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Utilizing Canines in a Public School Setting:

A Case Study

by

Krista J. Tate

April 9, 2014

A Dissertation submitted to the Education Faculty of Lindenwood University in
partial fulfillment of the requirements for the degree of

Doctor of Education

School of Education

Utilizing Canines in a Public

School Setting: A

Case Study

by


Krista Jo Tate


This Dissertation has been approved as partial fulfillment

of the requirements for the degree of

Doctor of Education.

Lindenwood University, School of Education

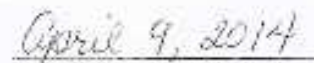

Dr. Patricia Conner, Dissertation Chair


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April 9, 2014

Declaration of Originality

I do hereby declare and attest to the fact that this is an original study based solely upon my own scholarly work done at the Linderwood University and that I have not submitted it for any other college or university course or degree here or elsewhere.

Full Legal Name: Krista J. Fore

Signature:  _____ Date: 4/8/14 _____

Acknowledgements

I would like to thank Dr. Patricia Conner for her assistance and patience throughout this process. I would like to thank the district that enabled me to come and visit their campus and spend time with Braxton. It was truly an enlightening experience. A thank you must be given to Emily Gibson who knows the basics of Microsoft Word in and out. Without her, I would still be trying to figure out page numbers. Lastly, I would like to thank my parents, Robert and Pam Tate, who in addition to being amazingly supportive and loving parents, are also two of the highest examples in education who I can only hope I have a glimmer of their professionalism and passion. And finally, for Zoe and Napoleon, the best dogs anybody could ever have.

Abstract

Children and adolescents arrive at schools with more than just academic needs.

Unfortunately, accountability is paramount in the minds of legislators, thus making test scores top priority for most public educators. For decades, pet therapy and pet assisted activities have been quite successful in mental health institutions, hospitals, and nursing homes. However, the body of work concerning pet therapy and pet assisted activities in public education is limited. The purpose of this case study was to determine if pet therapy is successful in a southwest Missouri school district and to examine how teachers and administrators employ their pet therapy dog. A mixed methods design was utilized using a qualitative case study approach and quantitative methods to determine the consensus of teachers and administrators involved with pet therapy. The data were collected and then triangulated to procure commonalities with interviews, surveys, and research.

Administrators and counselors in the district were interviewed to determine their perceptions on pet therapy. A survey was made available to teachers in the building to assess their opinions of the pet therapy program. The results of the study concluded pet therapy is successful in the participating rural southwest Missouri school district. The district utilizes pet therapy in every possible way from assisting with their special educational program, to applying it to their reading programs, even using their pet therapy dog with PTA fund raising projects. In conclusion, it was determined pet therapy is a positive academic, social, and mental tool in the public school setting.

Table of Contents

Chapter One: Introduction	1
Background of Study	1
History of Pet Therapy.....	2
Conceptual Framework.....	4
Statement of the Problem.....	9
Significance of the Study	11
Purpose of the Study	11
Research Questions.....	11
Definition of Key Terms	12
Limitations	13
Summary	15
Chapter Two: Review of Literature	17
Levinson’s Theories on Pet Centered Therapy.....	17
Erikson’s Theories on Development.....	20
Functionalist School of Thought in Education	23
Benefits of Animals on Human Health.....	24
Animal Relationships and the Elderly	35
Animal Relationships and Children.....	38
Summary	52
Chapter Three: Methodology	54
Problem and Purpose Overview.....	54
Research Questions.....	54

Research Design.....	55
Population and Sample	57
Instrumentation	58
Interviews.....	58
Surveys.....	59
Data Collection	59
Data Analysis	61
Internal Reliability and Validity	64
Ethical Considerations	65
Summary	65
Chapter Four: Findings	66
District X Demographics	67
How District X Acquired Pet Therapy.....	71
Utilizing Braxton at District X.....	76
Perceived Positive Effects of Pet Therapy at District X.....	82
Perceived Negative Effects of Pet Therapy at District X	84
Quantitative Results	86
Observations	87
Summary.....	90
Chapter Five: Summary and Conclusions.....	92
Findings.....	94
Conclusions.....	102
Implications for Practice.....	104

Recommendations for Future Research	105
Summary	106
Appendix A.....	108
Appendix B.....	109
Appendix C.....	111
Appendix D.....	113
Appendix E.....	115
References.....	117
Vita.....	140

List of Tables

Table 1. <i>District X Demographics</i>	68
Table 2. <i>Average Teacher and Administrator Salaries in District X</i>	69
Table 3. <i>District X Average Daily Attendance Between 2010-2012</i>	69
Table 4. <i>District X Discipline Incidents Reported Between 2010-2012</i>	70
Table 5. <i>District X Percentage of Graduates Attending Two and Four-Year Universities</i> ...	70
Table 6. <i>Teacher Responses to Survey</i>	87

Chapter One: Introduction

There are a variety of reasons why people select animals as pets. People are searching for love, companionship, and interaction between themselves and the animal (Brodie & Biley, 1999). Pets provide an excuse for exercise and a reason and means to meet people (Johnson, 2011). Medical researchers have discovered positive effects on a person's mental and physical wellbeing through a companion animal (Herzog, 2011). For example, pets have the ability to lower their owner's blood pressure as well as increasing their life expectancy (Herzog, 2010; Johnson, 2011). Animals help people handle the realities of life and death and teach about unconditional love (Herzog, 2010). Doctors and psychologists in hospitals, nursing homes, and mental health facilities report positive encounters between animals and patients (Brodie & Biley, 1999; Coakley & Mahoney, 2009; Hooker, Freeman, & Stewart, 2002; Levinson, 1997).

The practice of using animals, especially dogs, to benefit patients in hospitals, nursing homes, and mental health facilities has caused school counselors and educational psychologists to consider the practice of involving animals in public schools (Chandler, 2011). Public schools in America are more than just centers of learning but are also places where students seek refuge, are provided food, and most of all, to find acceptance, support, and more often than not, affection (Slavin, 2008). The overarching question for is if animal-assisted therapy works well in public facilities, would it work well in public schools to assist in the mental issues affecting so many of America's children?

Background of the Study

Animals have always provided more than food and clothing for humans (Levinson, 1997). Historians confirm companion animal guardianship or pets were kept

by people during the age of antiquity (Kemmerer, 2012; O'Haire, 2010; Valeri, 2006). Companion animals in ancient China had a special place in the emperor's court; Nero's wife placed blankets of gold on her favorite donkeys, and in ancient Egypt, household cats were decorated with jewelry and medicated when ill (Levinson, 1997). From this period until the twentieth century, pets have been used for a variety of reasons including companionship, herding purposes, and protection. In many families, the pet is the only common denominator uniting the interests of both children and parents (Levinson, 1970).

In the early 20th Century, families lived isolated lives which focused primarily on the family. Families listened to the same fairy tales, had the same similar perspectives on life, and were involved in the same activities together (Levinson, 1970). Family members provided support for one another (Brinkley, 2010). Parents and children ate together; all resided in same address, and experienced life and death together (Brinkley, 2010; Levinson, 1970).

Since the 1950s, this family unity has changed (Brinkley, 2010). Many American children feel left out, some feel they do not belong with either their family or their peers or both, and they are mentally unready for the adult world. Levinson (1970; 1997) believed children who do not fit into society struggle to find their own identity and felt a pet could provide assistance. Levinson believed an animal gave children their own subculture, a unique feeling of belonging, and was able to take away a child's fear of loneliness and anxiety (Levinson, 1970; 1997).

History of Pet Therapy

During the 1960s, psychologists discovered pets to be a useful tool for mental health patients (Levinson, 1997). The term pet therapy was first applied in the 1960s

(Hooker et al., 2002); however, the practice of using pets as a supplemental therapeutic tool had long been practiced without official terms or understanding of the impact the animal had on the human (Levinson, 1997). In 1791, the York Retreat, a mental health facility in England, was governed and managed by a religious group known as the Society of Friends, or Quakers, and was created to endorse a more humane way to treat the insane (Hooker et al., 2002). Quakers believed a mixture of gardening, courtyard exercise, and the presence of animals should be included in the treatment of insane patients (Hooker et al., 2002). In 1867, animals were used in a German home for epileptics (Brodie & Biley, 1999; Mallon, 1992), and it was determined the animals helped create a home environment in hospitals (Brodie & Biley, 1999). Florence Nightingale even advised the use of small animals in hospitals because the animals were excellent companions, especially for chronically ill patients (Jalongo, Astorino, & Bomboy, 2004).

In 1917, Secretary of the Interior Franklin K. Lane suggested St. Elizabeth's Hospital in Washington DC use dogs with the hospital's psychiatric patients, and in 1942, the United States military began placing recovering veterans on farms at the Pawling Army Air Force Convalescent Hospital to work with the animals as a distraction and a therapeutic tool (Coletta, 2011). Since the 1960s, psychologists have officially studied the use of animals and the positive and negative effects on humans (Brodie & Biley, 1999; Hooker et al., 2002). In 1962, child psychologist Boris Levinson became the father of pet therapy by publishing the paper, *The Dog as a 'Co Therapist'* (Chandler, 2011). Levinson (1970) believed mental and physical health to be at the core of human survival and no aspect in public health was more important. Levinson observed positive results with a

disturbed child when his dog, Jingles, frequented therapy sessions (Chandler, 2011). Levinson later discovered children who were withdrawn and reserved interacted positively with Jingles (Chandler, 2011; Levinson, 1970; 1997). Levinson's use of animals with introverted and reserved children became an important possible tool for schools to address needs outside the academic area.

In the 1970s, Sam and Elizabeth Corson began expanding Levinson's work with animals in therapeutic sessions at a psychiatric hospital in Ohio by using animals with adolescents and adults (Hooker et al., 2002). In 1975, the Corsons, who were the first psychologists to use animals as therapeutic tools in hospitals, began using animals in nursing homes (Hooker et al., 2002). In all cases they found success using animals to improve the mental health of their patients (Grado, 2011; Hooker et al., 2002).

Conceptual Framework

During the 1960s and 1970s, health organizations officially recognized the use of animals as psychological tools due to the extensive studies of Levinson, whose work was the foundation for this study (Hooker et al., 2002). Levinson (1997) was the first American child psychiatrist to write about using an animal as an instrument to assist with patient success. Levinson believed mental disorders in children were numerous; therefore, he was willing to look at any plausible measure to help these troubled children (Levinson, 1997; Mallon, 1992). Levinson discovered children had less anxiety and were more readily willing to open up when his dog, Jingles, was present (Hooker et al., 2002). Interaction with Jingles dropped the child's defenses allowing Levinson to initiate therapy (Hooker et al., 2002). Levinson believed Jingles served as an intermediary entity enabling patients to bond with the animal (Hooker et al., 2002), and once the child

bonded with the dog, the bond between Levinson and the child was reinforced or expanded (Levinson, 1997). Levinson presented the discoveries of pet therapy to the American Psychological Association in 1961; however, the audience was less than enthusiastic and mocked Levinson's work (Hooker et al., 2002). This did not deter Levinson who continued using his dog with children and documenting the positive results he was experiencing (Hooker et al., 2002; Levinson, 1997).

Levinson (1997) believed pets help maintain emotional stability in children. There are two central facets of pet therapy (Levinson, 1970). The first facet is utilizing an animal in the therapist's office (Levinson, 1970). According to Chandler (2011), dogs provide unconditional acceptance the moment the student enters the classroom or counseling office. Children find the dog's warm and playful company reassuring (Chandler, 2011; Levinson, 1997), and in many cases, children use the dog as an excuse to visit the school counselor (Chandler, 2011).

In addition, the dog can help preserve an element of normality in the child's life that is often lacking at home (Brodie & Biley, 1999). Researchers discovered when pets are involved during psychological sessions, patients go from being depressed and angry to becoming high spirited and relaxed (Brodie & Biley, 1999). According to Brodie and Biley (1999), psychologists believe animals form a "non-threatening reassuring, non-verbal and tactile comfort" (p. 330) that will stop the cycle of despair, isolation, and social withdrawal experienced by a large population of people around the world. The second aspect of pet therapy is the placement of a pet in the child's home along with continued therapy with the pet and child paired with family members (Levinson, 1970).

When Levinson (1970) placed a pet in the home of his patient, he instructed parents the dog was to be the primary concern of the child.

An additional conceptual framework theory for this study was the developmental theories of Erikson. Human development is a lifelong progression predominantly unfolding from childhood to adolescence (Erikson, 1963; Myers, 2009; Satcher, 2001). Satcher (2001), a former Surgeon General, believed understanding the developmental process was vital as an abnormal developmental experience would cause mental health problems in children and adolescents. Ranging from mild to severe in nature, 20% of American children have some form of mental disorder (Stagman & Cooper, 2010), and 9% of American children and adolescents are classified with severe mental disorders (Stagman & Cooper, 2010).

Erikson was motivated by Freud's theories of development which centered on body zones (Crain, 2010; Erikson, 1963). However, Erikson's theories go beyond body zones and demonstrated the importance of emotional and social attachments and interaction with the children's parents, other adults, and other children (Crain, 2010; Erikson, 1963). He believed securely attached children approach life with a sense of what happens in life is expected and that the world is consistent, calling this concept *basic trust* (Myers, 2009).

Erikson theorized eight stages of development humans go through from birth to adulthood. In each stage the individual finds success or suffers mental health problems as a child, adolescent, or adult (Satcher, 2001). Erikson's stages include Autonomy vs. Shame, Doubt; Initiative vs. Guilt; Industry vs. Inferiority; and Identity vs. Role Confusion (Crain, 2010; Erikson, 1963; Myers, 2009). Levinson's pet therapy was

designed to assist children and adolescents when they had not successfully gone through the eight stages of development.

Erikson believed teachers have a distinct role in the life of the adolescent and, according to Erikson, teachers shape student achievement, participation in school, and the student's incentive for learning (Hammon & Hendricks, 2005). In addition, he believed teachers play an intergenerational exchange between adults and adolescents (Hammon & Hendricks, 2005). Erikson held that teachers aided adolescents to make progress toward a "true, viable, authentic, and healthy identity" in two important ways (Hammon & Hendricks, 2005, p. 73). First, the teacher becomes a "sanctioner" of adolescents' aptitudes (Erikson, 1968, p. 87). Teachers must identify, investigate, and unearth what the adolescent does well (Erikson, 1968). This act gives students information they need to become successful adults, showing the students they have value in the adult world, which is what adolescents need to complete the Identity vs. Role Confusion stage successfully (Erikson, 1968). The teacher must also attend to barriers which prevent students from engaging in academic responsibilities (Erikson, 1968; Hammon & Hendricks, 2005).

According to Hammon and Hendricks (2005), "Acknowledging students' capabilities helps students sustain initiative and assists them in differentiating more accurately among possible adult roles they might choose for themselves" (p. 74). Erikson believed it was paramount for teachers to be a positive voice students hear when they are searching for self-definition (Hammon & Hendricks, 2005). The best way for adolescents to create their identity is to allow the adolescents the freedom to explore their identity issues (Erikson, 1968). The atmosphere of the public school should be one of tolerance and acceptance where the teacher always accepts each student while not always allowing

for the student's misbehavior (Erikson, 1968). Students going through the Identity vs. Role Confusion stage can often be rebellious in their search for their place in the adult world (Erikson, 1968).

Erikson believed childhood and the adolescent years are critical periods. It is during these formative years when the identity is created and confirmed. If these stages are not properly experienced, an unhealthy adulthood can emerge (Erikson, 1968). Since most of those years are spent in the classroom, it is vital educators have the proper tools to aid students in the quest for a healthy adulthood.

The final theory used for the conceptual framework of this study was the functional school of thought in education, derived from the sociological concept of functionalism (Bills, 2004). The sociological theory of functionalism articulates the best way to understand social institutions is to examine the role they play in maintaining a society (Bills, 2004). Functionalism believes every aspect of society puts forth a positive contribution to society's diligence and solidity over time (Bills, 2004).

According to the functionalist school of thought in education, all societies insist their members execute different responsibilities, and it is the job of public education to produce functioning members of society to fulfill these tasks (Feinberg & Soltis, 2009). In fact, many functionalists believe public education is the critical tool between life in the family and life as an adult in the modern, urban, industrial society (Feinberg & Soltis, 2009). Children learn the norms of society and the ways and means to function in society at school (Dreeben, 1968). This learning of the norms of society occurs not only through the subject matter being taught, but by the way the school is set up and organizational patterns that exist in the school setting (Dreeben, 1968).

Functionalists believe public education is required to meet the needs of contemporary society, whether those needs are academic, physical, or mental (Feinberg & Soltis, 2009). Morrish (1978) believed educators must remember they are not only teaching academics, but they are “educating for life, for living, for a large variety of relationships and for the fulfillment of particular roles” (p. 55). Since public education must meet this necessity, public schools must try to identify the specific nature of those needs and pattern the educational tools to try to meet those needs as effectively as possible (Feinberg & Soltis, 2009). Therefore, public education must use whatever tools available to assist students with their academic, physical, and mental issues.

Levinson (1970) found pet therapy to be a useful tool in helping children with their mental health difficulties. Erikson (1968) theorized if children do not successfully achieve each developmental stage mental health problems will plague them throughout their adult life hindering their success in relationships and hindering their ability to function in society. Erikson (1968) also believed since children spend most of their developmental stages in public schools, teachers play an essential role in assisting children throughout the developmental stage process. Within the functionalist school of thought in education, it is the school’s responsibility to produce individuals who will be capable members of a society (Feinberg & Soltis, 2009).

Statement of the Problem

According to the National Center for Children in Poverty (NCCP), one in five American children has a diagnosable mental health disorder (Cooper, 2009; Stagman & Cooper, 2010). One in ten American children has a serious mental disorder impairing efforts at school and in society and, in addition, half of all life time mental health

disorders begin during the teenage years (Stagman & Cooper, 2010). In 2008, 4% of teenagers in America had a serious emotional disorder which impaired success at school, 21% of American children in low-income families had mental health disorders, and 50% of children in the American welfare system had mental health disorders (Stagman & Cooper, 2010). Stagman and Cooper (2010) believed the majority of these children do not receive adequate mental health care for their mental health disorders. Even in areas where mental health is available for these children, the quality of care is lacking (Cooper, 2009). Researchers at the NCCP believed mental health is paramount for the success of children, and if a child's mental health is damaged, it is impossible for the child to learn, grow, and lead an industrious life (Stagman & Cooper, 2010).

Children are often victims of violent injury and death which excessively touches children, adolescents, and young adults (Crockett, 2010). The Centers for Disease Control and Prevention reported 12% of high school aged children commit suicide, and homicide is the second leading cause of death for all 15-24 year olds (Centers, 2013). In 2000, 86% of students in America's public high schools reported to have been in physical altercations (Crockett, 2010). American students are reporting increased numbers of terrorization and teasing. One in every seven children report being bullied and physical abused while at school and feel these issues are being ignored (Wang, Berry, & Swearer, 2013). Public educators need all the tools possible to help these students not only achieve academically, but mentally, as well (Feinberg & Soltis, 2009). With accountability a primary focus of public education, school administrators and teachers must deal with mental issues plaguing students in order to see classroom success (Crockett, 2010).

Public schools are centers where American children not only learn to read and write, but where they learn to become adults and learn key socialization skills needed to be successful citizens (Feinberg & Soltis, 2009; Slavin, 2008). Public schools are society's main instrument for instructing children in political, social, and economic actions; therefore, should not educators use all the resources and tools available to achieve student success (Feinberg & Soltis, 2009)?

Significance of the Study

This study will add to the limited body of literature available on pet therapy in public schools. The results of this study will assist educators in determining if this is a viable tool they can apply to aid students in the school setting. This study is important with increased pressure on public education to provide more than just academic needs of children. Aside from academics, public schools are expected to meet students' physical and mental needs. In order to ensure these are met, public educators need all the tools and information available.

Purpose of the Study

The purpose of this study was to determine if animal-assisted therapy and animal assisted activities are effective in public schools. Since pet therapy has been successful in other institutions, it is important to determine if the same outcomes can be replicated in a public school setting. The perceptions were gathered and observations were conducted to obtain data necessary to respond to the research.

Research questions. The following questions guided the study:

1. What are the perceived effects of animal-assisted activities and therapies in public schools?

2. What are the observable effects of animal-assisted activities and therapies in public schools?

Definition of Key Terms

For the purposes of this study, the following terms are defined:

Animal-assisted activity (AAA). This includes activities that involve animals visiting people. The same activity can be repeated with different people. It provides opportunities for motivational, educational, and recreational benefits to enhance quality of life. The AAAs are delivered in a variety of environments by a specially trained professional, paraprofessional, and volunteer in association with animals that meet specific criteria (Fine, 2010).

Animal-assisted therapy (AAT). This term refers to a health or human service professional who uses an animal as part of his or her job. The animals must meet specific criteria and must be delivered or directed by a health or human service provider working within the scope of his or her profession. The AAT is designed to promote improvement in human physical, social emotional, and cognitive functioning (Fine, 2010).

Service dog. This term is defined as a dog that is specially taught to complete definite responsibilities in order to assist a person who has a disability. The service dog will stay with the person and have special access privileges in public places, such as airports, restaurants, and other places animals normally do not have access. It is considered unethical to attempt to misrepresent a therapy dog as a service dog in order to gain special treatment from public places (American, 2012).

Therapy dog. This term is defined as a dog that goes with the owners to volunteer in locations such as schools, hospitals, and nursing homes. The therapy dog

works as a team with the owners to improve the lives of the individuals they are visiting (American, 2012).

Limitations

The following limitations were identified in this study:

Factors beyond the scope of the study. Factors beyond the scope of the study include the weather, as it affects individuals in different ways and the subjects' moods on the given days of the observation and questioning.

Instrument. Interviews were conducted in this study. According to Merriam (2001), the chief instrument in a case study is the researcher. Since the researcher is human, mistakes will be made, and personal biases will emerge. The researcher must recognize the manipulative powers he or she sometimes possesses as an interviewer and guard against it (Weiss, 1995). During the interviewing process, the researcher can ask leading questions with or without realizing the act and can be welcoming toward replies that maintain preconceptions (Weiss, 1995). In addition, when analyzing the data investigators unconsciously manipulate conclusions and or unintentionally locate information that supports the belief of the researcher and provide that information as the best position in the case (Weiss, 1995). At times, this is done on a subconscious level and not done intentionally (Weiss, 1995). The goal of the researcher should be to discover, rather than demonstrate, and execute objective, conscientious, and careful analysis of the information gathered (Weiss, 1995). The researcher should then be truthful to present the findings (Weiss, 1995).

Interviewing that is unintentionally prejudiced occurs when respondents are encouraged to provide information supporting the theory or hypothesis of the investigator

(Weiss, 1995). This may be accomplished in the way the data are presented or by the types of questions asked in the interview (Weiss, 1995). Research bias can be avoided by setting interview guidelines with the respondent prior to the interview (Weiss, 1995). This prejudice can also be guarded against by entering the interviews with a guide, a list of predetermined questions, and by presenting the guide and questions in the study (Weiss, 1995).

Surveys were also used in this study. Limitations associated with using surveys include: the questions can be very general, researchers must ensure a large number of the selected sample reply, and a difficulty exists with participants trying to recall information or answer truthfully on controversial issues (Barribeau, Butler, Corney, et al., 2012; Bluman, 2007). Surveys (see Appendix A) consisted of electronic communication (e-mail) sent to teachers regarding their views on pet therapy in their school. Participants signed a letter of informed consent prior to the distribution of the survey (see Appendix D). The survey was a combination of open-ended questions and questions where participants answered using a variety of choices provided on the survey (Gay & Airasian, 2011). A drawback to surveys is the low number of replies and unfitting answers to questions, and some people have difficulty reading or understanding the questions (Bluman, 2007).

Sample demographics. Research in this study was obtained from a public school in southwest Missouri. Socioeconomic status and age of the students and teachers involved in this study varied. There were 476 students at the elementary school, 110 students at the junior high school, and 264 students in the high school (Missouri School Directory, 2012). The primary buildings involved in pet therapy were the junior high and

elementary buildings. The town in which the case study was conducted has a population of 788 based on the 2010 United States Census (Missouri Census, 2013). According to the Missouri Department of Elementary and Secondary Education, 95% of the students in the school district were White (Missouri Comprehensive Data System, 2013).

Summary

People have relied on animals for comfort, companionship, and support since Paleolithic man first painted pictures of animals on the walls of caves (Levinson, 1997). Since that time, man has discovered animals not only provide mental comfort, but positive physical effects as well (Mallon, 1992). For decades nursing homes, mental health facilities, and hospitals have capitalized on the fact that animals have positive effects on the health of their patients.

Animal assisted therapy can significantly reduce pain, anxiety, depression and fatigue in people with a range of health problems including cancer patients, chronic heart failure patients, veterans with post-traumatic stress disorder, and children with a range of medical issues (American, 2012; Wells, 2009). In addition to patients, family and friends visiting and caring for the patients reported they too feel better when the therapy dog was present (American, 2012). Therapy dogs are also being used in nonmedical settings, such as universities and community programs to aid individuals with their stress and anxiety (American, 2012; Wells, 2009).

Researchers attest animals aid in direct problems, such as loneliness, or more complex problems such as severe autism (Mallon, 1992). With this knowledge, public schools have recently began to utilize animals to aid students with a variety of difficulties ranging from reading problems to severe mental health issues (Anderson & Olson, 2006).

For the past three years, a public school district in southwest Missouri has been implementing animal-assisted therapy in the hope of seeing improvement in student behavior and academic success. Will the positive research on animal assisted therapy hold true in a public school district?

The following chapter includes a review of literature in pet therapy and the successes found in hospitals, nursing homes, and mental institutions. Chapter Two also covers additional information on the conceptual framework. Then, the effects of pet therapy on adults, the elderly, and children are presented.

Chapter Two: Review of Literature

Humans have always understood the importance of companion animals (Dillon, 2008; McCardle, McCune, Griffin, & Maholmes, 2011; McKenna, 2013; Nagasawa, Mogi, & Kikusui, 2009; Russell, 2009; Solomon, 2010; Staats, Sears, & Pierfelice, 2006). The possession of a companion animal is a common feature in human behavior, and a majority of American households include at least one pet (Daly & Morton, 2009; Gillum & Obisesan, 2010; Gosling, Sandy, & Potter, 2010; Mullersdorf, Granstrom, Sahlqvist, & Tillgren, 2010; Staats et al., 2006). In 2006, half of all pet owners recognized their pets as members of their immediate families (Adamle, Riley, & Carlson, 2009). In the past, humans kept companion animals for assistance in herding, hunting, keeping warm, a ready source of food, and for the disclosure of danger (Staats et al., 2006). In the 1960s, pet therapy was first documented as an official tool in therapeutic psychological sessions (Brodie & Biley, 1999; Friedmann & Son, 2009; Levinson, 1997; Mallon, 1992). All across the United States nursing homes, hospitals, and mental hospitals used pets as an agent for improved health for patients suffering from a variety of different physical and mental ailments (Brodie & Biley, 1999; Coakley & Mahoney, 2009; Hoffman, Lee, Wertenaue, et al. 2009; Mallon, 1992; McCardle et al., 2011, Solomon, 2010; Wells, 2009).

Levinson's Theories on Pet Centered Therapy.

Levinson's (1997) theories on children's responses to pet-centered therapy occurred by accident. The dog was in the room when the patient entered the room. With the dog in the room, Levinson found greater success getting the child to communicate than all the times without the dog (Kruger & Serpell, 2010; Levinson, 1997). As a result,

Levinson's theories were based on case studies of child relationships with animals and therapists (Kruger & Serpell, 2010; Levinson, 1997). Upon further study, Levinson (1970) learned that animals played a vital role in the life of a child. Levinson (1970) observed in modern society the family pet may be the only thing a child and his parents had in common.

At birth, a child begins to intermingle with his environment, and these interactions lay the ground work for positive or negative mental health in the future (Levinson, 1970; 1997). During the first six months of a child's life, he completely relies on his mother to meet all his needs, and if these needs are not properly met, mental health during the school years could be in jeopardy continuing into adulthood (Levinson, 1970). The young child needs an always present mediator that would be comforting, yielding, and texturally soothing, and Levinson believed a pet was just that agent even for a child two years old or younger (Levinson, 1970).

Levinson (1970; 1997) felt a pet should be introduced to a child early in the child's life to be a constant companion. He believed early introduction to a pet lessens the child's anxiety because the animal offers stability and leads to mutual trust (Levinson, 1970). For a two or three year old, the family pet plays the role of a nonjudgmental, accepting friend which causes the child to evade any emerging emotional trouble (Levinson, 1970). By school age, the child is associating with peer and this is association made the child feel anxious and insecure about his world (Levinson, 1970). When the child feels anxious and insecure he turns to his pet who offers acceptance (Levinson, 1970). Pets are also constants to children who do not trust adults (Levinson, 1970). Children of ethnic minorities benefits from pets as well (Levinson, 1970). A minority

child who has difficulty making friends in the neighborhood becomes very popular walking alongside their dog (Levinson, 1970). Levinson (1970) believed a well-rounded adult emerges from a child raised with a pet.

Pet ownership teaches children to accept new learning opportunities and eases hurtful relationships between peers (Levinson, 1970). A pet requires children to sacrifice favorite activities developing the child's ability to handle unpleasant but required responsibilities as well as teaching the child to endure anxiety and to defer pleasure (Levinson, 1970). In addition, caring for the welfare of a pet leads to an acceptance of responsibility for forming significant sustaining human relationships (Levinson, 1970). Creating significant sustaining human relationships gives individuals an "emotionally satisfying life" and according to Levinson all emerged from a pet relationship as a child (Levinson, 1970, p. 1763).

In the educational setting, a child sees himself as good or bad depending on how his peers view and treat him causing the child to experience a detrimental self-concept (Levinson, 1970). Levinson (1970) believed an appropriate human would emerge as a result of a child's successful and rewarding activities and relationship with a pet. Levinson (1970) found the pet not only taught the child responsibility, but also toughens his ego making him see himself in a positive light.

Levinson's desire was to provide assistance to future counselors and to promote future research to justify the implementation of child-animal therapy (Kruger & Serpell, 2010). Levinson suggested animals hold definite inherent traits that assist therapy (Kruger & Serpell, 2010). He believed the presence of an animal with its unprompted behaviors and accessibility for interaction provided opportunities therapists otherwise did

not possess or had difficulty replicating (Kruger & Serpell, 2010). The presence of an animal stimulates conversation and provides a neutral, external subject to focus on during therapy session. This presence causes adults and children to relax and often causes adults and children to share more information than they originally intended (Kruger & Serpell, 2010; Levinson, 1997). So secure in his belief of the benefits of pets to children and institutions, Levinson called for lobbyists to put pressure on state and federal legislatures to appropriate funding in mental hospitals and hospitals to secure a pet therapy program (Levinson, 1970).

Erikson's Theories on Development.

There are eight stages of human development, according to Erikson, and if humans do not find success in any one or all of the stages, mental health problems occur (Crain, 2010). Erikson's theories demonstrate how fragile children are and if not properly developed the individual will have problems functioning in society as an adult. Erikson's believed infants who have sensitive, loving caregivers form lifelong feelings of trust (Myers, 2009). Infants who do not receive love and understanding grow up with a great sense of fear (Satcher, 2001).

The first stage is known as Trust vs. Mistrust (Erikson, 1963). Erikson felt infants who did not receive love and understanding would grow up avoiding attachments, or possibly experience insecure and or anxious attachments with other adults (Crain, 2010; Erikson, 1963; Myer, 2009; Satcher, 2001). Erikson called his next stage Autonomy vs. Shame, Doubt (Crain, 2010; Erikson, 1963; Myers, 2009). Children between the ages of one and three attempt to exercise choice during this stage (Crain, 2010). Toilet training is involved during this period; children walk and explore the world around them, and within

this stage caregivers attempt to teach children appropriate behaviors (Crain, 2010; Erikson, 1963; Myers, 2009). Erikson theorized autonomy comes as the child matures and fosters the abilities to be independent whereas the shame and doubt portion of the stage came from an awareness of social expectations and pressures (Crain, 2010; Erikson, 1963). It is during this phase Erikson believed children learn to be in command of their impulses (Crain, 2010; Erikson, 1963).

From ages three to six children enter Erikson's Initiative vs. Guilt (Crain, 2010; Erikson, 1963; Myers, 2009). During this stage children are ready to rapidly and enthusiastically learn and are willing to discover ways to channel their ambitions into socially useful pursuits (Crain, 2010; Erikson, 1963). Parents allow children to participate with them on certain projects so the child feels equal, and parents ease authority in some areas so the child can find his way (Crain, 2010; Erikson, 1963).

From age six to eleven children master important cognitive and social skills (Crain, 2010; Erikson, 1963; Myers, 2009). Erikson called this stage Industry vs. Inferiority. With the aid of caregivers, children apply themselves to learning useful skills and tools however; the danger in this stage is disproportionate feelings of inadequacy and inferiority (Crain, 2010; Erikson, 1963). Erikson believed problems emerge in this stage due to children not having success in earlier stages (Crain, 2010; Erikson, 1963; Myers, 2009). Often school and community attitudes cause a child distress, for example, an African American boy may become cognizant about how the color of his skin affects other people (Crain, 2010; Erikson, 1963). Erikson stated during this stage teachers play an important role in a child's life. A good teacher helps children discover their individual talent and provides assistance to promote that talent (Erikson, 1959). Often Erikson found

one teacher made a difference in a child's life by encouraging the child's abilities (Erikson, 1959). A poor teacher, however, fails to discover and encourage the child from which may be debilitating (Crain, 2010; Erikson, 1963). This is where pet therapy can aid in public schools. Children who have not successfully worked through previous stages come to the public school broken and in need of emotional assistance. Pet therapy can assist these children, to become emotionally caught up with their peers (Kruger & Serpell, 2010; Levinson, 1997).

Erikson's final stage relevant to this study was Identity vs. Role Confusion, which occurred during adolescence (Crain, 2010; Erikson, 1963). Erikson believed during this stage adolescents become troubled and perplexed by new social conflicts and demands (Crain, 2010). It is essential during this stage the adolescent establish a feeling of who he is and what his place is in society (Crain, 2010; Erikson, 1963; Myers, 2009).

Adolescents feel their impulses have a will of their own, are often experiencing changes in their views and beliefs, and are experiencing extreme physical changes that also affect their identity (Crain, 2010; Erikson, 1963). Adolescents are also overwhelmed with constant changes and options they have before them (Crain, 2010; Erikson, 1963; Myers, 2009) and social pressure and maturation force individuals through Erikson's stages regardless of readiness (Crain, 2010; Erikson, 1963). It is vital that children successfully complete each of the stages if they are to have positive mental health as adults (Crain, 2010; Erikson, 1963).

In general, according to Erikson, once the child develops a feeling of trust in their caregivers, they are capable to become more and more autonomous and it is that confidence and trust in their caregivers that enable them to feel free to explore the world

around them (Crain, 2010; Erikson, 1963). It is essential for children to develop a feeling of fundamental safety and the concept the world is a serene and sheltered place (Crain, 2010; Erikson, 1963). Since so many children and adolescents have emotional and mental issues due to imperfect and often troubling childhoods, a public school could benefit from having an animal on site (Newlin, 2003). Erikson believed the best tool to assist these children was not by exterior reinforcements but to speak to the child's fears and attempt to comprehend what the child may be unconsciously trying to say (Crain, 2010; Erikson, 1963).

Functionalist School of Thought in Education

Drawing heavily on the theories of Emile Durkheim, the functionalist perspective conceives the purpose of social institutions is to collectively meet the individual and social needs of society and its people (Dreeben, 1968; Macionis, 2012). The theory as found in sociology is also known as the structural-functional approach (Dreeben, 1968; Macionis, 2012). Durkheim, a sociologist, was interested in how societies preserve internal constancy and endure over time (Macionis, 2012). Durkheim discovered primitive cultures were held together by close ties to their small communities and the family unit (Macionis, 2012).

In modern industrialized societies, there are a variety of social institutions, such as schools, that work together to provide members of society with a collective purpose and to provide tools and skills necessary to survive within the society as a whole (Macionis, 2012). Social institutions are functionally assimilated to create an established system and a dysfunctional institution will not contribute to the overall maintenance of a society but will cause the society to cease from existing (Macionis, 2012). Functionalists analyze

social institutions in terms of the role they play in society and believe the purpose of education is not only to educate society's children but also to prepare children mentally, physically, and emotionally to become productive citizens (Feinberg & Soltis, 2009; Marcionis, 2012).

The functionalist theory argues the purpose of the public school is to socialize children and prepare them for life in society (Dreeben, 1968; Feinberg & Soltis, 2009). Since education prepares the youth to be a member of society it serves as a form of socialization (Feinberg & Soltis, 2009). Since education is a socialization tool, it must teach not only academics, but also teach the culture of the society, moral values, ethics, politics, habits and norms (Dreeben, 1968; Feinberg & Soltis, 2009). The final belief of the functionalist theorist is for education to serve as a form of social control by regulating deviant behavior (Feinberg & Soltis, 2009). This occurs when society has laws pertaining to minors attending school. The belief is by keeping minors in school, this keeps them off the streets and out of trouble (Feinberg & Soltis, 2009).

Benefits of Animals on Human Health

Overall, medical researchers have reported animals have positive effects on the health of humans (Grover, 2010; Herzog, 2011; Julius, Beetz, Kotrschal, Turner, & Uvnas-Moberg, 2012; McCardle et al., 2011). According to Bokkers (2006), the most common reason people have pets is for companionship. Pet ownership makes the pet owner feel better physically and psychologically (Staats et al., 2006). Pet owners have lower blood pressure and a longer life expectancy than individuals who did not own pets (Wohlfarth, Mutschler, Beetz, Kreuser, & Korsten-Reck, 2013).

Patients who were recuperating from heart surgery and who owned pets were much less likely to die in the year following surgery than patients who did not have pets, according to a 1980 study (Abate, Zucconi, & Boxer, 2011; Bokkers, 2006; Brodie & Biley, 1999; Herzog, 2011). In a similar study, researchers reported dog ownership was a substantial factor to a cardiac patient's survival status (Hooker et al., 2002). Blood pressure and stress issues are significantly lowered in the presence of pets or companion animals (Herzog, 2011; Hooker et al., 2002; Jalongo et al., 2004; Kaminski, Pellino & Wish, 2002; Reinhart & Reinhart, 2010). Doctors have revealed merely the act of petting a dog reduces tension in muscles, lowers blood pressure, lowers the heart rate, lowers observable signs of anxiety, and increases skin temperature (Blazina, Boyra, & Sheri-Miller, 2011; Brodie & Biley, 1999; Jalongo et al., 2004). Wells (2009) reported patients with chronic fatigue syndrome believe their pet increases their quality of life.

Physical indicators of stress on the human body, such as increased heart rate and high blood pressure, are found to decrease when a companion animal is near (Beetz, Uvnas-Moberg, Julius, & Kotrschal, 2012; Fontaine, 2010; Kaminski et al., 2002; Zeltzman & Johnson, 2011). Animals protect people from developing coronary heart disease, or at least slow the disease's progression (Bokkers, 2006; Johnson & Meadows, 2010; Lange, Cox, Bernert, & Jenkins, 2007; Staats et al., 2006). This is due to the fact that animals have the ability to change a person's lifestyle by motivating them to exercise and generally give the person a reason to get up in the morning, enhancing health and the quality of life (Bokkers, 2006; Brodie & Biley, 1999; Johnson, Beck, & McCune, 2011; Johnson & Meadows, 2010; Mallon, 1992).

Adults who own dogs are more likely to meet the recommended 150 minutes of physical activity per week than people who do not own dogs and dog owners are more likely to receive social support and motivation than individuals who do not own dogs (Christian, Giles-Corti, & Knuiman, 2010; Cutt, Knuiman, & Giles-Corti, 2008). Because animals summon parental feelings, the pet owner has a reason to exercise and participate in daily activities (Cutt, Giles-Corti, Knuiman, & Pikora, 2008; Johnson, Beck, & McCune, 2011; Solomon, 2010; Staats et al., 2006).

Animals stimulate laughter in humans that is proven to make people healthier (Brodie & Biley, 1999; Valeri, 2006). For adults who had been diagnosed with the inability to feel pleasure (anhedonic schizophrenia), therapists utilizing dogs found significant improvements in patients feeling pleasure, increased use of free time, and increased motivation when compared to patients who did not have an animal in their sessions (Lange et al., 2007; Villalta-Gil, Roca, Gonzalez, et al., 2009). Also when animals are used in therapy sessions, adults are more likely to regularly attend their sessions than patients whose therapists did not use animals (Lange et al., 2007; Wesley, Minatrea, & Watson, 2009).

Animals give humans a link to reality that supports emotional stability (Brodie & Biley, 1999, Frei, 2011; Miller, 2010; Sakson, 2009; Staats et al., 2006; Zimolag & Krupa, 2009). Kurdek (2009) concluded the majority of pet owners turn to their pets in times of emotional distress. Animals provide a sense of joint trust between the individual and the animal which promotes self-awareness (Brodie & Biley, 1999; Valeri, 2006), and the presence of an animal is also found to reduce depression symptoms in people (Frei, 2011; Hooker et al., 2002; Miller, 2010; Sakson, 2009). A study by Straede and Gates

(1993) established people who own cats have a lower level of psychiatric disturbance than people who do not own animals. Cat ownership has also been associated with increased cardiac morbidity and mortality in the year following cardiac surgery (Parker, Gayed, Owen, et al., 2010). Psychiatrists have observed people with mental health diagnoses have less anxiety when pet therapy is used versus when no pets are involved in the patients' care (Chur-Hansen, Stern, & Winefield, 2010; Hooker et al., 2002; Peacock, Chur-Hansen, & Winefield, 2012; Pedersen, Ihlebaek, & Kirkevold, 2012). Furthermore, animals are being used in drug treatment centers where psychologists have decided the presence of an animal removes barriers of communication for patients in group therapy sessions (Handlin, Hydbring-Sandberg, Nilsson, et al., 2011; Hooker et al., 2002; Lange et al., 2007; Pichot, 2011; Wilkes, 2009; Zilcha-Mano, Mikulincer, & Shaver, 2011).

A study conducted by Marcus et al. (2012) found companion dogs help in relieving pain to suffering adults. The study took place in an outpatient tertiary care interdisciplinary pain management clinic (Marcus et al., 2012). Patients with extreme pain were chosen for the study when they came to the clinic for treatment, a companion dog would be there to greet and sit with them (Marcus et al., 2012). The majority of the patients participating in the study had a positive impression of the companion dog and wished to have a therapy dog in future visits and patients reported pain severity was reduced after spending time with the therapy dog (Marcus et al., 2012).

Patient comments included, "I'd rather see the dog than the doctor. I'm a cat person, so I'm surprised how helpful it is petting a dog... the dog seems to know right where my worst pain is and goes right to it. After having him by me, the pain- it seems to get much better" (Marcus et al., 2012, p. 53). Patients also experienced improvements in

mood and stress with gender, co-existing mood disorders, and visit duration having no effects on the outcome of the study (Marcus et al., 2012). The researchers believe having a chronic pain waiting room would reduce symptoms of distress and pain in some patients, if not incessantly then at least temporarily (Marcus et al., 2012).

In addition to the patients interacting with the therapy dog, family members of the patients also participated (Marcus et al., 2012). Sample sizes were limited by the occurrence of adults accompanying the chronic pain patients but despite small sample numbers, significant improvements were reported in attitudes and feelings in their involvement with the therapy dogs (Marcus et al., 2012). In addition to positive accounts by patients' family and friends, medical staff involved in the study reported affirmative relationships with the dog (Marcus et al., 2012). The staff reported taking more breaks on the days when the companion dog was in the office and also reported feeling more relaxed and feeling less stressful on days the companion dog was used (Marcus et al., 2012). Johnson, Meadows, Haubner, and Sevedge (2008) determined hospital patients who received regular visits with a therapy dog reported an overall feeling of wellness over patients who did not receive regular visits from an animal.

Pet therapy is now interfacing with college life (Somervill, Kruglikova, Robertson, Hanson, & MacLain, 2008). A university in the eastern section of the United States created a pet therapy program for their college freshman. College freshman often have difficulty adjusting to life without their families and the challenge of adapting to new patterns in daily living provides stress and anxiety (Adamle et al., 2009). In addition, new college students do not have the chance to develop primary relationships which aided in the new life transformation (Adamle et al., 2009). Pet therapy enabled the

college freshman relief from stress and anxiety and an opportunity to make new friends (Adamle et al., 2009; Somervill et al., 2008).

Levinson (1997) believed animals give people a reason to live and make people feel they have a place in this world. He also believed animals help people sustain emotional strength and are often the only remaining link with reality for some individuals (Levinson, 1997). Levinson and other researchers' uncovered pets are good not only for physical health, but mental health as well. In one study, Levinson (1997) observed mentally ill individuals keeping a normal level of equilibrium and function because of their pets. Also, some mentally ill patients experienced a psychotic breakdown when their animal was removed. In a British study, pets were given to individuals who had never had pets before (Headey, Fu, & Zheng, 2008). Over the next ten months, researchers observed these same individuals exhibiting improvements in their health, psychological health, self-esteem, and exercise levels (Headey, Fu, & Zheng, 2008).

Animals help people deal with death and the loss of loved ones, they teach responsibility and assist young couples in preparing for parenthood, and provide childless couples a sense of parenthood (Levinson, 1970). Psychiatrists and psychologists have discovered people view their pets as essential parts of their families, and pets provide individuals with a sense of self-worth (Cavanaugh, Leonard, & Scammon, 2008; Staats et al., 2006; Valeri, 2006). Psychologists believe when people go to extremes to indulge their pets, they are actually indulging themselves (Cavanaugh et al., 2008; Valeri, 2006).

Since the animal-human bond was found to be a positive entity in the lives of people, mental and physical health care facilities have attempted to utilize this bond in both visitation formats and residential facilities (Kaminski et al., 2002; Lefebure, Golab,

Christensen, et al., 2008; Miller, Kennedy, Devoe, et al., 2009; National Center for Complementary and Alternative Medicine (n.d); Pedersen, Ihlebaek, & Kirkevold, 2012; Peel, Douglas, Parry, & Lawton, 2010). Dogs especially have been used to bring out the positive attributes in the animal-human bond (Ascione & Shapiro, 2009; Kaminski et al., 2002). Researchers have reported pet-facilitated therapy fostered social interactions and behaviors, developed and increased emotional comfort, reduced loneliness and uneasiness, administered a source of self-esteem, and provided a mentality of independence (Kaminski et al., 2002; Knight & Edwards, 2008; Zilcha-Mano, Mikulincer, & Shaver, 2011).

Therapists have used cats and parrots in therapy sessions for people who tend to act out because of belligerence or impulse control problems (Thompson, 2011). The therapists determined the animal sits near the patient until they start getting upset and then the cat or parrot moves away from the individual (Thompson, 2011). The facilitator then has the opportunity to discuss what is going on with the patient and why the animal reacted the way it did (Thompson, 2011).

Since in China pets were prohibited until 1992, researchers compared the health and well-being of women aged 25-40 who had attained dogs to a control group of women aged 25-40 who did not have dogs (Headey, Fu, & Zheng, 2008). Investigators observed that owning a dog was positively connected with taking more exercise, feeling healthier and feeling fitter, and it was also learned dog owners were less likely to sleep poorly at night; they took fewer sick days off from work, and were seen less often by doctors (Headey, Fu, & Zheng, 2008; McConnell, Brown, Shoda, Stayton, & Martin, 2011).

Soldiers returning from Iraq and Afghanistan, as well as soldiers returning from Vietnam and Korea, reported the presence of a dog, whether it was a military working dog or a stray kept against military regulations, enabled them to feel safe in the middle of the turmoil (Solomon, 2010). The same soldiers stated they felt a steadiness and a strong sense of security against the trepidation of the war in their daily lives (Solomon, 2010). Several soldiers described the dogs provided an emotional alliance that permitted them to keep their morality and humanity (Solomon, 2010). War veterans experiencing post-traumatic syndrome also used equine therapy to assist in their problems (Masini, 2010). Veterans involved in the therapy found horses aided their battle with post-traumatic syndrome by enabling them to cope with their war imagines (Masini, 2010). One veteran stated the equine therapy program “requires immediate solutions to problems at hand which when practiced on regular basis nurtures an ability to adapt and the development of problem solving skills” (Masini, 2010, p. 32). Additional benefits of equine therapy for veterans included a sense of well-being from being outside, the reduction of fear from powerful memories of being back on the frontline, feelings of acceptance by the community of patients receiving therapy, and an increased awareness of their feelings of grief (Masini, 2010). Veterans also had feelings of detachment and numbness which equine therapy alleviated (Masini, 2010).

Equine therapy was a successful tool in the field of drug and alcohol treatment (Chardonens, 2009; Masini, 2010). The goal of the program was to have patients connect and embrace their feelings, and provide a safe environment where patients could practice coping and problem-solving skills (Masini, 2010). Additional goals included increasing the patients’ perception, having patients understand how their actions affect

themselves and others, and the examination of alternative living styles (Masini, 2010). Therapists involved in the program reported these goals were met and that patients went above and beyond therapeutic goals thanks to the horses involved (Bachi, Terkel, & Teichman, 2012; Chardonnes, 2009; Lind, 2009; Masini, 2010; Parish-Plass, 2013; Pichot, 2011; Trotter, Chandler, Goodwin-Bond, & Casey, 2008; Wilkes, 2009).

Burgon (2011) conducted a case study to examine the psychotherapeutic effects equine therapy had on six adults who experienced mental issues, such as depression, schizophrenia, psychotic illness, and those who experienced nervous breakdowns. Six adult female riders were studied for a half a year and questioned about their sessions with equine therapy (Burgon, 2011). Riding for the Disabled, the therapeutic organization the study group was a part of, began in Britain following the success of Liz Hartel after the 1952 Olympics (Burgon, 2011). Hartel was an Olympic rider who prior to the Olympics had previously used riding therapy for her own rehabilitation purposes and experienced great success with the tool (Burgon, 2011).

The therapeutic riding program increased the patients social communication abilities, increased their riding and stable management skills, their social confidence increased, as well as experiencing physical benefits and acquiring transferable real world skills (Burgon, 2011). Burgon (2011) discovered the strongest aspect to equine therapy was the increase in confidence each rider experienced. Researchers involved with equine therapy deem Maslow's hierarchy of needs theory as the driving force behind successful equine therapy (Burgon, 2011). Maslow's theory states that people need certain needs met before their full potential can be reached (Crain, 2010; Maslow, 1970; McConnell,

2010). Burgon (2011) found the need for love and to belong and the esteem needs to be key theories in her case study.

According to Maslow (1970), the need to be loved and accepted by an individual's surroundings is met in the horse/rider relationship due to the horse's complete acceptance of his rider. The individual's self-esteem needs deal with the desire to achieve and gain approval and recognition by a peer group (Crain, 2010; Maslow, 1970). Burgon (2011) felt her case study illustrated the importance of these two needs and the fulfillment of those needs found in the equine human relationship. Burgon (2011) found the horses related to the riders in a non-judgmental manner and discovered the environment of equine therapy was a reflection of this. The patients gained a sense of achievement from learning to ride and controlling the horse, in turn mastering a new physically demanding task, and gaining stable management skills which are all ways their esteem needs were met (Burgon, 2011). These newfound skills and confidence prepared them for success in the outside world (Burgon, 2011).

Aside from learning new skills and gaining new feelings, physical needs are also met with companion animals. An essential physical need for the well-being of the individual is touch. Touch is defined as satisfying the faculties of comfort and contact with reality (Churchill, Safaoui, McCabe, & Baun, 1999). Touch is an essential tool of physical health (Churchill et al., 1999; Coakley & Duffy, 2010; Solomon, 2012). Touch is also a factor in making pet therapy effective (Coakley & Duffy, 2010; Shibata, Kawaguchi, & Wada, 2012; Solomon, 2012). The touch a person experiences with the animal is a contributing factor to the lowering of blood pressure and reduction of heart-rate (Solomon, 2012).

During the 9/11 attacks in New York City, therapy dogs were brought in to assist Ground Zero crisis responders to talk about the carnage they had seen and experienced (Thompson, 2011). Psychologists involved discovered the responders who had spent time with the therapy dogs were calmer and had less anxiety than those who did not spend time with the dogs (Thompson, 2011). The psychologists found the dogs created a bridge between the therapist and the responder (Thompson, 2011).

A recent trend with psychologists, psychiatrists and social workers is to keep dogs in their offices as they would secretaries and nurses (Beck, 2010). Psychiatrists like to have therapy dogs in their offices to provide patients with physical comfort therapists cannot offer their patients (Beck, 2010). When a patient gets upset, the psychiatrist cannot hug the patient, but the therapy dog is able to provide that physical contact (Beck, 2010). Doctors have discovered the dogs cheer patients while in the waiting area before their session, and offer a happy distraction while the patient waits for the doctor (Beck, 2010).

In addition to physical and mental assistance in adults, animals are important because they offer meaning to people's lives (Bokkers, 2006; Cavanaugh et al., 2008; Valeri, 2006) and provide a sense of stability in a person's life (Brodie & Biley, 1999; Staats et al., 2006). Many people actually feel closer to their pet than they do to their closest living family member (Cavanaugh et al., 2008; Valeri, 2006) and turn to their pets in times of emotional crisis before they would a human (Kurdek, 2009). Individuals with hypoglycemic episodes have found their dogs have reactions to their occurrences and will get assistance during the breakdown (Wells, Lawson, & Siriwardena, 2008). It has even been revealed people are more willing to give up smoking because of the detrimental

effects second-hand smoke has on their pets than for their own health benefits (Cavanaugh et al., 2008).

Without the animal, individuals experience illness due to loss of normal activity and healthy behaviors the animal provides (Brodie & Biley, 1999; Johnson, Beck, & McCune, 2011; Knight & Edwards, 2008; Valeri, 2006; Wisdom, Saedi, & Green, 2009). Overall, researchers have found pet owners have fewer contact visits with doctors, experience fewer symptoms of depression and are healthier than individuals who do not have animals (Brodie & Biley, 1999; Hosey & Melfi, 2012; McCartle et al., 2011; Straede & Gates, 1993). Companion animals are a bonding tool and a bridging tool (Headey, Fu, & Zheng, 2008). In addition to bonding with their owners, they also act as a bridge connecting relationships from person to person (Headey et al., 2008).

Animal Relationships and the Elderly

According to Hooker et al., (2002) during the 1980s, nursing homes discovered that incorporating animals in their centers fulfilled the patients' rudimentary desire to be needed. The care centers documented a decrease in patient, family, and even staff stress levels (Hooker et al., 2002; Jalongo et al., 2004, Miltiades & Shearer, 2011). In a study completed in 1998, researchers observed elderly patients who had pets declined less in physical and mental health in one year than elderly people who did not have a pet or access to an animal (McCardle et al, 2011; McConnell et al., 2011). In nursing homes where dogs were present, patients experience less loneliness than patients who were in nursing homes where there was no animal present (Bokkers, 2006; Le Roux & Kemp, 2009; Phelps, Miltenberger, Jens, & Wadeson, 2008). Animals in the nursing home

setting were found to make the center feel less like a hospital and more like a home (Brodie & Biley, 1999).

When elderly patients were sent home after extended hospital stays it was discovered, after one year of independent living, elderly people with pets maintained a higher level of activity than those without the presence of animals (Hooker et al., 2002). Elderly patients who lived with animals achieved significant social and psychological improvements when compared to patients without animals (Bokkers, 2006). A variety of researchers in the medical field have established that animals lower stress levels in elderly patients (Bokkers, 2006; Fine & Beck, 2010; Jalongo et al., 2004; Wisdom, Saedi, & Green, 2009).

Companion animals, especially dogs, provide the elderly a chance at socialization they are often denied due to their circumstances (Bulter, 2013; National Institution, n.d.; Prosser, Townsend, & Staiger, 2008; Rijken & van Beek, 2011; Stern, 2011; Stern & Konno, 2011; Stern, Pearson, & Chur-Hansen, 2011). When dog owners walk their dog not only are they gaining physical exercise, but they are creating social networks (Rijken & van Beek, 2010). They take their dog to the park and talk to other dog owners who have the same interests; this makes the dog a social facilitator (Friesen, 2010; Rijken & van Beek, 2010). The dog creates the opportunity for the elderly to get out of the residence, get some fresh air, and talk to people they would otherwise not have the opportunity to meet (Rijken & van Beek, 2010).

Raina, Waltner-Toews, Bonnett, Woodward, and Abernathy (1999) reported community-dwelling older adults had a higher mental, emotional, and physical happiness than community-dwelling elderly people who did not have a companion animal.

Companion animals provide quality companionship for these individuals with chronic illness or have a chronic disability and aid in increasing their physical health (Rijken & van Beek, 2010). Researchers in Japan measured older adults' nervous activity and found elderly dog owners have lower stress levels while walking their dogs than senior adults who walked without a dog and do not own a pet (Headey et al., 2008). In the same study, researchers determined the mere presence of a dog in a room reduced stress (Headey et al., 2008).

Rijken and van Beek (2010) also discovered senior citizens who owned a cat made greater use of ambulatory mental healthcare than elderly people who had a dog or did not have a companion animal. Furthermore, older adults who have pets deteriorated less in physical and mental health in a one-year period than a matched group who did not own pets (Headey et al., 2008). While patients suffering from various forms of dementia are more likely to socialize and experience a better mental state than dementia patients who are not in contact with an animal (Kramer, Friedmann, & Bernstein, 2009).

In one case, an elderly man was placed in a nursing center due to the effects of a disfiguring surgery (Brodie & Biley, 1999). The man was extremely angry and withdrawn from all individuals until the facilities' resident dog began visiting on a regular basis (Brodie & Biley, 1999). The patient went from being excessively depressed and angry to happy and relaxed (Brodie & Biley, 1999, Lang, Jansen, Wertenaue, Gallinat, & Rapp, 2010). When dogs were present in nursing homes, the facilities learned family and friends find it very inviting as well (Hooker et al., 2002). The patients' family and friends often pet the dog after difficult visits with a sick or dying loved one (Hooker et al., 2002). Brodie and Biley (1999) have observed pets form a "non-threatening

reassuring, non-verbal and tactile comfort” (p. 330) to patients in nursing centers and this is found to halt feelings of loneliness, disparity, and social departure. In Alzheimer’s patients, researchers have reported an increased socialization or social activity when an animal is involved with the patient (Hooker et al., 2002; Williams & Jenkins, 2008).

When psychologists have therapy sessions in nursing homes with dogs it was discovered the animal served as an icebreaker between therapist and patient (Bokkers, 2006). Psychologists observed patients who utilized the dog had more positive attitudes about therapy than patients who did not use the dog (Bokkers, 2006). Dogs satisfy basic social needs in people including attachment, affection, companionship, and an opportunity for nurturance (McConnell et al., 2011; Rijken & van Beek, 2011; Slatter, Lloyd, & Bassett, 2011; Slatter, Lloyd, & King, 2012). These needs are often unmet in the lives of elderly people (Rijken & van Beek, 2011). It was also determined elderly pet owners are less distressed by adverse life events and also have fewer visits to the doctor’s office than elderly people who do not own pets (Headey et al., 2008).

Animal Relationships and Children

Mallon (1992) observed a variety of benefits in children when animals were present. Levinson (1970) believed animals could be used to “minimize the impact of emotional trauma and help either to alleviate or to remedy some severe emotional difficulties” in children (p. 1759). Researchers found when an animal is in a child’s life, the child feels less isolated and lonely (Esposito, McCune, Griffin, & Maholmes, 2011; Hooker et al., 2002; Mallon, 1992; Prothmann et al., 2009).

Children also learn responsible, independent behavior when an animal is in the household (Mallon, 1992). Levinson (1997) reported his dog worked best with children

who were non-verbal, unresponsive, autistic, schizophrenic, culturally disadvantaged, obsessive-compulsive, and distant. It was observed dogs work well with autistic children as the dog was able to strengthen the child's touch with reality (Bokkers, 2006; Levinson, 1997; Mallon, 1992; Prothmann et al., 2009). Emotionally damaged children have an easier time relating to animals than people due to the non-judgmental, non-threatening relationships provide (Bokkers, 2006; Levinson, 1997; Mallon, 1992). Overall, animals reduce the stress-level in children (Beetz, Kotrschal, Turner, Hediger, Uvnas-Moberg, & Julius, 2011; Bokkers, 2006).

According to Bokkers (2006), interactions with animals teach responsibility, promote a caring attitude and behavior, and provide companionship, social support, security, comfort, and amusement, as well as an outlet for affection. In addition, relationships with animals produce respect between mankind and nature, allow for self-respect and self-esteem, and children are taught basic lessons about life and death (Bokkers, 2006). Companion animals allow children to develop an identification of self, imagination, play, compassion, and morality (Solomon, 2010). When the animal dies, parents have the opportunity to explain the life cycle to their children.

Animals also expedite social interactions between children and between children and adults (Bokkers, 2006; Levinson, 1997). In both instances such situations create beneficial attributes to the child's mental and physical health (Bokkers, 2006; Julius et al. 2012; Sirard, Patnode, Hearst, & Laska, 2011). Companion animals add to the child's social and communicative growth human caregivers are not able to provide due to the unique interaction that happened between children and their companion animals (Solomon, 2010). Children have a reduction in stress and a lower blood pressure when

animals are present (Brown, Hume, Pearson, & Salmon 2013; Friesen, 2010; Jalongo, 2005; Jalongo et al., 2004; Nagasawa, Kikusui, Onaka, & Ohta, 2009). As a result, nurses discovered using a dog to divert a child's attention when an intense or painful medical procedure takes place worked very well (Hooker et al., 2002). In a study conducted by Braun, Stangler, Narveson, & Pettingell (2009) animal assisted activities were found to reduce the pain of children who had chronic illness. For children, simply the dog's presence has been observed to lower behavioral, emotional, and verbal grief considerably (Archer, 2011; Friesen, 2010; Knight & Herzog, 2009).

Dogs also aid in the diagnosis of bulimia, anxiety disorders, and autism in adolescents (Lange et al., 2007). It was determined that 77.5% of adolescents with bulimia, anxiety disorders, or autism would be diagnosed by observing play time with the therapy dog (Lange et al., 2007). Researchers discovered adolescents felt more at ease with their therapists with a dog present than adolescents in therapy without a dog. In addition, the dog provides a nonjudgmental listener who makes the adolescent heard and understood when nobody else is able (Friesen, 2010; Parish-Plass, 2013; Wilkes, 2009).

Dogs are found to have great success with autistic children (Lange et al., 2007; Prothmann et al., 2009; Solomon, 2010; Viau, Arsenault-Lapierre, Fecteau, Chamipagne, Walker, & Lupren, 2010). In fact, it was the detection of the animal's potential as communicative partners for children with autism that captured the attention of Levinson, the father of pet therapy (Solomon, 2010). According to a study by Solomon (2010), dogs provided an "opportunity to actively restructure their social world in a way that supports their communication; and extend the boundaries of culturally normative sociality to include their ways of being social" (p. 143). People with autism are able to better

correspond and take part in everyday activities more fully with the help of a therapy dog (Solomon, 2010).

Therapeutic dogs also provide autistic children with an opportunity to socially interact with other people creating a better quality of life for the autistic child, and children with autism who have a therapy dog are better able to communicate not only with members of society as a whole, but are better able to communicate with their immediate families (Solomon, 2010). Moreover, “dogs facilitate communication of children with autism by being easily readable intentional agents and supporting children’s own agency and improvisation within and beyond structurally simple social actions” (Solomon, 2010, p. 149). Researchers brought dogs in to autistic children’s homes once a week for one to two hours observing the autistic children engaged in rare social behavior thanks to the presence of the dog (Solomon, 2010). Children with autism experience social advantages from contacts with therapy dogs or service dogs (Prothmann, Ettrich, & Prothmann, 2009). Therapists have also learned that and specially trained dogs help to reorganize routine habits of children with autism (Archer, 2011; Prothmann et al., 2009).

Educators who work with Down syndrome students have found success with therapy dogs in their classrooms (Grado, 2011). The educators brought in therapy dogs obtained from the Delta Society, an organization of animal-assisted therapy teams (Grado, 2011). The teachers used the dogs to work in small group sessions with the students with Down syndrome to stimulate verbal skills and practice good behavior (Grado, 2011). The teachers discovered the comfort provided by the therapy dogs increased communication, and aided in teaching responsibility and respect (Grado, 2011).

In academic settings animals are used as a supportive friend when children have fears about reading aloud (Esteves & Stokes, 2008; Gee, Church, & Altobelli, 2010; Gee, Gould, Swanson, & Wagner, 2012; Jalongo, 2005; Jalongo et al., 2004). The presence of a dog in the classroom has been found to lower blood pressure and heart rate when a child reads out loud (Friesen, 2010). Furthermore researchers observed animals serve to stimulate children to complete their academic activities across the curriculum (Gee et al., 2010; Gee et al., 2012; Jalongo et al., 2004). When researchers placed a dog in a first grade classroom for three months to determine if the dog had an effect on the children (Lange et al., 2007). The effect the teacher reported the children had a decrease in the amount of aggression and an increase in social behavior (Lange et al., 2007).

Friesen (2009) reported by using therapy dogs in elementary classrooms students who are traditionally not avid readers are inspired to partake in literacy activities. Friesen introduced a Maltese-poodle puppy into her second grade classroom as a research project about dogs and the care they required, and Friesen discovered she had opened a whole new avenue to reach her students. Researchers disclosed children are disinclined to read due to their lack of confidence (Friesen, 2009). International programs attempting to inspire reading in children and assist in reading at their grade levels were created to pair troubled readers with pet therapy dogs in schools and libraries (Friesen, 2009). In one such program it was reported that 15 second graders read aloud to a therapy dog for 20 minutes every week over the period of a school year, and over the course of the school year, students improved their reading skills by at least two grade levels (Friesen, 2009).

Friesen (2009) believed therapy dogs to be a successful tool to increase reading levels, especially in lower level readers. Jalongo (2005) reported therapy dogs built

incentives, enabled children to hold focus, and increased task persistence when all other incentives failed. Dogs assist in an elementary child's general emotional constancy and produce more positive attitudes towards school, and this is especially true in children diagnosed with severe emotional disorders (Friesen, 2010).

Bringing a child in contact with a therapy animal, especially a dog, not only serves as a support for the child's learning, the dog also benefits the child's physical, emotional, and psychological well-being (Brown, Hume, Pearson, & Salmon 2013; Fine, 2010; Gee et al., 2012; Jalongo et al., 2004; Levinson, 1997). The presence of a dog in the school setting provides self-esteem to students by providing and offering a non-judgmental loving friend to bond with in the classroom (Friesen, 2010). Educators have found students to be more academically conscientious and accommodating to adults when a dog is involved in the classroom (Gee et al., 2012; Limond, Bradshaw, & Cormack, 1997).

Kotrschal and Ortbauer (2003) examined the theory that dogs have a positive effective on the social behavior of elementary aged children by observing 24 elementary school aged children in an elementary school in Austria. For one month the team videotaped daily classroom activities without a dog present, and then for the next month a dog was introduced to the class and the team videotaped the interaction and activities with the dog (Kotrschal & Ortbauer, 2003). The observed classroom was multi-culturally diverse, which included 10 boys and 14 girls, all around the age of six, with two teachers and one translator (Kotrschal & Ortbauer, 2003).

The children were allowed to interact with the dogs throughout the day (as long as the dog was not lying on his mat) to examine the short term effects on the children's behavior, social interactions, and on the relationship with the teacher and the dog (Kotrschal & Ortbauer, 2003). Researchers predicted the dog would make socially withdrawn children more open to communication while muffling the more outgoing children creating a more balanced social atmosphere (Kotrschal & Ortbauer, 2003). In addition, the observers anticipated the dog would either increase or decrease the students' attention towards the teacher, thereby affecting the teaching condition as a whole (Kotrschal & Ortbauer, 2003).

The examiners discovered the children paid more attention to the teacher when the dog was in the room (Kotrschal & Ortbauer, 2003). It was also found the girls showed fewer behavioral changes with the dog present, were in their assigned seats more, and were more courteous towards the teacher than the boys (Kotrschal & Ortbauer, 2003). The boys were less belligerent, and in general, the presence of the dog exaggerated the social behavior of the boys more profoundly than it did for the girls (Kotrschal & Ortbauer, 2003).

The researchers discovered a significant positive effect on the socialization of the children in the study (Kotrschal & Ortbauer, 2003). Examiners' discovered the dog created increased communication between the students and between the students and their teacher (Esteves & Stokes, 2008; Kotrschal & Ortbauer, 2003). Whereas, the students did spend less time on their individual assignments when the dog was present, the students were more attentive to their teacher and the students received affection from

the dog, which reduced their need to attract attention via other avenues such as improper classroom behavior (Kotrschal & Ortbauer, 2003).

Rud Jr. and Beck (2003) also examined what effects companion animals and therapy dogs had on learning in the classroom by creating a descriptive study for 2,149 teachers in 114 elementary schools in Indiana that were using companion animals in their classrooms. It was discovered teachers believed animals brought pleasure to the classroom and increased students' psychological health (Rud Jr., & Beck, 2003). Teachers also reported having more teachable moments when the companion animal was present, using the dog in economic, science, and literacy lessons, as well as encouraging creativity through humor (Rud Jr., & Beck, 2003).

In a similar study by Zasloff, Hart, and DeArmond (1999) data were obtained from a California school utilizing companion animals in their classrooms. The teachers in the school reported companion animals supplied stimulus and behavior modification opportunities for their students who experienced special needs in the classroom, and science teachers in the same study related having more classroom activities once they obtained companion animals (Zasloff et al., 1999). Both studies concluded animals are essential for elementary classrooms due to the fact they make natural motivators for young learners (Rud Jr., & Beck, 2003; Zasloff et al., 1999).

A therapy dog provides automatic enthusiasm for social contact which encourages the child's social behavior in the classroom setting (Esteves & Stokes, 2008). The dog also increases positive interactions either when the dog is in the classroom or when the dog has just left the classroom (Limond et al., 1997). Pet assisted activities allow the teacher to create more lessons for the children in respect, accountability, dependability,

and empathy (Anderson & Olson, 2006). The dogs become assistant teachers in the classroom allowing a wide range of lessons to be taught including life skills, reading, writing, story time activities, and research activities (Anderson & Olson, 2006).

In addition, a therapy dog in the classroom motivates and assists social risk-taking in the classroom situation, especially in children who are unable or hesitant to participate (Friesen, 2010). The mere presence of the therapy dog alleviates stress in children, lowers their blood pressure, and gives them confidence to take social steps they are afraid to take without the dog's presence (Friesen, 2010). Animals provide children and students with opportunities and excuses to meet new people in nonthreatening ways (Adamle et al., 2009).

From the onset of a physical disability, Mader, Hart, and Bergin (1989) reported physically disabled children have abnormal social experiences with parents, peers, and colleagues. Disabled children are often ignored, pitied, or rejected (Mader, et al., 1989). The stigma of a disability creates stress in the child's life. This stress weakens in the child's social support, and has the ability to diminish the child's mental and or physical health (Mader et al., 1989; Slavin, 2008). However, animals eliminate social barriers the child's disability creates, and the presence of the animal changes how the disabled child is viewed and received (Christian, Trapp, Lauritsen, Wright, & Giles-Corti, 2012; Mader et al., 1989).

In addition, animals provide more social opportunities for disabled children by normalizing social developments and social opportunities (Mader et al., 1989). Disabled children accompanied by an assistance animal are more likely to be engaged in social interactions (Mader et al., 1989). Children with physical illness experience more success

socially when a pet is near (Levinson, 1970). The pet's presence comforts a distressed child and adds to the chances of the child's recovery (Levinson, 1970). The pet seems to provide an alternative way to focus on thoughts of death and offers a solution to apathy (Levinson, 1970).

Researchers concluded children tend to trust adults more when an animal is present (Chandler, 2011; Fine, 2010). This is a benefit to a therapist or school counselor working to draw children out of their shell in hopes of altering emotional or psychological issues (Chandler, 2011; Fine, 2010). According to Lange et al. (2007), children who suffer from sexual abuse have quicker recovery times when their therapists utilize animal-assisted therapy, and adolescents who experienced sexual abuse responded well with equine therapeutic therapies. Patients report feeling empowered, connected to their feelings, having the ability to trust others, feeling safe, able to open up for the first time, and have learned to take risks for the first time thanks to their equine therapy experience (Masini, 2010; Toukonen, 2011).

In psychotherapy sessions, adolescents feel a greater sense of relaxation, experience greater enjoyment talking about themselves, and express more topics about love and loss than adolescents who did not have a dog in their therapy sessions (Lange et al., 2007). Children are more alert, have increased attention spans, and invite social contact when a therapy dog participates in the session (Friesen, 2010). In therapy sessions, therapy dogs allow the counselor access to the child's mental state (Levinson, 1997). The therapy dog brings out these behaviors when attempts by adults without a dog have failed (Levinson, 1997).

In addition to pet therapy with dogs, equine therapy has also been found to help adolescents with emotional disorders (Burgon, 2011; Masini, 2010; Toukonen, 2011; Trotter et al., 2008). Equine therapy gives adolescents the motivation to attend and work in therapy sessions (Burgon, 2011). It provides adolescents the ability to gain self-awareness, self-esteem, buoyancy, and responsibility they are lacking due to emotional issues, mental, or physical disorders (Burgon, 2011). Equine therapists state equine therapy worked particularly well with adolescents who are unresponsive to more traditional therapies, as well as adolescents who act out, are out of control, or have major childhood traumas (Masini, 2010).

Adolescents who are initially unresponsive or completely nonverbal become friendly and corporative with staff after creating a relationship with their assigned horse, and patients of equine therapy report a side effect of their relationship is a feeling of safety (Masini, 2010; Trotter, 2011). A patient was brought to an equine therapy facility with a diagnosis of oppositional defiant behavior and a history of failure in traditional therapeutic centers (Masini, 2010). The patient refused to exit the vehicle at the equine center. However, the horse sensing her discomfort reached his head in the car and took the patient's hat with his teeth (Masini, 2010). This act allowed the patient to make an immediate connection with the horse, and from that moment on had a successful therapeutic experience (Masini, 2010).

Horses have been used in physiotherapy treatment for disabled children in an attempt to assist with posture, balance, and muscle tone while adding pleasure and leisure to the child's treatments (Hakanson, 2008). A study by Hakanson (2008) determined equine based treatments for children with disabilities enriched their treatments. The time

spent in nature along with animal contact created a stress-reducing component to the treatments which was different and enjoyable when compared to treatments held in institutional settings (Hakanson, 2008).

Since 1969, the North American Riding for the Handicapped Association (NARHA) created equine-assisted activity and therapy for children with physical disabilities such as muscular dystrophy, cerebral palsy, brain injuries, and amputations (Masini, 2010). In 1996, the NARHA extended their program to include equine-assisted activities and therapy for children and adolescents with mental disorders, as well (Masini, 2010). These mental disorders included depression, anxiety, and children and adolescents with autism (Masini, 2010; Nussen, 2012; Trotter, 2011). The NARHA discovered horses have a powerful and effective influence on children and adolescents with mental disorders (Masini, 2010). The NARHA insists a licensed mental health professional and an equine specialist are always present during the sessions (Masini, 2010). The NARHA discovered patients learn about themselves through time spent with the horses (Masini, 2010).

Horses work well for patients with mental and physical disabilities due to their extreme sensitivity to humans (Masini, 2010; Nussen, 2012; Trotter, 2011). Often the children and the therapist just talk while grooming the horse, and the therapists observe the horses make wonderful ice breakers with their less verbal patients (Levinson, 1970; Masini, 2010). The horses allow patients to talk without a feeling of judgment and take the stress and pressure from patients who often feel uncomfortable in therapy sessions (Levinson, 1970; Masini, 2010).

Patients use the horse as a safe entity of projection of painful feelings (Levinson, 1970; Masini, 2010; Nussen, 2012; Trotter, 2011). One patient said, “He [the horse] is in a bad mood today. He probably had a bad day with other horses picking on him” (Masini, 2010, p. 32). Activities with the horses require patients to utilize cooperation, creative thinking skills, communication, and problem-solving abilities (Masini, 2010). These activities include riding the horse through mazes or obstacles or sometimes just observing the horse with other horses in a field (Masini, 2010).

Children with prolonged illness which places them in a hospital for lengthy amounts of time experience stress, feelings of a lack of control in their lives, and feel a loss of social interaction and growth due to their hospital stay (Kaminski et al., 2002; Tsai, Friedmann, & Thomas, 2010). Introducing pet therapy into these areas of hospitals gives children control by allowing them to select which animal to pet and play with helping to alleviate anxieties and fears these children experience due to their hospital stay (Kaminski et al., 2002; Tsai, Friedmann, & Thomas, 2010).

In 1996, the University of Wisconsin Children’s Hospital introduced a canine pet visitation program entitled Pet Pals where canines visited the hospital two days a week. The goal of the program was to assist children in coping with their hospitalization (Kaminski et al., 2002). Health examinations of the children were taken before the time with the canines and immediately after, and it was reported that the children’s blood pressure and heart rate decreased after their time with the canines, and furthermore, children who participated in the program underwent anticipatory enthusiasm about seeing the canines (Kaminski et al., 2002). It was also discovered that children who participated in the program talked more about dogs or their pets and time spent with animals than they

did about being sick or scared or wanting to go home (Kaminski et al., 2002). Children who are institutionalized for long periods of time tend to become lethargic and need stimulus in sensory areas, such as vision and hearing (Levinson, 1970). An active pet stimulates the child and forces him to become lively and overcome his indifference, which alleviates the loss of interest in his surrounding (Levinson, 1970).

Mallon (1994) conducted a qualitative study to determine the effects of a resident dog in the dorms of a children's residential treatment center for behavioral and academic problems. The children expressed feelings of companionship and affection due to the presence of the dog and also conveyed feelings of acceptance and feelings of nurturing thanks to the presence of the resident canine (Mallon, 1994). Adults who were in the residential treatment center as children stated the visits from the therapy dog were the highlights of their days (Mallon, 1994).

In addition to aiding children in hospital and long term care facilities, pet therapy researchers discovered animals improve the motor skills tasks in young children (Wedl & Kotrschal, 2009). In a study by Gee, Harris, and Johnson (2007) therapy dogs were used to determine if the speed and accuracy of motor skills tasks in children between the ages of four and six were affected by the presence of the dog. The children were asked to perform 10 motor skill tasks, which included long jumping, high jumping, throwing a ball, and balancing on a beam (Gee et al., 2007). The dog would either do the requested task first or do the task with the child (Gee et al., 2007). The children with the dog in their group executed their tasks faster and with the same amount of accuracy in all tasks but one (Gee et al., 2007). Researchers perceived the dog enabled the children to perform by lowering the stress on the children and reducing "fear of criticism from a

nonjudgmental source” (Gee et al., 2007, p. 382). Children viewed the therapy dog as a nonjudgmental source of support that gave them confidence in their tasks (Gee et al., 2007).

In a study conducted by Havener et al. (2001), children who had scheduled dental procedures were randomly assigned a companion dog to sit with them during their procedure. The researchers measured anxiety response to the dental procedure by skin temperature (Havener et al., 2001). The results of the study found significant temperature reduction when the dog was present with children who were fearful of dental examinations (Havener et al., 2001). Among the fearful children, the change in skin temperature from baseline was 2.2 degree Fahrenheit while waiting for the dentist (Havener et al., 2001). Those same children experienced a -1.3 degrees Fahrenheit during the procedure with the dog present (Havener et al., 2001).

Children whose families own dogs are more likely to achieve the recommended level of weekly physical activity than children whose families do not own animals (Wohlfarth et al., 2013). In a recent study, researchers concluded animals can play an important role in reducing childhood obesity (Wohlfarth et al., 2013). A majority of obese children prefer non-active activities; however, when a therapy dog is introduced, the children enjoyed physical activity and the time spent with the dog (Wohlfarth et al., 2013).

Summary

Overall, animals have proven to be physically, mentally, and emotionally beneficial. Nursing homes, hospitals, and mental care centers discovered tremendous benefits to their patients when therapeutic animals are used. It has been demonstrated in

various studies pets not only provide companionship for patients, but the patients are less likely to suffer from depression, have lower blood pressure, and are less likely to have heart disease (Berget, Ekeberg, Pedersen, & Braastad, 2011; Bokkers, 2006; Brodie & Biley, 1999; Hooker et al., 2002). Animals provide self-worth and self-awareness to humans and are often valued more than human members of the pet owner's family (Bokkers, 2006; Brodie & Biley, 1999; Hooker et al., 2002; Levinson, 1997; Mallon, 1992). Whereas the human race seems to benefit from the presence of animals, researchers have discovered animal-assisted therapies are more effective in children, the elderly, and in persons with diseases or physical impairments (Wohlfarth et al., 2013).

Chapter Three contains an overview of the problem and purpose, the research design, an explanation of the population and sample of the public school, and the demographics of the case study. Instrumentation, data collection, data analysis, and the internal reliability and validity of the study are presented. In addition, ethical considerations for the study are approached.

Chapter Three: Methodology

There have been positive effects found when humans have companion animals (Brodie & Biley, 1999; Long, 2008; McCardle et al, 2011). Hospitals, mental health facilities, and nursing homes experience success when using animals as part of their treatment plans (Herzog, 2011; McCardle et al, 2011). American public schools have been applying the benefits of an animal-human relationship for a variety of different uses (Chandler, 2011).

However, since the practice of using animals in schools is so recent, little research exists on its benefits. The purpose of this study is to determine if animal-assisted therapy and animal-assisted activities are effective in public schools. Prior research on animal-assisted activities and animal-assisted therapies in hospitals, mental health facilities, and in nursing homes demonstrates positive outcomes occur between animals and humans. The significance of this study is to determine if a rural public school in southwest Missouri is benefiting from their pet therapy program. Insights found will influence practice with animals in the public school system, as well as future research on the topic of pet therapy.

Problem and Purpose Overview

The purpose of this study was to determine if animal-assisted therapy and animal assisted activities were effective in a public school in southwest Missouri. Animals have had such a positive presence in hospitals, mental health facilities, and nursing homes. It is logical to examine if this can be applied to the public school arena.

Research questions. The following questions guided the study:

1. What are the perceived effects of animal-assisted activities and therapies in the public school?

2. What are the observable effects of animal-assisted activities and therapies in the public school?

Research Design

A mixed methods design was applied to the study using a qualitative case study approach and quantitative methods for determining the consensus of teachers and administrators involved with pet therapy. According to Denzin (1970), the job of a mixed methods design is to create a methodology that allows for the demonstration of differing views and feelings. Merriam (2001) stated significance is entrenched in people's experiences and "this meaning is mediated through the investigator's own perceptions" (p. 6). The central objective of the case study is to understand the paradigm through the eyes of the participants and not through the eyes of the researcher (Merriam, 2001; Yin, 2009).

The logic of triangulation was used to inspect the findings of this study. The term triangulation implies cross-checking results of the study from one research method with the other research method (Denzin, 1970). In viewing prior research obtained for this study, two emergent themes were found. Those themes included uses for pet therapy at District X and results. Uses for pet therapy at District X included assistance with the reading program, assistance with the special department within the district, help with emotional children, support for children with mental issues.

Once the uses were categorized, the review of literature was analyzed and compared with the interviews, surveys, and observations completed at District X. The

results of District X's pet therapy, according to administrators, counselors, and teachers, were also compared with the literature available on pet therapy and recorded in the dissertation. The results of the study may be planned or unplanned, and it is possible for the results to be consistent or inconsistent across the research strategies (Denzin, 1970).

If inconsistent findings are the result, then the situation may be handled in several ways. One set of findings may be viewed as conclusive. Another solution is the results of the study may enter into an entirely different aspect of the study, and therefore, there are no correct or definitive findings (Denzin, 1970). For this study, the results of the case study were found to be consistent with the available literature on pet therapy.

In qualitative research, the researcher is the fundamental instrument for the collection of the data and the data's examination (Merriam, 2001). Qualitative data involves field work and are designed to build concepts and theories as opposed to testing existing theories or concepts (Merriam, 2001; Yin, 2009). Through the field research and field observations, concepts and theories will be built and discovered (Merriam, 2001; Yin, 2009). Qualitative research concentrates on the "process, meaning, and understanding;" the end result being descriptive (Yin, 2009, p. 8). For this study, the researcher selected a school district which was utilizing pet therapy and observed the day-to-day activities of the pet therapy dog at the district. Data were collected and transcribed throughout the process of observing the therapy dog. Then, the data were compared to the literature from the numerous studies researched for this study.

A case study was used to produce an in-depth understanding of how animals were utilized in one school district in southwest Missouri. Case studies are designed as concentrated descriptions of paradigms in education (Merriam, 2001). Case studies focus

on specified contextual examination of a single entity desiring to provide a foundation for ideas and methods (Gay & Airasian, 2011; Soy, 1997). According to Yin (2009), case studies examine recent ideas within the real-life setting. This study examined the relationships between the animal and the faculty of the public school including the administration, counselor, and teachers, as well as the relationship between the animal and the students. The overall intent of this study was to describe how a rural public school in southwest Missouri utilized their pet therapy dog and to present conclusions about the worth of the program as compared to the success hospitals, mental health facilities, and nursing homes have experienced using animals in their programs.

Population and Sample

The population for the study was one rural southwest Missouri public school district. District X contains three schools: an elementary school, a junior high school, and a high school (Missouri School Directory, 2012). During the time of the study, the enrollment included 476 students at the elementary school, 110 students at the junior high school, and 264 students in the high school (Missouri School Directory, 2012). The primary buildings involved in pet therapy were the junior high and elementary buildings.

The town in which District X is located has a population of 788, and there are currently 303 households and 213 families residing in District X's town (Missouri Census, 2013). Of those 303 households, 43.2% contain children under the age of 18; 46.2% of the 303 households are married couples; 16.5% list females as head of the household with no males present; 7.6% are males only and no females present in the household; and 29.7% are classified as non-families (Missouri Census, 2013). The median age of District X's town is 33.9 years, and 30.9% of the town's residents are

under the age of 18 (Missouri Census, 2013). The questionnaire was administered to all the teachers at District X's elementary school who had direct contact with the therapy dog. District X elementary school had 38 certified faculty members at the time of the study. The questionnaire was e-mailed to all certified staff in the building; 13 out the 38 staff members replied to the questionnaire.

The interviewees were based on the guidance of the building principal. Consent letters were prepared by the administrative staff for parents of the students involved. No children were questioned during this study, they were only observed. The administrative staff prepared parents for the observations that ensued.

Instrumentation

For the purposes of this study, the following instrumentation was used to gain information:

Interviews. Two interviews were used in this study. A set of questions (see Appendix B) were created to ask administrators and teachers about their experiences with pet therapy. The questions were based on information obtained in the review of literature found in this study and by talking with other school counselors and teachers to determine their views and questions on pet therapy. The questions were field-tested with colleagues not involved in the study and with academic advisors.

Once the interview questions were answered, comments were encouraged in order to assess the full measure of the pet therapy experience. Information taken from these comments prompted additional questions. The interviewees were based on the guidance of the building principal.

Surveys. Teachers and administrators were provided with a brief questionnaire via the internet to determine their feelings towards the dog in the school. These questions were developed by:

- discussing concerns with the school counselor regarding pet therapy,
- asking teachers in the building what they would want to know regarding pet therapy, and
- questions based on research obtained in the course of this study.

Once questions were prepared, they were field-tested with advisors and counselors from two different districts. The surveys were sent to all teachers and administrators in the participating schools. The surveys were self-report instruments in which it was necessary for the teachers to respond to a series of questions about themselves (Gay & Airasian, 2011).

Data Collection

Collection of the data transpired in the winter of 2013. All data collected were obtained with authorization from participants and in full compliance with Institutional Review Board (IRB) at Lindenwood University (see Appendix C). Unlike other types of research, qualitative case studies do not maintain any particular process for data collection or data examination (Merriam, 2001; Yin, 2009). In a qualitative case study, the researcher is the primary instrument for gathering and analyzing data (Merriam, 2001). All the established primary questions were utilized, but responses allowed for additional follow up questions.

According to Merriam (2001), researchers in a qualitative case study “emphasize, describe, judge, compare, portray, evoke images, and create for the reader the sense of

having been there” (p. 22). Case studies “concentrate attention on the way particular groups of people confront specific problems, taking a holistic view of the situation. They are problem centered, small scale, entrepreneurial endeavors” (Shaw, 1978, p. 2).

Interviews took place in a private office available at the case study site. Anonymity was assured to allow those being interviewed the freedom to speak candidly about pet therapy taking place in their building. Participants signed a letter of informed consent prior to the interview (see Appendix E). Interviews were taped and later transcribed to capture the feelings expressed in the interview. Transcriptions were then presented to those interviewed to ensure complete accuracy.

Merriam (2001) stated observations represent a “firsthand encounter with the phenomena of interest” (p. 94). Therefore, observations were conducted with rigorous thoughtfulness for the participants involved. The observer’s role in this study was the role of observer as participant. The observer’s activities were known to the group (Merriam, 2001). The observer had access to many participants and a variety of information, but that information given was controlled by participants involved in the study (Merriam, 2001). The observer scrutinized the group closely, almost gaining an insider position, but maintained an outsider role with an outsider perspective (Merriam, 2001). There was no intentional interaction between the observer and the participants during the observations. The researcher selected the least conspicuous location in the room to observe. The researcher used a tape-recorder, as well as took notes. According to Yin (2009), the researcher does not manipulate nor encourage the participants; the researcher acts as a neutral party witnessing the phenomena being studied.

Data Analysis

Quantitative descriptive statistics were used with the data supplied from the surveys. Descriptive statistics illustrate what could not be shown by providing raw data alone (Jenkins, 2010). Once the survey results were established, statistical analysis followed (Bluman, 2011; Jenkins, 2010). Data were examined to disclose information (Jenkins, 2010).

In the qualitative portion of the study, interviews were performed. The responses from the interviews were coded to create sound information (Bluman, 2011). The themes that emerged from this study included how the pet therapy dog at District X was being utilized, the positive effects of pet therapy in the district, and the perceived negative effects of pet therapy in the district.

The constant comparative method was used to process data collected from interviews, surveys, and observations. According to Strauss and Corbin (2007), the constant comparative method is the practice of comparing newly gathered data with previous data collected in one or more earlier studies. For the purposes of this study, it was determined from the literature review that pet therapy was very effective in hospitals, mental health facilities, and nursing homes. Within those studies, three groups benefited from pet therapy. Those three groups were the elderly, adults, and children.

Upon reading the research supporting pet therapy, the researcher synthesized the knowledge and compared it with the information obtained while observing District X, a school district in Missouri which houses a full time pet therapy dog. District X used pet therapy for academic pursuits, the emotional well-being of their students, and to get their students excited about school. All these situations were compared with the research

obtained for the purpose of this study. With this practice, theories are produced, improved, confirmed, and sometimes discounted due to any new data that might emerge from the study (Strauss & Corbin, 2007).

As the pet therapy program was being observed, it was noted the enthusiasm for the dog by both the students and the facility and staff. Various ways the pet therapy dog was being utilized was also noted throughout the observations. On the days of observation, different teachers were watched to perceive their uses and purposes for the pet therapy dog.

The climate of the building and classrooms was also noted in the observations. Once the observations were made, the review of literature was compared with the data that were collected. Comparisons were made with published research on pet therapy involving children and adults in various situations and compared to the observations and interviews for this study. According to Glaser (1965), the purpose in utilizing the constant comparative method of dual coding and scrutiny is to “generate theory more systematically than using the explicit coding and analytic procedures” (p. 437). With this method, it was easier to compare what the research stated about pet therapy with how District X was utilizing their pet therapy. The constant comparative method does not guarantee that two researchers working autonomously with the same data will reach the same results (Glaser, 1965). The constant comparative method does assure vagueness and elasticity to create theory (Glaser, 1965; Strauss & Corbin, 2007).

By employing the constant comparative method, the data collected were coded to advocate theory (Glaser, 1965). Researchers using constant comparative method are concerned with inducing and suggesting many properties and hypotheses about a general

phenomenon (Glaser, 1965). The researcher created categories based on the variety of data used. The categories created included how the district was employing the pet therapy dog, the overall positive effects of pet therapy in the district, and the overall negative effects of pet therapy within in the district. With the categories created, the researcher allowed for themes for the phenomenon to appear.

According to Glaser (1965), the constant comparative method is an unceasing, unfolding process which four stages are utilized and continued throughout the research. Glaser's four stages of the method include comparing incidents applicable to each category; integrating categories and their properties, delimiting the theory; and finally writing the theory. Thus constant comparisons allows for a decrease of vocabulary and consequent generalizing throughout the study (Glaser, 1965).

A primary tool in data analysis for this study was the process of coding. According to Lewis-Beck, Bryman, and Liao (2004), coding is defined as “a systematic way in which to condense extensive data sets into smaller analyzable units through the creation of categories and concepts” (pp. 137-138). Coding develops two levels. The first involves identifying information about the data and the second develops at the interpretive stage in working with the data (Merriam, 1998). Each interview, set of field notes, and survey had identifying notations that allowed the researcher to access information for analysis and for the write-up of findings within the study (Merriam, 1998). The coding took place as the data were collected to insure information was not missed when analyzing the data. As the researcher searched through transcripts, surveys, and field notes, reoccurring themes were highlighted in order to establish triangulation within the study (Merriam, 1998, Yin, 2009). Positive effects of pet therapy were coded

in red highlighter, negative effects of pet therapy were coded in yellow highlighter, and ways the district were employing pet therapy were coded in blue highlighter. As research on pet therapy was read, the same color codes were used in searching for negative, positive, and general ways pet therapy was applied.

Internal Reliability and Validity

Qualitative researchers use a variety of strategies to ensure the validity of the study. These strategies are designed to reduce researcher bias and improve the validity. Researchers must make an effort to obtain the trust of the participants (Gay & Airasian, 2011). Once trust is obtained, participants give detailed and honest information to the researcher (Gay & Airasian, 2011). At the end of the information gathering process, participants are allowed to review and critique field notes for accuracy and meaning (Gay & Airasian, 2011).

The data were correlated by using triangulation. Different data sources were used to triangulate all the information obtained by using interviews, related documents, and recollections of other participants to produce the same descriptions of an event (Gay & Airasian, 2011). Triangulation also occurs when a participant responds similarly to a personal question asked on three different occasions. For the purposes of this study, the triangulation which emerged was the effectiveness of pet therapy with children, adults, and senior adults. Found within the information on children were a variety of different examples of the effectiveness of pet therapy with children's physical, emotional, and academic well-being. Using the information obtained from District X, the investigator aligned responses and activities with the successes outside research has documented with pet therapy.

Ethical Considerations

Possible ethical considerations for this study include the personal integrity, sympathy, prejudices, and biases of the researcher (Barribeau et al., 2010). These can enter the research, proving inaccurate findings and swayed questions for interviews and surveys (Barribeau et al., 2010). Another problem with case study research occurs when researchers unwillingly leave unknown gaps and biases in the study due to unknowingly changing direction during the course of the study (Barribeau et al., 2010). Furthermore, no one was harmed and no personal information was released. The transcripts will be kept in a locked cabinet for five years and then destroyed.

Summary

With the success found in hospitals, mental health facilities, and nursing homes utilizing animals, a case study was used in this dissertation to determine if the same success was found in a public school. In the typical case study, the researcher is the primary instrument of observation and analysis. The overall intent of the case study was to reveal how a school district in southwest Missouri utilizes animal-assisted therapy and animal-assisted activities within the district.

Chapter Four includes the findings of this study. Within Chapter Four, the cases study demographics were presented. How the case study district obtained its pet therapy dog, how they utilized pet therapy in their district, and the perceived positive and negative effects the program has on the district are included. Quantitative results of this study are found in Chapter Four along with the observations the researcher discovered while conducting the study.

Chapter Four: Findings

The purpose of this study was to determine if animal-assisted therapy and animal-assisted activities are as effective in public schools as they are in hospitals, nursing homes, and mental health facilities. The following research questions were used to guide this study:

1. What are the perceived effects of animal-assisted activities and therapies in public schools?
2. What are the observable effects of animal-assisted activities and therapies in public schools?

The case study included a cross-sectional survey to gather perceptions of the application of animals in public schools (see Appendix D). Merriam (2001) stated case studies have been proven beneficial for, “studying educational innovations, for evaluating programs, and for informing policy” (p. 41). Further, examination of these processes may bring about a better understanding to improve practice. Surveys are used for evaluating programs and conducting research when the information needed comes directly from people (Fink, 2012). Cross-sectional surveys are used to gather information on a population to determine the impact of an event of a defined population (Merriam, 2001).

The data furnished by the survey provided descriptions of feelings and perceptions, values, habits, and personal background (Fink, 2012). Parts of this quantitative survey drew statistics from numerical distinction on a Likert scale. The remainder of the survey used imperial open-coded data expressed from the sample group. A survey was created for this study to capture teachers’ views on pet therapy in District X. The survey was an e-mailed questionnaire created through SurveyMonkey. Additional

data were derived from qualitative interviews with District X's counselor and administrator (Weiss, 1994).

This chapter contains the findings of the case study. The first section contains a summary of the demographics of the sample about the school selected for the case study. The demographics and statistics about the school district used for this case study were taken from the Missouri Department of Elementary and Secondary Education (MODESE) and by faculty members working in the district. The second section contains information pertaining to pet therapy used at the public school located in southwest Missouri. In the third section is an explanation of how District X is utilizing pet therapy in their district, and in the fourth section is an explanation of the effects pet therapy has had on District X. The fifth section of this chapter contains observations the researcher made while visiting District X.

District X Demographics

The following archived data may be examined as extraneous variables affecting research question number two: What are the observable effects of animal-assisted activities and therapies in public schools (Creswell, 2013)? District X was comprised of 835 students within an elementary, junior high, and high school. The demographic composition of the population of District X possesses lower than average teacher and administrator salaries and higher than average free and reduced price meal rates than other districts in the state of Missouri (Missouri Comprehensive, 2013). District X's free and reduced price meals rate is 63.4%, which is higher than the state's percentage (Missouri Comprehensive, 2013). Missouri's free and reduced price meals rate is 49.5%

(Missouri Comprehensive, 2013). The demographic composition of District X is shown in Table 1.

Table 1

District X Demographics

Ethnicity	2010	2011	2012
Asian Percentage	.10	.00	.20
Black Percentage	.90	.70	.70
Hispanic Percentage	1.10	1.50	2.50
Indian Percentage	.70	.70	.50
White Percentage	97.20	96.90	95.90

Table 2 shows the average teacher and administrator salaries in District X along with the average years of experience for 2010 and 2011. According to these data, District X's average teacher salary (\$39,147) is lower than the average teacher's salary in Missouri (\$41, 805); however, the average administrator's salary (\$75,830) in District X is higher than the state average (\$71,224) (Missouri Comprehensive, 2013).

Table 2

Average Teacher and Administrator Salaries at District X

	Average Teacher Salary	Average Administrator Salary	Average Years of Experience
2010	\$38,827	\$77,454	13.4
2011	\$39,147	\$75,830	13.7

District X was selected as a unique, purposeful sample based on the unparalleled attribute of using animal assisted activities as therapy (Merriam, 2001). The town in which District X was located has a population of 788 according to the 2010 United States Census (Missouri Census, 2013). There were 303 households and 213 families residing in District X's town (Missouri Census, 2013).

Between 2010 and 2012, District X's average daily attendance rate fell 6% over the three-year period (Missouri Comprehensive, 2013). Table 3 reveals the decrease between those three years.

Table 3

District X Average Daily Attendance Between 2010-2012

	2010	2011	2012
Average daily attendance	99%	96.7%	93%

District X's discipline incidents are reported in Table 4. There was an overall increase of 17 more suspensions from 2010 to 2012.

Table 4

District X Discipline Incidents Reported Between 2010-2012

	2010	2011	2012
Suspensions for 10 consecutive days	7	4	19
Suspensions for longer than 10 days	1	1	6
Total discipline Incidents	8	5	25

District X's reported discipline incidents were up over the last three years (Missouri Comprehensive, 2013). According to the MODESE website, District X's graduation rates have increased 3.8% over the last three years. Table 5 shows the percentage of District X's graduates who attended a two-year university and a four year university.

Table 5

District X Percentage of Graduates Attending Two and Four-Year Universities

	2010	2011	2012
Entering four-year university	35.9	33.8	21.5
Entering two-year university	51.3	47.7	55.4

According to data obtained through the MODESE's webpage, District X's overall graduation rates have steadily improved. In 2010, District X's graduation rate was 92.9%. In 2011, the graduation rate was 94.2%, and in 2012 the graduation rate was 96.7% (Missouri Comprehensive, 2013). This shows an improvement of 3.8% over the past three years.

How District X Acquired Pet Therapy

District X was selected as a case study because it was the only school district in southwest Missouri housing a full time pet therapy dog on their site. According to Merriam (2001), the major factor of case study writing is case studies are richly descriptive in order to afford the reader the by-proxy experience of having been there. This case study follows a day in the life of Braxton, District X's full time therapy dog. It reveals how and why Braxton is used in the district. Observations made while following Braxton revealed success with District X's pet therapy program and supports the literature on pet therapy.

Patton (1990) stated, "the case study should take the reader into the case situation, a person's life, a group's life, or a program's life" (p. 387). Thorough descriptions are needed so the reader can vicariously experience the setting of the study (Merriam, 2001). Since it would be difficult for every educator interested in pet therapy to visit District X, the case study with its comprehensive accounts enables interested professionals the opportunity experience the program without visiting the district. In order for the reader to experience the phenomenon the researcher of the case study is attempting to reveal, the reader must be transferred to the setting and the situation (Donmoyer, 1990; Merriam,

2001). District X has had their pet therapy dog, Braxton, for three years and has been reported by local television newscasts and several educational magazines.

When the current high school guidance counselor, Ms. Smith, was working on her master's degree in guidance and counseling, she examined research about using pets in hospitals and nursing homes. Smith discovered pets being used in public schools as well. Smith wrote her seminar paper on the uses of pet therapy and once hired as the high school guidance counselor at District X, applied her research to her district. Before taking the next step in obtaining a pet therapy dog for the district, Smith first discussed the idea with the district's other counselor, elementary counselor, Ms. Black. Ms. Black (personal communication, January 24, 2013) stated:

I looked into it [pet therapy] just kind of to see what it was about, and once we decided—we had to obviously research it—what we could use the dog for, would she be for behavior, helping kids read, kids who have anxiety, kids who are autistic, and that's how we decided and sent it to the [school] board.

After discussing and researching the benefits of pet therapy, both Smith and Black realized the potential impact of introducing animal assisted therapy to the students in their district. As part of the proposal to have a pet therapy dog on District X's campus, it was stated funding would not be appropriated out of the district's budget.

Smith and Black discovered a website entitled, DonorsChose.org. The purpose of the website is for public educators to post classroom ideas and projects on the site. Site viewers, whether in education or not, can read about the projects and donate money. The website was started in 2000 when a social studies teacher from New York created the site

in order for public school teachers to have a direct link with possible donors. Smith and Black posted they were attempting to purchase a pet therapy dog for their district.

After posting on DonorChose.org, Smith and Black raised all but \$1,100 needed for the program. Smith posted the district's situation on Facebook where the company saw they were \$1,100 short of their goal. The Facebook Company saw the need and paid the \$1,100 District X needed to get their therapy dog. According to Black, once funded, permission was granted to proceed with the program by the school board.

Smith and Black acquired their pet therapy dog through an organization called Canine Assistance Rehabilitation Education and Services (CARES) Inc., the largest canine specialty service, which is located in Concordia, Kansas (Holbert, 2013). CARES provides service dogs for individuals with disabilities, as well as schools and hospitals who wish to add a service dog to their organization (Holbert, 2013). CARES is a private organization with family members as stockholders. It was started in 1994 and has since been privatized by the state of Kansas to provide service dogs for people wishing to use pet therapy (Holbert, 2013). CARES breeds some service dogs in Kansas and obtains others from pounds and various locations around the nation.

When the puppies are six weeks old, CARES gives them a temperament test which tells CARES if the puppy would be a good candidate for training as a service dog. If the puppy passes, it is placed in a CARES facility and preparation begins for the puppy's training (Holbert, 2013). After one to two months of the temperament test, the puppy is then sent to a prison close to Concordia, Kansas, where the puppy receives the last of his pet therapy training by inmates educated in pet therapy training (Holbert, 2013). The prison works with CARES allowing model inmates to be educated in pet

therapy training (Holbert, 2013). According to Ms. Black, it is a rewards system within the prison where dogs work with their trained inmate for 11 months.

Once the decision has been made and the application process complete, Ms. Black and Ms. Smith attended training in Concordia, Kansas. For a week, candidates work with their perspective pet therapy dog learning all the skills and commands needed to utilize pet therapy. Black stated that part of the pet therapy training was getting to work with their dog with the prisoner who trained the dog:

It's really an emotional experience. They have a little graduation ceremony for the dogs in the prison along with the prisoners. They just— it's emotional for the prisoners because they've spent every waking moment with this dog the first half of their [the dogs] lives so you can see how the prisoners are sad to see them go. But they are excited to see the dog, and the dog is very excited to see them. It was very cool.

After the week of training in Concordia, Smith and Black were able to take District X's newest faulty member, Braxton, home. Once the training is complete, if the new pet therapy administrators feel the dog is not doing what they had envisioned or if the dog is lacking in training, CARES will work to ease these issues and even exchange the dog if the need arises. It was decided Ms. Smith would be the chief care-person for Braxton. Smith is responsible for Braxton; Braxton lives with Smith's family, and Smith is responsible for all expenses.

Braxton requires a set schedule for food and bathroom issues. CARES pet therapy dogs are so well trained that Ms. Smith and Ms. Black actually tell Braxton when she may use the restroom. Braxton's food is given on a set schedule ensuring she uses the

restroom when it is convenient. Both counselors keep a water dish in their offices for Braxton's use, and District X has an A+ student walk, feed, and exercise Braxton every afternoon.

The A+ Schools Program began in 1993 as motivation for student improvement in Missouri high schools (A+ Schools, n.d.). The goal behind the A+ Schools Program was to guarantee Missouri high school graduates would be equipped with the necessary skills to pursue education one next level or to gain employment (A+ Schools, n.d.). There are currently 364 designated A+ high schools in Missouri, and Missouri has seen a reduction in the dropout rate in schools harboring the A+ program (A+ Schools, n.d.). In order to be accepted as an A+ student, high schools designated as A+ Schools provide a stricter course load, as well as attendance restrictions (A+ Schools, n.d.). An option for A+ candidates in District X is to work at the elementary counselor's office with Ms. Black.

Black and Smith never created any specific goals for Braxton. Basically, they wanted Braxton to become a positive fixture in their building and another member of the faculty. Braxton is available for any educator at District X. Primarily, Braxton spends her time in the elementary building. Ms. Smith leaves Braxton with Ms. Black as she (Ms. Smith) drops her children off at the school. There is no set work schedule for Braxton; if a teacher in any building at District X wishes to use Braxton, all they have to do is ask either Smith or Black. Ms. Black just wants Braxton to be a positive force at District X. She stated:

We want kids here to know that there is a dog here that shows them unconditional love, and that's love that they may not get other places outside of school. So, I

would say that there are no specific goals for her—we just want that—we want her to be a positive influence in our building.

Utilizing Braxton at District X

When Ms. Smith and Ms. Black researched ways to apply pet therapy in a public school some of the most popular uses included using the dog with reading curriculum for various grade levels, exposing the dog with students who experience high levels of anxiety, introducing the dog with students who are sad or have had bereavement issues, and directing the therapy dog to autistic and special needs students. During Braxton's three-year tenure, Ms. Black and Ms. Smith have experienced numerous ways pet therapy has supported the district. For example, the elementary school involves Braxton in the reinforcement of writing skills. Located in Ms. Black's office is Braxton's mailbox. Students at District X Elementary can write letters to Braxton. At the District X elementary, if a student writes a letter to Braxton, she will reply to it. It is considered a big deal to receive a letter from Braxton. Pictures may be sent to Braxton, but Braxton will not reply to pictures. The exception to the rule only applies to kindergartners who have not developed writing skills. The counselors have their A+ student answer the letters students write to Braxton.

Braxton is incorporated in the reading program at District X Elementary. Weaker readers have to read so many pages or improve a reading level, then they are rewarded with reading time with Braxton. Braxton is brought into the reading room, and the student sits down with Braxton and reads to her. District X faculty members have noticed significant improvements in their reading program since Braxton came to the building. It is a considerable reward to earn time with Braxton. The teachers and Ms. Black have

seen weaker readers boldly and strongly read to Braxton. According to a regular teacher at District X:

They [the students] know there's not judgment from the dog, and you know that's the thing that's cool about kids who struggle with reading—they get to read to a dog that they know does not care if they screw up or don't do well—they know that she just enjoys listening to them.

Braxton is used as a rewards system at District X Elementary. If a student has had discipline issues, Braxton is used as a reward for good behavior. Students who demonstrate appropriate behaviors are rewarded by getting to take Braxton for a walk, playing fetch with Braxton on the playground, reading to Braxton, or just sitting and petting Braxton. Teachers at the elementary school use her for students with improved grades or improved reading. The students are rewarded by getting Braxton Time. According to Ms. Black, it is a big deal to get Braxton Time. The students love playing fetch with her, walking her, or just getting to spend free time with her. Teacher 2 stated: “Braxton has had nothing but a positive effect on our students. It is non-threatening to talk and interact with Braxton. She is a great motivator for students.”

Monthly, Ms. Black goes into classrooms at District X Elementary and teaches character education. Braxton is used in this process. Ms. Black has what she calls *spotlight* where a student each month is selected as the spotlight character. As part of the reward for being the spotlight student of the month, the student gets to sit with Braxton during the character education class. It is an honor for students to be selected as the spotlight student, and it is a greater honor to get special time with Braxton.

Braxton helps students with emotional issues. Ms. Black has used Braxton to entice students who do not want to come to school. Ms. Black discovered by bringing the dog into the conversation and telling the truant students Braxton really missed them that day, students were more likely to want to come to school. Ms. Black has used Braxton with students who have lost parents. Black stated, “It’s not like she does anything special—just her being in the room just helps. It just brings down that anxiety.”

Braxton has special relationships with students with autism and students with Down Syndrome. District X has a student with severe autism who will not talk to anybody at the school. Communication is very difficult for the student, but Braxton is able to break down that wall. Every time the student sees Braxton, he jumps in the air, smiles, and runs to Braxton and hold on until a staff member has to intervene. According to Ms. Black, the student's teacher often finds the student sleeping with Braxton as his pillow. Braxton is brought into the special education room when students are having breakdowns or meltdowns. Ms. Black has noted the mere presence of Braxton has a calming effect on the students. Often times, if a student is just feeling blue, the student will stop by Ms. Black’s room and visit with Braxton. Ms. Black stated, “If they [the students] want to come in and spend five minutes with Braxton and that brightens their day—well that doesn’t bother me.” Ms. Black says she often sees students who have problems controlling and expressing their anger:

They would meet with Braxton. It’s crazy. There were a couple of kids, they just wouldn’t talk. They’d get so mad, they’d get balled up they just wouldn’t talk to me, and they’d come in here, and they would not talk. So, I’d just kind of sit here, and Braxton would come up, and Braxton would—and like I said—Braxton can just

feel when kids have anxiety. They're upset, and that's the thing that amazes me the most about her. She can just sense that, and she'll just go over and sometimes she'll just lie down in front of them, or sometimes she'll just sit there by them.

And they will start petting her...

Ms. Black uses Braxton to ease the transition of a school day to new kindergarteners, as well. During Ms. Black's first year as District X Elementary counselor, she had a kindergartener who was not happy to come to school. For the first two days of school, the kindergartener cried, begging to go home. The student was brought into Ms. Black's office. Once Ms. Black got the student calmed down, the student started asking questions about Braxton. After much discussion about Braxton's likes and dislikes, Ms. Black told the child Braxton would really like to see her classroom. This excited the child, and Ms. Black continued to tell the student Braxton would like to see her desk, school supplies, and meet her teacher. Black recalls:

We put her on the leash, the kid took her down to her classroom, showed her everything. They were doing group time, so Braxton sat there on the mat with the little girl, and then, after a while, I said, "Braxton, come on," and we left and she was fine.

Ms. Dean, District X's elementary principal, is new to the district. Coming from a district that did not have a dog, she has noticed Braxton helps out a lot with new students who are apprehensive about coming to a new school. She has discovered that Braxton has a way of putting students at ease with their surroundings. Ms. Dean sees Braxton befriending the new student when the student feels alone. Braxton is an instant new friend that makes students want to come to school. Ms. Dean had a fourth grade student

who moved to the district during the school year. She noticed the child had a terrified look in her eyes. Ms. Dean decided she would call Braxton to meet the student. The student fell in love with Braxton and presently visits Braxton often. Ms. Dean stated the student still had fears and issues moving into a new school midway though. In the middle of the school year, it can be difficult for students at that age to make friends. Ms. Dean, District X's elementary principal, feels Braxton is a huge benefit to District X. She stated:

We have a more rural community and have a lot of struggling students and lots of concerns and issues and such, but Braxton doesn't care if you're rich or poor or what kind of house you come from or what kind of clothes you wear. Braxton loves you equally, and so that is a nice feeling for our students, and I think that helps with our climate.

Ms. Dean also likes to use Braxton with students who are having a poor decision making day. Ms. Dean has noticed with students who are repeat offenders for disobedience and are frequent visitors to her office; Braxton can help. Ms. Dean has found if she sends those students to Ms. Black's office and the student spends time with Braxton, Ms. Dean is able to connect with the students and get them to understand their actions better. Dean stated:

That is a nice transition to help that child kind of come back to a calmness, so that we can talk, because sometimes they come in and they're angry or upset or whatever, and so Braxton kind of helps in that respect, too. So I've noticed that's a great way to use her.

Ms. Black noted that most of the time Braxton really is not used in any special way. As stated earlier, simply Braxton's presence has a way of reassuring students and situations.

Black observed:

Just her being in the room just helps. And like I said, sometimes they just curl up and lay down with her on her bed, and that's all they need at that time. They don't need anyone talking to them or asking them questions; they just want to kind of chill, and she's helped with that.

Braxton is also used at the high school in District X by Ms. Smith. Ms. Smith uses Braxton more for one-on-one sessions with individual students at the high school. Both counselors have discovered that high school students love Braxton just as much as the elementary students.

Ms. Black uses Braxton for their drug-free week. Instead of red ribbons, District X Elementary hands out bookmarks with Braxton's picture. In addition to Braxton's picture, the bookmarks have text about being positively drug-free and explains reasons why Braxton chooses to be drug-free. The students at District X Elementary are also given Braxton bracelets reminding them to be drug-free. Students at District X love having Braxton bookmarkers and bracelets. In addition, the elementary school sells Braxton t-shirts every year. One year, the theme was Braxton is my BFF. The shirt had a picture of Braxton on it with the theme. Ms. Black says every year the shirt is very popular among the students, parents, and community. Teacher 1 at District X Elementary stated, "Braxton is wonderful, and our students absolutely adore her. She brightens their day, and they cherish their time with her. I truly believe she makes a difference for them."

Basically, Braxton is included in everything District X does. Braxton is utilized in anyway District X staffers can help students. Ms. Black has noticed improvement of morale in the building since the acquirement of Braxton. Ms. Black feels Braxton brightens up everyone's day. Black stated, "When I'm walking down the hallway and kids see her—if they are having a bad day and they see her it's automatically—it's almost like they forget. They see her and they're just like 'Braxton!' You know what I mean?"

Braxton has been described by Black as a "bonus to anything being done." Ms. Black's lessons character lessons do not change because of Braxton, and they do not center on Braxton; Braxton simply adds to everything Ms. Black does. Ms. Black has been a counselor for three years and feels she does not know what she would do without a dog.

Perceived Positive Effects of Pet Therapy at District X

Both Ms. Dean and Ms. Black can see only positive outcomes with pet therapy at their district. Ms. Dean stated:

Having Braxton in the building is just a neat experience. Every morning, I usually have a teacher on duty outside to greet the students as they come in the building, and often times Braxton has duty, too—not this morning, however, because of the cold—but usually, and the parents all say "hi" to Braxton and love on her, too. It's just a neat feeling and thing to watch.

Being new to District X, it amazes Ms. Dean to see how Braxton is utilized. When asked, Ms. Dean could not find a single negative aspect to having Braxton in the district. Ms. Dean especially likes to utilize Braxton with students who often have discipline issues.

She has noticed that Braxton is very effective in calming students down and enabling her to talk to the students about their behaviors.

Ms. Smith has found great success using Braxton at District X High School connecting with students during individual counseling sessions. Teacher 1 at District X stated, “Braxton has a wonderful way with kids. She can calm even the mad or out of control [student]. Seeing her always brings a smile to their faces.” Ms. Black has utilized Braxton throughout the entirety of her career. She cannot imagine doing her job without Braxton:

I would always have a dog as long as they [the school district] could get it funded through DonorsChose like they did before and it was no expense to the school. I think if you ask anyone how they feel about Braxton, I don’t think you’ll get anything negative, at least from anyone who works here at the school. They all like her, kids too. So, as long as, and if I could go to another school and have a dog and that school would let me, then I would definitely, yes. I would definitely.

I have seen too many positives not to.

Ms. Black noticed the morale of District X’s elementary school completely changed with the addition of Braxton. She feels Braxton can change the disposition of any student, parent, or faculty member at District X. She has noticed that Braxton helps teachers just as much as she does the students. During Ms. Black’s first year as counselor, she remembers a first-year teacher who was newly hired. The teacher was really struggling the first few weeks of school. She recalled the teacher coming into her office every day after school, and Braxton would walk up and lay her head in the teacher’s lap, and the teacher would just cry and cry. Regularly, teachers at District X who have bad days or

just want to brighten their days, come to Ms. Black's office to visit and pet Braxton.

Black stated, "Even if it's just for like a second you can just tell that it kind of brightens that kid's day or that teacher's day." Teacher 4 at District X elementary agreed. She stated:

Having Braxton in our building has been wonderful! It's not only beneficial for students, but also for the staff. There's just something about petting a dog that helps relieve stress. Also, for students who are struggling with personal things or having a hard time academically, spending time with Braxton seems to brighten their outlook. I love having Braxton at our school!

Teacher 5 at District X Elementary agreed with Teacher 4, "The students and teachers love having Braxton in our school. It is relaxing to me to be able to pet her when I'm stressed too."

According to the survey given to District X elementary teachers concerning Braxton, Teacher 7, who has 13 years' experience in public education, believes Braxton to be a very positive addition to the district. Teacher 7 stated, "Braxton has had nothing but a positive effect on our students. It is non-threatening to talk and interact with Braxton. She is a great motivator for students."

Perceived Negative Effects of Pet Therapy at District X

When Ms. Dean and Ms. Black were asked about the negative side to pet therapy, neither educator could think of a negative situation pertaining to Braxton. When the teachers at District X were asked if they would recommend pet therapy to educators in other districts, only one was negative. The explanation to why the teacher would not recommend pet therapy to other educators was that she was too caught up in writing

curriculum to even think about pet therapy. Ms. Dean was asked if she noticed any negative effects to having Braxton in the building. She felt the only negative effect Braxton could bring to the school was students allergic to dogs. Her response was, “I have not heard of anyone being allergic to Braxton. I would think that would be a major negative effect. I haven’t heard that. No parent has brought that concern to us or anything else.”

The only negative effect Ms. Dean could even think of was that Braxton does like to sit in chairs, and dog hairs can be found on chairs around the building:

That’s a small price to pay for the benefits she gives us. Maybe [we]buy a couple of new chairs maybe next year, and you know, parents love on her, too. So I think that’s neat. I think it just gives a different climate to our building, and it just puts people at ease.

Ms. Black could not think of any negative effects with pet therapy, either. She has had two different parents in the past warn her that their children were afraid of big dogs. But as the year progressed, Ms. Black found both of those parents bragging that Braxton had put their child’s minds at ease due to her [Braxton] disposition:

The minute you are around Braxton, she’s the most docile dog you’ve ever been around. I mean, she doesn’t talk unless I tell her to. And kids love her. She does tricks. I can get her to speak and...she will not bark unless I tell her to. She doesn’t growl unless I tell her to. She’s so docile, I just think that any kid who was scared of a dog would be like, well, they may not even look at her like a dog because she doesn’t do any of those [normal dog activities].

Quantitative Results

Teachers at District X Elementary were asked to rate how they felt about having Braxton in their building. Their responses were measured using a five-point Likert scale that ranges from one (*lowest*) to five (*highest*). The first question asked teachers the total number of years they had been teaching in public education. The average number of years the teachers at District X have in public education was 9.6 years. In the next question, teachers were asked to tell their highest level of education. Their responses indicated 84.6% of the teachers at District X Elementary have a master's degree with .07% having hours beyond a master's degree.

The next four questions teachers' answered on a five-point Likert scale. On the scale, five was the highest level. Table 6 reveals the outcomes to questions three through six. Q3 asked District X teachers' response to how they felt about having an animal in their building. For Q4, teachers were asked if they believed having a dog in their building was effective, and for Q5, teachers were asked if they saw a difference in student behavior when the dog was present. For Q6, teachers were asked if they would recommend pet therapy to colleagues in other district. The average responses of teachers ranged from 4.77 to 4.83 (five as the highest).

Table 6

Questionnaire Results

	1	2	3	4	5	Average
Q3	0	0	7.7	7.7	84.6	4.77
Q4	0	0	7.7	7.7	84.6	4.77
Q5	0	0	0	16.7	83.3	4.83
Q6	0	7.7	0	7.7	84.6	4.69

Observations

When entering District X Elementary for the first time, it is immediately noticeable there is something different about this school. Students seem extra excited about the daily routines of school. Teachers walk anxiously from class to class seemingly excited to get their destination. Staffers and faculty all smile when they get a glimpse of Braxton. Even when thanking Ms. Black for her time, she stated, “I love telling others about Braxton and what she does for our school.”

While observing the day-to-day activity at District X, Braxton was treated like another teacher on duty, only this teacher on duty was every student’s absolute favorite teacher of all time. Students who have been at District X for years scurry to pet Braxton. If students are unable to pet Braxton, they are equally eager to just say, “hi.” Even though there are strict rules for Braxton’s presence, for example she is not allowed in the lunch room, every classroom room is equipped with hand sanitizer that must be used when special time with Braxton occurs. Also, no student is allowed to stop the flow in the hall to talk to Braxton. Still Braxton’s presence is special and exciting for the students.

When students are moving from one class (art, music) back to the homeroom, every student says, “hi” to Braxton in the hall, and every student gives Braxton the allowed swipe. As stated previously, if students are traveling in a line from one class to another they are not allowed to stop traffic to see Braxton. They are allowed what is called the hi-swipe. A hi-swipe is a term and gesture Ms. Black created for this situation. Students may verbally greet Braxton and are allowed to put their hand on her as they are continually moving with their class.

Braxton has her own station inside Ms. Black’s office. Braxton’s mailbox is located next to her space in the office. Once inside Ms. Black’s office, Braxton gets up from her pillow and comes to inspect the new person in the office. Once the inspection is complete, Braxton places her head in the individual’s lap, who scratches behind Braxton’s ears. Braxton apparently surmised the stranger is not in need of therapy, so after a few more seconds of ear scratches, goes back to her pillow. Ms. Black stated many teachers throughout the day will sit in that chair for a few moments of Braxton time to alleviate stress or simply to receive an encouraging lick of the hand.

Braxton does not discriminate. Braxton seems to go up to the shy student, or the student not wearing name brand clothes, before visiting the seemingly popular student or student with all the correct styles. During Ms. Black’s 30 minute period in a third grade classroom where Ms. Black was teaching the students about perseverance, Braxton wandered from student to student appearing to make sure all was well with each student.

An exciting moment during Black’s character class was the spotlight student of the month. The spotlight student was recognized by Black and got to go to the front of the class. While the class called out good qualities about the spotlight student, the student

was able to sit on the floor with Braxton. The student was exceedingly proud and felt very special to be given special time with Braxton. Once spotlight time was over, Black continued with her lesson.

The next step in the lesson was a character word Bingo game. As the children were playing several rounds of Bingo, Braxton would walk around the room. Never did she stop or retreat to the corner of the room. Once Braxton made her way to certain students, the Bingo game would be forgotten and Braxton would get quietly greeted and rubbed. Black stated, during her character lessons, if Braxton stops in the student's space, the student is allowed to pet and scratch Braxton. There are moments in the hall that students are not allowed to stop and pet Braxton. Occasionally Braxton will stop and sit at a student's feet. There is no set time for Braxton to do this. In one instance, it was no more than two minutes, and in another instance, it was six minutes. Braxton is always met with excitement when she selects a child to visit.

Once Black was finished with her monthly lesson with that particular third grade class, Braxton was then sent to the reading room. In the reading room, a student had met a specific reading goal, and a reward was received. The reward was reading time with Braxton. Both Braxton and the student sat on a small rug in the reading room. The teacher sat at a table with a piece of paper, while the student was given a book. The student then gloriously read to Braxton, who in turn did not make fun of the child for reading slowly, but laid there realizing the importance of the moment for the student and the teacher. Once the story had been read, Black called Braxton to her, and both the reading teacher and the student thanked Braxton and said goodbye.

Braxton's next stop was to a first grade classroom in the next hall. The teacher had sent an email to Black requesting Braxton's presence. The class had done well on an assignment, and as a reward, the class selected Braxton time. The moment Braxton entered the classroom, the teacher greeted Braxton. For the next 10 minutes Braxton, was taken off her leash, students sat in various places around the room, and Braxton would make her rounds visiting students. Braxton selected a little girl in the corner of the room who was coloring. The child stroked Braxton and then hugged her, and Braxton continued to make her way around the room. Another lucky student was sitting on a carpeted area of the classroom looking at a book. Braxton lay next to child who immediately gave the dog a giant bear hug. Other times during Braxton's 10 minute stay, she would merely walk the room allowing students a hi-swipe. Only Braxton can explain why she made the longer stops with particular children.

Braxton is greeted by everyone who sees her. At no time while the observations took place was Braxton not greeted by everyone who saw her. Once the observations were made, the secretary stopped the visitor on the way out, and with a huge smile, preceded to tell stories of Braxton's experiences with students. The secretary was most proud of the time Braxton spends in the special education room. The secretary could not express enough the impact Braxton has made on District X's autistic student and their student with Down Syndrome.

Summary

This chapter contained the findings of the case study research. The chapter began by providing background information on the public school district used for this study. Information about the district was obtained through the MODESE's data website on

public school districts in the state. The next section in this chapter provided information about how District X discovered and acquired pet therapy for their district. Also, found in the chapter were the ways District X utilizes pet therapy and positive outcomes found at District X thanks to their pet therapy dog, Braxton. Lastly, observations were related.

Found in Chapter Five are the summary and conclusions of the case study. In addition, implications for practice, and recommendations for future research in the topic of pet therapy are revealed. Finally, the summary of the study is presented.

Chapter Five: Summary and Conclusions

The purpose of this study was to determine if animal-assisted therapy and animal-assisted activities were effective in public schools. Numerous research studies have been accumulated as to the effectiveness of animal-assisted therapy and animal-assisted activities in hospitals, mental health facilities, and nursing homes. This study was an attempt to understand animal-assisted therapy and animal-assisted activities in the public school setting and discover if the pet therapy tool was as effective as in other public facilities.

The following research questions were used to guide this study:

1. What are the perceived effects of animal-assisted activities and therapies in public schools?
2. What are the observable effects of animal-assisted activities and therapies in public schools?

In order to ascertain answers to the research questions, a case study was conducted to examine a public school in southwest Missouri which houses a full time pet therapy dog. The dog, Braxton, and the district's counselors were observed and interviewed along with the district elementary administrator to search for relationships regarding pet therapy as applied at this public school. In addition to the observations and interviews, surveys were distributed among teachers at the district to gather their experiences with pet therapy. Information about the district was acquired from the MODESE's website and studied for a clearer understanding of the district utilized in the case study.

A mixed methods design using a qualitative case study and quantitative methods for determining the consensus of teachers and administrators involved with pet therapy was used in this study. According to Denzin (1970), the purpose of a mixed methods design is to create a methodology allowing for the demonstration of differing views and feelings. Merriam (2001) stated significance is entrenched in people's experiences and "this meaning is mediated through the investigator's own perceptions" (p. 6). The central objective of the case study is to understand the paradigm through the eyes of the participants and not through the eyes of the researcher (Merriam, 2001; Yin, 2009).

The logic of triangulation was applied to inspect the findings of this study. The term triangulation implies cross-checking results of the study from one research method with the other research method (Denzin, 1970). For the purposes of this study, there emerged a triangulation with how hospitals, nursing homes, and mental health facilities used pet therapy. Within that research, children, adults, and senior adults were the three groups that benefited the most from pet therapy programs. For this case study, effects of pet therapy programs on children were then compared to how pet therapy was utilized at a school district with a full time pet therapy dog.

In qualitative research, the researcher is the fundamental instrument for the collection of the data and the data's examination (Merriam, 2001). Qualitative data involves field work and is designed to build concepts and theories as opposed to testing existing theories or concepts (Merriam, 2001; Yin, 2009). Qualitative research concentrates on the "process, meaning, and understanding;" the end result being descriptive (Yin, 2009, p. 8).

This chapter contains the findings and conclusions of this study. The first section in this chapter is the findings segment. A review of the results from the study was presented. The second heading found in this chapter was the conclusions section. The conclusions in this study are based on the research questions which guided this study. The third part was the implications for practice segment. This portion contains objective suggestions for issues that have been posed in this study. The fourth heading is where recommendations for future research may be found.

Findings

Research question number one was: What are the perceived effects of animal-assisted activities and therapies in public schools? District X, a public school district in southwest Missouri, has had a pet therapy dog for three years. Counselors in the district acquired a pet therapy dog because they believed in the positive outcomes research pet therapy boasts. The counselors sought assistance for their autistic and mentally challenged students and help for students with anxiety and anger issues. Also, they believed a pet therapy dog would assist students with reading problems and self-esteem difficulties. Researchers have concluded pet therapy can alleviate all these issues, and the counselors, administrator, and teachers in District X agree.

According to the faculty and staff, a complete climate change has occurred thanks to pet therapy. District X elementary principal, Ms. Dean, and elementary counselor, Ms. Black, can see only positive outcomes of Braxton's presence in their district. Ms. Dean primarily uses Braxton for discipline issues among students. Dean has noticed Braxton is very effective in calming students down. Once students are composed, Dean finds it easier to talk to students about various unwanted behaviors.

Teachers at District X have observed the change in school climate, as well. One teacher at District X Elementary could not believe the effects Braxton has on students who are angry or mad. She stated, “Braxton has a wonderful way with kids. She can calm even the mad or out of control” student. Out of the 32 teachers at District X Elementary, 13 answered the online survey regarding pet therapy. On the survey, teachers were asked about Braxton’s presence in the building, and all 13 teachers responded with positive remarks. All found Braxton a needed source of encouragement for their students and faculty.

Ms. Black has had Braxton for the entirety of her career as elementary counselor. She worked at District X as an aid while working on her master’s degree in counseling. The change in climate and culture at District X, because of Braxton, is amazing. According to Black, Braxton has the ability to change the mood of a student, teacher, or parent with just her presence. Ms. Black has seen this occurrence time and time again. Black cannot see her career as a counselor without the assistance of a pet therapy dog.

Braxton is viewed as another faculty member at District X. There are no specific goals with Braxton, other than to utilize her in any way possible to reach students with whatever the need may be, whether it is academic or emotional. Black has seen Braxton reach the unreachable student at District X. When students are sad, mad, or experiencing high anxiety, Braxton is their comforter and one who never judges; she simply accepts and loves. Black stated, “We want kids here to know that there is a dog that shows them unconditional love. That’s love that they may not get other places outside of the school.” When children feel that kind of love and acceptance, they typically want to come to

school and want to try their best. Black stated, “We want her to be a positive influence in our building.”

When an outsider first steps through the doors of District X Elementary School, he or she feels this school is different. Students walk down the halls happy and excited, teachers seem to have a spring in their step, faculty cannot wait to tell and show what their district has in Braxton. Braxton was brought to the district with knowledge of what the research revealed about pet therapy; three years later she has performed above and beyond all that was hoped for in using pet therapy. Teachers at District X have even found that she is able to help them in the emotional turmoil that is found in the profession. One teacher stated, “[Braxton] is not only beneficial for students, but also for the staff. There’s just something about petting a dog that helps relieve stress.” Another teacher at District X stated, “It is relaxing to me to be able to pet her when I’m stressed.”

Research question number two for this study was: What are the observable effects of animal-assisted activities and therapies in a public school? While observing the day-to-day activity at District X, the researcher noticed Braxton being treated like another teacher on duty, only this teacher on duty was every students’ absolute favorite teacher of all time. Students who have been in the district for years scurry for the opportunity to pet Braxton.

Even though there are strict rules for Braxton’s presence, for example, she is not allowed in the lunch room, every classroom room is equipped with hand sanitizer that must be used when special time with Braxton occurs, and no student is allowed to stop the flow in the hall to talk to Braxton. Still Braxton’s presence is special and exciting for

the students. If students are traveling in a line from one class to another, they are not allowed to stop traffic to see Braxton. They are allowed what is called the hi-swipe. A hi-swipe is a term and gesture Ms. Black created for this situation. Students may verbally greet Braxton and are allowed to put their hand on her as they are continually moving with their class.

Braxton is not a discriminator of people. Braxton seems to go up to the shy student or the student not wearing name brand clothes before visiting the seemingly “popular” student. During Ms. Black’s 30 minute period in a third grade classroom where Ms. Black was teaching the students about perseverance, Braxton would wander from student-to-student appearing to make sure all was well with each student. An exciting moment during Ms. Black’s character class was the spotlight student of the month. The spotlight student was acknowledged by Black, went to the front of the class, and was able to sit on the floor with Braxton as “special time.”

Observing the day-to-day activities of Braxton brings the researcher to the conclusion that Braxton works very well for the students, faculty, parents, and community in District X. Braxton causes a sense of pride not found in districts that do not house a pet therapy dog. Students are excited about coming to school, and those observed put forth an effort in their school work. Students are eager to talk to Braxton, pet her, or simply to greet her. Braxton cannot walk down the halls of District X Elementary without constantly being greeted and rubbed. Braxton is a strong rewards incentive for the students.

District X faculty and staff members blaze with pride regarding their pet therapy dog. Secretaries, teachers, counselors, and administrators are eager to spread the word

about the tremendous success they have experienced since acquiring Braxton. All teachers who answered surveys regarding Braxton's presence at District X were positive. As one teacher commented, "This district wouldn't be who we are without her." It is clear from observing District X; Braxton changes the climate and overall atmosphere of the building in a positive way.

When the two District X counselors, Ms. Black and Ms. Smith, expressed a need for a therapy dog in their district, their research concluded using pet therapy for autistic and special needs students, utilizing a dog with reading curriculum for a variety of grade levels, using pet therapy with students who are sad or have bereavement issues, and using pet therapy with students who have high levels of anxiety and anger issues were possible (Bokkers, 2006; Hooker, et al., 2002; Levinson, 1997; Mallon, 1992). Over the course of the three years, the period of time District X has had their pet therapy dog, they have discovered there is not a situation Braxton is not equipped to handle.

The elementary school uses Braxton to reinforce writing. Located in Ms. Black's office is Braxton's mailbox. Students at District X Elementary are encouraged to write letters to Braxton. Students enjoy the fact that if a letter is written to Braxton, she will, in turn, send one back. Ms. Black has a high school A+ student who answers Braxton's mail. Kindergarten aged students are allowed to draw pictures for Braxton and are still eligible to receive a letter back. If older students, who are able to write, send pictures to Braxton, they will not receive a letter in return. This helps the school enforce the importance of writing skills.

Braxton is integrated in the reading program at District X Elementary. Teachers use Braxton to entice weaker readers to practice. The readers have to read so many pages

or improve so many levels and are rewarded with reading time with Braxton. Once the student reaches the reading goal set before them, Braxton is brought into the reading room and the student gets to read to Braxton. District X faculty members have noticed great improvements in their reading program since Braxton has arrived at District X. Students of all ages and reading levels find reading to Braxton a great reward. Teachers have observed major differences in how students, especially weaker readers, read to Braxton as opposed to other students and adults. Ms. Black believes it is because Braxton does not judge the students who read to her. Too many times, students tease other students who are weaker readers, and when those same students are reading to Braxton, Braxton just sits there and enjoys hearing the student read.

District X Elementary uses a rewards system that completely ties in with Braxton's presence. Students with reoccurring discipline problems are enticed to make smarter decisions through promised time with Braxton. Students who do what they are told or stay out of certain situations they are prone to engage in will be rewarded by getting to take Braxton for a walk, playing fetch with Braxton on the playground, reading to Braxton, or just sitting and petting Braxton. Teachers at District X also use Braxton for students who have improved grades or improved reading. The reward is Braxton Time. Ms. Black stated "Braxton Time" is something sought after and bragged about by students at District X. One teacher at District X stated, "It is non-threatening to talk and interact with Braxton. She is a great motivator for students."

Ms. Black profits from Braxton during her character education lessons with all grades at District X. Each month, Ms. Black spotlights two students from the class she is teaching. During this time the student in the spotlight gets to sit in the front of the class

with Braxton. It is a tremendous honor for students to be selected as the spotlight student of the month primarily because of the time they get to spend with Braxton. Special time with Braxton is something students at District X long for and greatly enjoy.

Braxton is constantly used with students who have emotional issues at school. Often times Ms. Black and District X elementary principal, Ms. Dean, use Braxton as a motivator to come to school. Both educators have discovered using Braxton seems to entice the students to want to attend school. Ms. Black has ascertained by bringing Braxton into the conversation about school and telling truant students Braxton really missed them that day, students are more likely to want to come to school. In one instance, a kindergarten student who did not want to stay her first few days at school learned about Braxton's presence. Once the student met with Braxton, showed Braxton her desk and classroom, the child could not wait to go to school the next day.

Braxton is used at District X's annual drug-free week. Instead of red ribbons, as most schools around southwest Missouri use, District X uses bookmarks and buttons with Braxton's picture on them. The text on the buttons and bookmarks discusses the benefits of being drug-free and explains reasons why Braxton chooses to be drug-free. District X students are given bracelets reminding them to be drug-free. The students at District X Elementary are very proud of their Braxton bookmarks, bracelets, and buttons. The school has so much success with Braxton attire that they use Braxton in elementary fundraising. Every year the school creates t-shirts with Braxton as the center point. The 2013 slogan was "Braxton is my BFF." The shirt had a picture of Braxton with the slogan around her. Ms. Black related, every year, the t-shirt is extremely popular with students, parents, faculty, and the community.

Braxton has special relationships with students with autism and students with Down Syndrome. Braxton is able to breakdown communication barriers with these students, as well as eliminate the students' anxiety levels. Often times Braxton is brought into the special education room to quell meltdowns and breakdowns these students often experience. Ms. Black has indicated the mere presence of Braxton has a calming effect on the students.

Ms. Dean has learned Braxton is very useful with students who have anger issues. Often times, Ms. Dean will send students who have been sent to the office for disciplinary issues to spend a little time with Braxton. Ms. Dean learned, by sending students who are angry to Braxton, she is more likely to be able to talk to the children successfully about their behavior than if they come straight to her office mad and upset. Both Ms. Dean and Ms. Black are amazed by Braxton. Both educators have witnessed students in their offices mad and upset, and Braxton immediately goes to the children and often times just stands by them. Braxton can sense when the students are hurting and will immediately go to them. Sometimes the simple act of Braxton standing by the angered student has the desired effect of calming the child; enabling Ms. Black and Ms. Dean to better do their jobs as educators.

Braxton is used at District X's high school as well. High school counselor, Ms. Smith, uses Braxton for more one-on-one sessions with individual students at the high school. Ms. Smith has found just as much success with Braxton at the high school level as Ms. Black has found at the elementary level. Braxton works well with any age of student.

Ms. Black and Ms. Smith have determined that there is really no situation where they cannot use Braxton. Braxton is utilized in any way imaginable so that District X faculty can help students. Braxton is described as a “bonus to anything being done” at District X. Ms. Black and Ms. Smith notice the morale in the buildings at District X have improved greatly since Braxton’s arrival. Both educators feel Braxton is essential to the work at District X, and the students are better since her arrival.

Conclusions

This study has determined the perceived effects of pet therapy in a small rural public school district in southwest Missouri were positive. The school climate has improved; the pet therapy dog is used in a variety of ways to support the emotional and academic needs of the students within the district. The pet therapy dog also improved teacher and staff attitudes, as well as parent outlooks within the district. Regarding the second research question, which asked what the observable effects of pet therapy were within District X, the researcher saw happy students eagerly wanting to pet Braxton, teachers incorporating lessons with Braxton to happily include their students in classroom activities, and teachers and staff proud of Braxton and wishing to take time to tell Braxton stories to interested parties.

Boris M. Levinson, the father of the practice of pet therapy, determined the presence of an animal will stimulate conversation between a child and therapist and also allows for a neutral, external subject for the child to focus on during therapy sessions (Kruger & Serpell, 2010; Levinson, 1970;1997). Further research has concluded the presence of an animal causes children to relax and feel safe in situations where children are often tense, scared, or reluctant to participate (Levinson, 1970). Additional studies

have revealed the presence of animals in doctor's offices, hospitals, and other comparable conditions cause children and adults to feel at ease, experience a decrease in heart rates, and even physically improve (Brodie & Biley, 1999). These studies would indicate that the use of pet therapy in a public school would be a positive experience since children often feel stress and anxiety and sometimes fear when attending school.

Theorist Eric Erikson believed there are eight stages of human development, and in order for humans to achieve a healthy mental state as adults, success through each of the stages must be made (Crain, 2010; Myers, 2009). Children are extremely delicate and if proper care is not taken to correct issues occurring throughout these stages, then the child will have difficulties functioning properly in society as an adult (Crain, 2010). According to Feinberg and Soltis (2009), a functionalist school of thought on the public school calls for the public school to "socialize students to adapt to the economic, political, and social institutions of society" (p. 6). According to the functionalist perspective, in addition to the unmistakable intellectual purpose of public education, an invisible function is to create people who share the basic economic, political, and cultural practices and norms of that society (Feinberg & Soltis, 2009). It is the public educator's job to create productive members of society. If students are arriving in public education emotionally and mentally broken, the functionalist perspective calls for educators to repair the child for the betterment of society. According to Levinson, the presence of a pet therapy dog has healing aspects and is an essential tool for the betterment of the child (Levinson, 1997; Mallon, 1994). Therefore, a pet therapy program would be a vital and essential tool for public schools to utilize in their attempt to prepare students for their future roles as productive, active, successful citizens.

In examining District X, a public school district that has been utilizing pet therapy for the past three years, their overall experiences with their pet therapy dog would align with research supporting pet therapy. Educators at District X employ their pet therapy dog in any way possible to get the best results in both an intellectual and mental capacity for the betterment of their students. If it is true that the purpose of public education is to create productive members of society, and pet therapy is a proven successful tool in obtaining the best results out of its subjects, then should not more public school districts retain the presence of a pet therapy dog? If healthy children are the overall goal, should not whatever means necessary be applied in reaching that goal?

Implications for Practice

There is an abundant amount of research regarding the success hospitals, nursing homes, and other similar facilities have with utilizing pet-assisted therapies and activities (Brodie & Biley, 1999; Mallon, 1992; McCardle et al., 2011, Solomon, 2010). There is abundant research describing the success therapists have with applying pet-assisted activities and therapies in their experiences with children and adolescences (Brodie & Biley, 1999; Levinson, 1997; Mallon, 1992). The field is lacking in research regarding pet therapy programs in the public school. However, with this case study the success of District X's pet therapy program parallels with studies on the success pet therapy programs bring to hospitals, nursing homes, and other similar facilities.

When children's emotional and educational futures are at stake, it is the job of the public school to do whatever necessary to reach children for the greater good of the child and the community at large (Feinberg & Soltis, 2009). With programs, such as the CARES program, where the cost of pet therapy is basically nothing, pet therapy programs

more than pay for themselves in terms of school climate improvements, student success, and teacher success. There are those who believe a public school serves to meet some of the essential needs of a modern society (Feinberg & Soltis, 2009).

An investment in the development of human skills is necessary in the public school setting (Feinberg & Soltis, 2009). When children come to school lacking in the developmental skills necessary for success in society, the public school needs whatever tools available to give students those skills. Pet therapy is a tool that has shown success in giving students tools they are lacking or reinforcing tools they already have. Pet therapy is a tool more public schools should be applying.

Recommendations for Future Research

This case study focused on a small rural school district in southwest Missouri. The results of the case study demonstrated the school district to have great success in their pet therapy program. However, the MODESE information indicated that over the past three years discipline incidents were on the rise at District X. Further research at District X would show if there was a correlation between the pet therapy dog used at District X and reason behind this rise in discipline incidents.

Another future research question would be to examine the effects and uses of pet therapy in the secondary public school setting. Of the limited research available regarding pet therapy in public schools, the majority of it centers on the pet therapy dog and the elementary school setting. Research would include the outcomes of pet therapy programs in secondary school settings and if the relationships between the pet therapy dog and the high school student are as effective as the relationship that develops between an elementary student and the pet therapy dog.

Summary

A mixed methods design was utilized in this study. Specifically, through a qualitative case study and quantitative methods, the perceptions of teachers and administrators involved with pet therapy at a rural public school district in southwest Missouri were gathered. Interviews, surveys, district demographics and statistics, and program observations were used to answer the following research questions: What are the perceived effects of animal-assisted activities and therapies in public schools? What are the observable effects of animal-assisted activities and therapies in public schools?

Research regarding pet therapy in hospital settings, nursing homes, mental health facilities, and other similar institutions and situations revealed a positive link between animal interactions and children and adults in the above areas. In this study, the perceived effects of pet therapy in a public school setting were positive. Medical research has found blood pressure and stress issues are significantly lowered in the presence of an animal (Barker, Knisely, McCain, Schubert, & Pandurang, 2010; Barker & Wolen, 2008; Headey & Grabka, 2007; Hooker et al., 2002; Jalongo et al., 2004). The act of simply petting a dog reduces tension in muscles, lowers blood pressure, lowers the heart rate, lowers observable signs of anxiety, and increases the temperature of the skin and reduces depression symptoms (Barker & Wolen, 2008; Brodie & Biley, 1999; Jalongo et al., 2004). Animals lend emotional stability to humans by providing a link to reality that is often lacking in people not in contact with animals (Ascione & Shapiro, 2009; Serpell, 2009; Staats et al., 2006). If pet therapy and animal interactions are successful in hospitals and mental health centers, why would they not find success in the public school?

In observing a public school district in southwest Missouri that has had a pet therapy program for three years, an argument is made for applying pet therapy in more public schools districts around the region. In conducting interviews and surveys with educators practicing pet therapy, it is discovered they have undergone positive outcomes time and time again with pet therapy. District X has experienced intellectual success with their pet therapy dog including improvements in reading programs and writing programs. They have gained motivational success using pet therapy including encouraging their students to want to come to school and wanting to stay out of trouble when they get to school. The pet therapy dog at District X has improved character education, given self-esteem to students lacking in reading ability, and provided a secure source of support for students who otherwise do not feel accepted or appreciated. Even the adults at District X feel loved and received by the pet therapy dog and often visit to relieve their own stress and anxiety.

With research on pet therapy positively endorsing its application, and the success found at a public school employing the practice, it is the suggestion of this study that more public school districts implement pet therapy programs for the betterment of their students and for the thriving mental health of society as a whole.

Appendix A

Questionnaire

1. How many years have you been teaching in a public school setting?
2. What is the highest level of school you have completed or the highest degree you have received?

3. On a scale from one to five with five being the highest level, rate how you feel about animals in your building.

1 2 3 4 5 Rating

Other (please specify)

4. Do you believe having a dog in your building is effective?

1 2 3 4 5 Rating

Other (please specify)

5. Do you see a difference in student behavior when the dog is present?

1 2 3 4 5 Rating

Other (please specify)

6. Would you recommend pet therapy to colleagues in other districts?

1 2 3 4 5 Rating

Other (please specify)

7. Please leave any comments or observations you see with having a dog in your building. Please be honest, your name is not on this survey.

Appendix B

Interview Questions

Questions for Administrators:

1. Is there a special insurance required to have an animal in the building?
2. Who covers the food and veterinarian costs of the animal?
3. Where does the animal go on weekends, after school, summer vacations, etc.?
4. What was your reaction when your counselor approached with the idea?
5. What is the purchase price of an animal?
6. Where can a pet therapy animal be purchased?
7. Have you noticed a decrease in certain areas, such as classroom disruptions, since the animal has been introduced to your school?
8. What are the overall positive effects from the animal?
9. What are the overall negative effects from the animal?
10. Are students told how to behave/expectations around the animal prior to a visit?
11. How do parents respond to the animal?

Questions for Counselors:

1. Are students involved in the care of the animal?
2. How did you become aware of pet therapy?
3. Why did you think pet therapy would be a good fit for your school?
4. What are your goals with pet therapy?
5. Do students make excuses to come and visit the animal?
6. Does the dog have accidents?

7. Have you noticed a decrease in certain areas, such as classroom disruptions, since the animal has been introduced to your school?
8. What are the overall positive effects from the animal?
9. What are the overall negative effects from the animal?
10. Do teachers and staff in the school have time to “use” the animal if they choose to do so?
11. If students have had a traumatic experience with a dog or are just fearful of the animal, how is that handled?
12. Give examples of how students interact with the animal during counseling sessions.
13. Is the animal used in group settings or only individual sessions?
14. Children become emotionally attached to the animal; how will you deal with the death/retirement of the animal?
15. Explain the training or certification that you must have to use the animal.
16. Is the pet therapy more useful and effective for one certain grade/age group over others?

Appendix C

LINDENWOOD

LINDENWOOD UNIVERSITY ST. CHARLES, MISSOURI

DATE: December 20, 2012

TO: Krista Tate
FROM: Lindenwood University Institutional Review Board

STUDY TITLE: [397584-1] The Benefits of Utilizing Canines in a Public School Setting: A Case Study

IRB REFERENCE #: [397584-1]
SUBMISSION TYPE: New Project

ACTION: APPROVED
APPROVAL DATE: December 20, 2012
EXPIRATION DATE: December 20, 2013
REVIEW TYPE: Administrative Review

Thank you for your submission of New Project materials for this research project. Lindenwood University Institutional Review Board has APPROVED your submission. This approval is based on an appropriate risk/benefit ratio and a study design wherein the risks have been minimized. All research must be conducted in accordance with this approved submission.

This submission has received Administrative Review based on the applicable federal regulation.

As a reminder, please make sure that the title change is reflected on all project materials, especially those materials given to participants, such as the consent form and the survey.

Please remember that informed consent is a process beginning with a description of the study and insurance of participant understanding followed by a signed consent form. Informed consent must continue throughout the study via a dialogue between the researcher and research participant. Federal regulations require each participant receive a copy of the signed consent document.

Please note that any revision to previously approved materials must be approved by this office prior to initiation. Please use the appropriate revision forms for this procedure.

All SERIOUS and UNEXPECTED adverse events must be reported to this office. Please use the appropriate adverse event forms for this procedure. All FDA and sponsor reporting requirements should also be followed.

All NON-COMPLIANCE issues or COMPLAINTS regarding this project must be reported promptly to the IRB.

This project has been determined to be a Minimal Risk project. Based on the risks, this project requires continuing review by this committee on an annual basis. Please use the completion/amendment form for

this procedure. Your documentation for continuing review must be received with sufficient time for review and continued approval before the expiration date of December 20, 2013.

Please note that all research records must be retained for a minimum of three years.

If you have any questions, please contact Lucas Ravenscraft at lravenscraft@lindenwood.edu or send them to IRB@lindenwood.edu. Please include your study title and reference number in all correspondence with this office.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Lindenwood University Institutional Review Board's records.

Appendix D

Lindenwood University

School of Education

209 S. Kingshighway

St. Charles, Missouri 63301

Informed Consent for Participation in Research Activities

“Utilizing Canines in a Public School Setting: A Case Study”

Principal Investigator: Krista Tate

Telephone: 417- [REDACTED] E-mail: KristaTate@MissouriState.edu

Participant _____ Contact info _____

1. You are invited to participate in a research study conducted by Krista Tate under the guidance of Dr. Patricia Conner. The purpose of this research is to determine if canines used in public schools in the state of Missouri are effective in their use with the students.
2. a) Your participation will involve:
 - Completing the survey.
- b) The amount of time involved in your participation will be no more than five minutes at your computer.
 - Approximately 40 certified teachers from one Missouri public school will be involved in this research. There are no anticipated risks associated with this research.

3. There are no direct benefits for you participating in this study. However, your participation will contribute to the knowledge about utilizing canines in the public school setting.

4. Your participation is voluntary and you may choose not to participate in this research study or to withdraw your consent at any time. You may choose not to answer any questions that you do not want to answer. You will NOT be penalized in any way should you choose not to participate or to withdraw.

5. We will do everything we can to protect your privacy. As part of this effort, your identity will not be revealed in any publication or presentation that may result from this study and the information collected will remain in the possession of the investigator in a safe location.

6. If you have any questions or concerns regarding this study, or if any problems arise, you may call the Investigator, Krista Tate 417-██████████ or the Supervising Faculty, Dr. Patricia Conner 870-██████████. You may also ask questions of or state concerns regarding your participation to the Lindenwood Institutional Review Board (IRB) through contacting Dr. Jann Weitzel, Vice President for Academic Affairs, at 636-949-4846.

I have read this consent form and have been given the opportunity to ask questions. I will also be given a copy of this consent form for my records. I consent to my participation in the research described above.

Participant's Signature	Date	Participant's Printed Name
		Krista J. Tate
Signature of Principal Investigator	Date	Investigator Printed Name

Appendix E

Lindenwood University

School of Education

209 S. Kingshighway

St. Charles, Missouri 63301

Informed Consent for Participation in Research Activities

“Utilizing Canines in a Public School Setting: A Case Study”

Principal Investigator: Krista Tate

Telephone: 417- [REDACTED] E-mail: KristaTate@MissouriState.edu

Participant _____ Contact info _____

1. You are invited to participate in a research study conducted by Krista Tate under the guidance of Dr. Patricia Conner. The purpose of this research is to determine if canines used in public schools in the state of Missouri are effective in their use with the students.
2. a) Your participation will involve:
 - Taking part in an interview with the researcher.
- b) The amount of time involved in your participation will be no more than an hour of your time.
 - Approximately one administrator and one counselor will be involved in these interviews.

3. There are no direct benefits for you participating in this study. However, your participation will contribute to the knowledge about utilizing canines in the public school setting.
4. Your participation is voluntary and you may choose not to participate in this research study or to withdraw your consent at any time. You may choose not to answer any questions that you do not want to answer. You will NOT be penalized in any way should you choose not to participate or to withdraw.
5. We will do everything we can to protect your privacy. As part of this effort, your identity will not be revealed in any publication or presentation that may result from this study and the information collected will remain in the possession of the investigator in a safe location.
6. If you have any questions or concerns regarding this study, or if any problems arise, you may call the Investigator, Krista Tate 417-██████████ or the Supervising Faculty, Dr. Patricia Conner 870-██████████. You may also ask questions of or state concerns regarding your participation to the Lindenwood Institutional Review Board (IRB) through contacting Dr. Jann Weitzel, Vice President for Academic Affairs, at 636-949-4846.

I have read this consent form and have been given the opportunity to ask questions. I will also be given a copy of this consent form for my records. I consent to my participation in the research described above.

Participant's Signature	Date	Participant's Printed Name
		Krista J. Tate
Signature of Principal Investigator	Date	Investigator Printed Name

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