et al., 2009; Huss, 2011).

An overlooked population in this area, however, are the special education students placed in classrooms for EBDs. An investigation into the data of special education students in placements for emotional/behavioral problems will address gaps in research and literature in the field of utilizing service dogs/specialized therapy dogs with handlers as an intervention in a classroom setting. The IDEA of 1997 supports the use of therapy dogs in the classroom and identifies best practices in working with special education students who have special needs; yet, there is a gap in the literature in this area of special education law. Current popular research in this area is centered on how the mainstream population can register their personal animals for therapeutic reasons (Huss, 2011; Marx, 2014; Muramatsu et al., 2015). Service dogs and specialized therapy dogs are now considered a viable component of a special education classroom; yet, there is a paucity of research in utilizing these dogs in a 21st century classroom as an intervention for students with EBD which is a significant gap in the literature.

The gap in the literature exists in the urgency for research on service dogs specifically intended to provide support for special education students in EBD placements, as they suffer extreme anxieties and angry outbursts which impact student safety (their own, peers, and school employees) and academic engagement due to a myriad of mental health disorders (Berry & Katsiyannis, 2012; Lang et al., 2010; Parenti, et al., 2013; Poucher, 2015; Suchetka, 2010; Von Bergen, 2015). There is a gap in literature addressing the safety and satisfaction of highly qualified teachers in this area and providing stability for students and stakeholders. Thus, examining student and staff safety is necessary to address this potential important contribution of research in this area (Beetz, 2013).

Moreover, student referrals, suspensions, expulsions, and a declining high school graduation rate in special education students identified with and placed in programs for EBD are a growing trend (Bradley et al., 2008; Lewis et al., 2010; Poucher, 2015; Topping & Flynn, 2004). Academic engagement, including time on task, and success rates on statewide achievement tests are compromised when a student is suffering behavioral issues which interfere with learning (Abel et al., 2016). Collecting data on students with EBDs directly from school districts that have utilized service dogs and specialized therapy dogs in the classroom and examining that data to determine the impact of this under researched intervention on student outcomes is the study. The goal is to fill the gap in research through an investigation into the human-animal bond focusing on service dogs and specialized therapy dogs by examining the lack of research pertaining to this relationship with special education students placed in classrooms due to EBD. Additionally, a gap exists in the administrative procedures for placing a service dog in a public-school classroom and there is no uniform policy in this area (Bourland, 2009).

What literature exists in this area, presents a general consensus that service dogs are an underutilized intervention for special education students with EBDs (Bassette & Taber-Doughty, 2013; Beetz, 2013; Berry & Katsiyannis, 2012; Geist, 2014; Irwin, 2013; Stewart et al., 2014). Examining the utilization of service dogs and specialized therapy dogs with handlers specifically trained to address emotional and behavioral needs in the classroom as interventions for working with students with emotional and behavioral special needs, will add to the literature about the human-animal bond and how it impacts

student learning, social success and lifetime goals of becoming a positive and contributing member of society (Siperstein et al., 2011).

Acknowledging the gaps in the literature regarding therapy dogs as a positive behavioral intervention and the need to address both the implementation and policy of securing a service dog/specialized therapy dog program on a school site, influences leadership decision-making for school district organizations (D. Anderson & Ackerman-Anderson, 2001). No standardized policy exists for school districts; thus, creating opportunities for, at minimum, institutionalized program parameters to be articulated and at maximum, legal guidelines (Taylor, 2010). One thing is clear, however, "public schools cannot discriminate against individuals using service animals" (Taylor, 2010, p. 8). As in the case of Aiken and Cadmus (2011), often a program proposal must be vetted by a human resources committee and persons involved in the "health, safety and courtesy reasons" (p. 15). An investigation into the human-animal bond focusing on service dogs and specialized therapy dogs is necessary to fill this gap in literature. Additionally, an area for future study and development is in the implementation of standardized procedures and policies conducive to service dog and specialized therapy dog program incorporation into schools (Bourland, 2009).

Summary

The purpose of this literature review was to present the rationale for having service dogs and their handlers work with EBD students in public K-12 schools, and to examine the organizational leadership involved in establishing school wide special education programs utilizing service dogs and their handlers in the classroom. The reviewed literature provided an overview of service dogs as an educational intervention.

Rationale(s), key terms, and variables affecting service animals working with EBD students were addressed. The second area examined literature covering the history of service dogs in public facilities and in education. Sub areas discussing literature surrounding the use of guide dogs for visual and hearing impairments, the 1992 American with Disabilities Act and litigation that influences the acceptability of a service dog in the classroom were reviewed. The history section introduced the sub topic of IDEIA of 2004. The efficacy of the service dogs in working with students with disabilities addressed the anecdotal evidence or case studies, the theoretical benefits to children and schools and the challenges and lack of evidence-based support. The literature was reviewed about the sustainability of the program on school campuses with an emphasis on the review of literature discussing cases, policy roadblocks and flexibility and accommodations.

Synthesis Matrix

A synthesis matrix was created to help organize the research that was studied (see Appendix A). One purpose of the synthesis matrix is to identify where gaps exist in the literature and where further research is needed. The synthesis matrix revealed that significant gaps exist in the research on the impact of service dogs or specialized therapy dogs with a handler working in a classroom with students with emotional/behavioral disabilities. The synthesis matrix further revealed gaps in policy and legal statutes for program implementation in schools.

The synthesis matrix defines the common themes of:

- Therapy dogs are beneficial to the students.
- Special education laws protect the students.

- There are challenges to the Laws.
- There is a significant difference between a pet and a service animal.
- Definitions and parameters of the mentally ill patient and/or student.
- Organizational vision is a necessary step in the design of a therapy dog Program.
- Service dogs and/or specialized therapy dogs with handlers in the classroom.

CHAPTER III: METHODOLOGY

Overview

This chapter outlines the research methodology and processes that were instituted for this phenomenological study where interviews of teachers with service dogs/specialized therapy dogs with handlers in special education classrooms with EBD students are collected and analyzed. Additionally, the rationale and justification for this style of study examining teacher perceptions of the effects, if any, service dogs/specialized therapy dogs with handlers have on the students, will be explained. Chapter III denotes the purpose statement research questions, research design, population, sample, instrumentation, data collection, data analysis, limitations, and concludes the chapter with the summary. Through in-depth interviews of teachers working in programs for students with emotional and/or behavioral disorders, relative data will be collected and analyzed to address the identified research questions.

Purpose Statement

The purpose of this phenomenological study is to determine and describe the academic and social-emotional effects of classroom service dogs/specialized therapy dogs with handlers on student learning and behavior in K-12 special education students in EBD placements as perceived by their teachers.

Research Questions

This phenomenological study will address the following questions:

Central Research Question

How do classroom teachers of K-12 special education students in placements for EBDs describe the academic and social-emotional effects of a classroom service dog/specialized therapy dog with a handler on student learning and behavior?

Research Sub-Questions

1. How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affects academic engagement and time on task?
2. How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect student success rates on statewide achievement tests?
3. How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect behavior of students in measurable ways?

Research Design

The purpose of a research design is to outline the strategy for gathering empirical evidence in order to answer research questions. The research design articulates the organization of the study with particular attention to the design structure, type of data collected, and the means of data collected, along with the methods utilized to analyze the data (McMillan & Schumacher, 2010). A phenomenological methodology utilizing

qualitative methods was selected for this study. Patton (2015) defines a phenomenological approach as one that thoroughly gathers and analyzes people's perceptions about a particular phenomenon. This study will employ descriptive interview and evaluative methods to provide understanding of the implementation of, and outcomes associated with, service dogs/specialized therapy dogs with handlers in K-12 special education classrooms for students with EBDs. The definition for the methods of qualitative data gathering is participant gathering and inquiry, utilizing interviews and selecting focus groups. The methods of qualitative data gathering and analysis include observing natural behaviors, questioning people for personal details and experiences and examining select focus groups (Guide, 2016). For example, qualitative means will be necessary to describe implementation of the service dog/specialized therapy dog intervention and the effects of the experience from the point of view of the studied population (Leedy & Ormrod, 2013). In this study, the phenomenon being studied and the units of analysis are the perceptions of the educators utilizing a service dog/specialized therapy dog with a handler in the classroom.

Appropriate uses of phenomenological qualitative methods include illuminating meaning, studying how things work, capturing stories, examining systems and their function/consequences on people's lives, understanding context, identifying unknowns positive and negative, and comparing cases to discover patterns and themes (Patton, 2015). For example, Patton (2015) summarizes a phenomenological approach as looking at organizations such as churches, social groups, political groups, social media networking and the effects on those who participate in the samples. In this study, the group interviewed will be the teachers of K-12 students in special education classrooms

that contain students with the classification of EBDs. Specifically, these are teachers who utilize service dogs/specialized therapy dogs with handlers in the programs serving these students.

A qualitative approach is oriented to identify natural occurrences as they happen in real-life. The qualitative inquiry framework of pragmatism emphasizes real-life consequences and their natural applications from what is gleaned from the object of study (Patton, 2015). Such an approach is ideal for description and evaluation of a relatively new approach or intervention when there is a lack of prior research and/or theory in the area. Such is certainly the case with the use of specially trained service dogs/specialized therapy dogs with handlers in educational practice. Qualitative approaches typically involve collection of data that is termed subjective and based upon the experiences of individuals with the approach being studied. In the case of this study, qualitative data will be collected through direct interviews with classroom teachers where service dogs/specialized therapy dogs with handlers are used. Interview questions ask for teachers' reflections on their observations in the classroom and school setting where the child attends and include inquiries such as the number of interactions between child and dog, the nature of those interactions, the effects of those interactions, the student task engagement and assessment results when a service dog/specialized therapy dog with a handler is present during testing. Participants are interviewed regarding their reactions to the service/therapy dog intervention and their interpretations and perceptions of its effectiveness as a classroom intervention. The phenomenological qualitative inquiry, due to its open-ended method of interviewing the teachers, provided a glimpse of both the intended and unintended effects of having service dogs/specialized therapy dogs with

handlers in the classroom (McMillan & Schumacher, 2010). Additionally, this study lends itself to several kinds of qualitative data including observation and archival data, which could be used for triangulation of data. Triangulation refers to the use of multiple methods or data sources in qualitative research to develop a comprehensive understanding of phenomena (Patton, 1999). Triangulation also has been viewed as a qualitative research strategy to test validity through the convergence of information from different sources. Denzin (1978) and Patton (1999) identified four types of triangulation: (a) method triangulation, (b) investigator triangulation, (c) theory triangulation, and (d) data source triangulation. Due to confidentiality concerns involving the special education students, observation was ruled out as a triangulation strategy in the current study.

Population

A population is a group that "conforms to specific criteria" (McMillan & Schumacher, 2010, p. 129) which research results can be generalized. The population for this study consists of teachers in K-12 special education programs using service dogs/specialized therapy dogs with handlers in placements specifically designed for students identified with EBDs. Specifically, the population includes teachers of special education students with an EBD diagnosis who are placed in a program targeting EBD in which a trained service/therapy dog with a handler is regularly present in the classroom. Very few settings were identified nationally where these conditions are met, but it is likely that results obtained here can be generalized to other geographic regions with similar operating procedures including students and dog use. Although no direct interaction between researcher and students is called for, strict adherence to special education privacy rights will be followed (Copenhaver, 2006). The teachers will

constitute the interview portion of the phenomenological study. According to (Assistance Dogs International, 2017), there are 65 programs in the United States that train guide, hearing, and service dogs (including service dogs with handlers in classrooms). This researcher began the process of identifying programs for inclusion in the study by contacting individuals associated with service/therapy dog training facilities and using communication networks such as LinkedIn to determine the locations of programs currently implementing trained service/therapy dog interventions that included use of a handler. The population for this study was the 24 such programs across the country that use service dogs with special education students.

Target Population

A target population is a narrowed group of individuals of interest for inclusion in a given study from which the sample is drawn (McMillan & Schumacher, 2010). The research population is considered the target population, those individuals to whom the results could be generalized (McMillan & Schumacher, 2010). The target population for this study is teachers in the group of special education programs considered primary placements for students with an EBD that are currently utilizing trained service dogs with a handler on a regular basis. Recent national or state-wide data is not available that specifically addresses the degree to which service/specialized therapy dogs with handlers are used in school-based special education programs either in general or, more specifically, those that include EBD students. Therefore, there is little data on the prevalence of this practice across states or the country as a whole. This researcher began the process of identifying programs for inclusion in the study by contacting individuals associated with service dog training facilities and using communication networks such as

LinkedIn to determine the locations of programs currently implementing service/therapy dog interventions that met the study criteria. This process identified 24 such programs across the country that use service and/or therapy dogs with handlers with special education students with various disabilities. The narrower target population for this study is teachers in those programs that use service dogs/specialized therapy dogs with handlers with special education students who are in placements for the EBD. According to Leitner (2017), there are six such schools in the target population with five of those schools on the East Coast and one in California. Four of these schools were selected for use in this study: Three of the East coast schools, all in New Jersey, and the California school. From these four schools, a group of twelve teachers will be selected to participate in interviews (Guest, 2006).

Sample

A sample in a qualitative study is naturally small, and, in contrast to quantitative probabilistic sampling, the sampling is purposeful, as stated by Patton (2015), "selecting information-rich cases for in-depth study" (p. 264). In phenomenological designs that include qualitative approaches, purposeful sampling is typically used. Patton (2015) uses the term "nonprobability sampling" (p. 264) to distinguish between in depth and relatively small samples used for a specific purpose and probability sampling where random selection is important. Patton (2015) describes the power of purposeful sampling in identifying information rich cases to show insights and in-depth understanding of a select sample focusing on the research questions, as opposed to purely an empirical result. The criteria for selecting participants for the study were:

1. The first criterion for inclusion in the study was that the teacher must have a classroom in which service dogs/specialized therapy dogs trained to provide emotional support and accompanied by a handler are present. Teachers included in this study must instruct in programs that utilize service or therapy dogs that have been trained at a highly specified level to detect emotional distress in an individual and assist in daily task functioning and socioemotional development. To be included in the study, the teacher must work with a dog that has received a minimum of 400 hours of training coupled with an experienced and trained handler within the classroom environment. This type of service/specialized therapy animal is trained to work with people with an emotional or mental illness, considered an emotional/behavioral disability that warrants them incapable of achieving at least one life goal (Service Dog Central, 2006-2014). These dogs are part of a broader class of service and therapy animals that include psychiatric service dogs and cortisol detection dogs, but are not limited to them.
2. A second criterion for inclusion in the sample is that the teacher's program must serve as a primary placement for students identified with EBD. Thus, teachers included are those providing instruction and behavior intervention in highly specialized programs and not more traditional special education teachers. Nor are these teachers providing service exclusively for other specific disabilities, such as autism or intellectual disability.
3. A third criterion for inclusion in the study was that the service/specialized therapy dog and handler are a regular part of the teacher's program. By

regular, the study identified a minimum of three exposures of at least 30 minutes to most or all students in the program in a typical week.

4. A fourth criterion for inclusion in the sample was that the school and the teachers involved must be willing to participate in the study.

Sample Selection Process

In this current study, snowball sampling was initially used to identify a potential sample of cases based upon the criteria specific to the research questions addressing academic engagement and social-emotional behavior effects on students with EBD who have a service dog/specialized therapy dog with a handler in the classroom. Patton (2015) describes snowball sampling as an approach for locating critical cases by asking "well situated people" who can network, recommend, and suggest other people to contact in order to identify a sample.

According to Patton (2015) snowball sampling is one of the purposeful sampling strategies used for selecting, "information-rich, illuminative cases for qualitative inquiry" (p. 266), utilizing known experts to identify cases for study in a situation where population may be quite minimal. In this study, purposeful sampling was employed by contacting people from servicedogcentral.org (Service Dog Central, 2006-2014), other training centers, Superintendents, and special education directors in southern California and New Jersey who can provide information on special education programs that utilize trained service dogs/specialized therapy dogs with handlers with their students. A second quality for inclusion in the sample is that the program must serve as a primary placement for students identified with EBD. The purposeful sampling strategy in this study determined cases of interest by interviewing pivotal people who have connections to

other colleagues who work in this field and share characteristics desired for inclusion in this research, thus identifying a small study sample (Palinkas et al., 2015).

Thus, purposeful sampling was used to identify the 12 teachers in four programs that were eventually selected as the final sample for this study. Teachers and staff were selected from three special education programs in New Jersey and one in California that focused on providing special education services for students with EBDs and that utilized service dogs/specialized therapy dogs with handlers as a regular element of the program. By regular, the study identified a minimum of three exposures of at least 30 minutes to most or all students in the program in a typical week. This criterion was decided upon for two reasons. One was to prevent situations where an individual student was assigned a dog which was not available on a program-wide basis. Second was to exclude cases where a service dog with a handler might be present on an irregular or infrequent basis (e.g., twice monthly "visits" to the classroom by a dog that was not an integral part of the program). In addition, the study excluded cases where a teacher had a student with a service dog that was assigned to that student only within his/her classroom.

As noted above, these programs were located in New Jersey and California. One school in New Jersey is a private residential day program consisting of 130, K-12 students with emotional disturbance of varying levels of degree. Two of the four teachers who utilize the full-time service dogs in classrooms along with the dogs' handlers five days a week were included in the study sample. The second school in New Jersey is a private school of 90 students and a residential day program similar to the other private school. One teacher of EBD students at the school who volunteered to participate, was included in the sample. The third New Jersey program is a public school district with 70

K-8 students in emotional disturbance placements within the district and 15 teachers and staff who utilize the service dog with the handler in the classroom four days a week. Six staff members working with EBD students were selected from this district. The program from California is a non-public school program located in the San Diego area and housed in a public 9-12 high school with a population of just over 1,000 students. Two teachers from this California program utilize the specialized therapy dogs with their handlers in the classroom (see Table 1). Overall, 12 teachers were identified for participation in interviews.

Table 1

Programs Included in the Current Study

Location	Number of Students	Number of Teachers	Time Dog was Present per Week
California	30	3	12
New Jersey	70	6	40
New Jersey	90	1	30
New Jersey	130	2	30

Note. Data sorted in ascending alphabetical order with Location controlling the sort.

Following identification of the potential participants, the researcher used the following process to secure participation:

1. Contacted the school principal to secure participation (see Appendix B).
2. Identified 12 teachers and secured their participation (see Appendix C and D).
3. Sent information regarding the study to all participants, secured Informed Consent documents from each participant (see Appendix E), and provided the Participant's Bill of Rights (see Appendix F).
4. Scheduled and executed the interviews.

Instrumentation

The researcher is considered the primary instrument of data collection in the qualitative research approach because the research defines the processes and parameters of data collection (McMillan & Schumacher, 2010). Patton (2015) states that "Qualitative inquiry is personal, and the researcher bias an instrument of the inquiry. The researcher's background, experience, training, skills, interpersonal competence, and how the research engages in the fieldwork and analysis undergird the credibility of the findings" (p. 3). During this study the primary researcher was employed as an assistant principal in southern California, and due to this the potential for research bias in the interview process was present. In addition, the researcher was a dog owner of two "disqualified" guide dogs. To reduce the potential for researcher bias to impact body language and/or verbal behavior, the researcher engaged in a field test of the interview protocol with a colleague experienced in qualitative research. In this qualitative study, the primary method of data collection was a semi-structured, phenomenological interview of teachers in the four programs making up the study sample. The researcher traveled to New Jersey and San Diego to complete face-to-face interviews with teachers wherever possible. In three of the cases, interviews were conducted via telephone. All interviews were completed using a protocol developed to minimize threats to internal and external reliability and validity in both the collection and analysis of the data.

Instrument

The interview protocol was developed by directly correlating the interview questions with the purpose of the study and the specific research questions addressed here (see Appendix G). The interview protocol was developed in July of 2017 by the

researcher in order to provide specific information relevant to the questions at hand. This resulted in the interview protocol questions, including background and follow-up questions. Patton (2015) recommends that interview questions be sequenced to move from more general experiential and contextual questions to more specific, probing questions pertaining to the study's central questions. The interview protocol was, therefore, structured to follow this format opening with more general demographic and background questions and progressing to open-ended thematic questions. These latter questions were designed to provide a picture of the impact of service dogs/specialized therapy dogs with handlers on the experience of staff and students in the program in terms of both social emotional and academic functioning. Research questions were derived, in part, from general themes and concerns about this form of intervention evident in the reviewed literature. The researcher assured the meaningfulness and relevance of the questions by piloting their use with a group of educators working with students with similar disabilities in a local school district. Each question was carefully reviewed to assure it did not employ biased or leading language and standard language rules were applied.

The potential for researcher bias was addressed through a more direct examination of how specific expectations could impact the interview process and sequence of questions. For example, care was taken so that the interviewer spent equal time and effort examining possible concerns with use of service dogs/specialized therapy dogs with handlers as an inquiry about the perceived benefits of this intervention. Questions were formulated to thoroughly address possible positive and negative impacts of the dogs on student experience.

The researcher contacted teachers from each of the four programs via email and telephone to set up interview visits. Follow-up reminders were provided prior to travel to each site and to ensure interviewee's continuing willingness to participate in the process and that each had adequate time to participate on the scheduled date. Face-to-face interviews were conducted when possible from November of 2017 to January of 2018. Interviews were typically completed in a classroom or conference room at the interviewee's schools. In the three cases where face-to-face interviews were not possible, the interviews were conducted via telephone. The researcher used two BOOSCA recorders to record the interviews, which were then remotely transcribed by Trueservice@samedaytranscriptions.com and returned to the researcher via electronic text files. To assure accuracy of transcription, the entire transcript of each interview was sent to the interviewee for review and approval. Any corrections were noted on the transcripts, which were resubmitted for correction to Trueservice. Once approved and corrected, each interview protocol was readied for analysis by the researcher.

Reliability

Reliability is an inherently important aspect of the data collection and analysis method in qualitative research. Multiple means of addressing the credibility and reliability of the data were undertaken, including the above-mentioned analysis of potential areas of researcher bias, field testing prior to actual data collection (Merriam, 1995), and utilization of inter-coder reliability on a subset of the interview protocols (Patton, 2015) and maintaining an audit trail. Efforts were also made to assure some triangulation of data by collecting documentation of other evidence of program successes and "using it to build a coherent justification for themes" (Creswell, 2014, p. 201).

An audit trail will provide accuracy documenting the interview and processes involved in tabulating and analyzing data, along with artifact documentation. For example, records will be kept validating the proof of electronic interview recordings and archiving of the verbatim transcriptions. In addition to documentation and artifact collection, "member checking" (Creswell, 2014, p. 201) will be incorporated to check for transcription accuracy, verify the themes, and corroborate the "major findings" (Creswell, 2014, p. 201) with the participants in the interview. The researcher poses the greatest influence in the data collection as the researcher collects and, ultimately, provides the conclusive data analysis (Merriam, 1995).

For this study, the researcher determined the topic of this study based upon her work as a volunteer with Guide Dogs of the Desert in Palm Springs, California, and her observation of the benefits of the human-animal bond. Additionally, the researcher was drawn to the topic based upon her professional work in providing interventions for special education students placed in classrooms for those with EBD. The goal to increase internal reliability is supported by the director of one of the schools who wishes to consult with the researcher on her research and literature review as he desires to write a book on his school's program. Keeping in mind that audits are inherently political in nature, a careful delineation of purpose of the study will be expressed and followed with the director (Miles & Huberman, 1994). Thus, an external audit of the study's methodology, data collection, and coding process utilizing themes will be consistently implemented throughout with the conclusive results of the study providing valuable feedback on the study's efficacy as it influences further research on the topic (Creswell, 2014; Leedy & Ormrod, 2013; Patton, 2015).

The interview questions were field tested on two teachers of students with disabilities including behavioral disorders in Desert Sands Unified School District in Palm Desert, California. Though service and therapy dogs are not currently used in this district, questions were based upon participants' prior experiences with therapy dogs visiting their classrooms. For example, rather than asking questions about the training and ways the teacher incorporated the dogs into their classes, the field test interview may have inquired how frequently the dog visited, how children responded, and what accomplishments were achieved in the dog's presence according to the teachers' observations.

Finally, to improve reliability or dependability of the qualitative data, an interrater reliability process was implemented with a second, trained coder coding of 20% of the transcribed pages of two of the interviews (Leedy & Ormrod, 2013). A criterion of 80% consistency was set for this quality check in order to assure replicable findings. This process assured that 10% of the data will be double coded thereby meeting the suggested criterion by (Lombard, Snyder-Duch, & Bracken, 2004). The following sequence was being followed to establish intercoder reliability in a manner that assured consistency and dependability in the analysis of the data:

1. Primary researcher will code 100% of the collected data from the interview transcripts.
2. Primary researcher will select 20% of the codeable text from two of the transcribed interviews.
3. Primary researcher will define themes identified in the completed coding and train secondary researcher or coder in identifying them.

4. Secondary researcher scanned data prior to coding to validate themes identified by the primary researcher. If more or fewer themes were identified by the secondary coder, conferencing was completed to reconsider coding themes.
5. Secondary coder will then code the identified passages in the two identified transcripts using the agreed upon themes.
6. Secondary coder, upon completion of coding, will provide coded information to primary researcher who will compare intercoder data frequencies and number of references for each theme.

Validity

Validity is the process by which the researcher attempts to guaranty that their data provides a meaningful reflection of what is happening in the world. As McMillan and Schumacher (2010) state it, "Validity… refers to the degree of congruence between and explanations of the phenomenon and the realities of the world" (p. 330). In contrast, in quantitative research, the validity of a new test is often determined in part by examining correlation between scores on the new instrument and scores on another widely accepted measure of the same construct. McMillan and Schumacher (2010) identify 10 possible strategies to enhance validity in a qualitative study. These strategies and brief descriptions are presented in Table 2. Though not every strategy could be implemented in the present phenomenological study, a number were used to assure that the data was valid and that the conclusions drawn from it were justifiable.

Triangulation refers to the use of multiple methods or data sources in qualitative research to develop a comprehensive understanding of phenomena and a strategy to test

validity through the convergence of information from different sources (Patton, 1999). Though triangulation of primary data obtained in the teacher interviews in this study was planned, multiple documents that provided class-wide data on the effects of service/specialized therapy dogs in the classroom for students with EBD could not be obtained by the researcher. Efforts to obtain information on number of parent contacts (emails/notices sent home and parent call logs), office/disciplinary referrals, and academic success as measured on school-wide testing data were not successful. No confidential individual student data, such as IEPs, grades, or behavior plans was accessed. Though observations are an ideal form of triangulation data (Patton, 1999), this approach was not available in the present study due to confidentiality concerns related to the students' special education status.

Table 2

Strategies to Enhance Validity in Qualitative Research

Strategy	Description
Prolonged and persistent	Allows interim data analysis and corroboration to ensure a fieldwork match between findings and participants' reality.
Multimethod strategies	Allows triangulation in data collection and data analysis.
Participant language	Obtain literal statements of participants and quotations from verbatim accounts documents.
Low-inference descriptors	Record precise, almost literal, and detailed descriptions of people and situations.
Multiple researchers	Agreement on descriptive data collected by a research team.
Mechanically recorded data	Use of tape recorders, photographs, and copies of documents.
Participant researcher	Use of participant-recorded perceptions in diaries or anecdotal records for corroboration.
Member checking	Check informally with participants for accuracy during data collection; frequently done in participant observation studies.
Participant review	Ask participants to review researcher's synthesis of interviews and participant for accuracy of representation (and interpretation).
Negative or discrepant data	Actively search for, record, analyze, and report negative or discrepant data that are an exception to patterns or that modify patterns found in data.

Note. Adapted from "Research in Education: Evidence-Based Inquiry (7th ed.)," by J. H. McMillan and S. Schumacher, 2010. Copyright by Pearson Education.

In the present study, the researcher employed multi-method strategies, participant language with verbatim accounts, low-inference descriptors, mechanically recorded data, member checking, participant review and active search for discrepant data. In the latter area, for example, the interview protocol included specific questions challenging the efficacy of the use of service dogs/specialized therapy dogs with handlers in these programs as well as more specific factors that might impinge upon effective implementation. As outlined in the data collection section, all interviews were recorded mechanically and transcribed verbatim. To further assure reliability and validity, inter-coder reliability was determined using the procedures outlined above, and member checking and participant review was used to review both transcriptions and coded interpretations with the interviewees.

Data Collection

Prior to the collection of any data from the human subjects participating in this study, permission was requested and obtained from the Institutional Review Board of Brandman University (BUIRB) (see Appendix H). This board approves data collection from human subjects for research purposes. No data was collected until BUIRB approval was secured. Additionally, the necessary course work was completed and the certificate from the National Institute of Health Office of Extramural Research (NIH) was secured prior to any data collection (see Appendix I).

The interview protocol was field tested prior to collection of data from actual research participants. The Interview protocol was developed directly by the author with the goal of directly reflecting the research questions of the study. The protocol was field tested with two local teachers of students with EBD during the month of September 2017.

The field test was conducted to ensure that the questions and responses generated were sufficient and comprehensive enough and to afford the researcher practice administering the interview and limit the potential intrusion of biases in phrasing or non-verbal behaviors. As such, the pilot process was designed to improve the reliability and to limit threats to the internal validity of the study. As Miles and Huberman (1994) point out, the researcher needs to be cognizant of the "multiple sources of analytic bias that can weaken or even invalidate" (p. 263) a study. Because no programs employing service dogs/specialized therapy dogs were locally available for the field test, questions were altered to address alternative interventions employed in these two programs. Pilot interviews were recorded and transcribed according to procedures used in the actual data collection of the study. Feedback from pilot interviewees was sought immediately following each pilot regarding the content, length and interviewing approach. Based upon feedback received, adjustments were considered and made to the original drafts of the questions prior to the interviewing of any participants in this study.

Sampling was described fully above and included teachers from the four identified programs in New Jersey and California. Programs were identified through snowball sampling due to the extremely limited use of service dogs/specialized therapy dogs with handlers in school settings. All participants were contacted by telephone in the months prior to data collection where initial interest in and willingness to participate in the study was established. All participants were sent electronically an assurance of confidentiality, formal consent for interview, and a description of the purpose of the study at least three weeks prior to the scheduled interview. At the request of the superintendent in one of the New Jersey school districts, ample time was given to notify

his board of education who provided permissions for the researcher to come to the selected schools and perform the interviews with the teachers. In order to assure confidentiality, participants were assured all interviews would be transcribed using pseudonyms rather than factual names. Interviews were scheduled either through electronic communication or telephone contacts at least two weeks prior to the interviews. All consent forms, transcribed interviews, and other research records were stored at the researcher's residence in locked cabinets. All record will be shredded and disposed at the study's conclusion.

The data collection process relied on semi-structured in-depth interviews in order to examine the participants' experience and viewpoint in this qualitative, phenomenological study. The researcher met in face-to-face and telephone interviews arranged with participants during November 2017 and January 2018. Interviews were conducted in rooms selected at the schools at the convenience of the participants and care was taken to inform participants in advance as to the duration of the time commitment. Every effort was made to assure the participants of confidentiality and that no individual evaluation or judgment of their participation was sought to maximize honesty and full disclosure. All interviews were recorded using two BOOSCA recorders. Interview recordings were submitted electronically to Trueservice@samedaytranscirptions.com via their website eservice following each interview for verbatim transcription. Once received by the researcher, copies of all transcripts were sent electronically to participants to review for accuracy and to provide opportunity for further clarification or correction by participants.

Based on suggestions made by Patten (2014), the researcher will utilize "open coding" (p. 169) to deduce categories and subcategories of "segments" (p. 169) or ideas that arise during the interview data analysis coding. Upon completion of the accuracy check and correction process, each interview transcript was analyzed using the NVivo coding software to identify themes correlating with the research questions specifically addressing academic engagement, achievement test results, and behavior of students in their programs. Each transcript was read in its entirety twice prior to beginning any formal coding. Once read the second time the researcher began to code identified themes.

Further data was collected to corroborate the themes present in the interview transcripts and improve validity in the process known as triangulation. Permission was asked of participants to access non-confidential documents and artifacts such as point sheets, discipline records, office referrals, and parent phone contacts as part of this process.

Finally, participants were thanked with a thank you card and small gift of appreciation (including dog biscuits for the canines in the classroom) for their involvement in the study after the conclusion of the interview and data collection visit.

Data Analysis

Analysis of data in qualitative research is a multistep process that "proceeds hand-in-hand with other parts of developing the qualitative study, namely, the data collection and the write –up of the findings" (Creswell, 2014, p. 195). Patton, 2015 notes that "qualitative analysis transforms data into findings," (p. 521) and that, beyond that goal, there is no formula for doing so. General goals, however, include reduction of large

amounts of data into smaller categories of information, distinguishing the important from the trivial and identifying patterns in the resultant information. Due to the rich and dense data collected in the interview process, care was taken to preserve data that related directly to the research questions and parse or "winnow" the data that was not directly relevant. The overall goal was to reduce the plethora of information generated to a smaller, manageable number of more specific themes that could be addressed. Creswell (2014) characterizes this as an interactive process that does not always proceed in a linear, hierarchical fashion.

Due to the challenges inherent in the above process, consideration of computer-based storage and coding software was undertaken. Patton (2015) notes that such programs do not analyze qualitative data, but, instead, facilitate the tasks involved in the analysis. Qualitative data analysis software is no substitute for the careful, thoughtful and creative review and judgement of the researcher in the qualitative research process. The researcher chose to employ NVivo data coding software to facilitate this process and provide an efficient means of comparing themes across participants and in relation to other themes. Richards (2002) characterizes NVivo as a method enabling storage of coding at the level of characters that permits an ability to edit while the researcher is coding and encourages the writing up of documents inside the project and coding as the process proceeds.

With the use of NVivo, data analysis was undertaken in a systemized fashion with the goal of fully representing the meaning within the interview transcripts. In short, data analysis proceeded in the following six step process.

1. Data was readied for coding as described above in the data collection section of this report. Interviews were transcribed and checked for accuracy and/or needed clarifications with interviewees.
2. All interview transcripts were read at least twice prior to the beginning of the coding process. This afforded the researcher an opportunity to reflect on the information and form general impressions of the content, depth, meaning and credibility of the data. Notes were taken during this process to assist in the development of coding themes.
3. Data coding was started using NVivo software allowing the researcher to bracket chunks of text and writing a word to reflect a category in the text margins. Once two transcripts were completed topics were listed and examined for inter-relatedness or similarities, permitting possible combining of topics into broader codes. During this process labels for each code were reconsidered, as well, to permit most descriptive category titles for each. Codes were revised and reconsidered as this process moved forward. For example, codes that were not expected based upon the review of literature were added, whereas others that may have begun with one "title" were broadened and renamed with another title to better reflect themes emerging from the data.
4. The coding process proceeded along these lines to include all themes present in at least 25% of interview transcripts. This frequency was selected based upon recommendations for qualitative methodology (Creswell, 2014). These themes were examined for interconnectedness.

5. In the fifth step, the emergence of themes was addressed in narrative description. This discussion examined chronology and detailed discussion of the themes along with differentiation of the themes across participants.
6. Finally, interpretation of the qualitative data was undertaken in the sixth step of data analysis. Basically, this step was centered around the question "What were the lessons learned?" (Creswell, 2014, p. 200). The researcher's goal in this step was to examine the data collected in light of previous theoretical and research findings and to determine answers to the specific research questions and research sub-questions. Points of divergence and congruence with past information or theory were identified and elaborated upon (Creswell, 2014).

Limitations

The present study has a number of limitations: (a) population, (b) literature review and (c) methodological. Regarding methodology, a major limitation is that this study does not utilize truly experimental procedures and instead is phenomenological in scope. More specifically, random assignment of participants to treatment and control groups was not implemented. Instead, programs examined in this study were selected through convenience and snowball sampling due to the relative rarity of programs utilizing service dogs/specialized therapy dogs with handlers. Therefore, variables used to determine academic and social/behavioral outcomes are limited in scope and will not utilize empirically validated measures (e.g. an empirical norm referenced behavior rating scale). Instead, outcome variables identified and coded in the study (e.g. calming, motivation, academic engagement, de-escalation, etc.) were derived from analyses of interview protocols based upon the perceptions of professional educators.

In terms of population, this study was limited to teachers of K-12 special education students in placements/classroom for EBDs on the east coast and in southern California. The researcher selected this geographical representation due to the paucity of programs using these animals. In addition, the unit of analysis in the present study was limited to individual educators and not the specific outcomes of individual students. This choice was made due to the lack of random assignment and the consequential difficulty in determining specific impact on individual functioning of students. A related limitation is that the study will not comprehensively review the literature on evidence-based intervention with the EBD population. There is also a methodological limitation in the control that the researcher has over the implementation of the service dogs/specialized therapy dogs with handlers in the classroom intervention. There is not a specified pattern of animal to human interaction. Finally, because of the researcher's experience with a local guide dogs organization and ownership of disqualified guide dogs, the researcher as the instrument of the study is a limitation.

Summary

Above all else, ensuring the credibility of data and its ensuing analysis is accomplished through triangulation, careful coding, peer-reviewed results and member checking (Creswell, 2014; McMillan & Schumacher, 2010; Patton, 2015). The efficacy of a study depends upon the strong nature of these elements and validates the participants' contributions to the study. Chapter III presented and explained the population, participant selection process, and methods of data collection and analysis which established the theoretical framework of the study. Through social media sites such as LinkedIn, snowball sampling revealed the two states and four schools where the

interviews took place. The interview protocol was designed by the researcher and field tested in the researcher's local school district prior to interview administration in New Jersey and California, respectively. The researcher maintained the use of triangulation of data through interviews and audits of related documents and artifacts. Based upon the variables presented in the research questions, data was segmented and coded for emergent themes such as student tasks and behaviors in the presence of the service dogs/specialized therapy dogs with handlers. Data collection and data coding analysis were founded in grounded theory (Creswell, 2014) with explicit transparency and peer reviewed support of analyses and study conclusions. This phenomenological study was supported in its methodology due to the use of various methods designed to emphasize the study's credibility and validity.

CHAPTER IV: RESEARCH, DATA COLLECTION, AND FINDINGS

Overview

This chapter presents an analysis of the data collected from the study, which intended to examine the perceived academic and social-emotional effects of classroom service dogs/specialized therapy dogs with handlers on student learning and behavior in K-12 special education students in EBD placements. Chapter IV reviews the purpose of this study, research questions, methodology, population, sample, and concludes with a presentation of the data, organized by research question and analyzed according to themes.

Purpose

The purpose of this phenomenological study was to determine and describe the academic and social-emotional effects of classroom service dogs/specialized therapy dogs with handlers on student learning and behavior in K-12 special education students in EBD placements as perceived by their teachers. The purpose of this study resulted from the premise that peer reviewed studies on whether service dogs/specialized therapy dogs have an impact on students with EBD concludes that placing service dogs/specialized therapy dogs with a handler in the classroom has a positive effect on students' emotional well-being as well as their academic engagement on task and overall academic success (Huss, 2011). The issue has become one of greater importance over the last 20 years as the increase in identification of students with autism, for example, has increased. Schools, parent stakeholder groups, and districts have had to collaborate on ways in which special education programs must be designed to meet the needs of the child. One of the interventions discovered to be particularly effective in working with not only

autistic children, but students with EBDs is that of incorporating a service dog/specialized therapy dog with a handler into the classroom.

Research Questions

Central Research Question

The following primary qualitative research question that was addressed in this study is: *How do classroom teachers of K-12 special education students in placements for EBDs describe the academic and social-emotional effects of a classroom service dog/specialized therapy dog with a handler on student learning and behavior?*

Research Sub-Questions

The central research question was then divided into three research sub-research questions, as follows:

1. How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affects academic engagement and time on task?
2. How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect student success rates on statewide achievement tests?
3. How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect behavior of students in measurable ways?

Methodology

A phenomenological methodology utilizing qualitative methods was selected for this study. Patton (2015) defines a phenomenological approach as one that thoroughly gathers and analyzes people's perceptions about a phenomenon. This study employed descriptive interview and evaluative methods to provide understanding of the implementation of, and outcomes associated with, service dogs/specialized therapy dogs with handlers in K-12 special education classrooms for students with EBDs. Qualitative means was necessary to describe implementation of the service dog/specialized therapy dog intervention and the effects of the experience from the point of view of the studied population (Leedy & Ormrod, 2013). The qualitative approach was oriented to identify natural occurrences as they happened in real-life. The qualitative inquiry framework of pragmatism emphasized real-life consequences and their natural applications from what was gleaned from the object of study (Patton, 2015). The researcher conducted face-to-face and telephone interviews with 17 special educators from three schools in New Jersey and one school in California. From those interviews, 12 were analyzed and used for the study as per research expectations.

The location, date, and time of the interview was selected by the participants; interviews were held in November 2017 and the month of January 2018 and were conducted either at the school site or via telephone. All participants were provided with an introduction letter, the participant bill of rights, and each participant signed a statement of consent and confidentiality prior to the interview. The in-person participants were provided with the list of interview questions and the phone participants were provided the questions upon request.

The interview protocol included two background questions, 17 content questions and one statement asking for any additional information the participant would like to share that had not been asked during the interview. The two background questions were about who the participant was personally and professionally and designed to allow the participant to express their purpose in utilizing the therapy dog. Interview questions asked for participants' reflections on their observations in the classroom and school setting where the child attends and included inquiries such as the number of interactions between child and dog, the nature of those interactions, the effects of those interactions, the student task engagement, and assessment results when a service dog/specialized therapy dog with a handler was present during testing. Participants were interviewed regarding their reactions to the service/therapy dog intervention and their interpretations and perceptions of its effectiveness as a classroom intervention. The phenomenological qualitative inquiry, due to its open-ended method of interviewing, provided a glimpse of both the intended and unintended effects of having service dogs/specialized therapy dogs with handlers in the classroom (McMillan & Schumacher, 2010).

All interviews were recorded using Rev Transcription IOS application on two BOOSCA recording devices. Interview recordings were submitted electronically to Trueservice@samedaytranscriptions.com via their website service upload following each interview for verbatim transcription. Once received by the researcher, copies of all transcripts were sent electronically to participants to review for accuracy and to provide opportunity for further clarification or correction by participants.

Based on suggestions made by Patten (2014), the researcher utilized "open coding" (p. 169) to deduce categories and subcategories of "segments" (p. 169) or ideas

that arose during the interview data analysis coding. Upon completion of the accuracy check and correction process, each interview transcript was analyzed using the NVivo coding software to identify themes correlating with the research questions specifically addressing academic engagement, achievement test results, and behavior of students in their programs. Each transcript was read in its entirety twice prior to beginning any formal coding. After reading for a second time the researcher began to code identified themes. To ensure interrater reliability, a Doctor of Psychology working in special education and who has qualitative data experience, coded the same transcript to ensure interrater reliability. The researcher and the interrater then compared their coding results. Upon the interrater's agreement with the researcher's interpretation of identified themes, they determined concurrence of interrater reliability.

Further data was collected to corroborate the themes present in the interview transcripts and improve validity in the process known as triangulation. Permission was obtained from the superintendent of the K-8 public school in New Jersey to access non-confidential documents and artifacts such as point sheets, behavior charts, discipline records and office referrals—all sans students' names—as part of this process. Those documents are included in the appendices.

Population and Sample

The population for this study consisted of educators in K-12 special education programs using service dogs/specialized therapy dogs with handlers in placements specifically designed for students identified with EBDs. Specifically, the population included teachers of special education students with an EBD diagnosis who were placed in a program targeting EBD in which a trained service/therapy dog with a handler was

regularly present in the classroom. Very few settings were identified nationally where these conditions were met, but the researcher began the process of identifying programs for inclusion in the study by contacting individuals associated with service/therapy dog training facilities and using communication networks such as LinkedIn to determine the locations of schools that implemented trained service/therapy dog interventions that included use of a handler.

The researcher narrowed the target population for this study to educators in four schools that use service dogs/specialized therapy dogs with handlers with special education students who are in placements for the EBD. Fourteen total interviews were conducted in three of the east coast schools in New Jersey, and four interviews were conducted in the one school in southern California. From the 18 total interviews from the four schools, 12 interviews were included in the study as per sample size selection noted by Guest (2006). Six interviews were not included in the study as they did not meet selection criteria. The researcher contacted the superintendent of one school district in South New Jersey who established a schedule of participants for the researcher to interview. The researcher traveled to New Jersey to interview the participants from two schools in that district. The researcher conducted telephone interviews with the participants from the other two New Jersey schools. The researcher traveled to the southern California school where she conducted the face-to-face interviews included in the study.

To fulfill this qualitative research, purposeful sampling was utilized in two geographical regions that incorporated the use of specialized therapy dogs in their schools. Patton (2015) describes the power of purposeful sampling in identifying

information rich cases to show insights and in-depth understanding of a select sample focusing on the research questions as opposed to purely an empirical result. Purposeful sampling was employed by contacting people from servicedogcentral.org (Service Dog Central, 2006-2014), other training centers, superintendents, and special education directors in southern California and New Jersey who provided information on special education programs that utilized trained service dogs/specialized therapy dogs with handlers with their students. The purposeful sampling strategy in this study determined cases of interest by interviewing pivotal people who had connections to other colleagues who worked in these field and shared characteristics desired for inclusion in this research, thus identifying a small study sample (Palinkas et al., 2015).

Thus, purposeful sampling was used to identify the 12 special educators in four programs that were eventually selected as the final sample for this study. Teachers were selected from three special education programs in New Jersey and one in California that focused on providing special education services for students with EBDs and that utilized service dogs/specialized therapy dogs with handlers as a regular element of the program.

As noted above, these schools were in New Jersey and southern California. Two schools in New Jersey were private residential day programs consisting of K-12 students with emotional disturbance of varying levels of degree. The third New Jersey school setting included two public schools in the district with 70 K-8 students in emotional disturbance placements who utilized the therapy dog with the handler in the classroom on a regular basis. The program from southern California was a secondary level *life skills* school affiliated with a residential treatment program with 30 students and located on the campus of a public 9-12 high school with a population of just over 1,000 students. Three

educators from the southern California school utilized the specialized therapy dogs with their handlers in the classroom (see Table 3). Overall, 12 special educators were identified for participation in interviews.

Table 3

Programs Included in the Current Study

Location	Number of Students	Number of Teachers	Hours Dog was Present per Week
California	30	3	12
New Jersey	70	6	40
New Jersey	90	1	30
New Jersey	130	2	40

Note. Data organized in ascending alphabetical order with Location controlling the sort.

Table 4 summarizes a description of the 12 participants from this study and the approximate times per week spent with the dog present.

Table 4

Description of Participants

Participant	Gender	Location	Hours Dog was Present per Week
Participant 1	Female	New Jersey	30
Participant 2	Female	New Jersey	40
Participant 3	Male	New Jersey	40
Participant 4	Female	New Jersey	40
Participant 5	Female	New Jersey	40
Participant 6	Female	New Jersey	40
Participant 7	Female	New Jersey	40
Participant 8	Female	New Jersey	40
Participant 9	Female	New Jersey	40
Participant 10	Female	Southern California	12
Participant 11	Female	Southern California	12
Participant 12	Female	Southern California	12

Note. Data sorted in ascending numerical order with Participant controlling the sort.

After identification of the potential participants, the researcher used the following process to secure participation:

1. Contacted the school principal to secure participation.

2. Identified 12 staff and secured their participation.
3. Send information regarding the study to all participants, secured Informed Consent documents from each participant, and provided the Participant's Bill of Rights.
4. Scheduled, traveled and executed the interviews.

Presentation and Analysis of Data

Data Analysis by Participant

Participant 1. Participant 1 is an educator who has been involved in education all of her adult life in both public and private schools. She works with 12 students who are severely emotionally disturbed and learning-disabled.

Research sub-question 1. The first research sub-question was "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affect academic engagement and time on task?*"

Participant 1 was effusive in extolling the benefits of the therapy dogs in her classroom. She described the background of the students as coming from drug addicted parents when they were born and from abusive family circumstances. She said how some of the students come to the school malnourished and that the students are "suspicious" of adults. She said how difficult it is to gain students' trust. Participant 1 said one way in which students become engaged in learning is with the therapy dogs. She said the dogs help students to "*let down the barriers*" (Participant 1) and they then "*relax*" (Participant 1) enough to academically engage on the task at hand. Additionally, Participant 1 said how the dog becomes an incentive for learning by stating:

> …we do use it as a motivator. If we get this done, then we can have more time with the therapy dog. And sometimes when they've done really well, we also use it as a reward. They'll get to go and work with the owner of the therapy dog. And take care of the dog. Groom it, take it for a walk. So that's the extra that we usually use…It calms them down. You can really see a focus. Lots of times there are students, we have to deal with helping them to maintain focus or redirect. And having the therapy dog, it's amazing that they really will, you can see that they're engaged.

Essentially, the therapy dog acts as a motivator and incentive for student learning. An additional benefit of which is paying closer attention to the lesson, greater academic focus and the ability to concentrate at a greater level. Participant 1 said how the students will ask to "s*it on the floor*" with the dog and she allows this as the students concentrate better on the lesson when in a trusting and relaxed environment, which, she perceived, the therapy dogs provide.

Research sub-question 2. The second research sub-question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect student success rates on statewide achievement tests?*"

Participant 1 had no information to provide about this question except to share that the dogs are not in with the students during achievement testing.

Research sub-question 3. The third research sub-question was: *"How do classroom teachers of K-12 special education students in emotional/behavioral disorder*

placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect behavior of students in measurable ways?"

Participant 1 said only one time she found the therapy dog hindered a student. She said the student had a phobia of dogs and was just "*petrified*" of dogs. Thus, they had to restructure how they utilized the dog in the classroom and adjust to accommodate the student who had a fear of the dogs. However, Participant 1 did not elaborate upon what that restructuring design looked like.

Participant 1 stated that measurable ways of student behavior were noted as the students gaining a sense of "*calming and settling*" when the therapy dogs were present. She discussed the level and frequency—often—of crisis events with her student population, and how the therapy dogs help to "*de-escalate and decrease the intensity, frequency and duration of emotional crisis*" events. Participant 1 said the therapy dogs provide comfort and help establish the value of relationships for students, enhancing trust and love. Participant 1 said the therapy dogs help draw out and "*open up*" withdrawn or isolated students. Again, she reiterated the traumatic life circumstances of her students and how the therapy dogs have largely opened the students to develop empathy not only toward the dogs, but toward other people.

Participant 1 talked about a student who looked at and talked to the dog and then looked at the handler. After this back and forth exchange, Participant 1 said, "*He could connect, and we saw him open up and develop human relationships*." Participant 1 illustrated that the students share positive emotions with others when interacting with the dog. She said how they have both an "*anecdotal record*" (Participant 1) of behaviors and

when crisis events occur, how they "*record it*" (Participant 1). Participant 1 did not share the method of recording.

When the therapy dogs are present, however, Participant 1 said the "*unacceptable behaviors*" are greatly reduced. Participant 1 said of the reactions from the students:

> They know that if they're feeling that anxiety, there's the dog. And it's amazing what just petting the dog…they really don't even have to look at the dog. Just the petting of the dog brings down the anxiety and they do stay focused just having the dog roaming the room.

The measurable effects are perceived by Participant 1 in terms of student de-escalation of stress and anxiety. She observed that the therapy dogs elicit a calm from the students and that the frequency of emotional crisis events has

> Diminished. Because we'll have five therapy dogs at one time and then sometimes they'll face them [the students] throughout the hallways on different days . . .There's something very reassuring to [the students] and they get down on the floor. These big high school kids are down on the floor on their knees and they're petting away. (Participant 1)

Participant 1's perceived effects of behavior of students was observational in nature. She frequently circled back to discussing the negative life circumstances of her students and the various crisis or near-crisis states in which the students enter school. She said how Mondays are the most difficult for the students and the staff as the students have to regroup from an often stressful and even traumatic weekend. Here, Participant 1 said the presence of the "*dogs in the morning*" and the students' "*Pet the dog and it makes them relax*." She said the measure is in how quickly the student becomes oriented to the

school environment again and she attributes this positive transition to the presence of the therapy dogs greeting the students on those Monday mornings.

Table 5 summarizes Participant 1's responses in themes and patterns related to her perceived academic and social-emotional effect of a therapy dog with a handler on student learning and behavior in special education students in emotional/behavioral disorder placements.

Table 5

Participant 1: Themes in Responses to Research Sub-Questions

Research Question	Themes in Responses
RSQ 1: How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affect academic engagement and time on task?	• Therapy Dogs serves as an incentive to complete work. • Therapy Dogs improve students' concentration, focus, and attention.
RSQ 2:How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect student success rates on statewide achievement tests?	• Cannot comment/ no information.
RSQ 3: How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect behavior of students in measurable ways?	• Therapy Dogs have a calming or settling effect on student emotions. • Therapy Dogs help de-escalate and decrease intensity, frequency, duration of emotional crises. • Therapy Dogs provide comfort and help establish the value of relationships for students, enhancing trust and love. • Therapy Dogs help draw out and "open up" withdrawn or isolated students. • Therapy Dogs help students develop empathy toward the dogs. • Therapy Dogs help students develop empathy toward people. • Students share positive emotions with others when interacting with the dog. • Therapy Dog creates challenges for a student with a dog phobia.

Note. RSQ = Research Sub-Question.

Participant 2. Participant 2 is a teacher of Limited Learning Disabilities (LLD), grades 3-5 in a self-contained classroom of students with "*some behaviors*." Prior to this position, she worked in a middle school. Her first position in education was as an instructional assistant (IA) for four years, during which she studied to be a classroom teacher. Participant 2 lives an hour away from her school.

Research sub-question 1. The first research question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affect academic engagement and time on task?*"

Participant 2 said that her students' academic engagement and time on task improved with the presence of the therapy dogs in the classroom. She has some autistic students who are reluctant and struggling readers. She said the students do not often want to engage when she requests that they read, for example, and that one student is "*very much in his world as an autistic child is*" (Participant 2) during reading time. She said that the child had difficulties reading to her but when the therapy dog is present, his reading engagement improved.

Participant 2 said about a student's academic engagement during reading time:

> Then at the end of the reading, I was like can you please tell [the dog] all the important things about the book. And he laid down next to her, looked right at her in the face and said [the dog's name] and then explained to her the whole entire book…Because of that, his [reading] level went up because he was more relaxed, and he was calm, and he was able to read to me.

Participant 2 said that this was not an isolated incident of having the student read to the therapy dog and retell the story to the dog. She said she had the student read to the dog again and then other students wanted to participate in this exercise as well. Participant 2 discussed how the student was focused and engaged in the reading exercise. The student's retelling of the story to the therapy dog provided the teacher with information on the student's reading level and reading comprehension.

Research sub-question 2. The second research question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect student success rates on statewide achievement tests?*"

Participant 2 said she was not able to speak to this issue, but that she "*wish[ed] the dogs could sit in the room during testing*." It was noted that at this point, having the therapy dog in the classroom during statewide achievement testing is not an option.

Research sub-question 3. The third research question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect behavior of students in measurable ways?*"

Participant 2 said the therapy dogs have a calming or settling effect on student emotions. She said how the dogs calm the students and that facilitates their redirection to focus on the task at hand and "*do their work*" (Participant 2) that she assigns the students. Participant 2 also said she that sees the students every day and that she sees a "*change in their behavior*" when the therapy dogs are in her classroom. She noted the reading level "*record*" increased.

This is the tangible record of measuring the behavior of the student when the therapy dogs are present in the classroom.

Additionally, Participant 2 said that the therapy dogs help de-escalate and decrease intensity, frequency and duration of emotional crises events. Participant 2 presented the case of a student who frequently engaged in emotional crisis events:

> I know last year I had one kid that is an extreme behavior problem and he's a behavior problem over at our middle school still and when [the therapy dog] came in the room, he was like a puddle. He just melted. He's like I'm going to take him for a walk. I want to do it. I want to go do that with him. That was good to be able to see, the other side to that particular kid because he was very trying, had a very hard time. In that moment in time with [the therapy dog], it was good to see the opposite side of that kid. I'm like I know you're in there. Whether he's showing me or not, I know he's in there.

Participant 2 understood the history of the student when she worked in the middle school. When the therapy dog was present, she said the student was able to manage his behavior. The therapy dog acted as a redirect and incentive for the student. He said, "*I want to do it*" and he was motivated to self-monitor in order to get time with the therapy dog.

Participant 2 also talked about the measureable way of the therapy dog helping to draw out and "*open up*" withdrawn or isolated students. She told a particularly poignant story of a student who was extremely withdrawn due to abuse:

> [The therapy dog] came in the room when one of my kids was, same kid that shut down, and she just crawled underneath his desk and was just sitting at his feet.

> Sometimes when he stares, he'll just stare straight down and you can't get anything out of him. Because she [the therapy dog] was there, he was kind of like … and then he kind of laughed because she was on his feet and she was shifting the desk around. So that was very cool to see that he was able to move a little bit because she was there. That kind of helped him come out of it a little bit and then he was fine the rest of the day after that. (Participant 2)

Participant 2 recounted how the therapy dog is a dog, after all, and he accidentally stood on the student's foot. Additionally, because of his large size, when the dog was coming up under the desk it jostled enough to make the student notice. These physical connections made the student focus his attention on the therapy dog and redirected his attention to the present. While not a measurably recorded event, the teacher's perception was that the student's behavior was positively affected by the dog's innocence in lightly stepping on the student's foot and moving the desk. This is deemed as a self-awareness and situational awareness and Participant 2 also noted that similar to this instance, she has "s*een more smiles and laughing out of the kids since the dogs have come*" [to the school]. The measure in all of these cases, is in the ways in which the students positively react to the presence of the therapy dog in the classroom and share their positive emotions with peers and adults when interacting with the dog.

Table 6 summarizes Participant 2's responses in themes and patterns related to her perceived academic and social-emotional effect of a therapy dog with a handler on student learning and behavior in special education students in emotional/behavioral disorder placements.

Table 6

Participant 2: Themes in Responses to Research Sub-Questions

Research Question	Themes in Responses
RSQ 1: How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affect academic engagement and time on task?	• Therapy Dogs improve students' focus and attention. • Student reading improves as students read to the therapy dog.
RSQ 2:How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect student success rates on statewide achievement tests?	• Cannot comment/ no information.
RSQ 3: How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect behavior of students in measurable ways?	• Therapy Dogs have a calming or settling effect on student emotions. • Therapy Dogs help de-escalate and decrease intensity, frequency, duration of emotional crises. • Therapy Dogs help draw out and "open up" withdrawn or isolated students. • Therapy Dogs help students develop empathy toward the dogs. • Therapy Dogs help develop students' self-awareness and situational awareness. • Students share positive emotions with others when interacting with the therapy dog.

Note. RSQ = Research Sub-Question.

Participant 3. Participant 3 has been in the field of special education for 10 years. This is his fifth full year as a special education teacher. He taught in LLD and then as a classroom teacher for a Special Services School district. He started in the high school and middle school but feels he has found his niche as an elementary school K-2 special education teacher.

Research sub-question 1. The first research sub-question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affect academic engagement and time on task?*"

Participant 3 said all of his students have "*some sort of behavioral needs*" that affect academic engagement and time on task. He said that if there is a student who is demonstrating aggressive behavior, he cannot teach the other students. Participant 3 said that when the therapy dogs are introduced into the classroom under these circumstances, the students become calmer and Participant 3 can get the student back into his seat and "*have him start working*" while also creating a "*safe learning environment*" for all of the students in the classroom.

Participant 3 said students are academically engaged:

> And it was always a great thing to see when [the therapy dog] would come in, and this child would come down, and be like, "Alright," and pet [the dog] for a little bit, and then [the dog] would sit to the side while he did math or language arts--whatever we were doing. And it was... it really was a big help.

Participant 3, and other participants, have commented that the therapy dog serves a vital role in the academic instruction of the students. The student gains a sense of "*calm*" and self-regulation in the dog's presence, which, in turn, translates to the student reengaging with the subject, "*math or language arts*," (Participant 3) for example.

Research sub-question 2. The second research question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements*

describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect student success rates on statewide achievement tests?"

Participant 3 said last year his students did not take the statewide achievement tests. This year he does have two students that will take the Partnership for Assessment of Readiness for College and Careers (PARCC), but he does not have any students that take the statewide achievement tests.

Research sub-question 3. The third research question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect behavior of students in measurable ways?*"

Participant 3 began the answer to this question by describing the hindering effect of the therapy dog from a recent incident with a student in his classroom. Participant 3 described how upset a student became when it was time for the therapy dogs to leave the classroom after an activity. Participant 3 said how the student has difficulty with "*transition*" and that when the dog left she started "*knocking things over*" in the classroom. Participant 3 explained to the student that the dogs are a "*reward*" and how the dogs will come back if she follows directions.

Participant 3 further explained that "*You have to make sure that they understand that the dogs are there for when they're being good, or when they actually need the dog to help them calm down. So that was difficult*."

This particular case illustrates a negative impact of having the therapy dogs in the classroom. Participant 3 was quick to add, however, that the benefit exists and stated:

> On the positive there, it is nice to use it as a reward for when a student is like, 'I've been doing really well, I haven't seen [the therapy dog] in a while, can I go see the dogs?' Absolutely. And especially if you have a kid who is struggling to maintain his behavior, maybe you can say, 'Okay, they're not doing... they're not moving well up the chart on behavior,' but they're not really moving down, maybe you could use the dogs as an incentive to say, 'If you can get your work done, maybe you can go read to [the therapy dog], or you can sit with [the therapy dog] and the guidance counselor for a couple minutes.' So, in that sense, it's nice to have them [the therapy dogs] there as a positive reward.

Furthermore, Participant 3 expanded upon the measurable ways in which having a therapy dog present in the classroom is a benefit to the students. He discussed the frequency and duration of crisis events and said the events "*absolutely decreased*" due to a sense of "*security with myself [Participant 3] and . . .the dogs*" (Participant 3) Participant 3 said the students "*felt like they were safe like the dogs made them feel comfortable. . .*" and that was assistive in decreasing crisis events.

Additionally, Participant 3 said the therapy dogs provide comfort and help establish the value of relationships for students, enhancing trust and love among the students and staff. He expressed that there is a particular warmth the dogs provide, and this reduces the stress in the classroom. The therapy dogs establish a calm and relaxed tone and create a friendly environment for the students. Participant 3 said how the students developed a sense of empathy toward one another and their teachers by stating:

> We had a student…He loved the dogs, and again he liked to make the dogs feel safe and comfortable, and I think that really helped him connect with his peer a

> little more, because he came from a school where his entire classroom of eight other boys was all behavioral, very little dealt with academics. And so he just kind of stayed away from kids; he never really wanted to make too many friends, he didn't want to get involved with anybody, he was afraid to get into a fight--because that's what happened a lot with him. So, I think it really helped him stay calm when there were new people around, or when... when other students would say, 'Hey, do you want to come play with us?' And he ended up making a lot of friends by the end of the year, so... I do attribute some of that to the dogs, at least.

Trust, warmth, a friendly environment and eliciting empathy are measurable ways in which the dogs foster desired behavior in the students.

Similarly, Participant 3 described a particularly challenging situation turned positive where a student was "*terrified of dogs*" after he had been bitten by a large dog at home. Participant 3 said the therapy dogs would come into the classroom to "*visit*" other students and Participant 3 would talk to him about how the dogs were there to help the students. After a period of time where the student observed the positive social interaction between the dogs and the other students, this student said to Participant 3, "I *want to see the dogs*" and now he "*loves . . . when they come in, he gets very excited, he gives them big hugs [and] he likes to pose for pictures with them*."

Part of this positive transition is fostered due to the therapy dogs helping students develop self-awareness and situational awareness. The therapy dogs provided an environment in which students could pause and reflect upon their behaviors both in school and out of school.

Participant 3 stated:

> One little boy in particular, he dealt with animals much better than people; . . . He cared so much about animals, he had like three or four dogs at home plus a couple of cats, and so he was... very in-tune with how those animals felt about his behavior.

Again, Participant 3 noted the student was "*in-tune*" with feelings both his own and the feelings of the dog. The student had maintained a sense of self-awareness cultivated with the presence of the therapy dog in the classroom.

Student and staff climate was enhanced with the presence of the therapy dog in the classroom. Participant 3 told about the climate and culture benefits of having the dogs present in the classroom and the behavior changes in both children and adults. He said the therapy dog has aided students in deescalating crisis events, being incentivized to complete work and communicating with peers in relationship to the dog, but that now the therapy dogs have taken on another, and very important, role as establishing a positive general climate.

Participant 3 noted that students are more interested in school and that attendance is improved:

> Okay, this is a thing that can happen more now than it did in my previous classroom, there's an incentive to behave, and to want to be at school. I still have a couple of students who say, 'I don't want to be at school.' They do enjoy the dogs; I don't think that... seeing the dogs or not seeing the dogs really affects them wanting to be here, but I definitely can say that there have been, at least, two to three students in the nine students that I've had here, that have really decided that

> school was worthwhile being at not just because of academics and friends, but like they get to see the dogs. And it was nice to have to say, 'Hey, you get to see the dogs if you do your work.' We try to make learning fun; if we can involve the dog, it makes it even more fun for them.

Similar to the students wanting to be at school to see the dogs, Participant 3 discussed one of his "*favorite parts of the day*" is getting to see the dog and how this is a huge positive for the faculty at the school. He said how the days can be "*hard*" and that just going down the hall to see the therapy dog is a huge emotional boost for him. Participant 3 described the emotional connection to the therapy dog:

> I think that an overlooked thing is using the dogs to help faculty, because some of us have pretty tough classrooms, and it's nice to sort to have that... emotional support animal to be like, 'Hey, it's okay,' because I feel like [the therapy dog] comes up, and he can feel, 'Okay, this one's having a tough day,' and he'll come up and he'll just kind of rest his head on you, and... So, I think that's an overlooked positive.

Participant 3 reported this sentiment with a big smile and ended the interview by stating his emotional connection with the therapy dogs. Similar to the positive effects the therapy dogs provide for the students, Participant 3 shared the strong positive benefit to staff.

Table 7 summarizes Participant 3's responses in themes and patterns related to his perceived academic and social-emotional effect of a therapy dog with a handler on student learning and behavior in special education students in EBD placements.

Table 7

Participant 3: Themes in Responses to Research Sub-Questions

Research Question	Themes in Responses
RSQ 1: How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affect academic engagement and time on task?	• Therapy Dogs improve students' focus and attention.
RSQ 2:How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect student success rates on statewide achievement tests?	• Cannot comment/ no information.
RSQ 3: How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect behavior of students in measurable ways?	• Therapy Dogs have a calming or settling effect on student emotions. • Therapy Dogs help de-escalate and decrease intensity, frequency, duration of emotional crises. • Therapy Dog serves as incentive encouraging good behavior. • Therapy Dogs provide comfort and help establish the value of relationships for students, enhancing trust and love. • Therapy Dogs help students develop empathy toward the dogs. • Therapy Dogs help students develop empathy toward people. • Therapy Dogs help develop students' self-awareness and situational awareness. • Removal of dog started an emotional outburst in a child. • Therapy Dog helped a student get past his phobia/fear of dogs.

Note. RSQ = Research Sub-Question.

Participant 4. Participant 4 has been a classroom teacher for nearly 25 years and in that time, she has taught mostly in a general education middle school classroom. For

the past year, she has taught in a classroom that utilizes a therapy dog with students who suffer anxiety "*due to outside factors"* (Participant 4).

Research sub-question 1. The first research sub-question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affect academic engagement and time on task?*"

Participant 4 said the therapy dogs improve cooperation with peers when the students work together. She said that the students like to "*share*" when the dog is around. She could not state the reason why, but she noted that when the students are in the presence of the dog, they speak to the dog and talk to each other more as well. Participant 4 said that during reading time, the students "*retell*" the story in a more relaxed fashion when the dog is in the room.

Participant 4 stated:

> I don't know, I guess talking to a dog is different than talking to a person. So, they will share more information. So that could be even retelling a story from what they've told in one of their books, or highlighting important information, or even math-related, geometry stuff could be.

Participant 4 indicated that the academic engagement and time on task increases while the student stress decreases.

Additionally, Participant 4 said that the therapy dogs serve as an incentive for the students to complete work. One of her lessons is having the students write about the times that the therapy dogs visit the classroom. She has them write the steps of what a person does to take care of a dog and its "*feeding requirements.*" She utilizes the therapy

dogs as a component of academic engagement and Participant 4 said "*a lot*" of students engage willingly in this writing activity.

Participant 4 said how the therapy dogs may distract some children, but that it "*interrupts a little bit but in a good way*" as it allows the students an opportunity to look up from their work and "*take a break*," but then academically engage again and refocus on their task.

Research sub-question 2. The second research sub-question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect student success rates on statewide achievement tests?*"

Participant 4 said that she's "*really not sure*" about student success rates on statewide achievement tests. She said she would have to look at what classroom the dogs were in and how those students performed; she said this was not possible, however.

Research sub-question 3. The third research sub-question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect behavior of students in measurable ways?*"

Participant 4 said student emotional crisis events have "*diminished*" with the use of the therapy dogs in the classroom. She hypothesized that "*It probably would be better if we had more dogs, because we have to share back and forth . . . So, if we had more it might work out better*" (Participant 4) for the students in terms of behavioral management.

Overall, Participant 4 said that the therapy dogs help de-escalate and decrease the intensity, frequency and the duration of emotional crises events.

Participant 4 said that a beneficial behavior of the students in measurable ways is that the therapy dogs help students develop empathy toward the dogs. She said that the students will observe if a peer is hugging a dog too hard, for example, and monitor that student by saying, "*hey, he doesn't really like that*" (Participant 4). She said there is an increase in empathetic behavior for the dog, but also for one another and the adults with the presence of the therapy dogs in the classroom.

Table 8 summarizes Participant 4's responses in themes and patterns related to her perceived academic and social-emotional effect of a therapy dog with a handler on student learning and behavior in special education students in emotional/behavioral disorder placements.

Table 8

Participant 4: Themes in Responses to Research Sub-Questions

Research Question	Themes in Responses
RSQ 1: How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affect academic engagement and time on task?	• Therapy Dogs improve cooperation with peers when they work together. • Therapy Dogs serves as incentive to complete work. • Therapy Dogs may distract some children. • Therapy Dogs serve as a topic for student writing.
RSQ 2:How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect student success rates on statewide achievement tests?	• Cannot comment/ no information.

(continued)

Table 8

Participant 4: Themes in Responses to Research Sub-Questions

Research question	Themes in responses
RQ 3: How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect behavior of students in measurable ways?	• Therapy Dogs help de-escalate and decrease intensity, frequency, duration of emotional crises. • Therapy Dogs help students develop empathy toward the dogs. • Therapy Dogs become a diversion and give students something else to attend to and about which to communicate.

Note. RSQ = Research Sub-Question.

Participant 5. Participant 5 has been in the education field for eight years. She has been in one school district during this time. She worked as a classroom teacher in the Academic Success Program (ASP) with students who had behaviors which would "*escalate*" quickly. She has achieved advanced educational degrees and she is in the planning stages of her future in her personal life at this time.

Research sub-question 1. The first research sub-question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affect academic engagement and time on task?*"

Participant 5 said the dogs serve as an incentive for the students to complete work, which in turn, she says, allows them a more concentrated effort on their work. She said that:

> We used [the therapy dog] as a reinforcement. So, the kids that wanted to spend time with him, they needed to finish their work first, and that was a huge, positive effect in our classroom because they would work so they could spend time with [the therapy dog]. (Participant 5)

The therapy dog served as a motivator for student behavior and the students were cognizant of achieving this reward. Participant 5 would redirect students and remind them of this opportunity to spend time with the dog.

Research sub-question 2. The second research sub-question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect student success rates on statewide achievement tests?*"

Participant 5 responded that having the therapy dogs in the classroom provided an indirect and small effect. She didn't find any connection between the students getting their work completed and doing better on a test.

Participant 5 said:

> Test effect - I mean, I can only say the correlation between getting the work done and then doing better on a test. If they did their work and they understood and they learned something, then they're going to do better on their test.

She determined that the benefit of having therapy dogs was negligible, but she acknowledged the logical reasoning that there is a possibility of increased success due to the dogs having provided an incentive for students to complete work.

Research sub-question 3. The third research sub-question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect behavior of students in measurable ways?*"

Participant 5 said the therapy dogs have a calming and settling effect on student emotions. She also said this calming effect result is measurable in its positive academic

engagement. The teacher recounted a particularly poignant example of a milestone:

> I think my favorite was last year when I had the eighth grader – he was upset that he had to read; he was upset with me; he was frustrated. And I was like, 'You have to read. I will leave you alone. You can read to [the therapy dog] if you want to.' And he was like, 'I don't want to read to [the therapy dog].' He was just frustrated in general. And then I left him alone for a little while, and we had a big classroom, so I just went back, and I was doing things around my desk, and I like look over, and he's on the floor laying right next to [the therapy dog], like right on his stomach, like reading the book to him. And [the dog] was just laying there and watching him. But he was able to calm him down enough, and he was able to – all I wanted him to do was read. I didn't care who he read to. But he was just literally leaning on the dog reading to him. That was like my favorite moment with these dogs because it was one of my toughest kids. (Participant 5)

Participant 5 said how the therapy dogs have an overall calming or settling effect on student emotions. In terms of crisis events, Participant 5 said the therapy dogs help to de-escalate and decrease the intensity, frequency, and duration of emotional events. Participant 5 stated that ". . . *if a student was escalated and [the therapy dog] came in that was recorded, and then you can see if they stayed deescalated and for how long*."

Additionally, another measure is how many times and with what level of intensity the students connect with the therapy dogs. Participant 5 noted how the students interacted when the therapy dog came into the classroom and stated:

> Now, when [the therapy dogs] come in they treat them so different. They'll like get on the floor with them and talk to them and they're talk really nice to them, so

it's funny to watch the way that they talk about their animals at home and then seeing the way that they treat [the therapy dogs] because they are so gentle, and they just let you pet them and love them, and they love on you. The kids do show – they're aware of what they're doing to these dogs.

One of the measures is empathetic response and Participant 5 said this was a particularly empathetic connection between the therapy dogs and her students. Table 9 summarizes Participant 5's responses in themes and patterns related to her perceived academic and social-emotional effect of a therapy dog with a handler on student learning and behavior in special education students in emotional/behavioral disorder placements.

Table 9

*Participant 5: Themes in Responses to Research Sub-Question*s

Research Question	Themes in Responses
RSQ 1: How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affect academic engagement and time on task?	• Therapy Dogs serves as incentive to complete work. • Student reading improves as students read to therapy dog.
RSQ 2:How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect student success rates on statewide achievement tests?	• Possible small, indirect positive effect.
RSQ 3: How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect behavior of students in measurable ways?	• Therapy Dogs have a calming or settling effect on student emotions. • Therapy Dogs help de-escalate and decrease intensity, frequency, duration of emotional crises. • Therapy Dogs help students develop empathy toward the dogs.

Note. RSQ = Research Sub-Question.

Participant 6. Participant 6 was a teacher of children in preschool and now she works with grades 6-8 students who are on IEPs. This is her first year working with K 6-8 special education students.

Research sub-question 1. The first research sub-question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affect academic engagement and time on task?*"

Participant 6 said that the therapy dogs in her classroom serve as an incentive for the students to complete their work. She discussed how the students can sometimes become very frustrated, but the incentive to interact with the dogs serves to bring them back to "*a point where they're still frustrated but they're able to handle the dog… [and] then we'll allow them to pet and go see the dog or go take the dog for a walk*" (Participant 6). Participant 6 also acknowledged the intense frustration that the students undergo, but she said the dogs "*just seems to help bring them back to a center and just distract them from whatever it was that was frustrating them*." Participant 6 said she allows the students to walk the dogs around the room while they calm down and then the students can reengage on the academic task. She said that the therapy dogs help students manage academic frustration and provide a way for them to complete assignments.

Research sub-question 2. The second research sub-question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect student success rates on statewide achievement tests?*"

Participant 6 said that the success rates on statewide achievement tests is not measureable and she's not sure of any data in this area, so no elaboration was provided.

Research sub-question 3. The third research sub-question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect behavior of students in measurable ways?*"

Participant 6 noted how students often come to school with some sort of distress. She said the presence of the therapy dog alleviates some of the stress and anxiety. Participant 6 reported that:

> I had a student that was very upset. He had gotten into a fight with his parents at home. He came to school, was telling me he was upset. He was trying to get his work done. He was having issues with his work. So, then he became frustrated. Now, he's frustrated and upset and didn't know what to do with himself. [The therapy dog] had come . . . in at the right moment. He was like, "Ms. S., can I go and see the dog?" I said, "Yes. Go and sit." [The therapy dog] went right over to him. He was petting her. [The therapy dog] actually laid down and knocked him down a little bit. He then immediately started laughing. He was able to get nice and calm. After [the therapy dog] had left, he said, "Okay. I'm ready to talk now. I really want to get this done.

Participant 6 talked about the measurable way in which the student deescalated with the therapy dog and how positive the outcome is from the interaction. She noted that with the presence of the therapy dog: de-escalation occurs "*when the dogs are there. If the*

dogs are not there, then they cannot really help. So, it can go either way. I've never seen them get worse. Usually, they've always gotten better" (Participant 6).

Table 10 summarizes Participant 6's responses in themes and patterns related to her perceived academic and social-emotional effect of a therapy dog with a handler on student learning and behavior in special education students in emotional/behavioral disorder placements.

Table 10

Participant 6: Themes in Responses to Research Sub-Questions

Research Question	Themes in Responses
RSQ 1: How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affect academic engagement and time on task?	• Therapy Dogs serve as incentives to complete work. • Therapy Dogs help students manage academic frustration.
RSQ 2:How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect student success rates on statewide achievement tests?	• Cannot comment/ no information.
RSQ 3: How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect behavior of students in measurable ways?	• Therapy Dogs have a calming or settling effect on student emotions. • Therapy Dogs help de-escalate and decrease intensity, frequency, duration of emotional crises. • Therapy Dog serves as incentive encouraging good behavior. • Therapy Dogs help develop students' self-awareness and situational awareness.

Note. RSQ = Research Sub-Question.

Participant 7. Participant 7 is in her third year as an educator at an elementary school. She counsels students and also uses the therapy dogs in the classroom with the

students. She is a proponent of the use of the therapy dogs as incentives for student engagement on learning.

Research sub-question 1. The first research sub-question was: *"How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affect academic engagement and time on task?*"

Participant 7 said the therapy dogs serve as an incentive for the students to complete work. She talked about reluctant readers and how the dogs not only are there for the children to read to, but there is special time set aside for the students to interact with the dog when reading.

> Participant 7 discussed the ways in which the dogs are utilized in the classroom:
>
> We have used the dog several times with low readers. Just today, we had a student on the autism spectrum--he had to do his guided reading benchmark testing because it's the end of the second marking period, and he asked to read to one of the dogs. He was able to get through because it's kind of a tedious reading, and then lots of questions. It was something for him to look forward to, which is the case with a lot of the kids. It gives them something to work for, be excited about, when it's a school day. The school year gets monotonous. It's something that nobody else has.

Participant 7 talked about the day after day routine that students become accustomed to and how that can sometimes negatively impact student engagement due to its monotony. She said the therapy dogs provide something special for the students to embrace and how that sets them apart from other schools.

Participant 7 said there was a period of time when the students would become "distracted" by the presence of the therapy dog, but as the process of introducing the dog into the classroom became more routinized, this lessened. Now, she said, the therapy dog will put his "*nose in the classroom and the kids just wave and they get right back to their work. I don't think it takes away from time on task*" (Participant 7). The therapy dog has become a regular feature of the academic environment.

Research sub-question 2. The second research sub-question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect student success rates on statewide achievement tests?*"

Participant 7 said the therapy dogs provide an improvement in reading for the students. She said "*there is so much reading*" and the regular practice of reading to and with the therapy dogs, prepares the students for this necessary testing skill application.

Research sub-question 3. The third research sub-question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect behavior of students in measurable ways?*"

Participant 7 said that the therapy dogs help de-escalate and decrease intensity, frequency, and duration of emotional crises events. She said a measure is in how many "*melt-downs*" the students have and the length of the melt-downs. She talked about the difference in length of melt-down and reengagement into academic engagement between the times the therapy dog is present and when the dog is not present in the classroom during these "*melt-down*" events.

Participant 7 said

> I have some kids who if the dogs aren't here--they're not here on Fridays--if there's a meltdown on Friday, it would take me an hour and a half to get that same kid calmed down. With the dog, it might take 20 minutes because all you have to say is let's take the dog outside. They're out of it. They're out of their fit. You and me can hold the leash together, and we can walk to my office so you can take a break.

Participant 7 said the presence of the therapy dog allows the student to more quickly regroup from an escalated behavioral event. She also said how the therapy dog was used to assist in a physical support way. The teacher was not able to get a student to come into the school building.

She said:

> He was really freaking, like slamming against the glass door. He was going nuts. We're all trying to talk to him. It was me and [another teacher], the other counselor, and [another teacher]. And [the superintendent with the therapy dogs] winds up pulling up to school for the day, and the dogs come in. It stopped. Like that quick. (Participant 7)

The teacher reiterated that they had tried several strategies to try to get the student out of the car and into school, but it was the physical presence of the dog that gained the greatest effect in getting the student into the school.

Participant 7 said it's the "*amount of outbursts*" that are measurable with the therapy dog. She talked about a student who has "*shut downs*" and how once this occurs,

the student is "*done*" and will not reengage with the teacher and the class lesson. She said how the student has her:

> . . . head on the table, refuse[s] to do work. She now knows, she has a break card. She holds up the break card. The teacher knows she's coming to me. She sits with the dog for a few minutes, and she's done. It doesn't even get to the point of a breakdown because we nip it before anything gets to that part. (Participant 7)

Participant 7 said through the use of the therapy dogs in the classroom, there is a strategy in place to prevent the full shut down from occurring.

Additionally, Participant 7 said the therapy dogs provide comfort and help establish the value of relationships for students. She said the students become more social and will walk down the hallway saying, "*Hi, [therapy dog]. Hi, [therapy dog]. They want them to be their reward. They want to pet him. They want to be involved with him. They get excited for [the therapy dogs] to be around*" (Participant 7).

Participant 7 talked about the children gaining a sense of self-awareness and situational awareness in the presence of the therapy dogs. The teacher said the presence of the therapy dogs assists in teaching students learning to "*take turns*" and not pushing the boundaries with the dog and each other. The lesson is first used with the dog, and then with each other as a benefit to learning the procedure.

Participant 7 said if the rules for interacting positively with the dog are violated:

> *I say, "Okay. No turn for [the therapy dog] today." I say, "You have to wait your turn." I know that [the therapy dog] would never, ever hurt anybody, so I'm not super crazy with it. But the kids know the routine.*

The therapy dogs serve as an incentive in supporting students' learning good behavior in school.

Table 11 summarizes Participant 7's responses in themes and patterns related to her perceived academic and social-emotional effect of a therapy dog with a handler on student learning and behavior in special education students in emotional/behavioral disorder placements.

Table 11

Participant 7: Themes in Responses to Research Sub-Questions

Research Question	Themes in Responses
RSQ 1: How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affect academic engagement and time on task?	• Therapy Dogs serves as incentive to complete work. • Therapy Dogs help limit academic frustration. • Student reading improves as students read to dog.
RSQ 2:How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect student success rates on statewide achievement tests?	• Improvement in reading.
RSQ 3: How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect behavior of students in measurable ways?	• Therapy Dogs help de-escalate and decrease intensity, frequency, duration of emotional crises. • Therapy Dogs provide comfort and help establish the value of relationships for students, enhancing trust and love. • Therapy Dogs help draw out and "open up" withdrawn or isolated students. • Therapy Dog serves as incentive encouraging good behavior. • Therapy Dog helps children break the ice and participate in group. • Therapy Dogs help develop students' self-awareness and situational awareness.

Note. RSQ = Research Sub-Question.

Participant 8. Participant 8 is a certified special education teacher. She is also an animal assisted therapy handler and she works with a support team in collaborating on the needs of special education students at the school. She assists in developing interventions that are specific to student goals. Participant 8 is part of a team that develops student learning through specified measures such as utilization of therapy dogs in the classroom.

Research sub-question 1. The first research sub-question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affect academic engagement and time on task?*"

Participant 8 said many of the negative behaviors she sees in students can result in off task academic engagement. She said that there is the "*inability to focus and follow directions [and that] students sometimes have a hard time with verbal directions*" (Participant 8) which can result in loss of learning time. Participant 8 said that the "*physical stimulus*" of having the dog in the classroom serves as a reminder to the students, "*a kind of reminder for them and it allows them to not just hear [the instructions] verbally but also see . . . I have to be calm and quiet*" with the dog present. Participant 8 said she models the behavior for her students and utilizes the therapy dogs as that cue for the modeled behavior.

Additionally, Participant 8 said that the students have a prevalence of "*anxiety disorders*" that can affect their learning. She said the therapy dog:

> Has such a positive effect on them that the kids are able to be more present in the classroom. Because when you remove that anxiety, the focus is there, the attention is there. And they're able to absorb what is being taught in the

classroom. So I feel like that's really important. (Participant 8)

Participant 8 said the ability to refocus on academics and tasks at hand are strengthened by the presence of the therapy dog in the classroom. She said the therapy dogs serve as an incentive to the student to complete work as well, and that the therapy dogs allow the students to manage academic frustration.

Research sub-question 2. The second research sub-question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect student success rates on statewide achievement tests?*"

Participant 8 said the effects of the therapy dog on student success rates on statewide achievement tests is not something she is able to "speak to" at this time.

Research sub-question 3. The third research sub-question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect behavior of students in measurable ways*?"

Participant 8 said that the therapy dogs have a calming or settling effect on student emotions and that the therapy dogs help de-escalate and decrease intensity, frequency, and the duration of emotional crises events. She noted the individualized way in which students demonstrate behavioral events. She addressed that some students do not react positively to the presence of the dog in these circumstances. She said, "*Not every student is motivated by the dog or can totally empathize with the dog. But for those students that can, [she] think[s] it's extremely effective*" (Participant 8).

Similarly, she said how the therapy dogs help students develop more empathy

toward the dogs and how this has translated to more positive peer interactions as well. She said how the therapy dogs help reduce conflict with peers.

Regarding measuring empathy, Participant 8 said she "*sees it all the time*" that:

> Especially for me . . . I see in just our class and with students, just empathy versus sympathy. And how to be empathetic towards others. So, when they're able to take the perspective of the dog and say hey, 'How do you think she felt when this happened?'

Additionally, Participant 8 said that therapy dogs provide comfort and help establish the value of relationships for students because they share positive emotions with one other when interacting with the dog. Additionally, she said rules about how to interact with the dog are communicated and regular practice of the rules ensures student and dog safety. She said her school has a "*zero-tolerance policy*" when it comes to animal safety.

Participant 8 said:

> Animal welfare, their safety and wellbeing, if we feel at any time that there is a possibility that they could potentially be unsafe, they leave the room. And that would be an instance where if we feel the dog is not welcome, then we are not present.

Participant 8 was quick to point out, however, that the therapy dog serves as an incentive in encouraging good student behavior. She said how she feels that:

> The students are just always thinking of them. Whether it's their birthday or they were out because they weren't feeling well. They're just always, any time they miss school, like where are the dogs? Where is [the therapy dog]? Is she okay? (Participant 8)

Similarly, Participant 8 said the therapy dogs help develop students' self-awareness and situational awareness in a measurable manner. She said the therapy dogs "*love snacks so some people buy them food and they love toys. They'll go buy toys for them. They're just always on [the students'] minds*" (Participant 8).

Table 12 summarizes Participant 8's responses in themes and patterns related to her perceived academic and social-emotional effect of a therapy dog with a handler on student learning and behavior in special education students in emotional/behavioral disorder placements.

Table 12

Participant 8: Themes in Responses to Research Sub-Questions

Research Question	Themes in Responses
RSQ 1: How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affect academic engagement and time on task?	• Therapy Dogs improve cooperation with peers when they work together. • Therapy Dogs serves as incentive to complete work. • Students explain work to dogs. • Therapy Dogs help students manage academic frustration. • Therapy Dogs may distract some children. • Therapy Dogs help students be more eager to learn. • Therapy Dogs improve students' focus and attention. • Student reading improves as students read to dog. • Therapy Dogs serve as a topic for student writing.

(continued)

Table 12

Participant 8: Themes in Responses to Research Sub-Questions

Research Question	Themes in Responses
RSQ 2:How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect student success rates on statewide achievement tests?	• Cannot comment/ no information. • Improvement in reading.
RSQ 3: How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect behavior of students in measurable ways?	• Therapy Dogs have a calming or settling effect on student emotions. • Therapy Dogs help de-escalate and decrease intensity, frequency, duration of emotional crises. • Therapy Dogs help reduce conflict with peers. • Therapy Dogs provide comfort and help establish the value of relationships for students, enhancing trust and love. • Therapy Dogs help draw out and "open up" withdrawn or isolated students. • Therapy Dogs help students develop empathy toward the dogs. • Therapy Dogs help students develop empathy toward people. • Therapy Dog serves as incentive encouraging good behavior. • Therapy Dogs help develop students' self-awareness and situational awareness. • Students share positive emotions with others when interacting with the dog.

Note. RSQ = Research Sub-Question.

Participant 9. Participant 9 is a teacher at a special education school for children with multiple disabilities. She works in a collaborative and therapeutic setting with a team who provides therapeutic interventions to help the students achieve their goals. She said one of her focus areas is on skill development in the areas of: "*social skills, building self-esteem, building self-confidence, and building relationships*" (Participant 9). She said she is able to teach health.

Research sub-question 1. The first research sub-question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affect academic engagement and time on task*?"

Participant 9 addressed the point that the students suffer from a myriad of behaviors that can interfere with student learning. These include: opposition, work avoidance, depression, anxiety, school phobia, impulsiveness, and following directions. She said that the presence of the therapy dog is not a "*magic pill*," but when she is working with some students who are particularly "*agitated*" that they respond to the presence of the dog in helping them to calm and reengage and devote time to the task.

Participant 9 stated:

> So, they're more willing to be a little bit more positive, respond in a more appropriate tone, maybe not get as heated with something is – more agitated if something is stressful for them or challenging for them. Because some of our kids have some real challenges with academics.

Participant 9 said the presence of the therapy dogs provide a vehicle for student academic engagement and time on task. She said the students will tell her, "*I don't really want to do my work but at least the dog is there*" (Participant 9).

She said:

> And they may not do their work. They may just say, 'I need a break and I need to sit here. I promise I won't make a scene but I can't do work today. I just wanted to come see the dogs.' And they're not allowed to pet the dogs for, you know, the whole time as a reward. But they may [be] able to see the dog and say, 'Hey,

> thanks for being honest. I'm glad you were here to at least hear what we had to say.' You know, you'll get some points for being here and you won't get points for participating but you'll get some points for at least attendance and being appropriate while you were here. (Participant 9)

Participant 9 said, in these circumstances, that the therapy dogs become a bridge to academically engaging and student connectedness to school.

Research sub-question 2. The second research sub-question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect student success rates on statewide achievement tests?*"

Participant 9 said she could not speak to that question.

Research sub-question 3. The third research sub-question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect behavior of students in measurable ways?*"

Participant 9 said they have various measures for student behavior. She coupled this with student self-awareness and situational awareness. She said the presence of the therapy dogs contributes to both.

She said:

> . . .the awareness that they're bringing to the table on how they're feeling when they have been able to do that, if they weren't thinking about the dog's feelings, is actually a huge stride and shows that they're developing skills on self-awareness and self-regulation. Because they're able to control themselves until they leave,

not all students, but some. And we've seen that and it's really actually pretty powerful. (Participant 9)

Participant 9 talked about measuring student goals by "*working with the therapists and the social workers to make sure that they're working on goals that are appropriate to their [the students'] behavior plan*." Part of this includes assessing whether the dog is a beneficial component to student learning. Participant 9 said

> We collaborate with the therapists and the social worker to make sure that (a) students who are working with the dogs, especially closely with the dogs, are appropriate [and] (b) we're not forcing a dog on anybody who's not appropriate or not willing . . .

Participant 9 said that collaboration with therapeutic staff is frequent when examining student goals and needs.

Table 13 summarizes Participant 9's responses in themes and patterns related to her perceived academic and social-emotional effect of a therapy dog with a handler on student learning and behavior in special education students in emotional/behavioral disorder placements.

Table 13

Participant 9: Themes in Responses to Research Sub-Questions

Research Question	Themes in Responses
RSQ 1: How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affect academic engagement and time on task?	• Therapy Dogs improve cooperation with peers when they work together. • Therapy Dogs serves as incentive to complete work. • Students explain work to dogs. • Therapy Dogs help students manage academic frustration. • Therapy Dogs may distract some children.

(continue)

Table 13

Participant 9: Themes in Responses to Research Sub-Questions

Research Question	Themes in Responses
RSQ 1: How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affect academic engagement and time on task?	• Therapy Dogs help students be more eager to learn. • Therapy Dogs improve students' focus and attention. • Student reading improves as students read to dog. • Therapy Dogs serve as a topic for student writing.
RSQ 2:How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect student success rates on statewide achievement tests?	• Cannot comment/ no information. • Improvement in reading.
RSQ 3: How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect behavior of students in measurable ways?	• Therapy Dogs have a calming or settling effect on student emotions. • Therapy Dogs help de-escalate and decrease intensity, frequency, duration of emotional crises. • Therapy Dogs help reduce conflict with peers. • Therapy Dogs provide comfort and help establish the value of relationships for students, enhancing trust and love. • Therapy Dogs help draw out and "open up" withdrawn or isolated students. • Therapy Dogs help students develop empathy toward the dogs. • Therapy Dogs help students develop empathy toward people.

Note. RSQ = Research Sub-Question.

Participant 10. Participant 10 initially worked in research. She switched her field of study and now works as part of a therapy team at a non-public residential day school. She works with students who suffer depression, anxiety, psychosis, oppositional

defiance, frustration and other mental-health related behaviors. She has the therapy dogs with her during some of these student sessions.

Research sub-question 1. The first research sub-question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affect academic engagement and time on task?*"

Participant 10 reported that there can be a negative component in the classroom as the therapy dogs may distract some children. She said that:

> *When the therapy dog is there, you will have a variety of responses from the students. Some students will want to make their focus and attention on the therapy dog, and they get a little bit distracted, but then you have other students that are able to participate in what is going on.* (Participant 10)

She said for many of the students the presence of the therapy dogs improve students' focus and attention. Participant 10 talked about positive attendance outcomes by the students wanting to be there when the dogs are there at the school. She said "*Yes. They want to make sure that they are here when the dogs are going to be here*" (Participant 10).

Research sub-question 2. The second research sub-question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect student success rates on statewide achievement tests?*"

Participant 10 could not comment and did not provide any information about student success rate on statewide achievement tests.

Research sub-question 3. The third research sub-question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect behavior of students in measurable ways?"*

Participant 10 said one of the most measurable components was observation of how quickly the students de-escalate when the therapy dogs arrive. She said:

> One of the things that I really notice is that every time we have the therapy dogs arrive, it is usually a stressful situation. There has been a crisis going on, the anxiety is high, and then I see a shift once the therapy dogs come. Immediately, all the students are attracted to the pets, so they go. They want to pet them. They want to interact with them and touch them. I really notice the anxiety level or whatever the mental health issues that were going on, they really de-escalate once the pets arrive into the classroom. (Participant 10)

Participant 10 worked with a therapeutic team who worked with students through crisis events. She said the therapy dogs calmed the students during these times. She also said the students display physical effects of anxiety. She said how the therapy dogs aide in diminishing these effects.

Participant 10 said:

> It really decreases their anxiety level, and I have seen it, because sometimes the students, they present—different students present anxiety differently. Some of them will jitter a lot, and then I notice a difference that once the therapy pets are here, the jittering stops; whether it is jittering with their legs or with their hands, I notice that decreases or completely stops.

Participant 10 said the students stopping their physical movements of nervousness was an effect of having the therapy dogs present.

Table 14 summarizes Participant 10's responses in themes and patterns related to her perceived academic and social-emotional effect of a therapy dog with a handler on student learning and behavior in special education students in emotional/behavioral disorder placements.

Table 14

*Participant 10: Themes in Responses to Research Sub-Question*s

Research Question	Themes in Responses
RSQ 1: How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affect academic engagement and time on task?	• Therapy Dogs may distract some children. • Therapy Dogs improve students' focus and attention.
RSQ 2:How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect student success rates on statewide achievement tests?	• Cannot comment/ no information.
RSQ 3: How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect behavior of students in measurable ways?	• Therapy Dogs have a calming or settling effect on student emotions. • Therapy Dogs help reduce conflict with peers. • Therapy Dogs provide comfort and help establish the value of relationships for students, enhancing trust and love.

Note. RSQ = Research Sub-Question.

Participant 11. Participant 11 is a special education program manager at a school-based day treatment program which is housed on a comprehensive high school campus. She has experience with United States veterans from a local air force base.

There, she said she had "*the pleasure*" of working with service dogs and specialized therapy dogs in the recovery of soldiers with Post Traumatic Stress Disorder (PTSD).

Research sub-question 1. The first research sub-question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affect academic engagement and time on task?*"

Participant 11 said that working with the dogs at first was a "*little bit of trial and error*." She noted that while the dog can sometimes be a distraction, the primary effect is that the dog facilitates greater student academic engagement. They found that by first starting the lesson and then introducing the therapy dog, the students were more academically engaged than when they brought the dog in and then tried to conduct the lesson. By starting the lesson first and then bringing the dogs in, Participant 11 said the dogs "*kind of just become part of the lesson*." Her perception was that students became more familiar with this process and the distraction of the dog in the classroom lessened.

Participant 11 said that:

> There have been times when there's been a situation and the dogs are here and I'm thinking to myself, you know what, right now isn't a good time because we've got this going on but we say hey, let's give it a go. And it often helps ease the situation and the pets themselves help deescalate the situation versus us having to go hands on or anything like that.

This quote emphasizes that the mere presence of the dog sometimes helped Participant 11's students calm down and deescalate, permitting academic activities to proceed as planned.

Similarly, the ways in which academic engagement and time on task occurs are demonstrated through students cooperating more with one another in the classroom due to the dog's presence. The therapy dogs "*draw the students out*" and they are more collaborative and focused in their academic engagement with their peers. Participant 11 said a particular benefit was how the presence of the therapy dog assisted during social skill building activities with the students.

> Participant 11 stated about a student who benefitted from the therapy dog that: His ongoing complaint has been him not being able to make friends because they just don't understand him. So he was able to connect really well with…the lab… And it's really made an impact on his, not only social skills, but on his temperament because at one point he was showing some aggressive like tendencies because he would feel anxious. And this dog was catered to help him with that.

Additionally, Participant 11 discussed how the therapy dogs improve students' focus, concentration, and attention in the classroom and during AAT sessions. She indicated the students "*stay more focused*" (Participant 11) and show a greater "*comprehension*" (Participant 11) of material when the therapy dog is present. Participant 11 said that student attendance and the "*culture*" of having "*kids be able to work better with one another*" further facilitated student academic engagement when the therapy dogs were present.

Research sub-question 2. The second research sub-question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder*

placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect student success rates on statewide achievement tests?"

Participant 11 had no information to provide about this question except to say how the dogs helped the students to "s*tay more on task*" and "*stay more focused*" in general. She could not speak to student achievement on statewide tests.

Research sub-question 3. The third research sub-question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect behavior of students in measurable ways?*"

Participant 11 said they utilize their own "*kind of measure*" with the students which is called a "s*elf-report*" system.

Participant 11 said that:

> So we've had the student kind of self-report how they felt at the beginning of group, before groups started, and then how they felt afterwards. On a scale of 1 to 10, how upset were you or how anxious were you and then at the end we would see that the symptoms would decrease after having the dogs present…
>
> And we even had them kind of write down their feelings of how they felt and so a lot of them would put down they felt at peace, they felt calm, they felt respected, they felt valued because that dog was giving them that.

Participant 11 discussed the "*calming*" effect of the therapy dogs on student behavior. She said many students have "*anxiety*" and "*externalized behaviors*" such as anger and frustration that results in "*throwing stuff*" at times. She said how:

> As soon as the dogs enter the room, and, in their presence, it helps them calm down. The dog often goes to them or the student will go to them. And just by being around their presence it calms them down. It sets a different tone in the environment. (Participant 11)

Participant 11 said how they have crises on "*a daily basis*" and they frequently have to implement "*crisis intervention*" with the students. The therapy dogs come to the school twice a month, usually on Wednesdays, and Participant 11 discussed how the dogs provide comfort and help establish the value of relationships for students, enhancing trust and love during those times.

In addition to comfort and calming, Participant 11 also perceived that the therapy dogs help students develop empathy toward not only the dogs, but toward people. Participant 11 said students develop improved social skills as the dogs "*draw students out*" of "*isolation*" and help to foster clear communication skills and provide an opportunity for the students to connect with each other via the presence of the therapy dogs.

Table 15 summarizes Participant 11's responses in themes and patterns related to her perceived academic and social-emotional effect of a therapy dog with a handler on student learning and behavior in special education students in emotional/behavioral disorder placements.

Table 15

Participant 11: Themes in Responses to Research Sub-Questions

Research Question	Themes in Responses
RSQ 1: How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affect academic engagement and time on task?	• Therapy Dogs improve cooperation with peers when they work together. • Therapy Dogs improve students' focus, concentration, and attention.
RSQ 2:How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect student success rates on statewide achievement tests?	• Cannot comment/ no information.
RSQ 3: How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect behavior of students in measurable ways?	• Therapy Dogs have a calming or settling effect on student emotions. • Therapy Dogs help de-escalate and decrease intensity, frequency, duration of emotional crises. • Therapy Dogs provide comfort and help establish the value of relationships for students, enhancing trust and love. • Therapy Dogs help draw out and "open up" withdrawn or isolated students. • Therapy Dogs help students develop empathy toward the dogs. • Therapy Dogs help students develop empathy toward people. • Students develop improved social skills.

Note. RSQ = Research Sub-Question.

Participant 12. Participant 12 has been a special education teacher for nearly 15 years. She has worked in a therapeutic setting with students in day treatment settings. She has worked with therapy dogs previously at a school.

Research sub-question 1. The first research sub-question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder*

placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affect academic engagement and time on task?"

Participant 12 said the therapy dogs make the students calmer in the classroom and, thus, they academically engage at a higher level. She perceived the engagement and on task behavior attributable to the presence of the therapy dogs in the classroom.

She said:

> I think that when there is a therapy dog, it actually provides a calm in the classroom. So I think it helps students to just be a little bit more focused and have the classroom be a little bit more calming. (Participant 12)

While Participant 12 said she was not certain about the time on task, she attributed a greater attention paid to student learning on the therapy dogs in the classroom by stating:

> But if it's helping their emotional, then that obviously…because it's all intermeshed together. So, if they're feeling safe, comfortable, and calm emotionally, they're going to be more eager to learn and calm enough to get the distractions out of the way. So that they can feel safe and in a good place to learn.

Participant 12 said the calm and emotional safety that the therapy dogs provided, assisted in academic engagement and attitude toward learning.

Research sub-question 2. The second research sub-question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect student success rates on statewide achievement tests?*"

Participant 12 said she could not comment on this section and had no feedback to report.

Research sub-question 3. The third research sub-question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect behavior of students in measurable ways?*"

Participant 12 said that during the "*intake process*" of students coming to the school, they are often times nervous and anxious about coming to a new school. She said when the therapy dogs are present, however, they assist the students with this transition.

Participant 12 said:

> I think one of the most radical things that I've seen with a therapy dog is during an intake process. When a student comes in, their parent or guardian is nervous in coming to a new place…I've seen it time and time again during the intake process. When there's a therapy dog there, it just gives the student something comforting…So, it's just a really neat symbiotic thing where the student can have something to do. And the student is being asked these questions and it gives them something to even focus on if they don't feel comfortable answering question or looking at this new stranger in the face.

Participant 12 said the therapy dog serves as a positive diversion for the students during the intake process. She says that this is the most "*radical*" (Participant 12) measurable way that she has observed the therapy dog affecting student behavior. She said, "*To be able to have something that's right there, that's a living thing, that's giving them love*" (Participant 12).

Table 16 summarizes Participant 12's responses in themes and patterns related to her perceived academic and social-emotional effect of a therapy dog with a handler on

student learning and behavior in special education students in emotional/behavioral disorder placements.

Table 16

*Participant 12: Themes in Responses to Research Sub-Question*s

Research Question	Themes in Responses
RSQ 1: How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affect academic engagement and time on task?	• Therapy Dogs improve students' focus and attention.
RSQ 2:How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect student success rates on statewide achievement tests?	• Cannot comment/ no information.
RSQ 3: How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect behavior of students in measurable ways?	• Therapy Dogs have a calming or settling effect on student emotions. • Therapy Dogs help de-escalate and decrease intensity, frequency, duration of emotional crises. • Therapy Dogs provide comfort and help establish the value of relationships for students, enhancing trust and love. • Therapy Dogs help students develop empathy toward the dogs. • Therapy Dogs help develop students' self-awareness and situational awareness.

Note. RSQ = Research Sub-Question.

Data Analysis by Common Themes in Research Questions

The following sections present the most frequently occurring themes that emerged from analysis of all participants' responses to the interview. The researcher analyzed all data generated within the interview from all 12 participants. This analysis produced common themes addressing the three research sub-questions, as well as some information

that was not coded for the current study. Most coded nodes were generated in response to specific questions posed to participants regarding the particular research question; however, some were noted in responses of participants in other sections of the interview not specifically designed to elicit that data.

Research sub-question 1. The first research sub-question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affect academic engagement and time on task?*" Following the collection and coding of all data, participants' responses were analyzed for broader themes.

Common theme 1: Incentive to complete work. Five of the 12 participants discussed aspects of improving students' incentive to complete academic tasks as a benefit of having therapy dogs in the classroom settings. Responses in this area noted that the dogs were often used to directly motivate academic task completion. Teachers may have presented the opportunity to students to increase their time with the dog by finishing the school work at hand. For example, Participant 5 stated:

> . . . we used [the therapy dog] as a reinforcement. So, the kids that wanted to spend time with him, they needed to finish their work first, and that was a huge, positive effect in our classroom because they would work so they could spend time with [the therapy dog].

Participant 1 also described using the dog as a motivational incentive for either the completion of the task or the quality of the work effort, "*we do use it as a motivator. If we get this done, then we can have more time with the therapy dog. And sometimes when they've done really well, we also use it as a reward*."

Common theme 2: Improve focus and attention. Four of the 12 participants (33%) indicated that the presence of therapy dogs in the classroom helped improve students' focus and attention. Responses in this category ranged from simple direct effects, as in Participant 11's comment that "*I feel that it helps them concentrate and stay focused*," to more complex multi-causal attributions of the impact of the dog's influence on attention through a reduction in student anxiety as in Participant 8's response: "*…the kids are able to be more present in the classroom. Because when you remove that anxiety, the focus is there, the attention is there. And they're able to absorb what is being taught in the classroom."*

Common theme 3: Distraction (negative). Twenty-five percent (or 4 of 12) of participants noted that there could be some negative impact of a therapy dogs' presence on students' ability to focus. Participant 10 stated, "*Some students will want to make their focus and attention on the therapy dog, and they get a little bit distracted*." In two of these cases, however, the participant noted that this effect was either short-lived or that it was accommodated by staff and, therefore, did not have a particularly problematic impact:

> Sometimes it kind of interrupts a little bit but in a good way. They might be working on a certain task, because sometimes they come in kind of unannounced, they're walking though. Or if the kids see them walk down the hallway, that kind of thing. But it's usually not very long. It's just a little—couple minute break kind of a thing. And they'll get right back to work. (Participant 4)

Common theme 4: Ability to manage academic frustration. Several participants noted that the dogs provided a means to assist students in managing the frustration that

came with the academic work. It was commonly referred to in interviews that students in these settings have a low frustration tolerance and are frequently oppositional and resistant to completing work. In discussing a particularly troubled youngster, Participant 7 noted that, with a dog nearby, "*He was able to get through because it's kind of a tedious reading, and then lots of questions.*"

Common theme 5: Reading to dog. Finally, although noted by only two of 12 participants (17%), it was felt noteworthy that improvements in student reading skills were noted in four reference points as related to the presence of a therapy dog. Each of these situations was described in some detail and included the student actually reading directly to a dog rather than to a listening staff member. Participants elaborated that the child seemed to feel safer and more able to read fluently without performance anxiety to a dog relative to reading to a teacher. As stated by Participant 2:

> I need him to read to me and be able to tell me the book that he read. He read to me one time and it was difficult for him and I could see that it was. So, I had asked one of our handlers, I said do you mind if [the therapy dog] comes out and sits with one of my students so he can read to her. It was the most adorable thing I think I've ever seen. I said if you want to sit in the chair you can sit with me or you can sit on the floor with [the therapy dog]. Well, he sat right next to her on the floor. I said to him you're going to read [the therapy dog] the entire book. He said okay. Then he started to read, and he would occasionally pet her, read, pet her.

Participant 2 also noted a significant growth in reading levels across time that she attributed to the child reading to the dog. She reported the child "*Going from one student*

reading on a level M without the dog and then ending up at an O after reading with the dog."

Table 17 contains the common themes present across participants addressing the first research question.

Table 17

Common Themes in all Participant Responses Addressing Research Sub-Question 1

Theme	Number of Respondents	Frequency of Responses
Incentive to complete work	5	8
Improve focus and attention	4	5
Distraction (negative)	3	3
Ability to manage academic frustration	3	3
Reading to dog	2	4

Research sub-question 2. Research sub-question 2 asked: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affect student success rates on statewide achievement tests?*"

The overall result of this inquiry indicated that the vast majority of respondents did not feel they could comment on this idea or that they had negligible information with which to respond to this question. To quote one participant directly, there was a general opinion that "*I cannot speak to that*."

Two participants noted possible indirect effects, however. Participant 5 noted that I can only say the correlation [is there] between getting the work done and then doing better on a test. If they did their work and they understood and they learned something, then they're going to do better on their test.

The second indicated that because some children learned to read better due to the dog's presence that this would carry over to test performance.

Table 18 contains the common themes present across participants addressing the second research sub-question.

Table 18

Common Themes in all Participant Responses Addressing Research Sub-Question 2

Theme	Number of Respondents	Frequency of Responses
Can't say; little information	10	10
Improved reading	1	1
Correlation between test performance and work completion	1	1

Research sub-question 3. The third research sub-question was: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affect behavior of students in measureable ways?*"

Though one of the questions on the interview protocol addressed this question directly, related responses were noted in many different parts of the interview and coding was completed with thorough reference to the entire protocol of all participants. In addition, though participants did not always clearly specify measured aspects of behaviors, they brought up a range of social, emotional, and behavioral benefits that potentially could be measured. These were coded with as much specificity as possible, and were not limited to cases where results were, in actuality, measured. In addition, it was noted that some aspects of functioning that have been measured may not be specifically behavioral, though these were included in this area. For example, multiple

participants noted declines in students' ratings of the intensity of their own feeling states (e.g., anger, frustration) following exposure to the dogs.

Common theme 1: Calming or settling heightened emotional states. All 12 (100%) of the respondents provided responses coded under the theme of calming or settling heightened emotional states. This theme was far and away the most prevalent find across participants' interview transcripts and was coded, on average, over four times per transcript. Participants noted general calming and reduction of students' anxiety as a common result of the dog's presence in the classroom. Participant 11 noted simply that "*it does help them all stay more calm*." The presence of the dog was represented as a diversion to issues the child might be struggling with that allowed for the reduction in heightened emotional states according to five of the participants. For example, Participant 8 stated,

> I just think these kids are just instant…they just light up when the dogs are walking in. Everybody, the whole room just lights up. The kids smile, the staff smiles. It's just a warm presence that makes you feel good and I think if you are dealing with any kind of emotional issues or distractions, it's a nice reprieve from that.

While the most common area noted by participants addressed the impact on anxiety, others emphasized the positive effects of the dog(s) on other emotional states. For example, Participant 11 indicated that in the dog's presence, "*The anger level would decrease*." Participant 5 described an effect on a student's embarrassment which led to improved reading skills in the following:

> He didn't want to read to anybody else because he was embarrassed, but he would read to [the therapy dog]. He finally started reading to me when it was just the two of us in the classroom, and he went up three reading levels by the end of the year because he would read every day.

All 12 participants noted the dogs had a notable impact on emotional crises, helping to reduce the frequency, duration, or intensity of students' meltdowns. Because they cared about the dog, some children were able to release frustration and anger, "*then they would forget why they were upset and spend some time with him, and then they would go back to what they were supposed to be doing*" (Participant 5).

Another described the effect on a specific male student with much more detail:

> I guess you could say it was like a soft side for animals. Like he really cared about what was going on with them and stuff like that, so if you brought the dog in the room while he having this tantrum or his fit, you could see the tension in his body and his face, and just his general demeanor, it's all, sort of, flushed away when [the therapy dog] would come in the room. And you could get him from a 12 back to a 3, just by showing [the therapy dog's] face, because he didn't want to hurt the dog, he didn't want the dog to be scared, he didn't want to upset the dog, he wanted to make sure the dog was safe. (Participant 3)

This response noted the multiple ways the dog's presence helped this student release tension and become more receptive to the educational endeavor. The participant notes that his emotional intensity drops from a very high level (12) to one much more manageable (3) with the dog in the room. She attributes this change, at least in part, to the care the student has for [the therapy dog]. Another participant spoke of the frequency

of emotional outbursts since the therapy dog came to the program, "I want to say they've kind of decreased. I haven't seen too many outbursts since the dogs have been here with my kids" (Participant 2).

Common theme 2: Increased expression of empathy. The theme of empathy was probed directly with a question; however, it was noteworthy that all 12 participants (100%) noted positive impact of the dog on student empathy—either directly for the dog or toward peers or adults as a result of an empathetic response transferring to the interpersonal context from their relationships to the dog. Participant 11 made a particularly warm description of this process:

> So, by them having that empathy toward the pet and the pet showing that empathy back towards them, it does kind of help them relate this to the empathy they have with their peers and their socialization and whatnot. It's really nice to see that. And oftentimes, you have kids, again, that perhaps that day they were just in a quarrel with one another for whatever reason and then you see them both with the dog, just laying there, being able to connect with one another because of this beautiful creature helping bridge that bond.

In discussing the dog's responsiveness, it was sometimes noted that the dog was nonjudgmental and a less risky way to show caring than it would be with peers. Furthermore, expanding a child's capacity to be aware of and take care of other's needs was evident in this response from Participant 12: "*it's more calm and maybe they don't want to upset the dog*." Students were sometimes characterized as conscious of the animals' well-being:

> But the kids who are very connected to the dogs really look out for their wellbeing and they do their best to keep their voices down, to keep a little bit of a more positive mindset when the dogs are in the room as to not make the dogs feel anxious. They think about the dogs' wellbeing a little bit more than maybe they think about their own when the dogs are present. (Participant 9)

The simple notion of taking care of another living thing was powerful for some of the students. Said one teacher, "*It's teaching him that they have feelings, they need to be taken care of*" (Participant 9).

Common theme 3: Improving students' self and situational awareness. Of the ways in which the dogs impacted students' social and emotional functioning, Common Theme 3 addressed the impact on the students' awareness of their own emotional states or the demands of the situation in which they found themselves. Eight of the participants indicated that in the presence of the therapy dog, students were able to focus on things other than their own emotional states. One teacher described it this way,

> Generally, they follow the rules, and they know that if they don't there are consequences in my room with the dogs: you won't be able to see the dogs if you're not going to treat the dogs with respect and care. (Participant 3)

Participant 9 stated that,

> I have had students who are more likely to remove themselves from the classroom if they feel they can't be there because the dog is there. 'I can't be here right now because I'm super agitated and I'm going to do something that's going to scare the dog.' Or, 'I don't know if I can keep myself in control. Can I please go to the counseling room?'

This ability to take a broader perspective than their needs or wants in a situation and perhaps adjust their behavior accordingly represents an area of growth for these special education students. As another participant reflected the potential inner monologue a student might have with him or herself, "*So [the therapy dog] is in the room. I have to be calm and quiet. They're asking me to lower my voice. I have to lower my voice*" (Participant 8).

Common theme 4: Drawing out the student. Half of the participants (6 of 12) noted that therapy dogs help to draw students out who are either withdrawn or prone to isolation or shut down. An example related that "we have a couple kids that completely shut down, but if the dogs are around they open right back up. It takes a couple minutes, but it happens" (Participant 5). These participants emphasized that the duration of these periods of disengagement for students were abbreviated by the dog, as evident in the following response:

> I had a child who when he shuts down, he will shut down for like an hour. He will just sit, stare, won't do any schoolwork. And bringing [the therapy dog] and [the other therapy dog] in the room, he is able to kind of pet her, calm down and he comes out of that shutdown faster than an hour and completes his work. (Participant 2)

Other participants noted a more open and engaged participation style in students when around the dog, noting "*You're seeing more open behaviors*" (Participant 1). At times this idea was extended to encompass a sense that children were more willing to be themselves around the dogs and let down their guard. Participant 1 put it like this, "*They come in very rough and tough and when they are with the therapy dog, it's just, you just*

finally get to see the child." A third described the transformative impact of making a connection with a dog by retelling an incident of a student: "*He was talking to the dog and he was making eye contact with the dog and then he was making eye contact with the dog's owner. And that just opened up a whole new world for him*" (Participant 1).

Common theme 5: Providing comfort. Thirty-three percent (4 of 12) participants emphasized the therapy dog's ability to comfort and offer support for students. Participant 12 stated, "*When there's a therapy dog there, it just gives the student something comforting*." In describing her school's intake process, one teacher noted that it could be inherently stressful for students and that the dog could make a big difference in that context:

> Just again, especially on the intakes where you have a kiddo that is not talking to anybody. Who is visibly scared and I've seen it many times. Where then the dog is there and they just, it helps them to just be more comfortable. I've seen that a lot of times. (Participant 12)

In general, this theme seemed to focus on how children's feelings shifted around the dog: "*Because you can tell it's a release of tension and they're feeling comfortable and they love when the dogs come to them*" (Participant 12).

Common theme 6: Sharing positive emotion when around dog. Three of the 12 participants (25%) evidenced themes of students sharing positive emotions with peers or adults in the vicinity of the therapy dogs. Two of these three participants noted that laughter was exchanged by students, "*I've definitely seen some more smiles and laughing out of the kids since the dogs have come*" (Participant 2). The second noted, "*When they're having their time with the therapy dogs, they're laughing more*" (Participant 1)

Laughter and smiling were noted by participants as reprieves from some of the difficult emotional states faced by these students throughout their school days. A third participant discussed how the sharing of personal information is made possible through the shared positive emotion they have for the dog in the classroom. She noted, "*In fact, students that would never normally get along, they have a shared affection for the dog. And it starts the conversation of 'well my Pitbull.' So, they start sharing personal experiences*" (Participant 1).

Common theme 7: Improved social skills. Noting that "… *it's really made an impact on his, not only social skills, but on his temperament because at one point he was showing some aggressive like tendencies because he would feel anxious*," (Participant 11). One participant detailed an evolution in the way a student related to peers in the classroom. This theme was evident in three of the 12 participants (25%) responses and was accompanied by some impressively detailed narrative. One teacher described the students learning to request or ask for permission to approach the dogs—a skill counter to the impulsive or withdrawn styles with which they may typically approach interactions:

> They have to, the students, if they're upset or need something, they have to be able to ask for it. They have to show a sense of decorum and be able to ask for saying, "I'm frustrated right now. Do you mind if I go and pet the dog?" If they get up without asking, or if they're being very up, and out, and aggressive, then we're not going to let them go towards the dogs for fear that they could hurt either themselves or the dog. (Participant 6)

Common theme 8: Incentive for good behavior. Similar to the ways in which the dog could be used as an incentive for academic performance, multiple participants noted that

the dogs could be used to incentivize appropriate behavior in students. One noted a conversation she might have with a student, "*If you can keep it together for the rest of the day, you can go and hang out with [the therapy dog] for the last 15 minutes of the day*" (Participant 3). Participant 7 reported that

> It gives them something to work for, something to look forward to, and so much of social/emotional learning is feeling a sense of belonging and inclusion. And you have kids that in the beginning of the school day they say [teacher], if I get all my stars today, can I come see the dog? Can I come eat lunch with you and [the therapy dog]?

Twenty-five percent (3 of 12) participants provided responses that were reflective of this motivational quality of the dogs with respect to behavior.

Table 19 contains the common themes present across participants addressing the final research sub-question.

Table 19

Common Themes in all Participant Responses Addressing Research Sub-Question 3

Theme	Number of Respondents	Frequency of Responses
Calming or Settling	12	53
Increased expression of empathy	12	17
Improving self and situational awareness	8	15
Drawing out student	6	15
Providing comfort	4	6
Sharing positive emotions around dog	3	5
Improved social skills	3	5
Incentive for good behavior	3	4

Summary

Chapter IV presented a brief review of the study's purpose statement, research questions, research methods, and data collection procedures that were used along with the study population, target population and sample. The next section presented the research data analysis which was conducted by the researcher and articulated by study participant and research questions.

The summary of responses and interviews were collected, coded and analyzed from 12 study participants. Each participant responded to a protocol of open-ended, semistructured interview questions designed to elicit a response regarding the perceived academic and social-emotional effects of classroom service dogs/specialized therapy dogs with handlers on student learning and behavior in K-12 special education students in EBD placements.

The participants were educators from schools on the East Coast and from southern California. Once participants agreed to participate in the study, the researcher scheduled appointments to go to the schools to conduct the interviews. Nine of the interviews were face-to-face and three were interviews conducted via telephone. All interviews were doubly digitally recorded using BOOSCA mp3 recorders which were then loaded to a MacBook computer.

Once all interviews were completed, the collected data was transcribed via a transcription service, sent to the interviewees, thoroughly vetted for accuracy, and then analyzed using NVivo coding software. The researcher analyzed all the coded data and presented the themes and accompanying narratives.

As a whole, participants provided far more responses indicating social-emotional or behavioral benefits of the therapy dogs than academic effects. While all 12 respondents noted at least some positive academic outcomes of having therapy dogs in the classroom, social-emotional benefits were noted three times more frequently than were those in the academic domain (111 instances versus 37 instances).

Overall, participants' responses included five themes related to the research sub-question regarding improved academic engagement. These included incentives to complete work, improved focus and attention, distraction (negative), ability to manage academic frustration and reading to the dog. One of these, distraction, was evident in three participants' responses and indicated that the dogs could distract some students from learning. In each of those three cases, participants qualified the negative effect as either temporary or able to be overcome with planning and changes in routine.

Regarding Research Sub-Question 2 about statewide testing, the vast majority of respondents (10/12) clearly felt they were unable to provide information about any impact, positive or negative, produced by the therapy dogs.

Overwhelmingly, participants said therapy dogs calmed students and contributed to de-escalation of emotionally stressful situations at school. All 12 respondents indicated the calming and de-escalation in a total of 53 responses. Moreover, all respondents indicated the therapy dogs assisted in reducing the impact of emotional crisis events by limiting the frequency, duration or severity of the students' outbursts.

In addition, all respondents cited improvements in children's empathy toward either the therapy dog, peers, or both and a majority of participants noted improved awareness of self and situations in the students as a result of the presence of the therapy

dog. An additional five themes were evident in six or fewer of the participant's responses. These included: (a) drawing out students, (b) providing comfort, (c) students sharing positive emotions around the dog, (d) improved social skills, and (e) the dog providing an incentive for good behavior. Chapter V will present the study's research findings, conclusions, and recommendations for future studies.

CHAPTER V: FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

This chapter includes a concise summary of the study's findings, conclusions, and recommendations for the study. The chapter begins with a brief summation of the study's purpose, research questions, research methodology, population and sample. The researcher then presents the study's major findings of the study, including unexpected findings as well as conclusions derived from the researcher's data analysis. The chapter concludes with the implications for the research as well as recommendations for future research, concluding remarks, and summarily, the researcher's reflections on the research experience with this topic.

Summary of the Study

This study researched the perceived academic and social-emotional effects of classroom service dogs/specialized therapy dogs with handlers on student learning and behavior in K-12 special education students in EBD placements as perceived by educators. Additionally, the study also revealed the effects on staff of having a therapy dog in a school. The researcher used the research questions to explore how classroom teachers of K-12 special education students in EBD placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affects academic engagement and time on task, affects student success rates on statewide achievement tests and affects behavior of students in measureable ways.

Purpose Statement

The purpose of this phenomenological study was to determine and describe the academic and social-emotional effects of classroom service dogs/specialized therapy

dogs with handlers on student learning and behavior in K-12 special education students in EBD placements as perceived by their teachers.

Research Questions

Central Research Question

The following primary qualitative research question that was addressed in this study is: *How do classroom teachers of K-12 special education students in placements for EBDs describe the academic and social-emotional effects of a classroom service dog/specialized therapy dog with a handler on student learning and behavior?*

Research Sub-Questions

This qualitative study centered around three research sub-questions designed to elicit information on the research topic:

1. How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affect academic engagement and time on task?
2. How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect student success rates on statewide achievement tests?
3. How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect behavior of students in measurable ways?

Research Methods

The research methodology selected for this study was a phenomenological methodology utilizing qualitative methods. Patton (2015) defines a phenomenological approach as one that thoroughly gathers and analyzes people's perceptions about a particular phenomenon. This study employed descriptive interview and evaluative methods to provide understanding of the implementation of, and outcomes associated with, service dogs/specialized therapy dogs with handlers in K-12 special education classrooms for students with EBDs. Qualitative means were necessary to describe implementation of the service dog/specialized therapy dog intervention and the effects of the experience from the point of view of the studied population (Leedy & Ormrod, 2013).

Target Population and Sample

The target population for this study were teachers in the group of special education programs considered primary placements for students with an EBD that are currently utilizing trained service dogs with a handler on a regular basis. The target population of educators was a narrowed group of individuals of interest for inclusion in a given study from which the sample was drawn (McMillan & Schumacher, 2010). The researcher began the process of identifying programs for inclusion in the study by contacting individuals associated with service dog training facilities and using communication networks such as LinkedIn to determine the locations of programs currently implementing service/therapy dog interventions that met the study criteria. Four schools were selected for use in the study: Three East coast schools, all in New Jersey, and a California school. From these four schools, a group of 12 educators were selected to participate in interviews (Guest, 2006).

Study participants were identified and invited by the researcher through the use of nonprobability, purposeful sampling. Patton (2015) uses the term "nonprobability sampling" (p. 264) to distinguish between in depth and relatively small samples used for a specific purpose and probability sampling where random selection is important which was the illustrated case for this study. The criteria for selecting participants for the study was that the teacher must have a classroom in which service dogs/specialized therapy dogs trained to provide emotional support and accompanied by a handler are present on a minimum of a weekly basis. Teachers included in this study must instruct in programs that utilize service or therapy dogs that have been trained at a highly specified level to detect emotional distress in an individual and assist in daily task functioning and socioemotional development.

The researcher communicated via email and telephone with the director and superintendent of the schools and 12 educators were selected to participate in this study. Once each confirmed his or her willingness and availability to participate in this study, participants were then scheduled for interviews and the twelve interviews were conducted face-to-face and three via telephone calls. Nine of the 12 participants represented New Jersey while the remaining three participants represented southern California. Six of the participants were educators in public school districts and six were in private school settings.

Major Findings

The three research sub-questions all centered on the perceived academic and social-emotional effects of classroom service dogs/specialized therapy dogs with handlers on student learning and behavior in K-12 special education students in EBD placements.

The data collected from the 12 participants established that having therapy dogs with handlers in a classroom with K-12 special education students significantly benefitted their academic engagement and time on task and positively affected the behavior of students in measurable ways. The effect of student success rates on statewide achievement tests was deemed negligible based upon participants' responses as unable to address this question due to little, to no, known correlation in this area.

Research Sub-Question 1

Research Sub-Question 1 asked: "*How do classroom teachers of K-12 Special Education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affect academic engagement and time on task?"*

Major finding 1. The first major finding was that 100% of the participants reported a positive academic engagement and time on task effect for students in classrooms with therapy dogs and their handlers. The most common academic benefit cited was dogs serving as a powerful academic motivator for learning. The therapy dog was described as an "incentive" for the students to complete their work and then spend time with the therapy dog by five of 12 (42%) of participants. According to Geist (2014) more frequent and powerful incentives are necessary to maintain the academic engagement for students with emotional and behavioral disorders. Participants in this study identified this characteristic of the therapy dog as part of the classroom.

Participants stated throughout the interviews that the dogs served to incentivize learning for the students and how this positively affected academic engagement and time on task. Of their own offering, participants reported that when the therapy dogs were

present, the students became more incentivized to engage in their learning in order to be able to spend time with the dogs upon task completion. In some cases, such as when reading to the dog, the students were allowed to interact with the therapy dog with the handler during the classroom activity. Other ways in which the dogs were used as an incentive, was to have the students pet the dog, play with dog using a toy, and walk the dog by holding its leash in the presence of the handler. Universally, participants used the word "incentive" to describe the academic effect and time on task benefit of the therapy dog with the handler in the classroom.

Major finding 2. A second major finding is that participants provided a range of additional ways in which therapy dogs resulted in academic benefits for students. These included helping students manage academic frustration, improving their focus and attention to work, and serving as a direct academic stimulus. EBD students are noted to have great challenges with academic work completion. Lewis (2010), proposed there is a strong correlation between a lack of schoolwide positive behavior and supports and emotionally disturbed students' poor academic success in school. Difficulties with, and a dislike for, school work can generate excessive and explosive reactions in students. The presence of the therapy dogs was noted by 25% of participants as helping students handle this stress and remain engaged in academic work and time on task.

In addition, four of 12 (33%) of respondents noted that dogs improve student focus and attention. In some cases, they noted explicitly that students' attention was diverted from other distractions, such as peer conflicts or challenging home situations, enabling students to concentrate on academic work. Of the 12 participants, three (25%) reported that the therapy dogs were a distraction at first, but that the students became

accustomed to the presence of the therapy dog and that they returned to academic engagement within a few minutes of the dog's arrival with the handler. Participants indicated that students enjoyed reading to the dog and directly interacting with the dog about their learning. According to Bassett (2013), there is an anecdotal correlation between a student's improved time on task in reading when in the presence of a therapy dog. Time spent included petting the dog, reading to the dog and talking to the dog about what the students were doing in the classroom. The students demonstrated higher learner engagement and were motivated to share out their learning, by explaining a storyline for example, to the therapy dog. The students were found to be more able to focus and concentrate on assignments and classwork. Finally, therapy dogs had a direct impact on student academics due to students willingly producing academic responses to the dog in a writing assignment and/or the students providing an explanation of a story to the therapy dog. The teacher, in these instances, noted that they can indirectly assess a students' comprehension and even measure a learning Lexile increase via a student's reiteration of the story to the therapy dog.

Research Sub-Question 2

Research Sub-Question 2 asked: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe ways in which the presence of a service dog/specialized therapy dog with a handler affect student success rates on statewide achievement tests?*"

Major finding 3. The third major finding is that overall participants did not identify consistent effects on outcomes of statewide testing. Of particular note, however, is that two of the 12 participants (17%) stated there might be indirect effects. One

participant stated that the amount of reading is heavy on statewide tests and that therapy dogs seem to improve their engagement and reading of material for tests and that two, there is a correlation between doing work and learning in order to perform on the statewide reading tests. Overwhelmingly, people did not feel they had enough information to verify answers to this research sub-question.

Research Sub-Question 3

Research Sub-Question 3 asked: "*How do classroom teachers of K-12 special education students in emotional/behavioral disorder placements describe the ways in which the presence of a service dog/specialized therapy dog with a handler affect behavior of students in measurable ways?*"

Major finding 4. The fourth major finding is that therapy dogs have a calming or settling effect on students' emotional states and 12 of 12 or 100% of the participants indicated this response. As part of this function, teachers noted that therapy dogs helped to decrease the frequency, duration or severity of the emotional crises events exhibited by students. All 12 described this calming or settling effect. Harris (2016) described the working dog's role in providing a calming effect when children experience anxiety in the classroom. Similarly, participants noted the impact of the dogs in helping to reduce negative emotional states in students, such as anger, embarrassment, or anxiety. The presence of the therapy dogs with their handlers prevented more extreme outbursts which required intervention from multiple staff and interfered with the learning and academic engagement of other students.

Major finding 5. The fifth major finding is in the improvements in the students' ability and opportunity to experience and express empathy. This finding was noted by all

12 participants (100%) as a beneficial emotional effect of the therapy dogs' presence. Similarly, participants reported both empathy toward dogs and toward peers or others as identifiable components of the presence of the therapy dog in the classroom. In an article on youth violence Sprinkle (2008), found a relationship between rescued-turned therapy dogs and a prosocial curriculum and empathy development in students. Some participants in the study noted specifically that the dogs helped students gain perspective on others by allowing them to focus less on their own issues and become more self and peer-aware when in the presence of the therapy dog.

Major finding 6. In a related way, a sixth major finding is that the majority of respondents noted that students benefitted through improvements in the awareness of their own or situational conditions and how it might impact the dogs. Two-thirds (8 of 12) of participants identified these impacts. This extension of empathy is crucial, because it adds or creates an important element to empathic responding. While empathy itself, can be limited to imagining how another person might feel or experience a situation, a prosocial component is another benefit to be able to identify the conditions of the situation or one's own state that might contribute to those responses. Students with emotional disturbance may have a heightened sense of their own vulnerability or frustration.

Indeed, participants talked about how readily a student who was approaching an emotional crisis event, became more self-aware of the noise, for example, that they might make which could "scare" the therapy dog. The students were more "in check" about their level of noise, physical outbursts and their potential disturbance to the dogs in the classroom. Hergovich et al. (2002) discussed the social and cognitive relationship of the

therapy dog to children in the classroom and how an awareness of "self" and effect on classroom environment is heightened in the presence of a therapy dog. The irony of the finding is that while the therapy dog was brought into the classroom to calm the students, the students became aware that their "job" was to stay calm for the benefit of the dogs. In a sense, the therapy dog became a reciprocal benefit to the student.

Major finding 7. A seventh major finding was that several other areas of possible behavioral/social impact were also identified by 50% or less of participants. First among these is the therapy dogs' support in drawing out reluctant or withdrawn students. A relatively common thread was the notion that some students in these programs would shut down and become unavailable for instruction or interaction for extended periods of time that can reach multiple hours. Teachers noted that, while students were not dangerous or aggressive during these periods, the dogs could help re-engage them in the goings on of the classroom. At times the described effect was rather remarkable and had an almost instantaneous positive impact.

Furthermore, the dogs' ability to provide comfort and safety to students who might be threatened or in need of love and closeness was also noted by four participants. The teacher-team (Beetz, 2013) model with therapy dogs as part of the classroom has been found to assist students in reaching a positive social/emotional state. Furthermore, the use of the dogs' availability as an incentive for good behavior and conduct in the classroom was also a finding and, coupled with the socio/emotional benefit, produced the result that students are more open to learning when calm. Similarly, the potential for time with the dogs to serve as an incentive for the completion of academic work, teachers sometimes used the possibility of spending time with the dogs as a motivator to

demonstrate positive social behavior. Teachers also noted improved social skills in students in three of 12 cases (25%), and these included the ability to appropriately ask for access or the opportunity to pet the dogs and seek out the therapy dogs for comfort.

Unexpected Findings

Though not directly inquired about, a significant number of respondents (5 of 12 or 42%) mentioned the positive impact that the dogs had on staff working in these programs. This benefit appeared to occur both in and out of the classroom environment. The stressful nature of the job of teaching in programs for students with EBD is widely known. Cavin (1998) reported that teacher retention can be alarmingly problematic and factors that improve job satisfaction and the ability to cope with the challenges may be instrumental in improving the efficacy of these programs. The finding that the teachers also benefited from having the therapy dogs available to them throughout the day, was an unexpected, but certainly understandable and exciting, discovery. The ways in which these teachers positively shared this information was also telling. They smiled and spoke with earnest emotion, almost as if just the memory of having nuzzled the dog during a difficult time, served as a comfort to them.

Conclusions

Upon analysis of the major findings from the data, the researcher concluded main points applicable to each research question. The conclusions, below, address each of the three research sub-questions, keeping in mind that findings for Research Sub-Question 2 were limited.

Conclusion 1

Despite the procedural challenges of implementing a service dog/specialized therapy dog with handler program at a school with students in EBD placements, the overwhelming benefits supersede the difficulties. All participants pointed out the dogs' calming and destressing effect on students and how the therapy dogs often assisted in averting an escalation of student crisis behaviors. In fact, the participants repeatedly said how the therapy dogs were instrumental in creating a relaxed atmosphere conducive to student academic engagement and on task learning. The conclusion that having the therapy dogs present with a handler in the classroom was pivotal to the efficacy of the study.

Twelve educators actively utilizing this positive social/emotional and academic engagement/time on task strategy, articulated the positive effect of having a therapy dog in the classroom with EBD students. Students from grossly stressful home environments found relief in the classroom with a therapy dog. Teachers and educators extolled the virtues of the dogs and their relationship with the students. Chandler (2001) also concluded that having therapy dogs in animal-assisted therapy counseling sessions and in the classroom provides supports for children that otherwise are unattainable without an animal involved.

The remarkable nature of positive academic engagement and on task behavior results paired with the socio/emotional benefits of the therapy dog in the classroom was marked and delineated practices approaching 21st century skill acquisition. Specifically, this study supports the increasingly more embraced awareness that animals in the classroom with children with special needs, has proven to be a positive behavioral

intervention assisting students in developing clear and appropriate communication with adults and peers.

School districts need to work with legal teams to create procedures and protocols that can be implemented at a school. Examining statistical results such as this study, will assist organizations in creating policy that can be adjusted to fit individual student needs. Schools, parent communities, and visionary school boards must support the necessary positive behavioral interventions that work within their community. With proven research such as this study provides, careful planning and a willingness to embrace the human-animal bond (Hosey, 2014), a quality service dog/specialized therapy dog program in a classroom with students in EBD placements will produce meaningful results.

Conclusion 2

While this study did not find conclusive perceptions among teachers that therapy dogs with handlers had a positive impact on performance on statewide achievement tests, responses from at least two educators suggested that such an effect could be possible as a secondary effect due to positive influence on attendance or academic behavior (Maxwell, 2016). The first participant's premise was that if a student is reading to the therapy dog, this skill can influence test performance due to the large amount of reading required on state tests and that, perhaps, there is a positive correlation between the two. Similarly, the second participant suggested the presence of the therapy dog in the classroom affected academic engagement and time on task which then might correlate with student success rates on statewide achievement tests. Though conjectures, these connections could be examined in future quantitative research.

Stone (2016) pointed to the correlation between school attendance and increased success rates on school assessment tests. The participants said how the therapy dogs served as a "motivator" for students to attend school as noted in Sorin (2015). Thus, this element of the study suggested another positive effect of the therapy dog with a handler and that the presence of the dog in the classroom can affect student success rates on statewide achievement tests by providing more academic engagement and on task skills practice time because the students are in attendance more frequently.

While only two respondents addressed the possible connection between the therapy dogs serving as motivators for student attendance and potential successful ramifications on statewide tests, schools could examine this motivational intervention and capitalize on it at least during test preparation and skill acquisition lessons. Teachers noted that students who are more academically engaged will potentially perform better on standardized tests. Tichnor-Wagner et al. (2016) describe a "culture of learning" and utilizing therapy dogs in the classroom where students want to attend and are excited to be there because of the therapy dogs, can provide these vital learning skills of academic focus and attention to detail which translate to higher levels of student academic performance.

Conclusion 3

School districts, administrators and teachers continuously strive to discover the next best intervention for special education students. There are no easy answers, however, when working with students in EBD placements. Lewis (2010) noted that Positive Behavior Interventions and Supports (PBIS) have been shown to improve student connectedness to school and foster positive relationships between teachers and

students. Professional development in this area is widespread and training in PBIS is an ongoing trend in education. Schools utilize PBIS to regularly work with students who are disconnecting from school and to intervene in their education before they fall too far behind. For EBD students who come to school from sometimes chaotic home lives, and who are often on the brink of academic failure, PBIS is an encouraging shift in working to engage students in their learning.

Similarly, therapy dogs in classrooms with students in EBD placements has shown to be a positive support. Staff and students are afforded the opportunity to interject the organic effectiveness of the human-animal bond. Utilizing specialized therapy dogs with handlers in the classroom provides another layer of support, and one that is as timeless as dogs serving their masters in ancient times (Gavriele-Gold, 2011). The simple reality of having a dog in the classroom (Finn-Stevenson, 2016) provides a means for students to deescalate enough to self-correct behaviors, reengage in their learning and devote themselves to time on task. All of which, becomes a vehicle to greater student success in school.

School districts, administrators and community members can explore the regional and local therapy dog agencies that support this endeavor. Legal counsel can provide examples of policy and assist in designing structures appropriate for unique school sites. School Boards are becoming more open to the idea of bringing service animals and therapy dogs onto campus to support student learning (Burkes, 2015). School personnel must have a vision that supports the highest level of intent in providing classroom interventions for students. Exploring the timeless and wholesome antidote of welcoming a therapy dog into the classroom, is another suggested and effective means to student

success in school. Maharaj (2016) reported the human-animal bond as "sacred" one that produces a positive emotional effect. Evidence is accruing to support this intervention, despite its emerging quality. Dogs are not dependent upon technology to deliver a message; instead, they are the message to take a calming moment for students (and staff) to live in the present, regroup one's emotions and reengage on the learning task at hand. The conclusion is that school entities that are open to another positive intervention, should strongly consider incorporating the human-animal bond into their classrooms (Friesen, 2010). These school agencies must also have a clear understanding of the challenges inherent in bringing therapy dogs into classrooms and well-articulated visions, ardent enthusiasts, and highly trained dogs with their handlers are key components to successful programmatic functioning.

Conclusion 4

Overall, teachers found having the therapy dogs in the classroom with students in EBD placements has positive effect on academic engagement and time on task, impacting literacy improvement in some cases. Largely attributed to the ability for students to modulate their behaviors and emotional states when in the presence of the therapy dogs, the students show academic benefits due to self-regulation, calmer emotional states and better attention to academic tasks. Indirectly, students would improve academic engagement due to reductions in the frequency and severity of crisis level behaviors, and their focus improves when in the presence of the therapy dog with the handler.

In related literature, Bassett (2013) reported the benefits of therapy dogs in improving academic focus in an elementary reading program. In this study, staff reported how reticent and reluctant readers are more likely to read to the dog and improve their

Lexile levels. Programs designed for students with emotional and behavioral challenges can be constructed to more purposefully include therapy dogs into reading lessons in order to take advantage of these benefits. Hall (2016) similarly noted that school reading programs that utilize therapy dogs in the classroom can be beneficial to students with learning challenges. Indeed, many libraries and universities that utilize dogs as reading companions have shown to have an increase in visitors.

Organizations (Hacker, 2004) focused on transformational leadership and student-centered learning such as the district in New Jersey that incorporates full time therapy dogs into their schools, demonstrating wide-spread and continuous improvement in student academic success. This is in large part due to the bold leadership and fully invested staff who see the benefits of the therapy dogs first hand, and on a daily basis, in their classrooms. Leadership, along with staff and families have embraced the therapy dogs at the school as a normal part of school life and the dogs are often as valuable and intrinsic to students' learning as technology, textbooks, and teaching. Students are more academically engaged in their learning, and staff and community celebrate their successes. Finally, all members of the school are rightfully proud of their academic culture established with the positive presence of their extraordinary therapy dogs.

Implications for Action

Based on the conclusions, there are several implications for action that will support the efficacy of having service dogs or specialized therapy dogs with handlers in classrooms with students with EBD. The researcher offers several recommendations for action to support policy to implement therapy dogs into schools that have these special

education student placement programs. Suggested means by which the implementation of these implications can be attained are listed within each implication for action.

Implication for Action 1

The research findings reported here illustrate that staff members of programs for special education students with EBDs perceive positive impacts of therapy dogs with handlers in both academic and social/behavioral domains. These findings suggest that continued expansion of these types of programs is a worthwhile goal. The current research completed a rather extensive national search for such programs and was able to identify only a small number that were using this type of intervention. The lack of available programs narrowed the scope of the current research and precluded a more experimental, quantitative research design. The fact that few potentially harmful effects were noted here, coupled with the discouraging nature of the outcome research for educational programs serving youth identified with emotional disturbance (Cuellar, 2015) this study lays the groundwork for expansion of these opportunities in other areas.

Currently, therapy dogs that serve in the capacity identified in this study appear to be a small minority of the overall service animal population, results suggesting that schools may benefit from expanding definitions of animal support within the educational setting. The current increase in service animals assigned to individual students and permitted in school settings under the ADA (Bourland, 2009), may be supplemented by this relatively new class of animal use and animal-assisted therapy. Therapy dogs with handlers that are dedicated to whole programs or even whole schools, as in the case of two of the therapy dogs owned by the superintendent in New Jersey, may permit much broader targets for intervention and benefit larger numbers of students. As in other cases

of expanded and innovative service modalities, however, the mechanism for change may include the legal system and the Fair Hearing process afforded parents in IDIEA (2004). This cumbersome process is a way for parents to protest against school districts' refusals to provide various services and supports to students and request reversals of those decisions legally (Berry, 2012).

Implication for Action 2

This study also has implications for action on the part of advocates, teachers, administrators and school boards. Students receiving services of the type noted in this study (programs specifically targeting those with emotional and behavioral difficulties) are only a tiny minority of students within either the student population as a whole or special education programs, across a district. Despite their relative rarity, however, EBD students consume a large number of human and environmental resources and these placements are typically considered among the most restrictive possible placements for students. Ratios of staff to students are very high and specialized staff, such as those with behavioral or counseling skills, are often assigned directly to the programs.

Based upon the findings reported here, those advocating for the needs of troubled youth in schools may do well to consider expanding offerings to include therapy dogs as supports for these types of students and programs. Additionally, grant offering and other sources of funding might be explored. Throughout the course of this study and in networking with service dog and therapy dog training programs (Service Dog Central, 2006-2014), it was discovered that philanthropy plays a huge role in paying for the training and placement of therapy dogs. Innovation is needed in both program options

and means of convincing administrators and Boards of Education that the potential benefits of therapy dogs with handlers appears to far outstrip associated risks.

Implication for Action 3

One major implication of these findings is that the use of trained therapy dogs accompanied by a handler moves closer to being considered an empirically validated treatment approach in programs for students with emotional and behavioral disorders. Additional verification of the effects reported here in a more controlled, empirical research approach would be needed, however, to fully validate these approaches with the EBD population. A randomized, control group experimental research approach would be best suited to make this kind of determination.

This next step in research would serve to support the qualitative research design which was necessary and highly effective in gleaning these study results. Having the empirical data, however, would serve to strengthen and compliment the current study. People appreciate facts, data and concrete evidence. Examining the topic of service dogs/specialized therapy dogs serving in this capacity and through the lens of direct and indirect observation would further establish credibility of the human-animal connection and intervention in the classroom.

Recommendations for Further Research

As an exploratory study, this phenomenological research and its findings have important implications for further research. All findings reported herein were based upon the perceptions of teachers and educators in special education classrooms for students with EBDs. Those perceptions were gathered through extensive interviews conducted by

the researcher and a recommendation for further research is that they are supported by empirical verification.

Notably, however, empirical research of this sort is difficult in study participant acquisition, is time-consuming and has the added challenge of requiring control group comparisons. Similarly, challenges would lie in the development of appropriately large sample sizes from which to draw statistical inferences. However, provided the appropriate circumstances and incentive for program development, such research would appear conceivable and viable in creating institutions for therapy dog research. The means of development should be garnered from a proactive approach and not because a school district, for example, is being legally forced to implement an intervention.

The recommendation of this researcher would be to isolate some core components, such as the most appropriate number of therapy dogs for a school, and other various aspects of therapy dog implementation and compare results in academic and social/emotional/behavioral domains between groups that had the therapy dog interventions and those with similar programs with no dog present. Once determined, additional research could explore the necessary conditions for therapy dog involvement to benefit students in either academic and or social domains.

Extending the findings of this study would also require objective measurement of some of the constructs such as number of times a student de-escalation is assisted by the therapy dog with positive physical contact, for example, and assessed in this format via teacher reporting using statistical documentation charts. However, empirical research on intervention efficacy (Webber, 1991) has noted that teachers are not always accurate judges of the benefits of interventions for students and measuring proposed outcomes

(i.e., academic engagement, empathy, reduced frequency of emotional crises) though objective means could bolster the significance of the findings obtained here.

Finally, this study focused on the perceptions of the teachers with service dogs/specialized therapy dogs with handlers in the classroom. The researcher recommends that a study of the perceptions of parents be conducted in order to determine student behavior changes at home and across environments. Incorporating the parent perception model could provide a more efficacious argument for the sustainability of the program at school.

Concluding Remarks and Reflections

The findings of this study are significant because they add to the body of literature examining the human-animal bond and the utilization of service dogs/specialized therapy dogs in classrooms with special education students in EBD placements. The study provided a deeper understanding of the positive effects of therapy dogs with handlers in the classroom in terms of academic engagement and time on task, as well as the social-emotional benefits and behavior modulation of students in measureable ways.

As a longtime dog lover and volunteer with Guide Dogs of the Desert, a local Coachella Valley organization that raises, trains, and places guide dogs for the blind, the researcher could identify with the passion of the participants for the therapy dogs in this study. Many of the participants eagerly shared the joys of having their own dogs and they brought that same enthusiasm for the therapy dogs with a handler that come into their classrooms. The researcher was a former teacher who had special education students with various levels of emotional and behavioral needs in her general education classroom. While there was wonderful push-in teacher support, the benefit of having a

therapy dog with a handler in the classroom would have been significant for increasing student engagement and on task behavior.

Now, as an administrator overseeing special education at a comprehensive high school, the researcher sees the need to incorporate the human-animal bond as a positive intervention and support for students suffering emotional crises and behavioral escalations stemming from a plethora of family and societal stressors. The researcher believes school districts, schools and community members need to establish organizational leadership and protocols in the intervention of therapy dogs with their handlers in schools. Nationally, organizations exist that carefully train service dogs that are placed with individuals, and facility and therapy dogs with handlers that are deemed highly qualified to work in classrooms. The researcher discovered many people, from professors at a northern California UC school to a Director of a Life Skills program in southern California and then across the country to a visionary superintendent in New Jersey, who are highly knowledgeable about the procedures necessary to institute a vibrant therapy dog program in schools.

The researcher learned a great deal about caring and brave leaders who took an idea about training rescue dogs, pets and in the most exciting case, a Westminster show dog, and turning these extraordinary creatures into facility dogs and specialized therapy dogs who are entrusted with his/her handler to go into a classroom and work with children. Beginning with the study of contemporary literature on the topic and then identifying the gap in literature, the researcher was motivated to meet teachers, educators, directors, and a superintendent who understood the power of the human-animal bond connection. This study showed that the human-animal connection to learning for

students is worthy of continued exploration, careful planning and ultimate fruition to assist some of the most at-risk students in receiving a chance at a promising future.

The researcher traveled 3000 miles to collect data. This was the single most exciting academic adventure the researcher has ever embarked upon. In the course of this journey, the researcher met devoted teachers, administrators, and educators who have made it their life work to incorporate service dogs, facility dogs and therapy dogs with handlers into daily classroom learning for those students who have often been dealt the most difficult of life's circumstances. While there are skeptics who do not want to address the potential legal challenges of bringing a dog into a classroom, this study generated evidence to support the claim that the positives outweigh the negatives. Therapy dogs with handlers in classrooms must not be arbitrarily introduced, however, and this study presented the many stages of planning which is necessary for a service dog/specialized therapy dog program to maintain fidelity.

The researcher wants to publish these findings to assist in development of therapy dog programs that can be utilized as a positive intervention and support for special education students in EBD placements. Furthermore, through the course of this study, the researcher has discovered the many positive possibilities of utilizing service dogs/specialized therapy dogs with handlers in schools, libraries, universities, hospitals, nursing homes, and even in airports—ironically discovered in the researcher's cross-country journey to interview participants and collect data. Indeed, the trend to include therapy dogs with handlers in classrooms is increasing in part because of the rational understanding that dogs provide benefits to humans in many different arenas. Dogs have been there, waiting, when humans first recognized their benefit for hunting and they were

allowed to sleep by the fire in the cave, to now, when humans see their motivational worth in the classroom and they are trusted to allow a child to sit next to the dog on the floor and read a book or retell a story to their four-legged friend who is quietly and patiently listening.

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APPENDIX A

Synthesis Matrix

SOURCES 1-111 by Author and Book, Journal or Article Title:

1) Abel, E. A., Gadomski, M., & Brodhead, M. T. (2016). A brief report of time-on-task behavior in a child with autism: Comparing material and social reinforcement in the home environment. *Psi Chi Journal of Psychological Research, 21*(3), 176-182.

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8) Baker, F. (2013). Advances in learning and behavioral disabilities – edited by Thomas E. Scruggs & Margo A. Mastropieri. *Journal of Research in Special Educational Needs, 13*(1), 114-117. doi:10.1111/j.1471-3802.2012.01271.x

9) Bamberger, M., Rugh, J., & Mabry, L. (2012). *RealWorld evaluation: Working under budget, time, data, and political constraints*. Thousand Oaks, CA: SAGE.

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Common Themes	Source 1	Source 2	Source 3	Source 4	Source 5	Source 6
Therapy Dogs are Beneficial to the students.	*	*			*	
Special Education Laws Protect the Students.		*			*	
There are Challenges to the Laws.						
There is a Significant Difference between a Pet and a Service Animal.					*	
Definitions and Parameters of the Mentally Ill Patient and/or Student.	*					*
Organizational Vision is a Necessary Step in the Design of a Therapy Dog Program.		*	*	*		*
Service Dogs and/or Specialized Therapy Dogs with Handlers in the Classroom.	*	*				

Common Themes	Source 7	Source 8	Source 9	Source 10	Source 11	Source 12
Therapy Dogs are Beneficial to the students.	*	*		*		*
Special Education Laws Protect the Students.			*	*	*	
There are Challenges to the Laws.					*	*
There is a Significant Difference between a Pet and a Service Animal.	*				*	
Definitions and Parameters of the Mentally Ill Patient and/or Student.	*	*		*		*
Organizational Vision is a Necessary Step in the Design of a Therapy Dog Program.			*		*	
Service Dogs and/or Specialized Therapy Dogs with Handlers in the Classroom.		*			*	*

Common Themes	Source 13	Source 14	Source 15	Source 16	Source 17	Source 18
Therapy Dogs are Beneficial to the students.	*	*				*
Special Education Laws Protect the Students.	*	*		*		
There are Challenges to the Laws.	*			*		
There is a Significant Difference between a Pet and a Service Animal.	*					
Definitions and Parameters of the Mentally Ill Patient and/or Student.	*		*		*	*
Organizational Vision is a Necessary Step in the Design of a Therapy Dog Program.		*				
Service Dogs and/or Specialized Therapy Dogs with Handlers in the Classroom.				*		*

Common Themes	Source 19	Source 20	Source 21	Source 22	Source 23	Source 24
Therapy Dogs are Beneficial to the students.	*			*		
Special Education Laws Protect the Students.		*	*		*	*
There are Challenges to the Laws.		*			*	*
There is a Significant Difference between a Pet and a Service Animal.	*					
Definitions and Parameters of the Mentally Ill Patient and/or Student.	*	*	*		*	
Organizational Vision is a Necessary Step in the Design of a Therapy Dog Program.		*		*		
Service Dogs and/or Specialized Therapy Dogs with Handlers in the Classroom.						

Common Themes	Source 25	Source 26	Source 27	Source 28	Source 29	Source 30
Therapy Dogs are Beneficial to the students.				*	*	
Special Education Laws Protect the Students.						*
There are Challenges to the Laws.						
There is a Significant Difference between a Pet and a Service Animal.						
Definitions and Parameters of the Mentally Ill Patient and/or Student.	*	*	*	*	*	
Organizational Vision is a Necessary Step in the Design of a Therapy Dog Program.		*				*
Service Dogs and/or Specialized Therapy Dogs with Handlers in the Classroom.				*	*	

Common Themes	Source 31	Source 32	Source 33	Source 34	Source 35	Source 36
Therapy Dogs are Beneficial to the students.		*	*	*		*
Special Education Laws Protect the Students.						
There are Challenges to the Laws.						
There is a Significant Difference between a Pet and a Service Animal.			*		*	
Definitions and Parameters of the Mentally Ill Patient and/or Student.	*	*				
Organizational Vision is a Necessary Step in the Design of a Therapy Dog Program.	*		*			*
Service Dogs and/or Specialized Therapy Dogs with Handlers in the Classroom.			*			

Common Themes	Source 37	Source 38	Source 39	Source 40	Source 41	Source 42
Therapy Dogs are Beneficial to the Students.		*		*		
Special Education Laws Protect the Students.					*	
There are Challenges to the Laws.						*
There is a Significant Difference between a Pet and a Service Animal.		*				
Definitions and Parameters of the Mentally Ill Patient and/or Student.	*		*	*	*	
Organizational Vision is a Necessary Step in the Design of a Therapy Dog Program.						*
Service Dogs and/or Specialized Therapy Dogs with Handlers in the Classroom.	*	*	*			

Common Themes	Source 43	Source 44	Source 45	Source 46	Source 47	Source 48
Therapy Dogs are Beneficial to the Students.		*		*		
Special Education Laws Protect the Students.						
There are Challenges to the Laws.						
There is a Significant Difference between a Pet and a Service Animal.		*				*
Definitions and Parameters of the Mentally Ill Patient and/or Student.			*			
Organizational Vision is a Necessary Step in the Design of a Therapy Dog Program.	*			*		
Service Dogs and/or Specialized Therapy Dogs with Handlers in the Classroom.		*		*	*	*

Common Themes	Source 49	Source 50	Source 51	Source 52	Source 53	Source 54
Therapy Dogs are Beneficial to the students.	*			*	*	
Special Education Laws Protect the Students.		*	*			
There are Challenges to the Laws.		*	*			
There is a Significant Difference between a Pet and a Service Animal.	*					
Definitions and Parameters of the Mentally Ill Patient and/or Student.						*
Organizational Vision is a Necessary Step in the Design of a Therapy Dog Program.				*	*	
Service Dogs and/or Specialized Therapy Dogs with Handlers in the Classroom.				*	*	

Common Themes	Source 55	Source 56	Source 57	Source 58	Source 59	Source 60
Therapy Dogs are Beneficial to the students.				*		
Special Education Laws Protect the Students.				*		
There are Challenges to the Laws.						
There is a Significant Difference between a Pet and a Service Animal.					*	
Definitions and Parameters of the Mentally Ill Patient and/or Student.	*	*	*			*
Organizational Vision is a Necessary Step in the Design of a Therapy Dog Program.				*		
Service Dogs and/or Specialized Therapy Dogs with Handlers in the Classroom.				*		*

Common Themes	Source 61	Source 62	Source 63	Source 64	Source 65	Source 66
Therapy Dogs are Beneficial to the students.	*	*				
Special Education Laws Protect the Students.						
There are Challenges to the Laws.						
There is a Significant Difference between a Pet and a Service Animal.			*	*		
Definitions and Parameters of the Mentally Ill Patient and/or Student.		*	*		*	*
Organizational Vision is a Necessary Step in the Design of a Therapy Dog Program.	*	*				
Service Dogs and/or Specialized Therapy Dogs with Handlers in the Classroom.						

Common Themes	Source 67	Source 68	Source 69	Source 70	Source 71	Source 72
Therapy Dogs are Beneficial to the students.	*			*		
Special Education Laws Protect the Students.						*
There are Challenges to the Laws.					*	*
There is a Significant Difference between a Pet and a Service Animal.	*					
Definitions and Parameters of the Mentally Ill Patient and/or Student.		*	*	*		
Organizational Vision is a Necessary Step in the Design of a Therapy Dog Program.			*	*		*
Service Dogs and/or Specialized Therapy Dogs with Handlers in the Classroom.				*		

Common Themes	Source 73	Source 74	Source 75	Source 76	Source 77	Source 78
Therapy Dogs are Beneficial to the students.	*					
Special Education Laws Protect the Students.			*			
There are Challenges to the Laws.						
There is a Significant Difference between a Pet and a Service Animal.	*			*	*	*
Definitions and Parameters of the Mentally Ill Patient and/or Student.		*	*			
Organizational Vision is a Necessary Step in the Design of a Therapy Dog Program.	*		*			*
Service Dogs and/or Specialized Therapy Dogs with Handlers in the Classroom.				*	*	

Common Themes	Source 79	Source 80	Source 81	Source 82	Source 83	Source 84
Therapy Dogs are Beneficial to the students.	*	*			*	*
Special Education Laws Protect the Students.			*	*		
There are Challenges to the Laws.			*			
There is a Significant Difference between a Pet and a Service Animal.						*
Definitions and Parameters of the Mentally Ill Patient and/or Student.			*	*		
Organizational Vision is a Necessary Step in the Design of a Therapy Dog Program.	*	*			*	*
Service Dogs and/or Specialized Therapy Dogs with Handlers in the Classroom.	*	*			*	*

Common Themes	Source 85	Source 86	Source 87	Source 88	Source 89	Source 90
Therapy Dogs are Beneficial to the students.	*	*	*	*		
Special Education Laws Protect the Students.				*		*
There are Challenges to the Laws.				*		*
There is a Significant Difference between a Pet and a Service Animal.	*					
Definitions and Parameters of the Mentally Ill Patient and/or Student.		*	*			
Organizational Vision is a Necessary Step in the Design of a Therapy Dog Program.	*			*	*	
Service Dogs and/or Specialized Therapy Dogs with Handlers in the Classroom.	*					

Common Themes	Source 91	Source 92	Source 93	Source 94	Source 95	Source 96
Therapy Dogs are Beneficial to the students.		*			*	
Special Education Laws Protect the Students.			*			*
There are Challenges to the Laws.						*
There is a Significant Difference between a Pet and a Service Animal.						
Definitions and Parameters of the Mentally Ill Patient and/or Student.	*			*		
Organizational Vision is a Necessary Step in the Design of a Therapy Dog Program.		*			*	*
Service Dogs and/or Specialized Therapy Dogs with Handlers in the Classroom.		*				

Common Themes	Source 97	Source 98	Source 99	Source 100	Source 101	Source 102
Therapy Dogs are Beneficial to the students.	*			*	*	
Special Education Laws Protect the Students.		*	*			*
There are Challenges to the Laws.		*				*
There is a Significant Difference between a Pet and a Service Animal.	*					
Definitions and Parameters of the Mentally Ill Patient and/or Student.	*		*	*		
Organizational Vision is a Necessary Step in the Design of a Therapy Dog Program.		*		*	*	*
Service Dogs and/or Specialized Therapy Dogs with Handlers in the Classroom.		*				

Common Themes	Source 103	Source 104	Source 105	Source 106	Source 107	Source 108
Therapy Dogs are Beneficial to the students.	*			*		
Special Education Laws Protect the Students.	*	*	*			*
There are Challenges to the Laws.	*	*				*
There is a Significant Difference between a Pet and a Service Animal.						
Definitions and Parameters of the Mentally Ill Patient and/or Student.	*	*	*		*	
Organizational Vision is a Necessary Step in the Design of a Therapy Dog Program.	*	*		*	*	*
Service Dogs and/or Specialized Therapy Dogs with Handlers in the Classroom.	*	*		*		*

Common Themes	Source 109	Source 110	Source 111
Therapy Dogs are Beneficial to the students.	*		*
Special Education Laws Protect the Students.	*	*	
There are Challenges to the Laws.	*	*	
There is a Significant Difference between a Pet and a Service Animal.			
Definitions and Parameters of the Mentally Ill Patient and/or Student.			*
Organizational Vision is a Necessary Step in the Design of a Therapy Dog Program.		*	*
Service Dogs and/or Specialized Therapy Dogs with Handlers in the Classroom.			

APPENDIX B

Letter of Introduction

December 10, 2017

Dear Superintendent/Director/Teacher,

Hello, my name is Sharon Kalkoske. I am a doctoral student with Brandman University, working in the field of organizational leadership. For my dissertation, I am researching how classroom teachers of K-12 Special Education students in placements for emotional/behavioral disorders (EBD) describe the academic and social-emotional effects of a classroom service dog/specialized therapy dog with a handler on student learning and behavior.

You have been identified to participate in my study as an interview participant. Participation is completely voluntary and would require you to provide informed consent at the time of the interview. No students will be interviewed and/or communicated with in any capacity.

I know your time is valuable. Researching this topic has allowed me to develop an appreciation for the benefits you bring to children and the time you devote to your community. I realize that participating in this study is in addition to the myriad other responsibilities you have to your school and community constituents and I am grateful for your consideration of participation in this endeavor. Your responses will be kept confidential, along with others from the sample population, and will contribute valuable data to the growing field of service dogs/therapy dogs and their handlers who work in classrooms with students with special needs.

I appreciate your time, energy, and attention to this correspondence. If you are willing to participate in the study, please respond to this email at your earliest convenience. Should you have any questions or wish to discuss the study and its purpose further, please feel free to contact me via email or by telephone.

Thank you for your time, energy and devotion to supporting children and their learning.

With appreciation,

Sharon Kalkoske
(xxx) xxx-xxxx
skalkosk@brandman.edu

APPENDIX C

Letter of Invitation to Prospective Participants

RESEARCH STUDY INVITATION LETTER FOR TEACHERS OF STUDENTS WITH EMOTIONAL/BEHAVIORAL DISTURBANCE IN CLASSROOMS WITH SERVICE DOGS AND/OR HIGHLY SPECIALIZED THERAPY DOGS AND THEIR HANDLERS

November 2017

Dear Prospective Study Participant:

You are invited to participate in a research study conducted in New Jersey and California. The principal investigator of this study is Sharon Kalkoske, Doctoral Candidate in Brandman University's Doctor of Education in Organizational Leadership program. You were selected to participate in this study based on your role in having service dogs and/or highly specialized therapy dogs and their handlers in your classroom. Approximately 15 Special Education teachers will be enrolled in this study and your voluntary participation will take no longer than an hour. You may withdraw from the study at any time or opt not to answer specific study questions.

PURPOSE: The purpose of this phenomenological study is to determine and describe the perceived academic and social-emotional effects of a classroom service/specialized therapy dog with a handler on student learning and behavior in K-12 Special Education students in emotional/behavioral disorder placements as perceived by the teachers of those students.

PROCEDURES: In participating in this research study, you agree to partake in an interview. The interview will take approximately one hour and will be audio-recorded. The interview will take place at a location of your choosing. During the interview, you will be asked a series of questions designed to allow you to share your experiences as a teacher of students with emotional/behavioral disorders working in a classroom with service and/or highly specialized therapy dogs and their handlers. Additionally, you will be asked for demographic information in an effort to capture your background, training and experience.

RISKS, INCONVENIENCES, AND DISCOMFORTS: There are no known major risks or discomforts associated with this research and the information being elicited is not

about specific teachers, programs or students. The session will be held at a location of your choosing to minimize inconvenience. Some interview questions will require you to reflect on your unique lived experience and/or observations which may cause minor discomfort.

POTENTIAL BENEFITS: There are no personal benefits associated to being a study participant; however, sharing your experiences as a teacher of emotional/behavioral disordered students who have service dogs and/or highly specialized therapy dogs in the classroom can contribute to this study and better inform researchers, school districts/boards, and school administrators about the perceived effects, benefits and considerations of having dogs with their handlers in the classroom with students in emotional/behavioral disorder placements.

ANONYMITY: Records of information you provide for this study and your personal information will not be linked in any way. It will not be possible to identify you as the person who provided any specific information for the study and any potentially identifiable information you provide will not be used.

You are encouraged to ask questions in order to help you understand how this study will be performed and/or how it will affect you. You may contact the research investigator, Ms. Sharon Kalkoske, by phone at (xxx) xxx-xxx or via email skalkosk@brandman.edu. If you have any further questions or concerns about this study or your rights as a study participant, you may write or call the Office of the Executive Vice Chancellor of Academic Affairs, Brandman University, 16355 Laguna Canyon Road, Irvine, CA 92618, (949) 341-7641.

Very Respectfully,

Ms. Sharon Kalkoske
Doctoral Candidate, Research Investigator

APPENDIX D

Participant Communication

XXXXX
Thu 7/13, 8:44 PMKalkoske,
We would be very happy to cooperate with study. Please contact the secretary to the superintendent, at your convenience to schedule a time for us to discuss and prepare the details.

Best,

From: XXXXX
Sent: Wednesday, August 23, 2017 6:05:21 AM
To: Kalkoske, Sharon
Subject: Re: connect

Hi Sharon,

Yes, we would love to have you visit! Ironically I'm working on our therapy dog program description right now. Our school has facility dogs that are in the classroom full time so that could help you. I'm so glad the other schools are participating as well!

Let me know when you're going to be in the area so we can coordinate.

Oh and please call me D. :-)

From: XXXXX
Sent: Monday, October 2, 2017 11:10:44 AM
To: Kalkoske, Sharon
Subject: RE: touch base

Hi Sharon,
Thank you for touching base with me about the service dog programs.
Keep me posted on your anticipated trip out east and we will try to coordinate a visit.

XXXXX

Mon 10/30, 9:44 AMSharon Kalkoske

Hi Sharon,

Thank you for your interest in the therapy dogs at our program. XXXX and XXXX are a great asset to our program as they help our clients tremendously. Myself and my therapy staff would be happy to answer any questions that you may have regarding how they play a role in our group therapy.

Feel free to contact me when you would like to conduct the interview.

APPENDIX E

Informed Consent Form

BRANDMAN University Chapman University System

Qualitative Research Informed Consent

INFORMATION ABOUT: The perceived academic and social-emotional effects of classroom service dogs/specialized therapy dogs with handlers on student learning and behavior in K-12 Special Education students in emotional/behavioral disorder placements as perceived by the teachers of those students.

RESPONSIBLE INVESTIGATOR: Sharon Kalkoske, MA; MEd

PURPOSE OF THE STUDY: I am being asked to participate in a research study conducted by Sharon Kalkoske, MA; Med, a doctoral student from the Brandman University School of Education. The purpose of this phenomenological study is to determine and describe the perceived academic and social-emotional effects of classroom service dogs/specialized therapy dogs with handlers on student learning and behavior in K-12 Special Education students in emotional/behavioral disorder placements as perceived by the teachers of those students.

This study will add to the small body of literature that examines service dogs in the classroom and the human-animal bond. Specifically, this study will in gaps in the academic and educational literature by determining if placing service dogs/specialized therapy dogs in the classroom has a positive effect on students' emotional well-being as well as their academic engagement on task and overall academic success The literature shows that an overlooked population in this area, however, are the special education students placed in classrooms for Emotional Behavioral Disorders. An investigation into the data of special education students in placements for emotional/behavioral problems will address gaps in research and literature in the field of utilizing service dogs/specialized therapy dogs with handlers as an intervention in a classroom setting. This study will address the gaps in the literature and the need to address both

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the implementation and policy of securing a service dog/specialized therapy dog program on a school site, influences leadership decision-making for school district organizations.

By participating in this research study, I agree to partake in an interview. The interview will take approximately 1 hour and will be audio-recorded. The interview will take place at a location of my choosing. During the interview, I understand I will be asked a series of questions designed to allow me to share my experiences as a teacher of students with emotional/behavioral disorders working in a classroom with service and/or highly specialized therapy dogs and their handlers. Additionally, I agree to share demographic information describing my background, training and experience.

I understand that:

a. There are minimal risks or discomforts associated with this research. The session will be held at a location of my choosing to minimize inconvenience. Some interview questions may cause me to reflect on my perceptions of the academic and social-emotional effects of classroom service dogs/specialized therapy dogs with handlers on student learning and behavior in K-12 Special Education students in emotional/behavioral disorder placements.

b. There are no major benefits to me for participation; however, sharing my experiences as a teacher of emotional/behavioral disordered students who have service dogs and/or highly specialized therapy dogs in the classroom can contribute to this study and better inform researchers, school districts/boards, and school administrators about the perceived effects, benefits and considerations of having dogs with their handlers in the classroom with students in Emotional/Behavioral Disorder placements.

c. I understand I will not receive money for my involvement in this study.

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d. Any questions I have concerning my participation in this study will addressed to Ms. Sharon Kalkoske, Doctoral Candidate at Brandman University. I understand Ms. Kalkoske can be reached at skalkosk@brandman.edu or by phone at (760) 217-3643; or Dr. Philip Pendley (Advisor) at pendley@brandman.edu.

e. My participation in this research study is voluntary. I understand that I may refuse to participate or that I may withdraw from this study at any time without any negative consequences. I can also decide not to answer particular questions during the interview if I so choose. Also, the investigator may stop the study at any time.

f. I understand that my interview will be audio-recorded, and the recording will not be used beyond the scope of this study. I understand the audio recordings will be used to transcribe the interview. The recordings will be available only to the researcher and the professional transcriptionist. The audio recordings will be used to capture the interview dialogue and to ensure the accuracy of the information collected during the interview. All information will be identifier-redacted and my confidentiality will be maintained. Once the interview is transcribed, the audio, interview transcripts, and demographic questionnaire will be securely maintained by the principal investigator for a minimum of five years and will then be destroyed.

g. I also understand that none of my personal identifiable information will be released without my separate consent and that all identifiable information will be protected to the limits allowed by law. If the study design or the use of the data is to be changed, I will be so informed and my consent re-obtained. I understand that if I have any questions, comments, or concerns about the study or the informed consent process, I may write or call of the office of the Executive Vice Chancellor of Academic Affairs, Brandman University, and 16355

BRANDMAN University Chapman University System

Laguna Canyon Road, Irvine, CA 92618, (949) 341-7641.

I acknowledge that I have received a copy of this form and the "Research Participant's Bill of Rights." I have read the above and understand it and hereby voluntarily consent to the procedures(s) set forth.

_____ _____

Signature of Participant or Responsible Party **Date**

_____ _____

Signature of Witness (if appropriate) **Date**

_____ _____

Signature of Principal Investigator **Date**

APPENDIX F

Participant Bill of Rights

BRANDMAN University Chapman University System

BRANDMAN UNIVERSITY INSTITUTIONAL REVIEW BOARD

Research Participant's Bill of Rights

Any person who is requested to consent to participate as a subject in an experiment, or who is requested to consent on behalf of another, has the following rights:

1. To be told what the study is attempting to discover.
2. To be told what will happen in the study and whether any of the procedures, drugs or devices are different from what would be used in standard practice.
3. To be told about the risks, side effects or discomforts of the things that may happen to him/her.
4. To be told if s/he can expect any benefit from participating and, if so, what the benefits might be to the participant.
5. To be told what other choices s/he has and how they may be better or worse than being in the study.
6. To be allowed to ask any questions concerning the study both before agreeing to be involved and during the course of the study.
7. To be told what sort of medical treatment is available if any complications arise.
8. To refuse to participate at all before or after the study is started without any adverse effects.
9. To receive a copy of the signed and dated consent form.
10. To be free of pressures when considering whether s/he wishes to agree to be in the study.

If, at any time, you have questions regarding the research study, you should ask the researcher to answer them. You also may contact the Brandman University Institutional Review Board, which is concerned with the protections of volunteers in research projects. The Brandman University Institutional Review Board may be contacted either by telephoning the Office of Academic Affairs at (949) 341-9937 or by writing to the Vice Chancellor of Academic Affairs, Brandman University, 16355 Laguna Canyon Road, Irvine, CA 92618.

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APPENDIX G

Interview Protocol

Interview Script:

[Interviewer states:] I truly appreciate you taking the time to share your story with me. To review, the purpose of this study is to examine the effects, either positive or negative, of having the service or therapy dog with the handler present in your classroom in terms of student performance, both academic and behavioral. The questions are written to elicit this information, but please feel free to share stories or experiences as appropriate throughout the interview. Additionally, I encourage you to be as honest and open as possible for purposes of research and please know that your identity will remain anonymous.

As a review of our process leading up to this interview, you were invited to participate via letter and signed an informed consent form that outlined the interview process and the condition of complete anonymity for the purpose of this study. Please remember, this interview will be recorded and transcribed, and you will be provided with a copy of the complete transcripts to check for accuracy in content and meaning prior to me analyzing the data. Do you have any questions before we begin? Begin to ask interview questions]

Background Questions:

1. Please share a little about yourself both personally and professionally.
2. What positions did you hold prior to serving as a teacher here at (School Name)?

Content Questions:

3. What types of behaviors that require interventions do you see in the students in the classroom?
4. How would you describe the academic effects of the classroom therapy dog on student learning and behavior?
5. How would you describe the social-emotional effects of the classroom therapy dog on student learning and behavior?
6. Describe how the presence of the therapy dog with a handler affects academic engagement and time on task?
7. Describe how the presence of the therapy dog affects success rates on statewide achievement tests?
8. What are some measureable ways you have observed the therapy dog affecting student behavior? Why do you think the dog helps or hinders the students in each of these areas?

9. What has been the dog's effect on the frequency of emotional crises events? Have they diminished or increased?
10. Please describe any specific procedures you have used to prepare a new student in the program for the therapy dog's presence?
11. Were there any procedures that involved parents?
12. Are there rules in the classroom that apply specifically to the dog? How do you handle the situation when the rules are violated?
13. Have you observed an impact of the dog on the children's empathy—toward the dog and toward others (or peers)?
14. Have you ever observed a negative interaction between the child and the dog that concerned you? If so, please describe it.
15. Have you ever observed a particularly positive interaction between the child and the dog that you would like to share?
16. How would you describe changes in the children's attitudes toward school changed since the dog has been present in the classroom?
17. Has there been any impact on school attendance and culture?
18. Describe the administrative and logistical support needed for this program?
19. What barriers would you advise others to consider when attempting to implement this type of intervention?
20. Please share any other positive or negative impacts of having therapy dogs in the classroom that you may not have addressed in the course of my questioning.

APPENDIX H

BUIRB Approval Letter

From: **Institutional Review Board** <my@brandman.edu>
Date: Thu, Jan 18, 2018 at 12:05 PM
Subject: BUIRB Application Approved: Sharon Kalkoske
To: skalkosk@mail.brandman.edu
Cc: ddevore@brandman.edu, pendley@brandman.edu, buirb@brandman.edu

Dear Sharon Kalkoske,

Congratulations! Your IRB application to conduct research has been approved by the Brandman University Institutional Review Board. Please keep this email for your records, as it will need to be included in your research appendix.

If you need to modify your BUIRB application for any reason, please fill out the "Application Modification Form" before proceeding with your research. The Modification form can be found at IRB.Brandman.edu

Best wishes for a successful completion of your study.

Thank You,

BUIRB
Academic Affairs
Brandman University
16355 Laguna Canyon Road
Irvine, CA 92618
buirb@brandman.edu
www.brandman.edu
A Member of the Chapman University System

This email is an automated notification. If you have questions please email us at buirb@brandman.edu.

APPENDIX I

NIH Certificate

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Sharon Kalkoske** successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 05/21/2016.

Certification Number: 2078091.