

Bethel University

Spark

All Electronic Theses and Dissertations

2018

Benefits of Animal Assisted Therapy With Children in Special Education

Erica Ann Dolesy Bugenhagen
Bethel University

Follow this and additional works at: <https://spark.bethel.edu/etd>



Part of the [Special Education and Teaching Commons](#)

Recommended Citation

Dolesy Bugenhagen, E. A. (2018). *Benefits of Animal Assisted Therapy With Children in Special Education* [Master's thesis, Bethel University]. Spark Repository. <https://spark.bethel.edu/etd/171>

This Master's thesis is brought to you for free and open access by Spark. It has been accepted for inclusion in All Electronic Theses and Dissertations by an authorized administrator of Spark.

**BENEFITS OF ANIMAL ASSISTED THERAPY WITH CHILDREN IN
SPECIAL EDUCATION**

A MASTER'S THESIS
SUBMITTED TO THE FACULTY
OF BETHEL UNIVERSITY

BY
ERICA ANN DOLESY BUGENHAGEN

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
MASTER OF ARTS

AUGUST 2018

BETHEL UNIVERSITY

BENEFITS OF ANIMAL ASSISTED THERAPY WITH CHILDREN IN
SPECIAL EDUCATION

ERICA ANN DOLESY BUGENHAGEN

AUGUST 2018

APPROVED

THESIS ADVISOR

CHARLENE TURNER

PROGRAM DIRECTOR

KATIE BONAOWITZ, Ed.D.

Acknowledgements

I wish to thank Bethel University professors for sharing their knowledge and support throughout the Graduate Program. I wish to thank my family for their love and support. And lastly, I dedicate this thesis to my son, Thor. You are my love and light.

Abstract

Animal-assisted therapy (AAT) is used to improve the overall mental, physical, emotional, and social functioning of a patient. The use of animals in therapy practice is becoming more common, yet it is still not entirely integrated in to the educational setting. It is more common to find this type of therapy used in hospitals, therapeutic boarding schools for teens, and mental health facilities. There are a variety of animals used in animal-assisted therapy, such as horses, cats, dogs, dolphins, and llamas. The research regarding the effectiveness of this type of therapy is limited, but there are a number of therapists and patients who can attest to its benefits. Animal-assisted therapy has been shown to have profound effectiveness with specific populations of students who receive special education services. These populations include students diagnosed with emotional/behavior disorders and autism spectrum disorder. Upon evaluation of appropriateness, therapy dogs can be used in the classroom to increase social communication, as well as assist in helping students understand emotions and feelings. In certain cases, a 1:1 service dog may be essential in helping a child with autism spectrum disorder find success.

Table of Contents

Signature Page.....	2
Acknowledgements.....	3
Abstract.....	4
Table of Contents.....	5
Chapter I: Introduction.....	6
Purpose of Study/Definition of Terms.....	9
Research Question.....	10
Chapter II: Literature Review.....	11
History of Human-Animal bond.....	11
Canine Therapy.....	12
Feline-Assisted Therapy.....	16
Hippotherapy/Equine-Assisted Therapy.....	16
Benefits of Animal Assisted Therapy With EBD students.....	18
Benefits of Animal Assisted Therapy for Students With Autism.....	20
Chapter III: Power Point.....	27
Slide Show Presentation for Special Education Teachers.....	27
Chapter IV: Discussion and conclusion.....	33
Summary.....	33
Personal Experience and Observation.....	33
References.....	38

CHAPTER I: INTRODUCTION

Have you ever heard the saying, “A dog is man’s best friend?” Those who own dogs, or any other pet for that matter can instantly relate to this phrase. In many cases, pet owners treat their animals as if they were another member of the household, or even their own children, praising and kissing their pets, even celebrating the animal’s birthday. To those people who do not have pets, they cannot begin to understand the behavior of these people. But what is it about the presence of a dog or cat, or the touch of its soft fur that allows people to feel a sense of calm and comfort, allowing them to release their emotions? What non-pet owners might not understand is that these animals fill the void of loneliness by offering companionship. Animals also provide therapeutic qualities that owners may not be able to get elsewhere, such as relief of stress and anxiety, improvement of the owner’s communication skills, and ultimately unconditional love. Research shows that being in the presence of animals can reduce stress levels that a person might experience (Jalong, Asotrino, & Bomboy, 2004; Burton, 1995; Nebbe, 1991). Human-animal interaction can bring about measurable reductions in blood pressure, heart rate, and anxiety levels (Katcher, Friedmann, Beck, & Lynch, cited in Jalongo, et al., 2004). As people are enjoying the benefits of what domestic animals bring to their lives, animals are now being used more often in the classroom and therapeutic settings to assist children in learning in new and unique ways.

What are the benefits of animal-assisted therapy for children in classroom and/or therapeutic settings? Child psychologist Boris Levinson was the first to explore the benefits of animal assisted therapy with children during the late 1960s and 1970s. Levinson began his research by bringing his own dog to child therapy sessions, stating that the dog “...acted as a ‘social lubri-

cant' between the therapist and the child..." This created an environment which was more relaxed, which then led to the patient sharing more with Levinson (Friesen, 2010). According to Friesen, "Research which examines children's interactions with animals has demonstrated marked benefits for children physiologically, emotionally and socially, and physically". The presence of an animal provides these benefits across settings for children, but one specific benefit therapy dogs offer is that they are accepting and non-judgmental (Friesen, 2010). In a study by Friedman et al, (as cited in Geist, 2011):

Therapy dogs provide the desirable traits most sought after in a best friend.

The presence of a calm, attentive dog apparently moderates the stress responses more than the presence of an adult and even more than the presence of a supportive friend when children were reading aloud or having a routine medical exam.

The animals ability to be present, but yet provide their silent, unwavering support for the child eases any anxiety that might exist in the situation. The therapy animals can also help to facilitate the development of healthy attachment experiences for children who might not have them. According to research, close to 70% of children talk to and disclose their feelings to animals (Serpell, cited in Jalongo, et al., 2004). As a result of these findings, animal-assisted therapy has become common place in many residential treatment facilities, assisting in the treatment of children with severe emotional and behavioral problems (Jalongo, et al., 2004; Marino, 1995; Katcher & Wilkins, 1994; Redefers & Goodman, 1989; Jenkins, 1986; Katcher & Beck, 1983; Arkow, 1981; Corson, Corson, & Gynne, 1977; Levinson, 1971).

It has also been documented that animal therapy is useful when working with populations of children who are autistic, physically and mentally disabled, and emotionally and behaviorally disturbed (Thigpen, Ellis, & Smith, 2005; Nebbe, cited in Jalongo, et al., 2004; Marino, 1995; Katcher & Wilkins, 1994; Redefers & Goodman, 1989; Jenkins, 1986; Katcher & Beck, 1983; Arkow, 1981; Corson, et al., 1977; Levinson, 1971).

Finally, therapy animals also provide children the opportunity to be the nurturer. According to Law and Scott (1995), when children with pervasive developmental delay (PDD) or autism work with pets such as hamsters, rabbits, and turtles, they gain a sense of responsibility, increased socialization, and improved receptive and expressive language development. The child assumes the role of caregiver and may be able to demonstrate through the therapy animal what they are missing in their current relationship with their own caregiver. According to Law and Scott, when these same children were involved in a pet care program which trained them to care for pets, they learned to be more independent, gained valuable problem-solving skills, and were also able to strengthen self-esteem and self-confidence (Law & Scott, 1995).

There are specific requirements that must be met before an animal can be used for therapy. Animals, primarily dogs, are selected based on their demeanor and ability to adapt to unfamiliar and different situations and environments. There are some basic requirements for dogs to become certified therapy dogs, but most importantly the dog must be in good health and not show aggression. The American Kennel Club recognizes certification of dogs from the following national therapy dog registration/certification organizations: *Bright and Beautiful Therapy Dogs*, *Delta Society Pet Partners Program*, *Love on a Leash*, *Therapy Dogs Incorporated* (TD Inc.) and *Therapy Dogs International* (TDI). These organizations provide programs that offer their

members liability insurance through annual dues, and train not only the dog, but also the owner/handler (Jalongo, et al., 2004). These dogs are trained to be part of a high-quality service in which the visitation of these animals is entirely incorporated in to the therapy goals of the school or hospital.

The advantages of animal-assisted therapy might appear overwhelming, but there are still those who list the disadvantages of using animals for therapy with children. Sanitation concerns, safety concerns (for the animals as well as children); allergies, cultural differences; and the fact that some people have a fear of dogs are the top reasons listed for not allowing animals in schools or hospitals (Jalongo, et al., 2004). Despite the hesitation by some people regarding animals working with children, the continuing research and increased literature supports the positive changes in children's physical and emotional well-being, academic achievement, and social interactions (Flom, 2005; Thigpen, et al., 2005; Jalongo, et al., 2004; Bueche, 2003; Burton, 1995; Law & Scott, 1995).

Purpose of Study/Definition of Terms

The purpose of this discussion is to describe the advantages and disadvantages that animals can provide to children in therapeutic and academic settings. There is a difference between Animal-Assisted Therapy (AAT) and Animal-Assisted Activities (AAA). For the purposes of this discussion, the primary focus will be on the benefits of Animal-Assisted Therapy, is an informal method that involves volunteers sharing their pets with others in which the animal acts as a distraction to bring about positive results. Animal-Assisted Activities purpose is not for a specific therapeutic process, which is the goal of Animal-Assisted Therapy (Thigpen, et al., 2005).

Animal-assisted therapy (AAT) is a formally controlled method or program in which animals are used to assist in improving the welfare of an individual or group of individuals suffering from emotional or physical illness or injury (Thigpen, et al., 2005; Beck & Katcher; Cusak & Smith, & Arkow, cited in Moody, King, & O'Rourke, 2002).

Animal-assisted handler

The majority of programs in the United States use volunteers who have trained their personal pets for animal-assisted therapy use. The animal and the volunteer are used with students, patients, and health professionals. It is also important to note that when discussing animals used in therapy sessions, the animals themselves are not performing any of the patient treatment. The animals are used by the therapist or educator to assist in the treatment of the individual.

CHAPTER II: LITERATURE REVIEW

History of human-animal bond

There is archeological evidence that suggests humans and animals have lived side by side since 12,000 BCE. According to one article, ancient peoples lived with domesticated wolves. The bond between these people and their wolves was so strong that they were often buried together. Five thousand years later people were viewing dogs as guardians and equal partners in hunting and fishing (Serpell, 2000; Serpell, 2011). These views still hold true for many people today. In a variety of cultures it is believed that all living creatures have an invisible soul.

There has been research done working to identify the health benefits of animals to humans. According to Dr. Alan Beck, director of the Center for the Human-Animal Bond, School of Veterinary Medicine at Purdue University, there are many health benefits associated with animals. He states that the companionship animals offer helps to decrease feelings of loneliness, and helps stimulate conversation. He states, "...interaction with animals stimulates physical reactions that are necessary and important in humans. Many times, pets give attention to a person who otherwise might not receive as much." (Beck, 2000).

In 1998 a study was conducted with 241 individuals suffering from anxiety and other mental health diagnoses, the purpose was to examine whether an animal-assisted therapy session would be successful in reducing anxiety level of hospitalized psychiatric patients, and if reductions were noted, would there be a difference based on current diagnosis. The participants were divided into two groups: one undergoing animal-assisted therapy with a dog, while the control group participated in regularly scheduled therapeutic sessions. The study showed, "...ani-

mal-assisted therapy sessions had a significant reduction in anxiety for patients with mood and psychotic disorders” (Barker & Dawson, 1998).

Canine-Therapy

As previously mentioned there are a variety of animals that can be involved in AAT such as dogs, cats, horses, dolphins, rabbits, birds, and fish. The most commonly used animal in both therapy and research studies is the dog. This type of therapy is referred to as canine-assisted therapy. Canine-assisted therapy can be used across populations and has shown beneficial in both group and individual settings. Of course, the interaction between the dogs and clients is the most important component of canine-assisted therapy (Fine, 2000; Thompson, 2009). Fine (2000) explained human-dog partnerships traditionally provide a service for clients with disabilities, for example dogs assisting people with visual impairments; the goal being to help the client improve their skills and abilities. The use of dogs allowed for treatment interventions which involved providing safety as well as offering independence to the client. Dogs are now one of the primary animals involved in AAT (Beck & Katcher, 1996), but like all animals used in therapy there are benefits and drawbacks. According to Turner (2005), a “dog’s social life is organized around dominance-subordinance relationships” this affects the type of relationship the animal could possibly expect from humans. Dogs are expected to obey commands and provide “unconditional acceptance” (Chandler, 2005) to their clients, so it is of the utmost importance to take in to consideration the dog’s temperament, sociability, trainability, predictability, and its ability to react to and handle stressful situations (Urichuk & Anderson, 2003). Therefore, as Chandler suggests, it

is a good idea to match a dog's temperament and activity level with the client, along with taking note of the dog's access to exercise, grooming, feeding, and toileting needs.

Animal welfare issues are handled by organizations such as Delta Society (1996). They have developed resources, education and training for volunteers with dogs who wished to pursue AAT in their communities. The program, *Pets Helping Us Recover* (PHUR) was developed by The Davis Medical Center in California. This program developed guidelines which outline animal selection, training techniques, and grooming requirements (Hart, 2000). The purpose of PHUR is to help brighten the day of designated patients. It is a volunteer program, which accepts volunteer applications from individuals whose dogs have the proper temperament and personality to handle visits with patients in a hospital setting. The application process includes an evaluation and screening by an animal behaviorist, along with lab tests for the dog. Prior to all visits the dog must be groomed, bathed, and have his/her ears cleaned.

In an academic setting, dogs are again the most commonly chosen animal for therapy purposes. Animals have been being used to assist students in the development of communication and reading skills in the school setting (Filiatre, Millot, & Montagner, cited in Thigpen, et al.; Guttman et al., cited in Thigpen, et al., 2005). Students with severe learning disabilities seem to find the most benefit when using dogs for therapy purposes. It is noted that students have improved focus and are more cooperative (Limond, Bradshaw, & Cormack, cited in Thigpen, et al., 2005). As previously mentioned, when dogs are used with students who have autism and/or emotional and behavioral issues there is a noted improvement in sense of self-worth, social skills, and language proficiency (Law & Scott, cited in Thigpen, et al., 2005). When working with students who have emotional and behavior disorders one issue can be the inability to feel empathy.

Using a dog for animal-assisted therapy purposes with these students can help children not only control their actions, but help increase their empathy for living things (Gonski, cited in Thigpen, et al., 2005; Ross, cited in Thigpen, et al., 2005).

There is documented research using dogs in schools as support for reading programs. The purpose is to have the child read aloud to the animal (Thigpen, et al., 2005; Bueche, 2003). As previously noted, the dog's ability to provide unconditional acceptance seems to be a logical match for a child with reading difficulties. The dog is able to show an interest and give attention to these children, which makes them feel wanted and welcome, without judgement (Thigpen, et al., 2005; Bueche, 2003). It is arguable to say that dogs are capable of providing these children with qualities and characteristics in ways that humans are unable (Ham, cited in Thigpen, et. al., 2005; Bueche, 2003). The R.E.A.D. program (Reading Assistance Dogs) found in Salt Lake City, Utah (Bueche, 2003) and the Lincoln Parish Library in Ruston, Louisiana (Thigpen, et. al., 2005) are two examples of reading programs which have been developed in America. The student populations typically selected for these programs have low-self esteem, are poor readers, and potentially refuse to read aloud. In Utah, the READ program sets children up with a pre-determined reading goal prior to beginning. Dogs who can sit for a considerable amount of time, have a calm temperament, are comfortable in unique situations, and essentially can provide their undivided attention to the child reader, make the ideal therapy dog for this program (Bueche, 2003). The idea of programs such as R.E.A.D. is to encourage the student to forget about any struggles they have with reading. In a study of one reading pilot, all participants improved their reading level by a minimum of two grade levels over 13 months. Some students saw an improvement of four grade levels within that time period (Klotz, cited in Bueche, 2003). Another study conducted by

the University of California - Davis, (READING TO ROVER, 2016) of home-schooled children saw an improvement of overall reading abilities over the course of 10 weeks. Students read for approximately 20 minutes to a therapy dog. Data following the study showed a 30% increase in fluency, increased confidence in reading, along with parent reports of their children choosing to read aloud more frequently. Student's surveyed during and after the study stated that they were having fun while they were reading, but also noted that the dogs don't judge. They can be reading "really, really bad", and the animal doesn't care, so the student can simply continue reading. This comment alone shows how great of an impact animals can have on building confidence in an area that might otherwise cause stress and anxiety. According to the R.E.A.D. of MN website, www.readdogsmn.org, there is an evident increase in relaxation, the dogs help to lower blood pressure, the students are less intimidated, and they can read at their own pace. These are all important factors when it comes to helping students improve their reading skills.

In recent years, states across the nation are finding more research supporting therapy dogs in the classroom and as a result, organizations are popping up in communities that focus on training and certifying animals for therapeutic services within the classroom, at libraries, hospitals, etc. There are a couple of organizations in Minnesota that provide services to schools within the Twin Cities metro. North Star Therapy Animals has a variety of dogs, cats, and a bunny that provide therapy. Organizations or schools can reach out and request a visit from any of these animals through their website.

Feline-Assisted therapy

The use of cats, or what is called feline-assisted therapy is most commonly found in long term care facilities such as nursing homes and/or assisted living facilities. The primary difference between canine-assisted therapy and feline-assisted therapy is that cats are viewed as a pet, versus a therapy animal. This is largely due to their independent nature. The purpose of having a cat in a long-term care facility or nursing home is to make the patient feel comfortable and at home. The presence of the cat is simply that, it is present. This creates a more comfortable and home-like feeling to the facility or residence where the therapy is taking place (Fine, 2000, Velde, Cipriani, & Fisher, 2005). Dogs have typically been viewed as the most desirable animal for therapy, with horses coming in second, and cats not really being recognized. Recently this has been changing, as cats are beginning to be used more often. The primary factor in finding an appropriate cat for therapy is their temperament. The cat must be calm, tolerant, and enjoy interacting with adults and children. According to Ian Langtree's article (2018) on the website, *Disabled World*, cats are being used more often with children who have developmental disorders. The cats can help the children become more comfortable with the world around them.

There is limited research showing how cats are expanding in to the animal therapy world with children, but their popularity is growing. As more research and data is collected, there is sure to be more published work to show how felines can be a better support to the students in and/or out of the classroom.

Hippotherapy/Equine-Assisted Therapy

Hippotherapy, or equine-assisted therapy, involves the use of horses and donkeys for therapeutic purposes with both individuals and families. This type of therapy seems to work well for children who struggle with emotional and behavioral issues, as it provides a very simplistic diversion from the child's own issues and problems. The acts of being a caretaker for the horse does not allow for the child to focus on themselves, they are required to focus on the needs of the animal such as grooming, feeding, and/or exercising (Fine, 2000).

The first step in hippotherapy, is acquiring or developing new skills in order to care for a horse. An important element in helping a child develop these skills is the relationship between the therapist and child. Since many of the children entering into hippotherapy struggle with impatience, anxiety, and/or low self-esteem, they need to first build a trusting relationship with the therapist. This is established through open and honest communication. The child needs to feel supported and understood, but also be reassured that learning new skills takes time. So many children with emotional and behavior issues struggle with feeling compared to a "perfect" sibling or he/she may have a hyper-critical parent, so having a safe environment where he/she can make mistakes and without further comprising their self-esteem is key. The hippotherapy sessions can actually be a great tool for helping the student learn to counteract the criticism. The therapist is able to help the child by validating his/her fears, frustrations and anxieties by reconfirming that these feelings are indeed healthy and simply require appropriate and positive coping mechanisms. It is typical in hippotherapy that the child begins gaining confidence as he/she gets better at taking care of the horse. The child also learns flexibility and the benefit of structure. As horses can be unpredictable creatures the child learns why it can be important to work within a schedule and why it is of a benefit to the animal. However, if the animal makes a run out of a gate or will

not cooperate the schedule must be changed. The child learns that this is okay, and having things not go as planned is commonplace in society. The therapist can learn a great deal about a child through their interactions with the horses, specifically the child's opinions of self and others, such as authority figures (Equine Therapy, 2014).

To be clear, there are two different types of therapy: therapy which was previously discussed, providing the child with the responsibility of being a caretaker for the horse and the second is therapeutic riding. Therapeutic riding is a form of physical therapy. It can help with a wide range of people who have disabilities: physical, emotional, cognitive, and social. This type of therapy not only focuses on the physical benefits of therapeutic riding, but the riding itself can be an extraordinary experience. Sometimes there is a very powerful connection that occurs between the person and the animal which can have a profound effect on people who are struggling. These are both still considered a part of hippotherapy (Jarrell, 2005).

Autism, emotional and behavioral disabilities, learning disabilities, and speech impairment, are just a few of many disabilities that can potentially benefit from therapeutic riding. The gait of a horse is gentle and when riding, moves the human body in a similar way to the human gait. It can potentially improve balance, posture, mobility, reactive time, and improve issues such as emotional, cognitive, and behavioral (Equine Therapy, 2014).

Benefits of Animal Assisted Therapy in EBD Students

As previously discussed, each type of animal used for therapy yields its own individualized results. While many different animals can be used to support children with all types of disabilities, students with Emotional/Behavior Disorders (EBD) can also significantly benefit from the mental health benefits of animal-assisted therapy. Children who have been diagnosed with

EBD, typically struggle with anxiety, depression, aggression, impulsivity, mood disorders, along with communication. There is a clear connection between some of these struggles and mental health. Teaching these children can be difficult, since maintaining consistency and routine is very important. The use of animal-assisted therapy to support these children seems logical, yet can feel risky, as EBD students can at times be unpredictable, and putting another living thing in their care, even for a short time, might feel worrisome. Fortunately, there is data and research to support the exploration and use of animals in a supported, supervised, and safe environment.

Empathy is an incredibly difficult skill to teach. Many times students with EBD do not recognize the feeling, are afraid and do not understand it, or simply lack empathy. The use of animals in therapy with these students is important, since animals live in the moment, making it easier to read their body language and anticipate their wants and needs. According to Pet Partners, it is easier for children to learn to be empathetic with animals than humans for this reason. Learning how to empathize through human-animal interaction, children can then translate that in to their interactions with other people. The outward focus that is created makes the child more aware of their outside environment (Pet Partners, 2014). Human emotions and facial expressions can be difficult to read, especially for students who struggle with non-verbal learning disabilities, for example. Allowing them to learn through their relationship with an animal will then help them feel more when with peers and adults. Empathy and perspective taking can sometimes be a difficult concept for students with emotional or behavioral disorders to learn, but with the help of animals, it can become easier.

Many times EBD students struggle to develop positive relationships with both adults and peers. This can be for a variety of reasons, but animals can help these students work on their rela-

tionship building skills. As previously stated, animals are non-judgmental and love unconditionally, allowing for the student to really be able to work on developing a positive relationship. Students are free to practice their social skills with the animal, and eventually transfer those skills to practice with peers in developing relationships. They can work on showing affection, empathy, and compassion through their work with the animals (Rud, 2007).

Benefits of Animal Assisted Therapy for Students with Autism

There is one area that has been considerably researched concerning animal assisted therapy, and that is the connection between animals and children diagnosed with Autism Spectrum Disorder (ASD). Animal-assisted therapy has shown to have a significant affect on students with ASD.

As discussed earlier, Hippotherapy is a common AAT that is used with children with ASD. While it might feel contradictory that a large animal would be the first choice of a therapy animal for a child with sensory issues, it is quite interesting how the horses support the child. The horses were able to directly support the increased development in self-confidence and mood, while also improving balance and sensory (Grandin, Fine, & Bowers, 2010).

A study conducted by Macauley and Gutierrez (2014), involved the use of hippotherapy as opposed to traditional therapy for three boys with language learning disabilities, ages 9-12. The researchers predicted the boys would make more progress after hippotherapy sessions, rather than regular therapy sessions with their speech and language goals. Upon completion of the therapies, surveys were completed by families to assess their thoughts regarding progress towards these goals. It was discovered that parents felt their children showed improvement after both tra-

ditional therapy and hippotherapy, essentially supporting the hypothesis of Macauley and Gutierrez (Macauley & Gutierrez, 2004; Aaron, Cubelo, Simpson, & Fagan, 2013).

In a study conducted by Aaron, et al., 2013, researchers worked to prove that hippotherapy was a preferred treatment method for children with autism spectrum disorders. They used past research by Macauley and Gutierrez, along with their own findings to show that hippotherapy provides therapy from more than just a physical aspect. Aaron and colleagues tested hormone levels, as well as saliva, and cortisol levels. Their findings showed a clear connection between hippotherapy sessions and the hormones, cortisol and progesterone.

When these levels increased, due to its relation with oxytocin which is a hormone released as a neuroendocrine response to positive social stimuli, it showed that the hippotherapy was indeed improving the child's social attitudes. The children progressed with the horse by continuously building a trustworthy and comforting relationship, as indicated by their hormone levels in their saliva. This provides evidence to suggest that hippotherapy may serve as a beneficial source of treatment for individuals with autism (Aaron, et al., 2013).

While hippotherapy is one option for families of children with autism to explore, another option is that of a service dog. In recent years, it has become an accessible option for children diagnosed with autism spectrum disorder to receive a service dog. There are a number of responsibilities that a service dog must be responsible for, especially when assigned to a child with ASD. Depending on where the child falls on the spectrum, for example, he/she could be non-verbal, while also exhibiting physical signs such as flapping, running away, etc. These are simply a few examples, and definitely do not encompass all characteristics of ASD. A trained therapy dog would

then be responsible for a variety of tasks. According to the book, *Animal-Assisted Intervention for People with Autism* (Pavlidis, 2008), a service dog may be responsible for performing any of the following tasks: keeping a child from running away or wandering off. It is not uncommon for children with ASD to be frightened when their sensory sensitivities are triggered, which can then result in them fleeing. Due to the sensory overload, ASD children often do not recognize potentially dangerous situations. A service dog could then be tethered to the child, or could be trained to anticipate the child's response to the sensory event that might occur, allowing for preventative measures to occur. Children with ASD often struggle socially with their peers. The presence of a service dog provides an ice breaker for the child. When a peer asks about their dog, the ASD student can then utilize his/her conversation strategies, while also having the dog as a physical presence to relieve anxiety and promote calmness. Lastly, it has been observed that the simple presence of the service dog can decrease meltdowns and promote healthy sleep for the child. This is accomplished through teaching the dog to lie on the child, similar to how one would use a weighted blanket. This provides the deep pressure that ASD children appear to crave to help them calm down or relax (Pavlidis, 2008).

In Minnesota, families of children with ASD can apply for service dogs through a non-profit in St. Paul, Minnesota, Pawsitivity Service Dogs. Pawsitivity rescues dogs and trains them to be service dogs for people with disabilities. The staff is able to assess which dogs will be appropriate for adults or children, and then match them with the specific disability they will be best suited to support. The website, www.pawsitivityservicedogs.com, includes testimonials from families and addresses the important points of what makes a service dog a particularly good idea for a child with ASD. The primary reasons are exactly what Pavlidis, and other researchers have

stated; service dogs can help with developing empathy, socialization, soothing meltdowns, as an educational tool, for tethering, along with other benefits which have previously been discussed, such as sleeping together and deep pressure.

The application process for a service dog is only open twice a year. A family who would be interested would need to sign up to receive the newsletter in order to find out when the application window would be open. The demand for a service dog is high, as is the cost. According to the website, a family would be responsible for half the cost of the dog, which is \$19,500. While the dog is a tax-deductible expense according to the IRS, it is still a significant expense for some families. Some non-profits will raise 100% of the funds for a service dog, but Pawsitivity will only raise half. This allows the family to then have full ownership of the dog, as opposed to co-ownership which is sometimes the case with other non-profit service animal centers around the country.

Another resource for families who feel that a service dog might be a fit for their child with autism is Can Do Canines, located in New Hope, MN. According to their website, <https://can-do-canines.org/>, Can Do Canines provides service dogs to families in Minnesota free of charge. Immediately, the difference between Pawsitivity and Can Do Canines is the cost factor, but both have a stringent set of criteria families are required to meet before they may even apply for a potential service dog. According to Can Do Canines, the following must be met prior to completing an application:

- The family must live in Minnesota

- The child must be between the ages of 2 and 7 years old. This is the age range in which a dog can realistically be expected to help restrain the child physically, and takes in to account the current two year waiting list.
- The child must have an autism diagnosis.
- The family must be physically and financially able to take full responsibility for the dog after certification.
- Due to the high demand for Autism Assist Dogs, we are unable to make exceptions to these criteria at this time. We are unable to consider pets for owner-training for the Autism Assist Program.

It would be thought that some of these criteria would be common sense, but when families are desperate or in crisis, they are willing to proceed with applications for assistance from any resource possible. There are many families whose child may not have an autism diagnosis, but suffers from some similar issues that match with autism, so getting a service dog might feel like a logical investment. Secondly, the pre-criteria also speaks to the desperation of families willing to do whatever it takes to help find support for their child. As noted in the final bullet, the program also states they will not train family pets for the Autism Assist Program. For some families, they notice the incredible bond their child has with the family dog. When they research service dogs and discover the length of time on the wait list, as well as the potential financial investment, it might feel logical to them to explore training the family dog.

An important point to make clear in this situation is that service dogs are different than therapy dogs. According to the website, www.therapydogs.com, service dogs are specifically trained to support someone with a disability, helping them with tasks that might otherwise be dif-

difficult for them. The relationship between the animal and the handler is that of a team. On the other hand, therapy dogs receive training that is very different. They are taught to provide physiological or psychological services to an individual, and likely more than one individual, other than their handler. So a family might decide to pursue training their family dog as a therapy dog for their child, as opposed to waiting for a service dog to become available. But there is another piece that makes the difference between service dogs and therapy dogs different, this being their legal recognition or status. According to www.therapydogs.com:

Despite thorough training, registration and the therapeutic benefits therapy dogs provide, they do not have the same jobs or legal designation as service dogs. While some institutions offer therapy dogs access on a case-by-case for the benefit of patients, guests, customers or clientele, the handlers or owners of therapy dogs do not have the same rights to be accompanied by these dogs in places where pets are not permitted.

This can be disheartening to a family who is hoping to have their child's dog permitted to travel and/or accompany them at school. As mentioned, each situation is reviewed case-by-case, but it is clear, if the family is looking for the legal designation of the animal, it best to work with an organization which can solidify service animal status.

Essentially, there are many different types of animals which can be used for therapy, as well as a variety of diagnosis that can benefit from the use of animals for therapeutic services. They are proven to be effective in and out of the classroom, and in some cases the use of a 1:1 service dog for children with autism spectrum disorders can be an enormous blessing. The difficulty lies in finding the funds to support the training of the right animal, as well as establishing whether a service dog, or a therapy dog will be the right fit for the child. It is also evident that the

researchers and animal trainers are discovering that dogs are capable of being trained to support more and more types of disabilities. It is hopeful, that with more demand and proven research, 1:1 service dogs will become more accessible through reputable programs, and waitlists will not be up to three years.

The organizations that provide service dogs are always looking for volunteers to serve in a variety of ways. These are great opportunities for those who look for ways to give back, or simply love animals and want to provide love and care for an animal who will eventually be supporting someone who desperately needs their love and support.

CHAPTER III: POWER POINT PRESENTATION
FOR SPECIAL EDUCATION TEACHERS

**Benefits of Animal Assisted
Therapy for Students with
Learning Disabilities and
Anxiety**

By: Erica Bugenhagen

“Why does this work?”

Research shows the presence of animals in therapy provide psychological, emotional, social, and physical benefits.
Animals are non-judgmental and accepting.



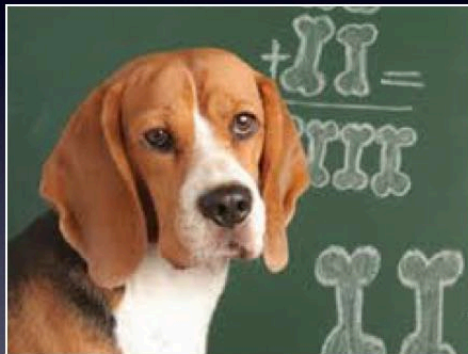
The animals have the ability to be present, but silent.
Providing an unwavering support that helps ease anxiety.

Studies show students who read with animals showed marked improvement in overall reading abilities.*

- 30% increase in reading fluency.
- Parent reports children read aloud more frequently.
- Increased reading confidence.

*10-week study conducted by University of California - Davis. 1x per week for 20 minutes with homeschool student population.

“This is awesome! I want a dog in my classroom! How can I make this happen?”



What is a Therapy Dog?

Therapy dogs must undergo training, and in some areas must pass the Canine Good Citizen (CGC) test and therapy dog certification test. The training is not as extensive as service dog training and often includes taking a basic manners/obedience class and exposing a dog to a variety of people and situations.



Therapy dogs visit hospitals, nursing homes, schools, and libraries to engage in "therapeutic contact" (petting or just spending time with people).

Therapy dogs are pets who generally work with their owners on a volunteer basis.

Therapy dogs often wear vests or bandanas with patches identifying them as therapy dogs.

People are encouraged to pet therapy dogs. (That's part of the dog's job!)

Therapy dogs and their handlers have no special access rights under the ADA. They visit hospitals and other facilities with the permission of the facility.

Almost any animal can be a therapy animal - dogs, cats, horses, birds, rats.

Training and certification is essential. Work with a reputable organization.



North Star Therapy Animals is located in the Twin Cities metro. They provide services to schools, hospitals, libraries, shelters and other care facilities.

<https://northstartherapyanimals.org/>

R.E.A.D Dogs Minnesota provides registered therapy dogs who volunteer at schools or libraries to read with children.

<http://www.readdogsminn.org/>

Clip from R.E.A.D. on how therapy dogs work in the classroom.

<https://youtu.be/od3aCaHoumg>



The benefits of therapy animals are endless in the classroom.

- Increased relaxation
- Lower blood pressure
- No judgment, laughter, or criticism
- Read at their own pace
- Less intimidating



References

- Jalongo, M. R. (2005). "What are all these Dogs Doing at School?": Using Therapy Dogs to Promote Children's Reading Practice. *Childhood Education*, 81(3), 152-158
- Jalongo, M. R., Astorino, T. & Bomboy, N. (2004). Canine visitors: The influence of therapy dogs on young children's learning and well-being in classrooms and hospitals. *Early Childhood Education Journal* 32(1), 9-16
- Lane, H. B., & Zavada, S. D. (2013). When Reading Gets Ruff: Canine-Assisted Reading Programs. *Reading Teacher*, 67(2), 87-95
- Therapy Animal Services in Minnesota. (n.d.). Retrieved from <https://northstartherapyanimals.org/>
- What is R.E.A.D.? (n.d.). Retrieved from <http://www.readdogsminn.org/>

CHAPTER IV: DISCUSSION AND CONCLUSION

Summary of Literature

The summary of the literature shows that animal-assisted therapy can be extremely effective in a variety of settings, along with a variety of populations within our community. The most important elements when implementing animal-assisted therapy in to any program, facility, etc., is ensuring that proper research has been performed regarding which animal is best suited for the population and environment it will be working in. Regardless, there is still limited research available, as it is a relatively young field. Professionals interested in using animal-assisted therapy in their occupations must be willing to commit and participate in training and education. As previously mentioned in this paper, the Delta Society is one organization that has done its due diligence and outlined guidelines based on their current research. Many practitioners using animal-assisted therapy in their practice rely on the Delta Society for guidance.

Personal Experience and Observation

In my current teaching position, I have the unique opportunity to be immersed in an environment that strongly believes in the connection between humans and animals. Our school currently cares for a bunny, two birds, and just this school year added our resident therapy dog, Crosby, to the staff. The decision to incorporate animals in to our curriculum grew from our experience working with highly anxious students.

Our school is specifically designed to support the learning and social/emotional needs of students who are considered to be “twice-exceptional.” This means our students have many facets of giftedness, but then have an area of struggle or a diagnosis such as ADHD, that affects

their ability to be successful in a traditional school setting. We typically see anxiety and frustration levels increase when academic requests are difficult. Our founder and director, Leah Brzezinski, had the idea to bring animals in to our school as a way to help bring feelings of calm to our students.

The first animal we brought in to our school was a bunny named by the students, Fluffles. The students were immediately smitten, but it soon became obvious which students were drawn to her for reasons beyond pure fascination and excitement of their simply being an animal in the classroom. Two students in particular would always ask if they could hold Fluffles while they did independent reading. Another student would request to have Fluffles present during our 1:1 dyslexia sessions. The anxiety and calmness the bunny brought to the student was amazing. You could see a visible relaxation in the child as they would pet and scratch the bunny. Work sessions became more productive, and a significant decrease in emotional meltdowns was noted. It is also amazing to see creativity emerge when students are allowed to work with Fluffles. A fifth grade student determined that his project during his Genius Hour would be to create a training course for the bunny. He worked diligently to build and create a course, this project included research, time, and weeks to complete. Upon completion, he invested time each day to work with the bunny to determine what things would best motivate Fluffles to participate in the training. There are two major take aways from this event: 1) the presence of the animal motivated and encouraged a student to be creative and innovative and 2) for the first time this student created a project, and actually completed it. Follow through and completion were something that this student had struggled with for years due to ADHD and executive functioning deficits. This in and of itself is huge.

The decision to bring Crosby, a golden doodle, in to our classroom was unanimous by teachers, parents, and students. Crosby is a trained therapy dog. He wears the vest while at school and his trainer/owner is our school science teacher. Again, as it was with Fluffles, once the excitement of a dog at school wore off, we easily discovered which students would genuinely benefit from time with Crosby.

I have an eight year old student who sees a therapist once a week during the school day. Occasionally, I will join these sessions, and on some of these occasions, Crosby will also join us. It is amazing to see and hear the change in this particular student when he is with Crosby. Sessions are happier and more productive. We are able to see an emotional side of this student that we often don't see, and it is in every way the most positive thing. It is impossible to describe how beautiful the interaction is between student and dog, but it is something that cannot be recreated, nor forced. It is completely organic, and most certainly enhances the therapeutic session. Another student, who is ten years old, has earned the privilege of bringing Crosby with him to his speech and occupational therapy sessions. The visible pride and evident bounce in his step as he walks with Crosby reinforces the purpose of why animal therapy is so important in the school setting. Being able to observe first-hand the physical and emotional change in the student while receiving services accompanied by a therapy animal is incredible. Especially when the student is making positive gains that were not evident before the addition of the therapy animal.

There are also birds. Two doves to be exact, Olive and Oliver. These were definitely not the first, nor expected choice for our school, but our director insisted they would be a hit. We should always listen to her, because she was right. The birds have a special place in our sensory/break room. One side of the room is all windows so students can take a break in this room, shut

the door, and allow the birds out of the cage. It's always a bit uncertain what young children might be fascinated with, and by chance we have a third grader who is obsessed with birds. This particular student has been utilizing the birds and break room more often this year than in the past, as his parents are going through a divorce and cross-country custody battle. He looks forward to his time in the room, where he can hold and pet the birds. He talks to them, helps clean their cages, and makes sure they have plenty of water and food. When asked what he likes best about the birds, he always responds that they help to calm him, and mostly, they simply make him happy. There are other students who also enjoy their time with the birds, and all will respond similarly that the birds make them happy.

Lastly, we do have lizards, a snake, and a gerbil, along with a fish tank. We have a few students who do seem to identify more with some of these animals than the furry, soft and cuddly animals. But it seems to be that since these particular animals are housed in the science room, they are most commonly associated as being a "science teacher thing." What seems to make the most difference when it comes to the animals is the clear delineation of animals that are not confined to the science room, but have the freedom to move from room to room, and are more frequently seen traveling the hallways.

I feel extremely fortunate to be able to work in a school environment where we can implement programs that include animal assisted therapy, and on more than just one level. We are in a position where we can have multiple animals, so our students might find that they bond with one particular animal more than another. Plus, the bonus of having multiple animals allows multiple students to have access to them at the same time. You can never predict when a situation

might arise and having an animal handy might just be what is needed to de-escalate a student and get to the root of what is really going on.

In my personal experience, animal assisted therapy is a significant benefit to students, teachers, and staff. If the facility and setting are appropriate, it is absolutely worth researching to see if it would be right for another school. It is also important to note that while this paper has primarily focused on larger animals such as dogs and horses, my experience and research suggests that smaller animals, such as fish and lizards can be equally as effective in improving a student or client's mental health (Katcher, Friedmann, Beck & Lynch, 1983).

References

- Aaron, T., Cubelo, S., Simpson, M., & Fagan, J. A., Ph.D. (2013). *The Effectiveness of Hippotherapy for Children with Autism-spectrum Disorders Comparative study of the treatment effects of hippotherapy: ATEC Survey of parents and instructors*. Retrieved August 12, 2018, from file:///Users/ericbugenhagen/Downloads/rutgers-lib-45192_PDF-1.pdf.
- Anderson, K.W. (2008). *Paws on purpose: Implementing an animal assisted therapy program for children and youth, including those with FASD and developmental disabilities*. AB: The Chimo Project.
- Animal Hippotherapy Association (2008). The American Hippotherapy Association Inc. Retrieved September 22, 2014, from <http://www.americanhippotherapyassociation.org>
- Arkow, P. (1981). *Pet therapy: A study of the use of domestic animals in selected therapeutic settings*. Colorado Springs, CO: The Human Society of the Pikes Peak Region. Colorado Springs, CO. 3rd edition.
- Autism Speaks; What is Autism?, <http://www.autismspeaks.org/what-autism>
- Barker, SB & Dawson, KS. (1998). *Psychiatric Services*, 49(6), 797-801.
- Beck, A. & Katcher, A. (1996). *Between pets and people: The importance of animal companionship* (Rev. ed.). West Lafayette, IN: Purdue University Press.
- Beck, A.M. (2000). The use of animals to benefit humans. Animal-assisted therapy. in A.Fine (Ed.), *Animal assisted therapy: Theoretical foundations and guidelines for practice* (pp.21-37). NY: Academic Press.
- Bueche, S. (2003) Going to the dogs: Therapy dogs promote reading. *Reading Today*, 20, 46.

- Burton, L. (1995). Using a dog in an elementary school counseling program. *Elementary School Guidance & Counseling*, 29, 236-241.
- Chandler, C.K. (2005). *Animal assisted therapy in counseling*. NY: Routledge.
- Corson, S., Corson, E., & Gynne, P. (1977). Pet dogs as nonverbal communication links in hospital psychiatry. *Comprehensive Psychiatry*, 18, 6 1-72.
- Delta Society (1996). *The human-animal health connection: Standards of practice for animal-assisted activities and therapy*. Retrieved August 11, 2013 from <https://www.deltasociety.org/>
- Equine Therapy animal assisted therapy: *How do Horses Help Kids with Emotional and Behavioral Issues?*. Retrieved December 20, 2014 from www.equine-therapy-programs.com
- Difference Between a Therapy Dog vs a Service Dog. (2018, May 24). Retrieved from <https://www.therapydogs.com/difference-therapy-dog-vs-service-dog/>
- Fine, A. (2000). Animals and therapists: Incorporating animals in outpatient psychotherapy. In A.
- Flom, B. (2005). Counseling with pocket pets: Using small animals in elementary counseling programs: *Professional School Counseling*. 8, 469-471.
- Friesen, L. (2010). Exploring animal-assisted programs with children in school and therapeutic contexts. *Early Childhood Education Journal*, (37), 261-267.
- Geist, T. (2011). Conceptual framework for animal assisted therapy. *Child Adolescent Social Work Journal*, 28, 243–256. doi:10.1007/s10560-011-0231-3

- Grandin, T., Fine, A., & Bowers, C.M. (2010). The use of therapy animals with individuals with autism spectrum disorders. In Fine, A.H. (Ed.) *Handbook on Animal-Assisted Therapy: Theoretical Foundations and Guidelines for Practice*, third ed (pp. 247-264). San Diego, CA: Elsevier.
- Hart, E. (2000). Understanding animal behavior, species, and temperament as applied to interaction with specific populations. In A. Fine (Ed.), *Animal assisted therapy: Theoretical foundations and guidelines for practice* (pp. 81-96). NY: Academic Press
- Jalongo, M., Astorino, T., & Bomboy, N. (2004). Canine visitors: The influence of therapy dogs on young children's learning and well-being in classrooms and hospitals. *Early Childhood Education Journal*, 32, 9-16.
- Jarrell, N. (2005). Equine therapy: Making the connection. *Counselor, The Magazine for Addiction Professionals*, 6(3), 41-46.
- Jenkins, J. (1986). Physiological effects of petting a companion animal. *Psychological Reports*, 58, 2 1-22.
- Katcher, A., & Beck, A. (1983). *New perspectives on our lives with companion animals*. University of Pennsylvania Press: Philadelphia, PA.
- Katcher, A.H., Friedmann, Beck, A.M., Lynch, J. (1983). Looking, talking and blood pressure: The physiologic consequences of interaction with the living environment. In: *New Perspectives on Our Lives with Companion Animals* (AH Katcher, AM Beck, eds) 1983 (p. 351)
- Katcher, A., & Wilkin, G. (1994). Helping children with attention deficit hyperactivity and conduct disorder through animal assisted therapy and education. *Interactions*. 12. 5-9.

Langtree, I. (2018, June 15). Therapy Cats for Emotional Support and Comfort - Ian Langtree.

Retrieved from <https://www.disabled-world.com/disability/serviceanimals/cats.php>

Law, S., & Scott, S. (1995). Pet care: A vehicle for learning. *Focids or1 Atlstic Behavior*, 10, 17-18.

Levinsion, B. (1971). Household pets in training schools serving delinquent children.

Psychological Reports, 28, 475-48 1.

Macauley B. L., & Gutierrez K. M. (2004). The effectiveness of hippotherapy for children with language-learning disabilities. *Communication Disorders Quarterly*. 25(4), 205-217

Marino, T. (1995). Has mental health gone to the dogs? From prisons to nursing homes counselors finding benefits to pet therapy. *Counseling Today*, 37, 10-11.

Moody, W., King, R., & O'Rourke, S. (2002). Attitudes of pediatric medical ward staff to a dog visitation programme. *Journal of Clinical Nursing*. 11, 537-544.

Nebbe, L. (199 1). The human-animal bond and the elementary school counselor. *School Counselor*, 38, 3 62-3 72.

Our Dogs Fetch Amazing Things. (n.d.). Retrieved from <https://can-do-canines.org/>

Pavlidis, M. (2008). *Animal-assisted interventions for individuals with autism*. London, England: Jessica Kingsley Publishers.

Pet Partners. (2014). Retrieved August 11, 2018, from <https://petpartners.org/>

Pawsitivity Service Dogs. (n.d.). Retrieved from <https://www.pawsitivityservicedogs.com/>

READING TO ROVER: Does it really help children? Veterinary school says 'yes'. (2016,

January 24). Retrieved from <https://www.ucdavis.edu/news/reading-rover-does-it-really-help-children-veterinary-school-says-‘yes’/>

Redefer, L., & Goodman, J. (1989). Brief report: Animal assisted therapy with autistic children.

Journal of Autistic and Developmental Disorders, 19, (3).

Redefer, L., & Goodman, J. (1989). Brief report: Animal assisted therapy with autistic children.

Journal of Autistic and Developmental Disorders, 19, (3).

Rud, M. A., (2007). Animal Assisted Therapy: The influence of therapy animals on children ages five through twelve with emotional/behavioral disorders.

Serpell, J. A. (2000). Animal companions and human well-being: An historical exploration of the value of human-animal relationships. In A. H. Fine (Ed.), Handbook on animal assisted therapy: Theoretical foundations and guidelines for *practice* (pp. 3-19). San Diego, CA: Academic Press.

Serpell, J. A. (2011). Historical and cultural perspectives on human-pet interactions. P.

Serpell, J. A., Coppinger, R., & Fine, A. H. (2000). Animal companions and human well-being: An historical exploration of the value of human-animal relationships. In A. H. Fine (Ed.), Handbook on animal assisted therapy: Theoretical foundations and guidelines for practice (pp. 415-432). San Diego, CA: Academic Press.

Therapy Animal Services in Minnesota. (n.d.). Retrieved from <https://northstartherapyanimals.org/>

Thigpen, S., Ellis, S., & Smith, R. (2005). Special education in juvenile residential facilities: Can animals help? *Essays in Education* 14, 1-15.

Thompson, M. J. (2009). Animal-assisted play therapy: Canines as co-therapist. In G. R. Walz, J. C. Bleuer, & R. K. Yep (Eds.), Compelling counseling interventions: VISTAS 2009 (pp. 199-209). Alexandria, VA: American Counseling Association.

Turner, W. G., (2005). The role of companion animals throughout the family life cycle.

Journal of Family Social Work, 9(4), 11-21. doi:10.1300/J039v0904a_02

Urichuk, L., & Anderson, D. (2003). Improving mental health through animal-assisted therapy.

Edmonton, Alberta. The Chimo Project.

Velde, B. P., Cipriani, J., & Fisher, G. (2005). Resident and therapist views of animal- assisted

therapy: Implications for occupational therapy practice. *Australian Occupational*

Therapy Journal, 52(1), 43-50. doi:10.1111/j.1440- 1630.2004.00442.x

What is R.E.A.D.? (n.d.). Retrieved from <http://www.readdogsmn.org/>