

8-2013

# The Effects of Animal Assisted Therapy on Students

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**Document Type**

Thesis

**Degree Name**

MS in Literacy Education

**Department**

Education

**Second Supervisor**

Joellen Maples

**Subject Categories**

Education

The Effects of Animal Assisted Therapy on Students

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August 2013

**Abstract**

This study examined the benefits of using animal assisted therapy student behavior/concentration to read and their motivation to read. Research was conducted in the students' homes with the use of a certified therapy dog during reading and writing activities. Data was collected through observations, student and parent questionnaires, and examination and analysis of student work samples. The findings show that the presence of a therapy dog can improve student behavior/concentration to read and write as well as motivation to read and write. Therapy dogs should be used in addition to everyday instruction as a behavioral management tool and motivator for students and to create a classroom environment that allows students to feel they can take risks.

## **The Effects of Animal Assisted Therapy on Students**

### **Introduction**

Animals offer humans a wide variety of assistance. Animal assisted therapy (AAT) is defined by Lange, Cox, Bernert, Jenkins, (2006/2007) as “a goal-oriented intervention in which an animal meeting specific criteria is an integral part of the treatment process” (p. 19). Animal assisted therapy involves a health or human service professional that uses the animal as part of his/her job. Chandler (2001) reports that there are many different types of therapy animals that can be therapeutic besides from the most common, dogs, cats, and horses. Farm animals, rabbits, birds, fish, hamsters, and even llamas have specific skills and abilities to contribute to the therapeutic process. Some of the skills and abilities that these animals can provide include companionship, provision of services, reduce stress, improve relationships, and provide entertainment. Therapy animals have been included in a variety of settings such as schools, counseling centers, hospitals, nursing homes, and rehabilitation centers. This particular study will look at the effects of animal assisted therapy, specifically how the use of therapy dogs affects student behavior/concentration to read and their motivation to read.

Many schools and libraries are using therapy dogs to improve students’ reading and literacy skills, as well as other academic and behavioral skills (Hughes 2002). The use of therapy animals can have many benefits. Therapy dogs can provide a relaxed and nonjudgmental atmosphere to practice the skill of reading. Many students feel pressure to not fail in school and experience low self-confidence in their academic abilities. Animal assisted literacy experiences have been found to help release that pressure for children and allow them to enjoy reading and writing (Friesen, 2013). The relaxed, open environment of animal assisted literacy programs can help students focus on reading skills and strategies instead of worrying about how they sound

when they read or being embarrassed about mistakes. The environment that is created with a therapy dog present can help to facilitate communication between students and teachers and break social barriers (Rud & Beck, 2000). Working with a therapy animal in a group setting can give students a chance to work on their social skills by giving them something to communicate about and to relate to each other.

The use of a therapy dog can be exciting for students and be a motivator to get them reading, writing, and participating in literacy interactions. The presence of a therapy dog can help students behave and focus on their school work. Rather than be distracted or off task because they are bored, uninterested, or unmotivated, the therapy animals may help to motivate and engage students in literacy activities. Working with the therapy dog can be an incentive for students to get their work done and behave appropriately (Dilts, Trompisch, & Berquist, 2011).

The use of animal assisted literacy programs should be used as a supplemental activity for struggling readers as a way to motivate, engage, and give students a positive experience with literacy. These students still need the same everyday instruction that their peers are receiving. The extra time and interaction around reading and writing with a therapy animal and a teacher or tutor can help these struggling students reach their grade level standards and benchmarks. Learning with a therapy dog and tutor can place the student in a position of power that focuses on what the child can do, rather than a focus on deficits (Friesen, 2010). During animal assisted literacy sessions the children and adult are released from traditional roles of learner and teacher. Adults become a playful participant that supports the student's literacy skills and ideas (Friesen, 2011). These interactions can also help to improve student and adult relationships, which is important to student success and comfort. Students are given time to just enjoy literacy activities without any pressure on them during sessions with a therapy animal.

Further research proved the benefits of using therapy dogs to improve literacy skills and related academic and behaviors skills. This study involved a group of six students ranging from kindergarten to sixth grade who were observed as they participated in reading and writing activities with a therapy dog present. Along with the students, their parents were also involved in the study. The children were given a questionnaire in the beginning and end of the study to see what their attitude and perceptions about different reading and writing activities were and how they may have changed. The parents were also given a questionnaire in the beginning to get an understanding of their child's reading and writing behaviors and attitudes and a questionnaire at the end of the study to see if any of those behaviors/attitudes changed. The examination of this data was used to understand how the presence of a therapy dog during literacy activities can affect student motivation, concentration, and/or behavior. My research suggests that the presence of a therapy dog can motivate and engage students by increasing their communication and on-task behaviors during reading and writing sessions. The use of animal assisted literacy programs should be used as a supplemental activity to everyday instruction. Students, especially struggling readers, need to practice emerging skills and strategies. Animal assisted literacy programs can be implemented in schools, libraries, or other educational settings. Therapy animals can be used as a behavioral management tool and motivator for students. They can also help to create a classroom environment that allows students to feel comfortable and able to take risks.

### **Theoretical Framework**

Literacy is the control of primary and secondary discourses. A primary discourse or the primary use of language is used within the home. A secondary discourse or a secondary use of language is language used beyond the home (Gee, 2001). The sociocultural theory applies to literacy both inside and outside of the classroom, as literacy does not just reside in people's

heads as a set of skills to be learned, but that like all human activity, literacy is essentially social, located in the interaction between people. (Larson and Marsh, 2005).

Both primary and secondary discourses stem from our beliefs and values, which essentially make up who we are. For a child to become literate, the child needs to be immersed in an enriched social environment beginning at infancy, throughout the stages of early childhood development, which will provide the child with the necessary tools to accept the beliefs and values of their culture. Once children exchange the primary and secondary discourses that are utilized and valued within their society, they can then begin to communicate and interact with the outside world through the oral and written language as emergent readers and writers. Kucer (2009) states that both oral and written discourses are expressions of language and therefore exhibit shared features, such as dual structures, and rule governed systems. Writing is not oral language expressed through print, and written language is not speech written down, however written language extends and builds on the oral language system but does not replicate it. It is obvious that there is a relationship between oral and written language as oral and written roles both play an important part in a child's social, linguistic, and cognitive language development.

Children need to acquire oral and written language, and be able to use oral and written language effectively in a variety of settings including the classroom environment. There are many reasons to read-aloud to students throughout the year, but the demonstration of different writing styles and forms of written language, as well as the modeling of oral language through the introduction of words and sounds can lead to an improvement in language expression throughout all curriculum subjects at every grade level.

The theory that will guide my study is the sociocultural theory. According to sociocultural theory, learning occurs through participation in social, cultural and historic contexts

that are mediated by interaction. Thus, children learn by participating in sociocultural activity in both formal and informal contexts of culturally relevant situations (Larson & Marsh, 2005).

Reading and writing with a teacher, therapy animal, and usually a few peers is a very social experience that is centered on discussion and interaction. Reading aloud, sharing writing, and discussing thoughts, feelings, and comments with a group of peers and teachers can be an intimidating experience for any reader at all abilities. Goodman (1984) states, “the learning of literacy skills can be an exciting and stimulating experience; however, it can also be discouraging and inhibiting” (p.324). Students are often worried about making mistakes and looking inadequate as they read orally. It has been found that the presence of therapy dogs can break social barriers and give students a feeling of comfort and companionship (Friesen, 2011). Therapy dogs are able to make literacy an exciting and stimulating experience for students. These animals can take pressure off of the students and make it a more fun and laid back experience so that they are not as nervous or worried. The use of therapy dogs can give students practice reading orally and working on their fluency. As they become more confident in their oral reading ability, they will be more likely to actively participate in group literacy activities and collaborate with peers. Freebody and Luke (1990) support the sociocultural theory stating, “it is through social interactions around literacy events that we learn our position as reader and our notion of what for us the texts are for” (p. 11). Sessions with a therapy animal are focused on the social interaction between the teacher, student, and dog. The interactions with texts that students experience with a therapy dog can help them better understand their role when interacting with text.

Students’ attitudes towards literacy activities are usually based on their past experiences. Goodman (1984) states, “It is important to remember that children’s development of literacy

grows out of their experiences, and the views and attitudes toward literacy that they encounter as they interact with social groups” (p. 317). If students have had bad experiences with reading, they are likely to dislike reading and try to avoid it. Having children read to therapy dogs can provide them with positive experiences and give them a more optimistic and confident attitude about reading. Therapy dogs provide an exciting, new way for students to practice their literacy skills with a teacher or tutor. Providing students, especially struggling readers, with the opportunity to have supplemental, positive, relaxed experience with literacy can aid them in reaching grade level expectations and/or go beyond the grade level skills.

### **Research Question**

Understanding the role that participation in social interactions and culturally organized activities play in literacy learning, as well as the role of experience in shaping learning for students, I have been led to ask the following research question: How does the presence of therapy dogs affect student behavior, concentration, and motivation to read?

### **Literature Review**

In order to produce a well-round and informed action research study, it is imperative to view the previous research that has helped set the foundation for this particular study. In the following literature review, an examination of three distinct themes will be discussed. The first theme investigates using therapy animals to promote children’s literacy. Therapy animals are being used as reading partners to give students’ practice with their reading skills. The second theme discusses the ways that therapy animals can be used for children with disabilities. Therapy animals can help students with disabilities increase their social skills, communication, and positive behaviors in the classroom. The last theme that will be addressed is the emotional

benefits of therapy animals for students. Therapy animals can help students deal with anxiety, empathy, aggression, behavioral problems, and overall state of mind.

### **Therapy Animals Promote Literacy**

The inclusion of a therapy animal in literacy learning offers children a unique educational, emotional, and social support. Therapy animals promote a positive relationship between students, teachers, and animals which contribute to a social learning environment mediated by interaction. They provide a less stressful, nonjudgmental environment where students feel they can take risks. The presence of therapy animals also influences student motivation for meaningful learning. Animal assistance literacy programs are not only becoming a common practice in schools, but also in public libraries across the country (Hughes, 2002). These programs have proved that the use of therapy dogs and their handlers can be influential in improving literacy skills of children in a unique and fun way.

There are a handful of programs designed to incorporate therapy animals in reading interventions. R.E.A.D (Reading Education Assistance Dogs) is one of the most well-known animal assisted therapy reading programs and offers promising results. The program began in 1999 at the Salt Lake City Public Library. R.E.A.D promotes improving literacy skills through the use of therapy teams as literacy mentors (Shaw, 2013; Hughes, 2002). The program works because most of the struggling readers that join the program, usually have low self-esteem because of their difficulties, but are more willing to interact with animals than with other people because the children find the dog less threatening to their ego. This program has had tremendous success. Findings show that all students who participated in R.E.A.D for at least 13 months gained at least two grade levels. Some gained as much as four grade levels. Other indicators of

children's progress in the R.E.A.D program included decreased absenteeism, increased use of the library, and improved grades on report cards (Jalongo, 2005). Similar programs at libraries and school are becoming more common in order to meet the literacy needs of struggling readers and increase the amount of time spent reading by all children.

The use of animals, of any kind, can facilitate communication, and social interaction and personal growth, which can be positive for child development. An important aspect of a child's development is social skills. The presence of the therapy dog seems to break social barriers. Friesen (2011) states "these animal-assisted literacy learning sessions temporarily brought together students who otherwise might be divided by reading levels, socially by cliques, or physically by rows of desks" (p.317). The sessions seemed to give students a feeling of comfort and companionship through close physical contact that they allowed with friends and the dogs. The students were given a relaxed atmosphere to practice reading skills, as well as build new relationships. The reading sessions with the therapy dog usually take place in a cozy corner of the room, with pillows, blankets, a bed for the dog, and a chew toy for the dog to allow everyone to get comfortable. Reading and writing instruction can be provided individually, in small groups, and/or in a large/whole group. For small group instructional settings, many teachers divide students based on their needs and levels. Although ability grouping has its benefits, it can be difficult for the students that know they are in the low level group for struggling readers. Reading therapy sessions can allow students to be grouped together regardless of their reading levels because of their laid back structure. It also gives them a common interest and activity to relate and interact with each other through. Rud and Beck (2000) found similar evidence that "the mere presence of animals alters a child's attitudes toward him-or herself and improves the ability to relate to others" (p.313). Working with an animal in a group setting can give students a

chance to work on their social skills with peers. The animal may give students something to communicate about and a way to relate to each other, therefore promoting social interaction and literacy skills.

Friesen (2010) explains how a therapy dog might play an important role in nurturing and strengthening adult-child relationships. Mentor and student relationships can grow through the action of giving. Simply by praising, giving genuine interest and care, and the very presence of mentors and therapy dogs can a relationship be built. The attention, affection, and acceptance of a dog will compliment this relationship (Friesen, 2010). Dogs are able to respond to humans in ways that reinforce attention and care. For example, dogs wag their tail for a greeting, give kisses on the hand or cheek, and even can notice subtle changes in mood. Shaw (2013) states that “although dogs can’t speak, they communicate in so many ways” (p. 367). This communication between dogs, trainers, and students is one way that relationships are enhanced. By strengthening the bond between teachers, mentors, tutors, etc. and children, students may be more open to adult instruction. Literacy learning is a social practice influenced by culture, social groups, and historical contexts (Kucer, 2009). Building strong relationships will allow learning to occur through the social interactions based around literacy events. Friesen (2010) found that when “helping adults are liked and admired by young people, the young people will be more receptive to adults’ guidance, will seek approval, and will be inclined to imitate their behaviors and attitudes” (p. 28). This relationship is an important benefit of the therapy dog program because the strengthened bond between teachers and students continues beyond the literacy program. The research supports that providing a supportive adult role model and gentle animals may encourage youth’s social and emotional development, increase self-esteem, and help with academic motivation and achievement.

Animal assisted therapy can help students feel safe to take risks and make mistakes. Many children, especially gifted children, can be prone to perfectionism and develop very high standards for themselves. Students become afraid to take risk and make mistakes because of what their peers may say and think, their teacher's disappointment, and feelings of foolishness. The pressure not to fail in school may cause children to feel that they are constantly underachieving in their self-goals and cause them to experience low self-confidence. Animal assisted literacy experiences can help release that pressure for children and allow them to enjoy reading and writing. Friesen (2013) states that "gifted children can be temporarily released from the expectation to be perfect because they understand that reading and writing with a dog carries no inherent risk" (p. 3). The children feel safe to take risks and make mistakes because they know that an animal does not care. In a reading dog program that took place in LaGrange Library in Poughkeepsie, NY an atmosphere of relaxation and openness was created for children to practice reading skills. Francis (2009) supports that "the practice of reading out loud in a setting which they feel comfortable and can take risks, where they feel they are not being judged or corrected, can surely increase self-confidence and carry over to their in school performance" (p. 52). When students feel they have a less intimidating audience, reading can become more pleasurable. By creating positive literacy experiences for children, reading and writing may become lifetime leisure activities. The use of therapy animals can help children see literacy events as something that can be enjoyable.

Similarly, Jalongo (2005) reports that the presence of therapy dogs can reduce stress when children are asked to read aloud to a peer and/or adult. The animal was able to reduce children's blood pressure and heart rate to normal levels and decrease observable signs of anxiety when reading aloud (Jalongo). Another reason their stress for reading aloud in front of

peers and an adult can be reduced is because during these animal assisted literacy sessions the children and adult are released from traditional roles of learner and teacher. Friesen (2011) explains how the adults become a playful participant that honors and supports students' literacy decisions and ideas. Teachers no longer are an intimidating figure, but an equal participant in their literacy experience. Animal assisted literacy programs offer a break from typical school life (Friesen, 2011). Students are given time to just enjoy the reading and writing experiences without any pressure. Positive experiences with literacy can motivate and encourage students to participate in more literacy events.

Many school literacy programs emphasize prevention of academic difficulties, rather than remediation. Students should be provided with supplemental instruction or activities to reinforce the skills learned in whole class settings, rather than waiting for children to fail and then offering remediation. Friesen (2010) believes,

Learning with a mentor while accompanied by a therapy dog may uniquely place the child in a position of power with an emphasis on the positive, or on possibilities, rather than a focus on deficits and re-directed towards showing the dog what he/she knows. (p. 32).

The focus is taken off of what a student cannot do and becomes a positive experience focusing on the strengths of the student. For example, when the student has difficulties with a word, the mentor could redirect the focus off the child and try to have the child teach the dog the word, which adds to the fun, relaxed environment. With the child as a teacher to a nonjudgmental audience and the support of an adult, the child is provided with a supportive enjoyable atmosphere for learning. Jalongo (2005) similarly states "animal-assisted therapy that brings

dogs into reading class is not intended to take the place of effective instruction in reading” (p. 155). The dog therapy reading programs are in addition to classroom instruction time for students. It is a chance for students to have an alternative to the common classroom activity of silent reading time. Reading to therapy dogs gives students a chance to practice the important emerging skills and strategies that they have learned from their teachers. It is while practicing on their own, or with a therapy dog, that children begin to automatize the skills and strategies they need to be successful.

As well as a more enjoyable experience for literacy learning with therapy animals, students can demonstrate being more on task. Bassette and Taber-Doughty (2013) found that on-task reading aloud behaviors of students with emotional and behavioral disabilities increased and remained high during dog visitation sessions, despite students reading challenging books. Reading books that are at a frustration level for students can be a discouraging and difficult task that may make some students give up. Many students do not want to challenge themselves, but the use of a therapy dog may help students to try more challenging texts and stay involved in the reading process. Kotrschal and Ortbauer (2003) also reports that participants paid more attention to the teacher when a therapy dog was in the classroom. With a dog present in the classroom the teacher is able to teach more without distractions. The quality of instruction and quality of reception by the students creates a more effective educational setting. An enjoyable literacy experience with therapy dogs allows students to be more involved and on-task during reading and writing tasks. Educators hope that these positive experiences and behaviors continue to take place when the therapy animals are not present.

Jalango (2005), Friesen (2010, 2011, 2013), Francis (2009), Rud and Beck (2000), Shaw (2013) and Hughes (2002) have shown that the use of therapy animals, especially dogs, can have

a positive effect on children's literacy skills. The use of these animals have been shown to increase communication and social skills, create a stress and judgment free environment for children to practice their literacy skills in, motivate children, and provide and an enjoyable supplementary experience with reading and writing. Programs utilizing therapy animals as a literacy tool are becoming popular in many schools and libraries.

### **Animal Assisted Therapy for Children with Disabilities**

The use of therapeutic animals for children with disabilities has been found to have several positive effects for their well-being and school success. Therapy animals can be beneficial to students to build relationships and social skills, increase communication, and decrease problem behaviors. The animals can assist children with disabilities close the gap in developmental, emotional, and educational delays.

Many students with disabilities have poor social skills or have a hard time making and maintaining positive relationships. Anderson (2007) found that students found companionship with a therapy dog and students' peer interactions became more frequent and positive. Students in special education programs, especially self-contained classrooms, may not always have the same social opportunities or experiences as their peers. Students with disabilities are often bullied and experience loneliness. Anderson reports "development of student-dog relationships has the greatest potential for helping students emotionally and behaviorally in the school setting since a dog's distribution of attention is usually ongoing and his acts of affection are typically noncontingent" (p. 9). Animals can serve as a nonjudgmental and loving friend for many students. Similarly, Dilts, Trompisch, and Berquist (2011) observed children with disabilities were more socially and verbally expressive and relaxed after sessions of dolphin-assisted

therapy. The presence of the therapy animal helped the students to feel more relaxed and comfortable, which then allowed them to express themselves. When children can feel safe to be themselves and speak up, they are more likely to have positive social interactions and take risks. The results of Esteves and Stokes (2008) study indicate similar results for students with disabilities with the presence of a therapy dog in the classroom. The results showed an increase in positive verbal and nonverbal initiations toward the teacher and the dog. It is important for students to be able to initiate social interactions with others. This skill is especially important for students with disabilities to be able to advocate for themselves and ask for help when they may need it. Esteves and Stokes (2008), report that “generalized improvements in interactions with the teacher in the children’s classroom following sessions with the dog” (p. 13). The students showed social improvements in the presence of the dog and were able to continue using those skills without the dog being present. This finding shows that the social skills students are learning with the therapy animals are being used in other environments and situations. Children and therapy animals can form a strong bond and friendship. Once therapy sessions end it can be hard for students to cope. Heimlich (2001) suggests that occasional contact on a less formal basis with the animal or introducing other animals to the students so that relationships can continue to develop. After forming a strong relationship, it would be helpful to students to gradually remove the animal from the environment.

Therapy animals can have a positive effect on the occurrence of problem behaviors for children with disabilities. Dilts et al. (2011) found dolphin assisted therapy to increase attentions spans and improve interactive and play behaviors of children with special needs. The parents of the children involved in Dilts et al’s study indicated perceptions of positive change in behaviors. The parents reported that the skills observed during therapy sessions with the animals were also

seen in the home environment after their interactions. This finding is important because the changed behaviors were present in both home and therapeutic environments. Similarly, Katcher and Teumer (2006) found a decrease in disruptive behavior of students during animal therapy sessions. The special education students were given the chance to be outside of the classroom interacting with farm animals. Katcher and Teumer conclude “an environment that permits children in special education to interact with animals and nature decreases the amount and frequency of pathological and disruptive behavior manifested by these students while they are in that environment” (p. 241). The presence of a therapy animal can create a safer and calmer environment for students with disabilities and their educators. The results from Silva, Correia, Lima, Magalhaes, and Sousa (2011) show “that frequencies and durations of both physical aggressive behavior toward inanimate objects and verbal aggressive behavior toward the therapist were significantly lower in the sessions that included the therapy dog than those that did not” (p. 657). When these types of behaviors are decreased and positive alternative behaviors are used, students are ready and able to learn. Not only has aggression towards others been found to decrease in the presence of a therapy animal, but self-injurious and stimulating behaviors can decrease as well. Levinson (2007) states “among seriously disturbed children, possession of a pet tends to decrease the need for head-banging, excessive masturbation, rocking, and finger-sucking.” (p. 413). When the child is engaged in an enjoyable activity or contact with the therapy animal, they no longer seek the stimulation from within their own body.

There is some research supporting the use Animal Assisted Therapy, specifically with children on the Autism spectrum. Animal assisted therapy may be able to help with some of the stereotypical behaviors associated with people on the Autism spectrum. One study compared the interactions of children with Pervasive Developmental Disorder in the presence of a ball, stuffed

dog, and real dog. Martin and Farnum (2002) found that the children laughed more and have treats more in the presence of the real dog. They also appeared to be happier, to be in a more playful mood, and more energized when the real dog was present. Martin and Farnum report “this increase in energy seems to have been appropriately channeled as evidenced by the fact that children’s attention was primarily centered on the dog and not on distracters unrelated to the protocol” (p. 667). Also, the participants gaze focused more on the dog and appeared to be less distracted. The therapy animals are able to gain and keep the attention of students. Silva et al (2011) reported that in the presence of a therapy dog, their participant, a child with autism, exhibited more frequent and longer durations of positive behaviors and less frequent and shorter durations of negative behaviors. The positive behaviors that increased with a dog present at therapy sessions were visual contact, smiling, and affectionate behavior (Silva et al.). These types of behaviors are stereotypically not common for children with autism. The negative behaviors found to decrease were physical and verbal aggression, grabbing, and obsessive staring (Silva et al.). By increasing positive behaviors and decreasing negative behaviors displayed by children with Autism, more time can be spent with these students on their educational and therapeutic skills. Katcher and Teumer (2006) also found that students with autism benefit from an environment with therapy animals. These students were in a teaching program structured around animals at the farm, nature study, and gardening. Katcher and Teumer compared this environment to the children’s regular classroom and reported “that animal interaction and nature study provide an environment that elicits more adaptive behavior than the constraints imposed by conventional classroom work” (p.241). Through the use of therapy animals, children with autism may be able to participate in educational and therapeutic interactions better and respond to the demands of these environments.

The use of therapy animals, not only can improve communication, social skills, and positive behaviors, but has also been found to help children complete different types of tasks. Gee (2007) studied the role of therapy dogs in speed and accuracy to complete motor skills task for preschool children. He concluded that a therapy dog is an effective motivator for children performing motor skills tasks without compromising accuracy, in all but one of ten tasks. The children were able to complete tasks faster with the dogs present (Gee). The therapy dogs may have helped students to feel more relaxed and less stressed during the tasks or the dog may have served as a motivator. Gee discusses the strong positive relationship between motor skills and language and concludes that therapy dogs may be useful to aid language education and development of students. Similar results were found to help children complete cognitive tasks (Gee, Crist, & Carr, 2010). Children's memory performance and compliance to instruction were tested in the presence of a therapy dog, stuffed dog, and a human. Gee et al. (2010) concluded "that the presence of a real dog results in a reduced need for instructional prompts, relative to a human or a stuffed dog, when preschool children attempt to complete cognitive tasks of object and picture recognition" (p. 182). This finding proved to be true for both task specific prompts and general prompts to children. The need for less instructional prompts on cognitive tasks allows students to be more independent and complete more work. Students with disabilities can be delayed with different skills, such as motor skills and memory. By helping students with these skills they are better able to complete school tasks.

The use of therapy animals for children with disabilities can have many positive effects. Through the interactions with therapeutic animals children with disabilities can build social skills and relationships with others, and behave more appropriately. By building these skills, these students are at a better place for learning and development.

### **Emotional Benefits of Therapy Animals**

Animals in school and counseling settings facilitate an atmosphere of trust, nurturance, and relationship building. Therapy animals have been found to have a positive effect on the emotional well-being of children and adolescents (Prothmann, Bienertt, and Ettrich, 2006, & Chalnder, 2001). By helping children get to a better place emotionally, they are then able to focus more attention on academics. Prothmann et al. found that:

The presence of a dog increased to a large extent the alertness and the attention of the child, caused more openness and desire for social contact and exchange, promoted the perception of healthy and vital factors, and enabled the child to become psychologically more well balanced. (p.275).

The results showed that the presence of a therapy dog had a major influence on the participants' overall state of mind. The pleasant experiences of the presence of the therapy dog may help students to communicate and associate with others, more attentive/concentrated, less easily distracted and more balanced (Prothmann et al., 2006). These behaviors allow children and adolescents to be better prepared for clinical and educational environments.

As previously stated, a nonjudgmental audience allows students to feel comfortable. This can be especially important in a therapeutic setting, where people need to feel relaxed and at ease enough to work through their emotions. According to Friesen (2009), therapy animals offer “unique and valuable social and emotional support precisely because they are active and willing participants, but with the qualifier that is outside the realm of their communicative abilities to verbally criticize or judge the child’s progress” (p. 266). People feel that they can openly discuss feeling and things going on in their lives and the animals can offer a break from the anxieties of

human exchange. Children get the feeling that they are being heard and being understood. Similarly, Chandler (2001) discusses how the presence of the animal can facilitate a trust-building bond between the therapist and client. The animal can release some of the tension and anxiety associated with therapy. The interaction with the animal is fun and entertaining for the children as well. It can be easier for a child to talk about more difficult issues to an animal and have the therapist listen in than talking directly to the therapist. The animal can serve as a friend and supporter, consequently creating a safe environment where the student can get to a better place mentally and emotionally.

As well as a safe environment in therapy sessions, the presence of a therapy animal can have a calming effect on participants (Lange, et al., 2006/2007). Participants in Lange et al.'s (2006/2007) study reported the dog calmed them down when they began to feel frustrated or irritated during the group counseling sessions. Some of these children need to calm down before they can open up about something that might make them angry. Holmes, Goodwin, Redhead, and Goymour (2011) found similar results that a significant reduction in anxiety was found over the course of an Equine-assisted program. Generalized anxiety, panic/agoraphobia, social phobia, separation anxiety, obsessive-compulsive symptoms, and physical injury fears were all reduced after eleven adolescents attended a racehorse rehabilitation center (Holmes et al., 2011). The use of a therapy animal can also provide an entertainment component or humor relief. This can be beneficial for when the environment becomes too serious or intense for students. Funny incidents with the animal can take patients' problems away, even for a moment and give them a distraction. The positive effect of a companion animal on physiological arousal and behavioral distress in children was seen in Nagengast, Baun, Megel, & Leibowitz's (1997) study. During a physical examination, preschool children had significant decrease in blood pressure, arterial pressure, and

heart rate when the companion animal was present. The children demonstrated fewer indicators of behavioral distress with the dog present (Nagengast et al., 1997). A similar study following Nagengast's found the same results, that children showed significantly less behavioral distress when a therapy dog was present (Hansen, Messinger, Baun, & Megel, 1999). This finding was important because the Hansen, et al's study was done in an actual clinical setting with children receiving real treatment as compared to Nagengast, et al's study which involved healthy children in simulated laboratory examinations. These studies prove that animals can serve as an effective distractor for children to direct their attention away from stressful factors. The therapy animal has been shown to have positive emotional effects on children in a number of different environments.

The overall behavioral effect of having a therapy animal present can have a beneficial influence on children. Difficult and aggressive behaviors can make teaching or counseling sessions near impossible because more time and attention is spent working on the way students act. Kortrschal and Ortbauer (2003) found that "children showed conspicuous and troublesome behavior considerably less often when the dog was in the classroom and were significantly less aggressive" (p. 153). Behaviors are a way of communicating something. Acting out can be a way to receive attention for some children. Through interacting and spending time with therapy animals, children can receive affection from the animal, which they may have tried to attract before through troublesome behavior. Chandler (2001) reports similar results, that violence can be reduced through the use of animal-assistance in the classroom and counseling environments. Whether children may feel motivated to behave in order to get time with the therapy animal or they are just more calm in the animal's presence, their behaviors have been shown to be more therapeutic and school appropriate.

Humane education for children can be more effective with the existence of therapy animals. Humane education teaches students to care for the animals in their homes and community. Humane education is important because it can develop empathy and caring by stimulating students' moral development and sense of responsibility. Daly and Suggs (2010) reported that most teachers presume that pets somehow advance humane education and that there is value to using animals in the classroom setting. Teachers believed that having animals in the classroom contributed to their students' development, social and emotional development, and academic development. The research showed that attitudes and relationships with animals increased empathy and moral awareness for children (Daly & Suggs). Students are able to show respect, kindness, and responsibility for the animals, which are forms of empathy. Students can show respect for the health and lives of animals and provide responsible animal care. Kotrschal and Ortbauer (2003) also found that students seemed to assume responsibility for the therapy dog involved in their study by acting considerate and observing its needs. In return the children can receive affection and attention from the animals. Animals can be a part of the curriculum with the goal of promoting moral awareness and fostering humane treatment of humans and animals along with animals many other benefits. In Tissen, Hergovich, and Spiel's (2007) study of social training with dogs versus without dogs, it was reported that an increase in sensitivity and empathy with the feelings and reactions of other people. Although empathy increased in the presence of therapy dogs, it was found that the new level of empathy did not maintain after the program (Tissen et al.). Although understanding and sympathy for other people can increase when children are in the presence of a therapy dog, there needs to be a generalization of skills in all environments. The hope is for these emotions and new behaviors to continue after the sessions with therapy animals.

Therapy animals have proved to be beneficial to the emotional well-being of children and adolescents in school and therapeutic settings. These animals seem to have a calming effect on students that keep them on task and better behaved, as well as helping them understand empathy, caring, and responsibility for animals. When children are in a calmer and less emotional state of mind, they are able to focus more of their attention on learning and education.

The effects of animal assisted therapy have been shown to be mostly positive. The interaction between students and therapy animals can help in many different areas, including education, specifically literacy and special education, as well counseling and the emotional well-being of children. Therapy animals can increase students' literacy skills by helping them feel comfortable and motivated. Students with disabilities can improve their social skills and relationships, positive behaviors, and language skills. Therapy animals can have a huge effect on the emotional state of students, helping them feel heard and affection from another.

## **Method**

### **Context**

Research for this study took place in the setting of each participating family's home. Both participating families are made up of the mother, father, and three children. The Smith (a pseudonym) family lives in Westwoods, NY. Westwoods is a suburb of the city of Rochester, located in Waverly County. The town has a population of about 5,400 people in 2011 with a median age of 37.1 years old. The community is made up of low to middle class income individuals, with the median household income at \$38,272. The percent of people with a college degree (age 25+) is at 27.6 percent. The racial makeup of Westwoods is 81.2% Caucasian, 5.6% Asian, 5.2% Hispanic, 5% African American, two or more races 2.6%, American Indian 0.3%,

Native Hawaiian and other Pacific 0.04%, and other race 0.1% (City-Data, 2012). The Johnson (a pseudonym) family lives in Orange, NY. The town of Orange, New York is located in Macker County on the southern shore of Lake Ontario. The town has a population of about 10,000 people in 2009 with a median age of 36.4 years old. Orange is made up of low to middle class income individuals, with the median household income at \$57, 772. People 25 years old and up that hold a college degree is at 21%. Orange is mainly Caucasian, who make up 95.7 percent of the overall population. The community is also made up of 1.2 % African American, 1.2% Hispanic, 1% two or more races, 0.6% Asian, and 0.2% American Indian. (City-Data, 2012).

### **Participants**

The participants for this study included six children. The children from the Smith family include Steve, Meghan, and Alyssa (pseudonyms). The children from the Johnson family include Nick, Emily, and Jen (pseudonyms). The Johnson children were adopted into the family about two years ago. They are all biological siblings. The age range of the children participating is five to 11 years old. Both families are considered middle class. The participating children are meeting grade level expectation for all content areas.

Steve is a naturally curious and active, five year old, Caucasian male. He enjoys swimming, reading, nature, and playing video games. Steve is the youngest of three children in the Smith family. He just finished Kindergarten at Plank North Elementary School. Steve attends all general education classes. He receives speech and language services through the school. His speech impairment has not affected his rate of progress or participation in age-expected activities. Steve is currently reading at an independent level of C. Steve has a positive attitude towards reading and enjoys going to the library to pick out books.

Meghan is a very social, nine year old, Caucasian female. She enjoys playing basketball, swimming, and listening to music. Meghan is the middle child of three siblings from the Smith family. She just finished fourth grade at Plank North Elementary School. Meghan attends all general education classes and is considered on grade level for all content areas. Her current independent reading level is S. Meghan enjoys reading and often reads during her free time.

Alyssa is an outgoing, eleven year old, Caucasian female. She enjoys dancing, drawing, listening to music, and fashion. Alyssa is the oldest of three children in the Smith family. She just finished the sixth grade at Spry Middle School. Alyssa attends all general education classes and is considered at grade level for all content areas. Her current independent reading level is Y. Alyssa has a positive attitude towards school and reading.

Nick is a five year old Caucasian male. He is very social and enjoys watching television, riding his bike, and playing with stuffed animals. Nick is the youngest of three siblings in the Johnson family. Nick just finished Kindergarten at Ontario Elementary School. Nick attends all general education classes and is at grade level for all content areas. He receives services for speech and language, but the speech impairment has not affected his rate of progress or participation in age-expected activities. Nick enjoys learning new things and talking about the things he has learned in school. He has a relatively positive attitude toward school and reading.

Emily is a friendly, seven year old, Caucasian female. She enjoys dancing, playing card games, and playing computer games. She is the middle child of three siblings from the Johnson family. Emily just finished the second grade at Ontario Elementary School. She attends all general education classes and is on grade level for all subject areas. Emily has stated that she does not enjoy reading.

Jennifer is a creative, ten year old, Caucasian female. She enjoys playing on her iPod, arts and crafts, reading and listening to music. Jennifer is often reading in her free time. She is the oldest of three siblings in the Johnson family. Jennifer just finished the fifth grade at Ontario Primary School. She attends all general education classes and is on grade level for all content areas.

There are two adults in my study. These adults were given pseudonyms to protect their identity. These adults were used to obtain interviews and questionnaires based on their children's reading and writing attitudes, experiences, and interests. I used the mothers from each of the families involved to answer some questions before the study and after the study.

Joan Smith is a 41 year old, Caucasian woman. She is a mother of three children. She is an involved, working mother.

Sue Johnson is a 39 year old Caucasian woman. She is a mother to three adopted children. Sue and her husband adopted the children about two years ago.

### **Researcher Stance**

I am currently a graduate student at St. John Fisher College working towards a Master's degree in Literacy Education, Birth-sixth grade. I presently have a Bachelor's degree in Special Education grades kindergarten through twelve. As a researcher in this study, I acted as an active participant observer, meaning that I actively engaged in the literacy events while simultaneously observing the outcomes of the study (Mills, 2011). I participated in the reading/writing sessions with the dog by explaining what the student needs to do but also by communicating with the student and dog about the text being read and while the student writes.

## Method

During this study, I collected both qualitative and quantitative data to examine the effects of therapy dogs on students' interest, attitude, and motivation towards literacy. The study took place over the course of four sessions total, each approximately 30 minutes in length. The first and the last session were dedicated to collecting pre and post assessment data as well as student and parent questionnaires. The first session took place without the therapy dog present to collect pre assessment data. The sessions took place one-on-one with each student. Literacy activities in this study focus on student reading of nonfiction books, at their independent level, and writing about the main idea of the text.

The first session of the study was spent collecting baseline data. Each student took a questionnaire about their reading and writing interests, attitudes, and motivation (See appendix A). The parents also filled out a questionnaire about their child's reading and writing interests, attitude, and motivation (See appendix B). The children then chose a nonfiction book to read from a preselected group of books at each child's reading level. They were given a choice of about five books to choose from. Once they chose a book they were asked to read aloud to me. Once done reading the students wrote about a paragraph on the main idea or one thing that they learned from the text. The same process was used for the three sessions with the therapy dog. The student were able to sit in a comfortable spot with the dog and I and select a book to read and write about. The environment was laid back and the students were encouraged to talk about what they were reading or writing. During the final session the students were given the same questionnaire from the first session to complete. The parents were given a different questionnaire from earlier. The questionnaire was asking about any changes they did or did not see in their child's reading and writing interest, attitude, and motivation (See Appendix C). The students

again selected a nonfiction book from the reading level to read with the researcher and then wrote about the main idea of the text.

While the students were reading and writing, I was looking for certain indicators of the students' attitude and motivation toward the literacy activity. I was looking for on task behavior, engagement, and communication throughout the sessions. On task behaviors include reading and writing without stopping, not getting off task, or talking off topic. Behaviors that are not considered on task include refusing to read or write, distracted, talking about off topic subjects, or acting inappropriately/acting out. Behaviors that indicate a student is engaged are showing an interest in the topic, excitement about the topic, and commenting and/or questioning about the topic. A student that is not engaged may show no interest in the topic he/she is reading and writing about (i.e. not commenting and/or questioning about the topic), and either does not complete the work or only gives the minimal effort needed to complete the work. Communication was observed based on talking with the therapy dog and adult during the sessions. I looked for whether the student communicated with only the adult, only the dog, both the adult and dog, or neither.

### **Quality and Credibility of Research**

In completing any action research, it is essential to evaluate and ensure the study's quality and credibility. Mills (2011) and Guba (1981) identify credibility, transferability, dependability, and confirmability as essential components of a qualitative research study's trustworthiness. These four components were thoroughly examined and put into place within the current research to ensure its trustworthiness.

Mills (2011) defines credibility as a “researcher’s ability to take into account the complexities that present themselves in a study and to deal with patterns that are not easily explained” (p.104). To ensure credibility throughout this research, I practiced triangulation. According to Mills (2011), triangulation is when a researcher uses “a variety of data sources and different methods with one another in order to cross check data” (p.104). I practiced triangulation in this study through the collection and use of experiential, enquiry, and examination data. The various data collection methods that were used in this study include active observation of students reading and writing with and without the presence of a therapy dog with descriptive field notes, pre and post assessments of student work, and student and parent questionnaires.

Transferability was also ensured throughout this research study. According to Mills (2011), transferability refers to “researchers’ beliefs that everything they study is context bound” and not generalizable to larger groups of people (p. 104). In order to ensure transferability in this study, detailed descriptive data was collected to allow for comparisons of the study to other contexts. By providing descriptive data specific to the context of my study, others will be able to make conclusions about how this data fits with other possible contexts (Mills).

Dependability is another component to a trustworthy research study. Dependability refers to the stability of the data collected throughout research (Mills, 2011). I ensured dependability in my study by overlapping data collection methods through the practice of the triangulation process. In this study I used observation and field notes, student and parent questionnaires, and student work samples. In using two or more methods of data collection the weakness of one form of data will likely be compensated by the strengths of another, therefore strengthening their stability (Mills).

Confirmability should be ensured throughout the study. Mills (2011) defines confirmability as the “neutrality or objectivity of the data that has been collected” (p.105). The triangulation process that was used within this study will help to ensure the confirmability. Through the use of a variety of different data sources, the data collected can be compared and cross checked. Reflexivity was practiced in this study by writing reflections throughout the data collection process. In doing so, I will be able to “reveal underlying assumptions or bias that cause the researcher to formulate a set of questions in a particular way and to present the findings in a particular way” (Mills p. 105). By ensuring credibility, transferability, dependability, and confirmability of the research study, the data collected should be trustworthy, and offer valid understanding of the use of therapy dogs for literacy learning.

### **Informed Consent and Protecting the Right of the Participants**

Before beginning my research, I to asked for permission from the parents of all the students who were going to be involved in the study. I provided each parent with a permission form that explained the purpose of the study and asked for their permission and signature to perform research with their child. Additionally, I received informed assent from each student following the receipt of parental permission. The children were given an assent form that I verbally explained and let them read about the purpose of the study as well as what I would be asking them to do and then asked for their permission and signature to participate in research. Parents were also informed about the purposes of the study and how they would be participating and were then asked to sign an informed consent form, indicating that they would take part in the study. Both parents and students were notified that the names of participants would be changed to pseudonyms and that any identifying marks would be removed from artifacts to protect their identities and ensure anonymity.

## **Data Collection**

Three different forms of data were collected to meet the purposes of triangulation. One form of data collection that was used is observations and field notes of each session with and without the therapy dog present. Specifically in this observation the researcher was looking for on task behavior, engagement, and communication. A rubric was created for the researcher to use during observation sessions (Appendix D).

I also collected student work samples throughout the study. I collected a baseline sample of the student's writing about a text that they read aloud. Then I collected a writing sample from each session with the therapy dog. The same reading and writing process was used for each session with and without the therapy dogs.

The last form of data collected was a student questionnaire and a parent questionnaire. The students and parents were each given a questionnaire at the first and last session of the study. The students were given the same questionnaire in the first and last sessions. It contained twelve questions about the student's feeling toward different reading and writing activities. The students circled the smiley face that corresponds with their feeling, very happy, somewhat happy, somewhat upset, or very upset. The parent questionnaire in the first session contained twelve open ended questions about their child's attitude and interests in regards to reading and writing. The questionnaire for the parents at the end of the study asked more specific questions about whether or not they thought the use of the therapy dog was helpful for their child and their thoughts about their child's reading/writing. These various methods of data were analyzed and used to compare student reading and writing with and without a therapy dog present.

## **Data Analysis**

As I collected my findings, several steps were taken to analyze the data throughout my research. First, to analyze my questionnaires I carefully read each of them. I looked for any changes in each students' response from the first questionnaire to the final questionnaire and recorded any change in attitude. When I analyzed the questionnaires, I began to look for similarities and differences throughout the answers from the students. To code this information on the final questionnaire I starred in pink any questions that indicated a positive change and starred in yellow any questions that indicated a negative change in attitude towards literacy events from before working with the therapy dog to after working with the therapy dog. By marking the questions that showed positive or negative change I was able to look over all six student questionnaires to analyze and see any common changes among the children.

After reviewing the students' questionnaires I carefully read through the initial parent questionnaire and the final interview to look for any commonalities or differences between the student information and parent perceptions and information. The interviews were done through email because of lack of time, so information was already transcribed. I analyzed the student responses to parent responses to look for any consistency or inconsistency in responses. When I found consistent answers from a child and parent I highlighted the parent response. After highlighting consistent findings between the child and parent, I tried to connect it back to what the literature and theories report about the use of therapy dogs for literacy learning.

The other main pieces of data that I analyzed were the students work samples, specifically the pre and post assessment and field notes about my observations. First I read through each students' pre and then post writing piece to search for any changes in the quality of work. I recorded notes about any differences in student work. I then read through my field notes to understand what was going on during these assessments. As I read through my field notes I

highlighted any positive changes in student behavior in pink and any negative changes in student behavior in yellow. I looked for commonality between each student without the therapy dog present and while the therapy dog was present. By coding my assessments and data I discovered some interesting patterns that appeared consistent with all participants.

To analyze all the data, I looked for similarities and differences. I looked for information that consistently came up while I was conducting the research. By examining the data, I was able to code it and develop three different themes.

### **Findings and Discussion**

Throughout this research paper, I used a mixed method to collect my data. My quantitative data consists of several tables that display my pre questionnaire questions. My qualitative data is represented throughout this research paper and is based off of two recurring themes that involve student on task communication and motivation for literacy activities. These themes included the following: therapy dogs help to facilitate communication during reading and student motivation to read and write increased. These themes became apparent while analyzing my field notes, student questionnaires, parent questionnaires, and student work samples. Each method of gathering data in my research provided me with a different perspective in regard to the presence of therapy dogs for student's literacy, behavior, and motivation to read and write. I will first share my quantitative data and then will follow with my themes.

During the pre-assessment, the students first filled out the questionnaire either on their own or with my help to get a sense of their reading and writing attitudes and motivation. They then chose a nonfiction book to read aloud to me and wrote a summary about the text. The reason I chose to conduct this pre-assessment was to see if the children's attitudes, motivation,

and involvement in the literacy activities would change after the use of the therapy dog.

Conducting my pre and post assessments with the children showed me the positive influence the therapy dog had on the children's literacy. The students showed on task behaviors and were more motivated to read and write.

In the student questionnaire the children were asked how they felt about certain reading and writing activities. They responded with *Very happy*, *Somewhat happy*, *Somewhat upset*, or *Very upset* to match their feelings as close as possible and were told they could write some comments in the extra space if they felt the need. Below, Table 1 shows the percentages about how the children felt in the beginning of the study when asked how they feel about reading with a teacher. These are the selections the children made:

Table 1

*Percentage Scores of Children's Feelings about Literacy Activities*

Pre Assessment:	Percentages			
Question 4:	Very happy	Somewhat happy	Somewhat upset	Very upset
How do you feel about reading with a teacher?	17%	0%	66%	17%

Based on the table above, you can see that majority of the children did not enjoy reading with a teacher. The students responded 17 percent "very happy", 0 percent "somewhat happy", 66 percent "somewhat upset", and 17 percent "very upset." The children's selection may be because the students feel afraid to make mistakes around teachers or adults or may feel uncomfortable with the interaction. Reading with a teacher can be a very stressful situation for a student, especially struggling readers. Four out of the six students felt somewhat upset, while one felt very upset about reading with a teacher. With the exception of one student, Alyssa, the

oldest, that felt very happy when reading with a teacher. Alyssa wrote, “I feel very happy” when asked about reading with a teacher (pre assessment questionnaire, June 20, 2013). This response matches with Alyssa’s mother’s answer when asked how her child felt reading with an adult on the initial parent questionnaire. Alyssa’s mother, Joan, responded “She would rather read with an adult than on her own” (pre assessment questionnaire, June 20, 2013). Alyssa enjoys the social aspect of literacy. Her preference to read with an adult may be because of her strong reading ability and more positive experiences reading with adults that have led her to enjoy reading with a teacher or adult. The others may not have had as many opportunities for positive experiences working with a teacher and still have uneasy feelings in the teacher-student situation. Meghan, a soon to be fifth grader, wrote about her feelings reading to a teacher that she feels “Sometimes a little happy and nervous. I usually like reading by myself” (Pre assessment questionnaire, June 20, 2013). Meghan may feel as though she cannot make a mistake in front of the teacher, which would lead her to feel nervous about reading to a teacher. Many students become afraid to take risks and make mistakes in school because of feelings of foolishness and fear of disappointing their teacher. Meghan’s nerves were apparent while she read during her pre-assessment. I observed in my field notes while Meghan was reading that she was reading very quickly and would giggle when she mispronounced a word or phrase (field notes, June 20, 2013). Some students believe that reading quickly makes them a strong, fluent reader which is why Meghan may have been trying to read fast. I think that she felt embarrassed when she made a mistake or stumbled over the words. Nick, six years old, indicated that he “felt very upset” when asked about reading with a teacher on the questionnaire. I read Nick’s questionnaire aloud to him and had him circle his answers and comment when he wanted to about his answers. For this question, he stated “I don’t like it, unless the teacher is really nice” (Pre assessment questionnaire June 19,

2013). This response shows me that Nick still has some uncertainties about reading with teachers. He may not have a lot of experience reading with teachers because of his young age and therefore it might make him a little nervous, unless it is someone he feels comfortable with and he knows won't scold him for making mistakes. Emily's mother, Sue, when asked how her child felt reading with an adult on the initial parent questionnaire, she responded that it is a "source of stress, does not enjoy" (initial parent questionnaire, June 19, 2013). Many students feel anxious and uncomfortable with teachers because of the typical teacher-student relationship/interaction where the teacher assesses a student's abilities and therefore students do not want to make mistakes with a teacher present. They may feel they are constantly being evaluated by the teacher. Although I have previous relationship with Emily, based on my observations during the pre-assessment reading Emily seemed embarrassed when she did not know a word and uncomfortable throughout the session (field notes, June 19, 2013). She felt uncomfortable during this interaction because she was displaying her reading skills and did not want to be evaluated on what she could or could not read.

Below, Table 2 shows the responses from the children when asked how they feel when reading out loud in class. These are the selections the children made:

Table 2

*Percentage Scores of Children's Feelings about Literacy Activities*

<u>Pre Assessment:</u>	<u>Percentages</u>			
<u>Question 6:</u>	<u>Very happy</u>	<u>Somewhat happy</u>	<u>Somewhat upset</u>	<u>Very upset</u>
How do you feel when you read out loud in class or in front of peers?	0%	17%	66%	17%

Based on the table above, more students feel upset, rather than happy about reading aloud in front of peers. The students responded 0 percent “very happy”, 17 percent “somewhat happy”, 66 percent “somewhat upset”, and 17 percent “very upset.” Even the children that are strong readers did not choose very happy about reading aloud in class. The children may be feeling unhappy about reading aloud in front of peers because of the classroom environment, fears of looking or sounding stupid, or low self-esteem. Emily, who chose “very upset” for this question, stated “sometimes people laugh if I mess up” (Pre assessment questionnaire, June 19, 2013). Reading aloud during class can be a very stressful experience for many students. If Emily was laughed at by peers she was probably very embarrassed and she will associate those negative feelings with reading aloud in front of peers. This experience may inhibit Emily from feeling like she is in a safe environment where it is okay to take risks and make mistakes. Emily seems to have had a negative experience reading aloud in front of peers that has left her afraid and nervous when reading aloud. The two six year old boys, Steve and Nick, indicated on the questionnaire that they feel “somewhat upset” about reading aloud in class (Pre assessment questionnaire, June 19 & 20, 2013). Steve stated for this question “I don’t know every word yet” (Pre assessment questionnaire, June 20, 2013). This response shows me that he is afraid of sounding foolish, that he doesn’t feel ready and is anticipating he will make mistakes while reading aloud because he doesn’t know every word yet. Young readers and often struggling readers can spend a lot of time trying to decode words while they read which can affect their fluency. Although these young readers may not be asked to read aloud often in class, there is still a fear of being an inadequate reader. Jen, who responded “somewhat happy”, stated “I can read pretty fast so it’s not too bad” (Pre assessment questionnaire, June 19, 2013). Some students believe being a strong reader means being able to read quickly. Jen feels confident in her reading

because she is a fluent reader and therefore may not experience as much stress about reading aloud in class or in front of peers. Hughes (2002) discusses how students who believe they are strong readers do not experience the same level of stress when reading as students who believe they are poor readers. Students that are confident about their reading abilities will have a better attitude about reading aloud to others than a student that struggles with reading because the experience is not enjoyable for them.

Below, Table 3 shows the responses from the children when asked how they feel about writing with a teacher or when a teacher reads their writing. These are the selections the students made:

Table 3

*Percentage Scores of Children's Feelings about Literacy Activities*

Pre Assessment:	Percentages			
Question 10:	Very happy	Somewhat happy	Somewhat upset	Very upset
How do you feel about writing with a teacher or when a teacher reads your writing?	50%	33%	17%	0%

Based on these results, the students felt more comfortable about writing with a teacher or having a teacher read their writing pieces. The students responded 50 percent “very happy”, 33 percent “somewhat happy”, 17 percent “somewhat upset”, and 0 percent “very upset.” Half of the students felt “very happy” about writing with a teacher (Pre assessment questionnaire, June, 2013). These feelings may be because the children practice writing on their own often and therefore may feel more confident in their writing abilities. Based on the parent questionnaire four out of the six children write at home for fun. Sue stated “Jen keeps a journal and writes

poems and stories constantly!” (Initial parent questionnaire, June 19, 2013). Jen frequently practices writing on her own for personal pleasure. She feels comfortable enough and enjoys writing enough that she writes during her free time as a way to express herself. Joan stated that “Meghan loves to write” and “she keeps diary/general “what I did this weekend”, etc.” type of writing (Initial parent questionnaire, June 20, 2013). Meghan is writing on her own as well as a way to recount daily activities and feelings. These students are informally practicing writing and therefore may feel confident about their writing skills and are okay with adults reading their writing. Reading can provide a model for writing. These students can also look at mentor texts to mimic writing styles that they like and practice different writing styles. Based on these results, the students were mostly happy or okay with writing with an adult or having an adult read their writing. When asked in the initial parent questionnaire how her children feel about writing with an adult, Sue reported that “Jen has no issues with it. She is completely comfortable with it” (Initial parent questionnaire June 19, 2013). Sue’s response matches Jen’s response that she seems to feel comfortable and enjoy adults reading her writing because writing seems to be something she enjoys and wants to share. My observations showed that all of the students felt pretty comfortable writing during the sessions. The young boys, Steve and Nick, told me what to write and I scribed for them. They were very precise about what they wanted written down and if anything was not written exactly as they wanted or had said they both would have me change it (Field notes, June, 2013). The other four children that could write on their own seemed very confident during the writing assignment. Except to ask how to correctly spell a word or two, the students worked quietly and independently on their written summary (Field notes, June, 2013). This observation showed me that the students felt pretty confident in the writing assignment and their work because they were not asking many questions or asking for help.

### **Therapy Dogs Help to Facilitate Communication during Reading**

One major theme that emerged from my research was that the presence of the therapy dog facilitated more on-task communication throughout the reading portion. This theme was evident throughout several aspects of my research, including student work samples, student and parent questionnaires and observations/field notes. Therapy dogs promoting communication and building student-teacher relationships is one effect of the use of therapy dogs that was found during my review of literature in Friesen (2010) and Francis (2009)'s study. Friesen (2010) explained how a therapy dog can play an important role in nurturing and strengthening adult-child relationships through the act of praising, giving interest from the adult and care and the affection from the dog. By strengthening the bond between teachers, mentors, tutors and children, students may be more open to adult instruction and able to communicate their learning needs or concerns. Francis (2009) reported that therapy dogs can create a calming and stress free environment that allows them to feel more comfortable and willing to communicate. The use of a therapy dog during supplemental literacy activities can help create a nonjudgmental environment, where students are more willing to take risks and communicate better because they feel at ease.

Based on my observations from the pre assessment without the therapy dog present to the three sessions with the therapy dog present, students were more likely to comment, ask questions, make connections, etc. During the pre-assessment all of the older students, Meghan, Alyssa, Emily, and Jen, simply read aloud the text they chose. None of them interacted with me, except to ask about certain words they were unsure of (Field notes, 2013). I observed Meghan in the pre assessment while she was reading and writing without the therapy dog present and she was only reading. She did not take any time to comment or ask any questions, even when she did

not know a word. She also wrote without any interaction. (Field notes, 2013). She may have felt that the environment was serious because it was just her and an adult and therefore did what she thought the adult wanted and just read. She may not have felt comfortable enough when it was just her and an adult to share her thoughts and feelings about the text. By the first session with the therapy dog, Meghan was interacting about the text with Manny and I. While reading *A Kangaroo Joey Grows Up* by Katie Marsico, Meghan stopped reading at one point and said to me “Aw the Joey is so cute, I wish I could see a real one” (Field notes, June 24, 2013). Meghan was more comfortable because the environment felt laid back with Manny and felt she could share some thoughts. She then turned to Manny and told him “don’t worry they’re not as cute as you!” (Field notes, June 24, 2013). With the therapy dog present Meghan took the time to comment about the text and communicate her thinking as she read due to the nonjudgmental environment. One reason students’ stress about reading aloud in front of peers and an adult during animal assisted literacy sessions can be reduced is because the children and adult are released from traditional roles of learner and teacher (Friesen, 2011). This reduction of stress and the new roles of the teacher and learner can also allow for more communication because of the playful role of the teacher. Alyssa made similar comments while reading *Goliath Bird-Eating Tarantula* by Meish Goldish. She engaged Manny and I both throughout the reading of this text. She commented, saying “Ew these are so gross! I am so scared of spiders. Whenever I see one I run and make my Dad kill it or else I can’t go in that room again” (Field notes, July 1, 2013). Alyssa made a connection to the text and was willing to stop reading to share her connection when Manny was present. She also was petting Manny and said “that thing could probably eat you!” (Field note, July 1, 2013). Alyssa was communicating with the therapy dog as well. She may have felt the dog’s companionship and affection and included him in conversations. Shaw

(2013) noted “although dogs can’t speak, they communicate in so many ways” (P.367). Alyssa probably felt that communication through Manny wagging his tail, kissing, and being attentive while she read and talked and felt she needed to communicate back with the dog. During the pre-assessment Jen made no attempts to interact, comment, or ask questions while reading. When she came across an unknown word she would pause until I began to help her with the word. When the dog was present during the sessions, Jen would comment to me at least once about the topic. For example while reading *Face to Face with Cheetahs* by Chris Johns, Jen told me “Cheetahs are one of the most beautiful animals. I love their fur!” (Field notes, June 26, 2013) while showing me a picture. She also commented about the gross bugs while reading *The Bug Scientist* by Donna Jackson. Jen was quiet and did not interact or communicate during the pre-assessment which shows me that she may not have felt relaxed or free to express herself. The change in her communication when the therapy dog was present shows a change in environment that allowed her to feel like it was okay to express her thoughts and feelings about the text.

The younger boys, Steve and Nick, were engaging in on-topic conversations with me during the pre-assessment as well as during the therapy dog sessions. This communication continued when Manny was present and they made sure to include Manny in the conversation, as if he were a real person. During the first session with Manny present, Steve chose to read the book *A Dog’s Life* by Nancy Dickmann. He commented “I chose the dog book because I think that Manny will like it” (Field notes, June 24, 2013). While the therapy dog was present, Steve communicated his reasoning for choosing the book he did. And “Manny will be like... am I going to have a puppy? (Field notes, June 24, 2013). Steve communicated to me what he thought the dog would be thinking about while reading the text, which is one way of making a connection. He really took Manny and I into consideration as he read. He showed the pictures to both of us

throughout the reading section and would comment on many of the pictures. He was very curious about how dogs grow up and how Manny related to that. I think that because he was with a dog, this particular story had more meaning for him and he wanted to have answers to some of his questions about the animal in front of him. For example when he learned that puppies are born not being able to see or hear, he asked “Can Manny hear and see yet?” (Field notes, June 24, 2013). He felt comfortable enough with Manny to take the risk and ask questions. Nick also enjoyed showing Manny and I the pictures as he read. As Nick read *A Chicken’s Life* by Nancy Dickmann he spoke to Manny and I saying “One time I went to a farm and saw chickens, they were walking around” (Field notes, July 3, 2013). Nick shared his connections to the text with the therapy dog as well as the adult. He seemed relaxed and enjoyed sharing a different role. Friesen (2011) reported “these animal assisted literacy sessions are spaces where the child and adult are released from traditional roles of learner and teacher” (p. 314). The student can feel like they are an equal participant during the animal assisted therapy sessions. He continued to read for a few pages and then turned to Manny and jokingly told him “Okay your turn to read!” (Field notes, July 3, 2013). The child isn’t afraid of joking around and having fun in the environment with the therapy dog and he is able to take the focus off of himself for a moment. Friesen (2010) found that “the redirection of focus off the child’s own difficulties and the humor and fun of trying to teach a cuddly friend adds an element of lightheartedness to the atmosphere” (p. 32). It seems that both of these boys felt very comfortable in the environment with the dog and wanted to talk about what they already knew or ask questions to learn more.

### **Students Motivation to Read and Write Increased**

Another theme that emerged from my research was that students seemed to be more motivated to read and write by staying on task and being engaged when the therapy dog was

present. Student motivation to read and write also carried over outside of the therapy dog literacy sessions into other environments. Influencing student motivation for meaningful learning is one effect of the use of therapy dogs that was found during my review of literature in Kotrschal and Ortbauer (2003) and Bassette and Taber-Doughty (2013)'s study. Meaningful learning can include paying attention, engaging in the material, and on task behaviors. Kotrschal and Ortbauer (2003) reported that participants paid more attention to the teacher when a therapy dog was in the classroom. Bassette and Taber-Doughty (2013) found on task reading aloud behaviors to increase during dog visitation sessions. After conducting my own research I saw that students were engaged and on-task during the reading and writing sessions with the therapy dog. During the sessions with the therapy dog Meghan was engaged by commenting and interacting about the text and was on-task as she read and wrote (Field notes, June 24, 25, July 1, 2013). Meghan did not comment or interact with the text when the therapy dog was not present, which shows me that she felt inspired to put in some extra effort when the dog was present. Emily and Nick seemed to be easily distracted during the first session without the therapy dog. Both needed reminders to stay on task during these sessions (Field notes, June 19, 2013). This may be because they felt bored during the reading and writing sections or they were trying to get through the activity without showing any difficulty and an off task topic took the attention away from their inabilities. During the sessions with the therapy dog Emily and Nick were able to stay on topic when interacting with the dog or myself and I never had to remind them of what they should be doing or talking about (Field notes, June, 26, July 1, 3, 2013). The therapy dog may have been motivation for them to stay on topic because they want to continue to participate in the sessions with the dog. The therapy dog can also be an incentive for students to get their work done and behave appropriately.

After conducting my own research I found that some of the students were eager to continue reading and writing together and that this enthusiasm continued outside of these sessions. Upon completion of the three sessions reading and writing with Manny and I, Steve especially wanted to continue the sessions. When I saw Steve over the next few days, each time he asked me “Is Manny coming over to do the reading thing?” (Field notes, July 7, 2013). This showed me that Steve was eager to read and write with the therapy dog again. When I reminded him that we were done working with Manny for now, he somewhat disappointedly responded “Well can I still read my books to you?” (Field notes, July 7, 2013). His disappointment that Manny would not be coming displays how much he enjoyed the literacy activities with the therapy dog and that he wanted them to continue. Although Manny was not able join Steve still wanted to practice his reading and writing without being told from an adult. Steve’s mother, Joan, reported in the concluding questionnaire that “Steve wanted to go to the library after his sessions with Manny to pick out books to read with Manny when you brought him back over”. (Parent post questionnaire, July 7, 2013). Steve’s enthusiasm for reading with Manny continued after the mandatory sessions, showing that he was motivated to read with the therapy dog and was thinking about it outside of the sessions together. Similarly, when Sue was asked in the concluding questionnaire about any immediate changes she say in her child’s reading/writing, she stated that “Nick tried reading to our dog, but the dog wouldn’t stay and ran away while he was trying to read”. (Parent post questionnaire, July 7, 2013). Nick was motivated to continue the therapy dog literacy sessions on his own time and with his own dog. His enthusiasm shows that the experiences he had with the therapy dog are something he wants to continue. Sue also reported on the questionnaire that “The children have a therapy dog at their school, but have never worked with him before. Emily mentioned that she would like to read to the dog at school

sometime because it was more fun” (Parent post questionnaire, July 7, 2013). Now having the experience reading and writing with a therapy dog, Emily is wants to try working on her reading with another dog in a different setting. When Joan was asked if she though it was motivating for her children to work with the therapy dog, she responded that “Steve, Meghan, and Alyssa looked forward to their sessions with Manny and would ask when the next time sessions would be” (Parent post questionnaire, July 7, 2013). These children were eager to work with the therapy dog again and practice their reading and writing. This data has shown me that the students were excited and motivated during our sessions with the therapy dog present and carried that excitement beyond those sessions. It seems they are trying to take the skills they practice during the therapy dog sessions and use them in other environments.

### **Implications**

The findings from my research suggest several implications for me as a literacy educator. While it is evident that there are many benefits in the use of therapy animals in general, the use of therapy dogs to improve student behavior/concentration to read and write as well as motivation to read and write. Through the use of animal-assisted literacy programs, struggling readers are able to improve the students’ reading and writing skills, as well as motive, engage, and provide them with a positive literacy experience. In my findings I was able to see how the presence of a therapy dog helped students to communicate more actively and to motive students during the reading and writing sessions with the dog as well as outside of the sessions.

The first implication for teachers is that animal assisted literacy programs can and should be used in addition to everyday instruction. Jalongo (2005) states “animal assisted therapy that brings dogs into reading class is not intended to take the place of effective instruction in reading”

(p.155). It is a more structured and appealing alternative to the common practice of having students read silently at their desks. Good teaching needs to be followed up by successful and extensive practice of student's emerging skills and strategies. Programs that use registered therapy dogs as an incentive for children to practice their reading and writing skills can be a great addition to classrooms.

Animal assisted literacy programs can be started in schools, libraries, or other community/educational settings. To begin the process educators contact a local registered dog therapy association or national organization, such as Therapy Dog International, Furry Friends, or Delta Society, and inquire if they have teams available to serve your school. Shaw (2013) and Jalongo (2005) offer advice to educators, librarians, and administrators who wish to have an animal-assisted literacy program in their community. It is important to gain administrative support and educate colleagues before launching a program, address safety and liability issues and sanitary concerns, consider the culture of the community and finances involved, determine which children are to participate and gain parental/guardian permission, and prepare children and staff with an informative session about expectations for the program (Shaw & Jalongo). It is a lot of work to start a program with therapy dogs, but it can have a positive influence on many struggling readers and writers. If it is not possible for teachers to start a program in the school, teachers should provide parents/guardians the necessary information so they can get involved with a registered therapy dog association outside of school.

Another implication for educators is that therapy animal programs can be used as a behavioral management tool and motivator for students. Bassette and Taber-Doughty (2013) reported students from their study increased on-task behavior. Difficult and aggressive behaviors can make teaching or counseling sessions near impossible because more time and attention is

spent working on the way students act. Kortrschal and Ortbauer (2003) found that “children showed conspicuous and troublesome behavior considerably less often when the dog was in the classroom and were significantly less aggressive” (p. 153). Acting out and inappropriate behaviors are a way of communicating something. These behaviors may indicate students are bored, not challenged, or want attention. By interacting and spending time with a therapy animal, children receive affection and positive attention from the animal and adult involved. Whether it is that children are motivated to behave in order to spend time with the therapy animal or they are in a calmer environment, therapy animals can help reduce student behaviors that take away from learning.

One last implication for teachers is that therapy dogs can create a classroom environment that allows students to feel they can take risks. A classroom environment where students feel safe and make mistakes can be hard to create sometimes. Students can be prone to perfectionism and develop very high standards for themselves. Students can also become afraid to make mistakes because of what their peers may think or say, a teacher’s disappointment, or their own feelings of foolishness. Animal assisted literacy can help to take the pressure off of children and allow them to have fun reading and writing. Francis (2009) states that “the practice of reading out loud in a setting which they feel comfortable and can take risks, where they feel they are not being judged or corrected, can surely increase self-confidence and carry over to their in school performance” (p. 52). Students can feel less intimidated in the intimate and laid back sessions with a therapy animal, which may allow literacy activities to become more enjoyable. Small group or individual sessions can be done with a therapy animal and the trainer/mentor. This setting can be a good place for students to challenge themselves with harder texts or going out of their comfort zone with reading or writing.

## **Limitations**

If given the chance to do further research in this study, there would be several things that I would incorporate to better enhance and support my findings. The first thing I would do is use participants that were struggling readers. Although, I had a range of reading levels, none of my participants were considered struggling readers or below grade level. The animal assisted literacy programs are usually beneficial to any reader, but are meant for struggling readers. Struggling readers often do not enjoy reading because it is difficult for them and may have low self-esteem about their abilities. Therefore the results may be more effective and clearer for when using struggling readers.

If more time had permitted, I would have used more than three sessions with the therapy dog. I would use the first session without the therapy dog to get pre-assessment data. Instead of only having three sessions reading and writing with the therapy dog I would have the students working with the therapy dog for at least five sessions. During each of the five sessions with the therapy dog the students would provide work samples. Then to really be able to observe any changes in literacy motivation, behavior, and student work I would have given the post assessment during a session without the therapy dog present. This would make clear the student behaviors and work with the therapy dog present versus without the therapy dog present because there would be more data to analyze and compare.

Another thing I would do is have the students reading levels tested before and then after the study to observe whether their reading level increased at all while working with the therapy animal. I was aware of the students reading levels and had them choose from books at their independent reading level, but because of time restraints I was not able to test to see if their

reading level increased at all. Struggling readers need supplemental instruction to help them reach their reading grade level. It would have been interesting to view whether the students changed reading levels at all. If given the chance to do further research I would give the participants the Fountas and Pinnell benchmark assessment as a pre assessment and a post assessment.

Along with the analyzing of student and parent questionnaires, and student work, it would have been beneficial to incorporate therapy animal handlers/tutors into my study. With more time I would have liked to interview people that have therapy animals that are used for the literacy programs. It would be interesting to hear about their experiences and views on the use of therapy assisted literacy programs.

### **Conclusion**

The main question of this study is how does the use of therapy animal affect students' literacy, specifically student behavior/concentration to read and their motivation to read? Therapy dogs have been known to improve students' reading and literacy skills, as well as other academic and behavioral skills. The theoretical framework of this study focused on the sociocultural theory by viewing reading and writing with a teacher, therapy animal, and usually a few peers a very social experience that is centered on discussion and interaction. My findings and implications show that students can benefit from supplemental animal assisted literacy sessions by increasing their communication and motivation to engage in reading and writing activities. Through the implementation of an animal assisted literacy program students can be given positive and enjoyable literacy experiences that allow them to feel more confident and comfortable with reading and writing.

After considering all of the implications that my research brings to mind, I have some questions for myself and other teachers. First, how can we get more schools and libraries to take steps to implement animal assisted therapy programs? Many schools and libraries have taken action, but some professionals in educational settings still need to be convinced that the benefits of these types of programs outweigh the potential risks. Another question that I have is how much time educators can devote to this type of literacy program that is focused on providing positive, fun, and laid back reading and writing practice for students? With the increasing pressure of testing and meeting learning standards, some educators may feel this is too much of a time consuming programs that takes away from what they feel they are required to teach. For struggling readers the use of a therapy dog can help them reach grade level standards for reading and writing, if educators can take the extra time to help these students. These are some questions that arose while conducting my study. Something that I would like to research more in depth is how the use of therapy dogs for literacy impacts different grade levels and genders. It would be interesting to examine which groups it has the least and greatest effect on and how we can use that information in education. With so many children that continue to struggle to learn to read and write, it is important that educators take careful consideration of the kinds of literacy experiences that children engage in.

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Appendix A

Name:

Date:

1. How do you feel about reading by yourself?



Very happy



Somewhat happy



Somewhat upset



Very upset

2. How do you feel about reading at home for fun?



Very happy



Somewhat happy



Somewhat upset



Very upset

3. How do you feel about reading a book in school for free time?



Very happy



Somewhat happy



Somewhat upset



Very upset

4. How do you feel about reading with a teacher?



Very happy



Somewhat happy



Somewhat upset



Very upset

5. How do you feel when a teacher asks you questions about what you read?



Very happy



Somewhat happy



Somewhat upset



Very upset

6. How do you feel when you read out loud in class?



Very happy



Somewhat happy



Somewhat upset



Very upset

7. How do you feel about writing for fun or in your free time?



Very happy



Somewhat happy



Somewhat upset



Very upset

8. How would you feel about becoming an even better writer than you already are?



Very happy



Somewhat happy



Somewhat upset



Very upset

9. How would you feel if you could write more in school?



Very happy



Somewhat happy



Somewhat upset



Very upset

10. How do you feel about writing with a teacher or when a teacher reads your writing?



Very happy



Somewhat happy



Somewhat upset



Very upset

11. How would you feel if a classmate were to read your writing?



Very happy

Somewhat happySomewhat upset

Very upset

12. How do you feel about getting suggestions about making your writing better?



Very happy



Somewhat happySomewhat upset



Very upset



**Appendix B**

## Parent Initial Questionnaire

**Child's name:****Date:**

1. Does your child enjoy reading?
2. Does your child enjoy writing?
3. How would you say your child feels about reading independently?
4. How would you say your child feels about reading with an adult/teacher?
5. How would you say your child feels about writing independently?
6. How would you say your child feels about writing with an adult?
7. On a scale of 1-10, 10 being the highest, how motivated would you say your child is to read on his/her own?
8. On a scale of 1-10, 10 being the highest, how motivated would you say your child is to write on his/her own?
9. Does your child ever choose to read in their free time?
10. Does your child read at home? If yes, what do they like to read and do they read on their own or to someone else at home?
11. Does your child read their school reading books:
  - a. Because they want to
  - b. Because they are expected to

- c. Because you ask them to
12. Does your child write at home for fun? If yes, what do they like to write (poems, notes, diary, etc.) and do they write on their own or with someone else at home?

**Appendix C**

Parent Final Questionnaire

How do you think your child felt about reading and writing with the dog vs. without the dog?

Do you think it was motivating for your child to work with the dog?

Did your child have any reservations or concerns about working with the dog?

Were there any immediate changes you saw in your child's reading/writing habits?

Any other comments?

## Appendix D

### Observation Rubric

#### **On task behavior:**

- The student is reading and writing without stopping, not getting distracted by other things, or talking about off topic subjects
- The student is mostly reading and writing, but a few times during the session gets distracted, starts talking about off topic subjects, or refuses to read
- The student either refuses to read, is very distracted by something else, continually talks about off topic subjects, acts inappropriately, or all of the before mentioned

#### **Engaged:**

- The student is highly interested in the topic that he/she is reading and writing about, they have a lot to say about the topic, and/or ask questions
- The student shows a little interest in the topic or parts of the topic that he/she is reading and writing about, they make some comments, and/or ask some questions
- The student has no interest in the topic that he/she is reading and writing about, they do not comment on the topic, or ask any questions (give minimal effort)

#### **Communication:**

- The student communicates with the therapy dog and adult throughout the session, involving the adult and dog in the reading and writing process and asking questions
- The student communicates with only the therapy dog or only the adult during the sessions or they only talk a little bit
- The student does not communicate at all with the therapy dog or the adult. The student simply does the work he/she is asked and does not confer beyond the minimum