

Therapy Dogs: Their Impact on Reading Fluency and Reading Motivation

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Introduction

“1 out of every 6 adults in the U.S. lack basic reading skills- that means 36 million people can’t read a job application, understand basic written instructions, or read the Internet” (COABE, 2017). According to the US Department of Education: National Center for Education Statistics (2014), about 35 million U.S. adults have low English literacy. Their definition of literacy includes “the ability to understand, evaluate, use and engage with written texts to participate in society, to achieve one’s goals, and to develop one’s knowledge and potential” (US Department of Education: National Center for Education Statistics, 2014). Of those, 8.4 million U.S. adults are classified as below level one meaning they are functionally illiterate in English (unable to read short texts, determine meaning of sentences, or complete simple forms).

Literacy plays a vital role in becoming a successful citizen of the United States, for economic development, and for better health. The world is ever so changing, and it is critical that citizens remain educated with the world around them. Having literacy skills opens the door for higher education and careers, and, thus, an opportunity for a pull out of poverty. In fact, according to the U.S. Department of Education: National Center for Education Statistics, *Condition of Education* (2014) “in 2012, young adults with a bachelor’s degree earned more than twice as much as those without a high school credential (\$46,900 vs. \$22,900).” Furthermore, a community that is eager to learn and expand their knowledge will be able to share ideas with others around them, bettering their well-being and community. Thus, it is evident that as teachers, we need to develop literacy achievement in our classrooms for literacy success not only in elementary school but for the rest of our students' lives.

As teachers, it is a given responsibility to cultivate young minds and ensure students become successful readers. Students are faced with literacy tasks everyday at school and,

unfortunately, millions of children are not reading at grade level (Biancarosa & Snow, 2006 as cited in Frisen, 2009, p. 106). Some students are eager to read while others dread the task. When students begin to dislike reading, it is very difficult to pull them back to love it, especially in the higher grades. Thus, providing a positive, motivating, and equitable learning environment for students is necessary for student achievement in literacy.

When students love to read, they have more experiences reading. Louisa Moats (2001), explains that the most challenging aspect of teaching older students are “they cannot read so they do not like to read; reading is labored and unsatisfying so they have little reading experience; and, because they have not read much, they are not familiar with the vocabulary, sentence structure, text organization and concepts of academic ‘book’ language” (p. 3). The American Federation of Teachers published an article in *Reading Rockets* discussing the impact of early reading deficits and according to a study by Juel (1988), “the probability that a child would become an average reader in the fourth grade if he or she was a poor reader in first grade was only .13.” Therefore, it is very hard, for most students, to catch up when they become below grade level, and a child who falls behind in reading as early as the first grade has a greater chance of staying behind and never catching up.

Reading Motivation: Why it Matters

Reading ability has a critical impact on all areas of learning. Motivation is key to improving reading skills as students have more exposure reading. According to Lenihan et al. (2017) “motivation to practice reading is integral to improving reading skills” (p.1). In fact, “a student’s motivation to read independently is a key factor in the overall improvement they will achieve, and students who spend more time on independent reading tend to earn higher reading scores” (Mullis et al., 2003, as cited in Lenihan et al., 2017, p. 2). Linda Gambrell (1996) adds

that “it is generally acknowledged that motivation plays a critical role in learning. It often makes the difference between learning that is superficial and shallow and learning that is deep and internalized” (p.14). When a child reads for more reasons than to just complete an assignment, for example, they tend to be engaged and active readers. This means that the student will not just read the words, they become invested in the reading such as making connections to their own life, other texts, and the world, making predictions, and making inferences. Implementing such “good reader” strategies on their own opens up a world for literacy improvement and further exploration to expand their knowledge. When the student is doing that on their own, imagine the vocabulary attained, the learning involved, and the remarkable journey the student takes part in.

Unfortunately, however, there is a negative correlation between struggling readers and reading motivation as “students who struggle with reading often have a low motivation to practice reading, thus compounding the problem” (Ecklund & Lamon, 2008, as cited in Lenihan et al., 2017, p. 2). However, it is important to note the misunderstood idea of motivation, especially when talking about students with disabilities. Students with reading disabilities, such as dyslexia may be highly motivated to read, however they may not be provided with the appropriate strategies, instruction, or scaffolds to succeed. Thus, the learners are faced with an impossible task and some teachers may blame the student for being unmotivated.

Striving readers often tend to have negative attitudes towards reading in school for both recreational reading and academic reading which can be a result of inappropriate instruction, embarrassment, or frustration. Sometimes readers may pretend to read during independent reading and never touch a book outside of school. Some students may even try to hide assigned texts given to them. For example, imagine if you are a fourth grader but are still assigned to read picture books. You may want to read, but you know you are behind your classmates.

Furthermore, these students tend to dislike reading aloud which can be because of embarrassment or frustration. When students have such a negative attitude towards reading “this can make it difficult to implement effective school reading programs for these students. Increasing students’ motivation to read would not only benefit the students, but also remove some of the burden from schools by increasing the amount of time students spend reading on their own” (Lenihan et al., 2017, p. 2). When students have a low self-esteem, along with a lower motivation to practice reading, it makes it very difficult to reach those students. Therefore, in order to engage readers, a literacy program needs to be positive, inviting, supportive, meet the unique needs of the learner, and be based on the individual learner’s present level of performance.

Reading twenty minutes each day has been proven to have a positive effect on reading success. Nagy et al. (1987) discuss the importance of learning vocabulary from reading. They had found the positive correlation of the amount of minutes read to learning words. If a student reads twenty minutes a day, that will equal to 3,600 minutes per school year and 1,800,000 words per year and will score in the ninetieth percentile on standardized tests. However, if a student reads five minutes per day, that will equal to 900 minutes and 282,000 words per school year resulting in scoring in the fiftieth percentile. When a child reads one minute per day, that is equal to 180 minutes per school year and 8,000 words per school year resulting in scoring in the tenth percentile on standardized tests. Thus, it is undeniably important that students read.

When Kids Start to Hate Reading

When a child starts to hate reading, it is very difficult to pull them back. If you walk into a Kindergarten classroom, you may find almost all of the students excited to read. However, if you walk into a fifth grade classroom, you will most likely see some students dreading the task.

Motivation to read tends to decrease as students get older. The question becomes- why do kids fall out of loving to read? There are many distractions in the world around us- television, social media, video games, and the internet. Some students would rather play video games or watch television instead of engaging with a book. Anne Svensen (n.d.) explains that “for some high school students, just reading a chapter in a textbook becomes like climbing a mountain, even though they are good readers.” As students get older, the demands of reading increase with more challenging texts and assignments. Reading is a hard task, and for many students it becomes frustrating.

Making reading a chore influences children to dislike reading. Instead of making reading fun, students will feel forced to participate in an activity they do not want to do. Many times, students who perceive reading as a chore do not connect to the text they are reading. Reading can become a journey for students, and this can be eliminated when students feel forced to read or are given inappropriate strategies or instruction that makes the task impossible. In addition, students may not be reading something they are interested in. Of course, it is impossible for teachers to provide interesting topics for all students on a daily basis for reading activities and assignments, providing students with a classroom library that contains multiple genres can help a child find an interesting text. The same idea can be used for adults. When we see a topic we are not interested in, will we read it? The chances are very low. Thus, students may hate reading when no choice is implemented. Furthermore, it is important to recognize that some children may not have reading embedded into their life at home. Several studies show that children from low income families are read to less than children from higher socioeconomic groups (e.g., Payne et al. 1994). This is similar to having book availability in the homes (Feitelson & Goldstein, 1986; McCormick & Mason, 1986, as cited in Payne et al., 1994). Some students may

have access to the public library where they can pick books to take back home to read to a family member. Others may have books stacked in their own book case in their room. Unfortunately, some students may not have books at home or a family member that will read with them. Thus, they may only perceive reading as a task in school or children may have limited opportunities for language development which can later affect literacy achievement (Payne et al., 1994).

Confidence may play a part in affecting reading attitudes. Like mentioned before, if a student struggles to read in a classroom, the chances are other students will know especially in the upper grades. This can result in students feeling embarrassed or frustrated. Students may even begin to say “reading is dumb” to cover up such feelings. Many times those who struggle to read have very little confidence in doing so. McPherson and Rust (1987) found “strong correlations among popularity, reading ability, and self-concept, with poorer readers being the less popular and having lower self-esteem” (as cited in Greenberg et al., 2002).

How to Measure Reading Attitudes: The Elementary Reading Attitude Survey

In a classroom, it may be evident that some students who do not like reading. They may complain about reading (i.e. “I hate reading!” or “This is stupid!”), will never participate to read aloud, or do not engage in independent reading. Other students may be embarrassed and quiet when reading. Although it may be easy to identify students who dislike reading, there are assessments with reliability and validity to get insight into a student’s attitude about reading. A common way to measure reading attitudes is to administer The Elementary Reading Attitude Survey (ERAS) developed by Michael McKenna and Dennis Kear (1990). It consists of twenty items, and can be administered as a whole class or to individual students. To administer the assessment, the students will answer the questions by circling the Garfield that showed how he or she feels about the question. It is recommended that the child knows that it is not a test and there

is no “right” answer, and to encourage the student to be honest. There is the happiest Garfield, slightly smiling Garfield, mildly upset Garfield, and very upset Garfield. The objective of such assessment is that students will be able to express their reading attitudes by rating their feelings according to Garfield presented- the happiest Garfield, slightly smiling Garfield, mildly upset Garfield, and very upset Garfield. To get more insight into a student’s attitudes, a teacher may have a follow-up interview with the child to ask additional questions.

Promoting Reading Motivation in the Classroom

Research indicates that intrinsic reading motivation declines as children go through school (Guthrie & Wigfield, 2000, as cited in De Naeghel, et al., 2014, p. 83). Thus, it is important to “uncover strategies which foster students’ ‘love of reading’ in order to break through the declining trend in reading motivation throughout children’s educational careers” (De Naeghel et al., 2014, p. 84). Linda Gambrell (1996) adds that “I have been long convinced that the central and most important goal of reading instruction is to foster the love of reading” (p. 14). In addition, “reading motivation research indicated that teachers can play a crucial role in sustainably stimulating their students to read for pleasure and information (Gambrell, 1996; Guthrie & Cox, 2001; Guthrie, McRae, & Klauda, 2007; Guthrie et al., 2006; Santa et al., 2000, as cited in De Naeghel et al., 2014, p. 84). To have a high-quality education, students should be encouraged to read. Gambrell (1994) explains that an engaged reader “is motivated, knowledgeable, strategic, and socially interactive” (p. 14). Thus, it is critical that the classroom provides a positive atmosphere for reading. De Naeghel et al. (2014) explain that children can be motivated for a variety of reasons. *Autonomous reading motivation* “refers to engaging in reading activities for their own enjoyment (e.g., pleasure, interest) or because of their perceived personal significance and meaning (e.g., personal value, importance)” (De Naeghel et al., 2014,

p. 84). On the other hand, “*controlled reading motivation* is defined as reading to meet feelings of pressure (e.g., guilt, fear, pride) or to comply with external demands (e.g., expectations, reward, punishment)” (De Naeghel et al., 2014, p. 84). However, autonomous reading motivation is associated with “more positive outcomes, including higher leisure-time reading frequency, more reading engagement, and better reading comprehension. Conversely, controlled reading motivation is related to less frequent reading in leisure time and lower reading comprehension scores” (De Naeghel et al., 2014, p. 84).

De Naeghel et al. (2014) explain the different dimensions in order to achieve autonomous reading motivation in the classroom. The first teaching dimension is *autonomy support* which refers to giving students age-appropriate choices, recognizing and connecting with children’s interests, looking at the students’ perspective and providing students with opportunities to take the initiative during learning activities (Reeve, 2002; Sierens, 2010; Skinner & Belmont, 1993, as cited in De Naeghel et al., 2014, p. 84). The second teaching dimension is *structure* which primarily fosters children’s need for competence to clearly communicate expectations, respond consistently, provide optimal challenges, offer help and support, and provide positive feedback (De Naeghel et al., 2014, p. 84). The third teaching dimension is *involvement*. Teachers are involved with their students “when they invest personal resources, express affection, and enjoy time with their students” (Reeve, Jang, Carrell, Jeon, & Barch, 2004, as cited in De Naeghel et al., 2014, p. 84).

Read Alouds

Above the significance of the dimensions to achieve autonomous reading motivation, literature stresses the importance of teachers loving to read (De Naeghel et al., 2014, p. 84). A teacher’s love for reading can transfer to his or her students. Imagine having a teacher who does

not show love for reading. Students will quickly pick up on that and question “why should I love reading?” In order to show students a love for reading, teachers can engage in read alouds with their students to stimulate students’ reading for enjoyment. Gambrell (1996) explains that “one of the key factors in motivating students to read is a teacher who values reading and is enthusiastic about sharing a love of reading with students. I believe that it is within the power of every teacher to inspire and motivate children to find a lifetime of pleasure and information in the reading of good books” (p. 20). Not only does reading aloud stimulate reading enjoyment, it aids in increasing vocabulary, fluency, reading strategies, listening comprehension, and word-recognition skills. When students listen to the teacher read the book and include predictions, inferences, and/or connections, for example, they get to hear what an engaged reader is like. Gambrell (1996) adds that explicit modeling of reading aids in motivation. She proclaims that “research suggests that teachers who love reading and are avid readers themselves have students who have higher reading achievement than do students of teachers who rarely read” (Gambrell, 1996, p. 20). She explains that “teachers become explicit reading models when they share their own reading experiences with students and emphasize how reading enhances and enriches their lives. There is usually something worth sharing in most of the books and materials we read—an exciting or informative paragraph, a description of a character, or an interesting turn of a phrase” (Gambrell, 1996, p. 20-21).

Choice

Even as adults, if there is a topic we are not interested in, the likelihood that we will read it is very slim. The same idea can be transferred to children. Allowing children to make even a small choice when reading can make a big difference in stimulating interest in the activity. (Cordova & Lepper, 1996; Iyengar & Lepper, 1999 as cited in Gambrell & Marinak, 2009).

Studies have found that allowing students to make choices about their reading material increased the chance they would engage in more reading (e.g., Worthy & McKool, 1996, as cited in Gambrell & Marinak, 2009). In addition, Guthrie and Wigfield (2000) suggest that providing genuine student choices increases effort and commitment to reading (as cited in Gambrell & Marinak, 2009). Gambrell explains that the power of choice is related to reading motivation. In her studies, focused on first-, third-, and fifth-grade children who had the power of choice, she explains that: “when children told us about both narrative and information books they ‘most enjoyed’ reading, over 80% responded that they had self-selected the books from the classroom libraries. The research related to self-selection of reading material supports the notion that the books and stories that children find ‘most interesting’ are those they have selected for their own reasons and purposes” (Gambrell, 1996, p. 21).

Balanced Book Collections in the Classroom Library

Providing students with a choice of books is vital to engage interest and thus lead to motivation to read. If students do not have a wide variety of books, they may not want to read, simply, because they cannot find a book they are interested in. Gambrell (1996) adds that children must have “high quality books and other reading materials available to support them in becoming motivated, engaged readers” (p. 21). In order to provide students with a balanced book collection, different genres should be incorporated (e.g., realistic fiction, information texts, poetry, fairy tales). Multiple studies have “provided support for the notion that when children have environments that are book-rich, the motivation to read is high” (e.g., Allington & McGill-Franzen, 1993; Elley, 1992; Gambrell, 1993; Lundberg & Linnakyla, 1993; Morrow, 1992; Purcell-Gates et al., p. 199, as cited in Gambrell, 1996). Gambrell (1996) states that when asked to “tell about the most interesting book they had read recently, the overwhelming majority

of children in our studies reported that they selected the book from the classroom library rather than from school, community, or home libraries” (p. 21). Thus, showing the significance the classroom library has.

Pappas (1993) found that children as young as kindergarten showed a preference for informational text and Mohr (2006) noted that nonfiction books were the overwhelming choice of first grade students” (as cited in Gambrel & Marinak, 2009). Thus, it is critical that a variety of nonfiction books are a part of the library. It is also important that student interests are reflected in the books available in the classroom library. When students see that their interest is valued, they are more likely to pick up that book. For example, a student may love sports. Thus, a teacher should incorporate such topics into the classroom library.

Being Culturally Proficient

In addition to providing students with a variety of materials based on genre, it is necessary to provide students with books where they can see themselves. If students can connect to a text, they may be more likely to want to read. Rudine Sims Bishop (1990) explains that:

Books are sometimes windows, offering views of worlds that may be real or imagined, familiar or strange. These windows are also sliding glass doors, and readers have only to walk through in imagination to become part of whatever world has been created or recreated by the author. When lighting conditions are just right, however, a window can also be a mirror. Literature transforms human experience and reflects it back to us, and in that reflection we can see our own lives and experiences as part of the larger human experience. Reading, then, becomes a means of self-affirmation, and readers often seek their mirrors in books” (as cited in McNair, 2016).

McNair explains that Bishop's analogy of mirrors and windows “is an important one for educators to think about, no matter the demographics of the schools in which we teach. Books have the potential to entertain, foster a love of reading, and inform while also affirming the multiple aspects of students’ identities and exposing them to the values, viewpoints, and historical legacies of others” (2016, Introduction). Thus, more books featuring diverse characters into the hands of all children is necessary.

School Culture

Not only does promoting reading within the classroom affect reading motivation, “it can be argued that the school culture can support and foster teachers’ and students’ willingness to invest in reading” (De Naeghel et al., 2014, p. 84). In this respect, Taylor, Pearson, Clark, and Walpole (2010) “indicate that effective schools indeed prioritise reading at both the class and school level” (as cited in De Naeghel et al., 2014, p. 84). In addition, Daniels and Steres (2011) “argue that schools’ prioritising of reading as a school-wide goal and hence fostering a climate in which teachers and students are expected and stimulated to read will positively influence students’ engagement” (as cited in De Naeghel et al., 2014, p. 84).

Reading Fluency

What is Reading Fluency?

While motivation to read is a key task for literacy achievement, reading fluency is one of the defining characteristics of a good reader. Reading fluency consists of three key elements: accuracy, rate, and prosody (expression) and is critical to the ultimate goal of reading-comprehension. Marcie Penner-Wilger defines accuracy of decoding as “the ability to correctly generate a phonological representation of each word, either because it is part of the reader’s sight-word vocabulary or by use of a more effortful decoding strategy” (2008, p. 2). The skills

required for accuracy of decoding include the alphabetic principle, the ability to blend sounds, the ability to use cues to identify words in text, and knowledge of high frequency words (Torgesen & Hudson, 2006 as cited in Penner-Wilger, p. 2). In order for fluent readers to read accurately, they must identify individual words which requires learning the alphabetic principle- the relationship between letters (graphemes) and sounds (phonemes). In addition, decoding “isolated words, such as sight words, high-frequency words, and irregular words is paramount” (Aldhanhani & Abu-Ayyash, 2020, p. 379). Automaticity also plays a role in becoming a fluent reader in regards to accuracy and rate. Fluent readers read at an appropriate rate, neither too slow nor too fast, in order to comprehend the text. According to Aldhanhani and Abu-Ayyash (2020), “reading becomes automatic once readers master accuracy” (p. 380). Thus, automaticity is linked to accuracy. The last component of fluency is prosody- another term for expression which involves pitch, tone, rhythm, and volume. Fluent readers read with good phrasing; adhering to punctuation, stress and intonation. When a fluent reader, when reading aloud, comes to a question mark, for example, they will have a higher pitch that matches the punctuation. This is key in comprehension as the type of sentence makes a difference in meaning. Padak and Rasinski (2008) define prosody as “reading smoothly with expression and intonation that presents the meaning and comprehension of connected text” (as cited in Aldhanhani & Abu-Ayyash, 2020, p. 380). A very fluent reader will read with varied volume, expression, and enthusiasm throughout the text. The reader is able to vary expression and volume to match his/her interpretation of the passage, and the reader sounds like they are talking to a friend with their voice matching the interpretation of the passage (Zutell & Rasinski, 1991).

The Importance of Reading Fluency

Reading fluency is the bridge between decoding words and comprehending. According to DiSalle and Rasinski (2017), “90% of comprehension problems are due to the deficiency in oral fluency” (as cited in Aldanhani & Abu-Ayyash, 2020, p. 379). Therefore, students who have poor reading fluency early, will likely have problems in later academic stages. All aspects of fluency aid in comprehension (Hudson et al., 2005). Thus, fluency should not be focused on just one element. They state that “without accurate word reading, the reader will have no access to the author’s intended meaning, and inaccurate word reading can lead to misinterpretations of the text” (Hudson, Lane, & Pullen, 2005, p. 703). When readers have poor automaticity in word reading or slow “laborious movement through the text [it] taxes the reader’s capacity to construct an ongoing interpretation of the text” (Hudson, Lane, & Pullen, 2005, p. 703). Rasinski (2012) adds to this idea with what he calls *cognitive energy*. Rasinski (2012) states that if the student “uses too much of that cognitive energy to decompose the words in the text, they have little remaining for the more important task in reading- comprehension” (p. 517). When the student can read the words automatically, “readers can employ most of their limited cognitive energy to that all-important task in reading- text comprehension” (Rasinski, 2012, p. 517). Rasinski (2012) adds that “for many readers, comprehension while reading suffers not because the readers have insufficient cognitive resources to make meaning out of the text, but because they depleted those resources by having to employ them in word recognition” (p. 517). If the students had the text read to them, they would be able to understand the text- since the person reading is decoding. Lastly, “poor prosody can lead to confusion through inappropriate or meaningless groupings of words or through inappropriate applications of expression” (Hudson, Lane, & Pullen, 2005, p. 703). Rasinski (2012) adds that “if automaticity is the fluency link to word recognition, prosody completes the bridge by linking fluency to comprehension” (p. 519). He explains that “it is

commonly accepted that inferential comprehension is a higher level of comprehension than literal comprehension. So prosody allows the reader to comprehend a text at a more sophisticated level than only the text itself offers” (Rasinski, 2012, p. 519). Thus, reading fluency is critical to comprehension.

How to Build Fluent Reading in the Classroom

Reading fluency needs to be a component of reading instruction for the reasons listed above. Nonfluent readers tend to become frustrated in their reading ability. Thus, resulting in a negative behavior towards reading for fun and for academic purposes. Therefore, it is necessary that teachers provide a positive and engaging way to build fluency within the classroom. According to the National Reading Panel (NRP, 2000), reading fluency is a necessary aspect of reading instruction. Hudson et al. (2005) explain that “fluency instruction is not a reading program itself, but it is part of a comprehensive reading program that emphasizes both research-based practices and reading for meaning” (p. 708).

Modeling and Engaging Students to Read Aloud

Students need to hear what fluent reading sounds like. Using big books in the primary grades is a useful activity so students can follow along. In the intermediate grades, students may be given copies of the text or follow along on the promethean board. Murray (1999) explains that a teacher should show the “difference between smooth and choppy reading. Show how expressive readers make their voices go higher and lower, faster and slower, louder and softer” (The Direct Approach section). By modeling for students what fluent reading sounds like, they will begin to understand the importance of fluent reading to understanding the text. A teacher will use expression to show different emotions and use different pitches with question marks and exclamation points. A comparison can be made with acting. When watching a movie, for

example, and if the actor is completely monotone, it would be really hard to understand what they mean, their emotions, and it would be boring. Thus, the same concept can go for reading.

After modeling a text to students, it is critical that they engage with the text to develop fluent reading. One activity to develop fluent reading is the use of choral reading- reading the text together. The Texas Education Agency (2002) explains that for “choral reading, choose a book that is not too long and that you think is at the independent reading level of most students. Patterned or predictable books are particularly useful for choral reading, because their repetitious style invites students to join in. Begin by reading the book aloud as you model fluent reading” (Choral Reading section). Students will be able to practice fluent reading together- inviting all students to participate. Another way to get the students involved with developing fluent reading is echo reading. Instead of reading together with the teacher, the teacher first models and the students “echo” back. Thus, the students must hear what the fluent reading shows like and they practice for themselves.

Reader’s Theater

Reader’s theater is an engaging and common way to practice fluent reading. It builds students’ abilities to read aloud fluently with a strong emphasis on expression. Students are assigned a part and then time is dedicated to practice reading their part orally. This use of repeated readings allows the students to develop word recognition. Dr. Peggy Sharp, a former classroom teacher and library media specialist, noted, "Reader's theater is a wonderful technique for helping readers learn to read aloud with expression. I especially like to perform reader's theater without props so the readers learn that the expression in their voices needs to provide much of the drama of the story" (as cited in Bafle, n.d.). It is important to pick scripts that have a lot of dialogue and are interesting to engage the readers (Bafle, n.d.). It is key that students feel

comfortable and confident when reading their parts. Creating a risk-free environment is critical. Modeling each character's part is key to reader's theater as well and combine parts if there are too many, and cut out scenes and characters that aren't important. Scripts are not sacrosanct. change them if they work better another way, work with small groups, not with the whole class, whenever possible, and provide instructional support for new vocabulary and for understanding the different characters" (Finney, n.d., as cited in Bafile, n.d.). Furthermore, there needs to be differentiation for reader's theater to ensure equitable and accessible information for all students. For striving students, use easier scripts. Even providing the script in a larger font can help students with disabilities access the words. In addition, have students read together. This may eliminate feelings of fear.

Repeated Readings

Rasinski (2012) explains that "readers develop their word recognition automaticity in the same way that other automatic processes in life are developed- through wide and deep practice. *Wide reading* refers to the common classroom practice of reading a text once followed by discussion, response, and instruction aimed at developing some specific reading strategies and skills" (p. 517). Deep reading is more commonly known as repeated reading. Not only does repeated reading show an improvement with the text that is practiced, but it transfers to new readings. Students are engaged with reading a text until they meet a criterion level. Rasinski (2012) proclaims that "what students learn from the repeated reading of one passage partially transfers to the new passage. Several reviews of research on fluency have shown that word recognition accuracy, automaticity, comprehension, and attitude toward reading have been shown to improve with repeated readings" (p. 518). It is important, however, that repeated readings are not just focused on reading speed. In the classroom, some students believe that they

are better readers when reading as fast as possible. However, students who read too fast miss vital literacy elements to comprehension. Thus, repeated readings should focus on prosody as well. Rasinski (2012) states that when “prosody is emphasized, the goal of the wide and repeated reading is to achieve an expressive oral reading of the passage that reflects and enhances the meaning of the passage” (p. 518).

Next Steps

Teachers are implementing multiple activities to engage readers, foster a ‘love of reading’ and implement multiple strategies and interventions to create fluent readers. However, there are still students who hate reading and many students below grade level. The question becomes- how else can we improve reading fluency and get children to love to read? What about the use of therapy dogs?

The History of Therapy Dogs in an Academic Setting

Although using therapy dogs in an academic setting has become more popular, it is important to recognize the impacts dogs have had on humans thus far. Olga Solomon (2010) writes that “archeological evidence suggests that dogs have shared a common evolutionary niche with humans for over 140,000 years. Neither could hunt better alone than together and mitochondrial DNA studies show that protodogs evolved at the time that *Homo sapiens sapiens* appeared on the evolutionary scene” (p. 145). Lorenx (1994) adds that this “suggests that humans and dogs have a long history of shared semiotic activity where dogs were attending to human social behavior in an opportunistically collaborative, reciprocal way” (as cited in Solomon, 2010, p. 145). It is common knowledge that animals, dogs in particular, create positive emotions in many humans. Therapy dogs are used in the medical field for various causes from comforting those receiving cancer treatments to comforting veterans with post traumatic stress disorder.

Soldiers who return from war tell how dogs- both “military working dogs and strays adopted against military regulations- provided them with a powerful sense of security, stability, and safety in the middle of the chaos and terror of war” (Solomon, 2010, p.145). It is evident that therapy dogs have made a difference in many individual’s lives. Thus, the idea of using therapy dogs in an academic setting has increased and has become more popular recently.

Children, in particular, tend to have strong connections with dogs. Because of this observation, many organizations utilize dogs to gain interest in particular activities with children. Since the time dogs were first domesticated, “they have played an important role in providing companionship and comfort. It was a natural extension of this human animal bond to use dogs to provide this same comfort to others as what is now known as dog- assisted therapy” (Montgomery & Wille, 2010, iv). The idea of using therapy dogs with children has become increasingly popular in schools and other academic settings.

According to Chandler (2001), the “integration of animal-assisted therapy into clinical psychology was first credited in 1962 to the child psychologist, Boris Levinson with his paper published in *Mental Hygiene*.” Lori Friesen (2009) states that Levinson is often referred to “in the literature as the pioneer of AAT with children” (p. 262). In 1961, he was working with a disturbed child. Dr. Levinson made an “accidental discovery” involving his dog, Jingles. He was not successful with the child with just human-human interaction. Levinson briefly left Jingles alone with the boy and, when he returned, found the young boy interacting with the dog. This inspired Levinson to do further research with Jingles and his young patients. Thus, the term, *pet therapy* was first coined by Levinson in 1961 (Levinson, 1997, as cited in Lane & Zavada, 2013, p. 88). Levinson found that the boy responded to therapy much more when the dog was present

and wrote *Pet-Oriented Child Psychotherapy* in 1969 with a dedication to his “co-therapist,” Jingles (Levinson, 1997, as cited in Lane & Zavada, 2013, p. 88). In Dr. Levinson’s words:

It has by no means been the intention of this writer to indicate that pets are a panacea for all the ills of society or for the pain involved in growing up and growing old. However, pets are both an aid to and a sign of the rehumanization of society. They are an aid in that they help to fill needs which are not being met in other, perhaps better ways, because society makes inadequate provision for meeting them. In the meantime, animals can provide some relief, give much pleasure and remind us of our origins. (Levinson, 1969, as cited in Brady, 2017).

Since then, research on therapy dogs and AAT has been shown to yield a variety of benefits. Friesen (2010) explains that dogs have been studied in the home setting, therapeutic settings, in classrooms and hospitals and in special-needs environments.

Canine- Assisted Reading: Definitions

Therapy dogs, according to Pet Partners are defined as dogs that “provide physical, psychological, and emotional benefits to those they interact with, typically in facility settings such as healthcare, assisted living, and schools.” It is important to recognize that therapy dogs differ from service dogs- those who are individually trained to perform a specific task. With using therapy dogs, it is important to recognize the types of assistance they provide in an academic setting. The overarching term for using therapy dogs in academic settings is Animal-assisted interventions (AAI) which “are goal-oriented and structured interventions that intentionally incorporate animals in health, education, and human service for the purpose of therapeutic gains and improved health and wellness” (Pet Partners, 2020). Canine-assisted reading is defined as “a form of Animal-Assisted Therapy (AAT) or Animal-Assisted Activity

(AAA) in which children read aloud to a specially trained dog” (Lane & Zavada, 2013). AAT and AAA are types of AAI. AAT is defined as “a goal-directed intervention developed and provided by a health or human service professional with expertise within the domain of their profession along with an extensively trained animal” (Lane & Zavada, 2013). When therapy dogs enter the school setting as part of a reading program, they are considered AAT since specific students come to the dogs, and documentation of progress is kept. These programs are continuous as students have the opportunity to read to the dogs each week or multiple times a week, if possible. AAA, on the other hand, does not target an individual's needs and it can be offered in group settings. With reading, AAA is typically with individual children, but does not include goals and is not continuous. Sessions at a library would be considered AAA since children have the opportunity to read with the dogs. However, no documentation is recorded and it is not an individualized program to meet the goals of the child.

R.E.A.D: The First Canine- Assisted Reading Program

Intermountain Therapy Animals (ITA) launched the first literacy program utilizing dogs: Reading Education Assistance Dogs (R.E.A.D.) in 1999. This program was built around the idea of reading to a dog, but not just any dog. The mission of R.E.A.D. “is a logical extension of that- utilizing the companionship of therapy animals to build and encourage children's love of books and the reading environment, and providing an opportunity for them to practice the full range of communication skills” (Intermountain Therapy Animals, FAQs section). Sandi Martin, one of ITA's board members, wondered whether therapy animals might be used in the reading setting. ITA explains that Martin was a nurse and former ICU manager, and “she had seen firsthand the benefits that animals brought to patients, and how they helped enhance the desire to heal and work on their therapies. Wouldn't the same benefits accrue with children who were struggling to

learn to read?” (Intermountain Therapy Animals, FAQs sections). Thus, the R.E.A.D. program was born. They explain that humans have read to dogs for a very long time but, Intermountain Therapy Animals was the “first to build a structure around this concept and develop it into a true literacy support program with models for schools, libraries and other settings” (Intermountain Therapy Animals, FAQs section).

Dana Tumpowsky was the first person to invite the R.E.A.D. program to the Salt Lake City Public Library. Tumpowsky still remembers her first observation of a R.E.A.D. session stating that “it wasn’t until I saw a child sit down and read to the dog for the first time that I really understood the power of the R.E.A.D. program” (as cited in Intermountain Therapy Animals, Becoming a R.E.A.D. Team video). She proclaims that the child “gets into their own little world” and it becomes a magical experience between the child and the dog (Tumpowsky, 2019, as cited in Intermountain Therapy Animals, Becoming a R.E.A.D. Team video). When the program was introduced at the library, there were four weeks of ‘Dog Day Afternoons.’ ITA explains that “kids who signed up for appointments, and came to at least three of the four weekly sessions, were rewarded at the end with the privilege of selecting a brand new book to keep, which was then "pawtographed" by their favorite R.E.A.D. dog ” (Intermountain Therapy Animals, FAQs Section). It is important to note that the children get to keep the book they choose. Imagine being a child that does not have many books at home, that would be so impactful to get to pick a book and keep it. Even for children who have many books, this can be very exciting to bring home a book they chose. The experience will forever be attached to that story! Since then, ITA explains that:

In the Salt Lake main library and five branches, we just have one R.E.A.D. team that spends two hours at each library every Saturday afternoon, and kids can decide

spontaneously to read with the dog. It's a fun and popular activity, and would be classified as AAA or an animal-assisted activity. We now think that a special limited-time event, such as four weeks, or a once-a-month event, is the way to go, rather than ongoing indefinitely. It is a fact of human nature that when things stay special, they are appreciated more. When the dogs are an ongoing Saturday afternoon feature at the library, soon other special events start to be scheduled simultaneously, for example.

(Intermountain Therapy Animals, FAQs Section)

Having the students come back during these planned times can become essential for relationships. Children may come to the library to read with a certain team. That team will have a better idea of where the reader is and can help them along the process.

With such empowering benefits, R.E.A.D. has grown into a recognized organization. Now, R.E.A.D. has spread over the world and “today thousands of registered R.E.A.D. teams work throughout the United States, Canada and 25 more countries around the world, from Sweden and Spain to Taiwan, Slovenia, and South Africa” (Intermountain Therapy Animals, brochure).

How Does the R.E.A.D. Program Work?

There are steps that need to occur in order to become a R.E.A.D. team. First, you would need to watch the R.E.A.D. video and attend the R.E.A.D. 101 course to complete a shadow without your dog. In addition, you need to purchase a R.E.A.D. book and complete the test in the back, send the test along to ITA with a fee, and, lastly, complete a second shadow with your dog. This is critical to make sure that the dogs and handlers are qualified to provide the support to children. Not just any dog can become a R.E.A.D. dog. In order to promote a program that encourages students to love to read and develop or improve literacy skills, there are certain

guidelines in place. In the *Becoming a R.E.A.D. Team* video (second edition, 2019), Fields Moseley discusses how the R.E.A.D. program becomes a “magical” experience for young readers. The R.E.A.D. program is not just for entertainment or just reading to a dog, it is “true animal assisted education and in depth literacy support program for children” (Moseley, 2019). Moseley (2019) explains that reading is not a simple task and research shows that “reading is not a skill that our brain is wired to do easily.” In order for a session to be successful to improve reading, there are four aspects that need to occur including a solid relationship, making a connection, participating in the reading process, and actively advocating for the animal.

Environmental Aspects

The environment in which the session occurs impacts the session. This is quite related to the environment at school. There are studies that show the connection between the classroom environment and success of the students. Just like the classroom environment, the environment of a R.E.A.D. session needs to promote a warm, safe, welcoming environment. The dog and the child in the session should be comfortable in order for the experience to be positive and without these traits, children are less likely to learn.

In addition, the environment should promote “a relief from chronic stress” (Moseley, 2019). Science has shown that reading to therapy dogs in this type of setting creates uplifting hormones that alleviate the child from stress (Moseley, 2019). Moseley (2019) also adds that when the child is calm, it frees up the space to learn. The one on one aspect of the program is also very significant. One on one sessions allow the child to feel safe without the fear of making a mistake in front of other children. Fear, in fact, hinders learning. The individualized learning of the R.E.A.D program, too, increases the success of the child’s ability to read. When the children read in such an environment provided by the R.E.A.D program to the dog, uplifting hormones

are created that alleviate stress (Moseley, 2019). Thus, it psychologically feels good to read to the dog. Karen Burns (2019) proclaims that even the set-up is crucial to the experience as well. Key items include a pillow (to hold the book) and a blanket to create a welcoming and comfortable environment.

Motivation is one of the keys to creating a successful learning environment provided by the R.E.A.D. program. Moseley (2019) states a quote by physicist Victor Weisskopf- “You can teach only by creating an urge to know.” No matter how old we are, we learn more effectively when a task is fun. A recent study, explained by Moseley (2019), showed that when asking a child their favorite book, most of them said that the book made them laugh. Moseley (2019) proclaims that “nothing is more engaging or interesting than a dog. Dogs are unequal motivators for children who find reading difficult, dull, or unmotivating.”

Furthermore, Moseley (2019) proclaims that the environment should enable children to use their imaginations and to identify with someone who values reading. Children should have the mindset of “I want to be a reader too.” When children meet the handlers and the dogs who love reading, “it is pretty irresistible” (Moseley, 2019). Handlers, for example, should be able to tell the child their favorite book to provide enthusiasm for the child.

Characterics of the Dogs

Having a successful environment is also dependent upon the characteristics of the dog. The therapy dog needs to remain calm, gentle, intuitive, and patient. Sonia, a R.E.A.D. handler, proclaims that her dog, Wicket, knows how the child is feeling and thus, acts upon what he can sense. For example, Wicket can sense if a child feels stressed. Sonia proclaims that “Wicket” will lean up to the child and make them feel safe. Such traits truly provide an “animal assisted education” as the animals know what the child needs. If a dog makes the child feel unsafe or in

fear, the child will not be able to increase reading skills. Thus, it is critical that the dog possesses the qualities appropriate for this program.

Handler's Traits

The handler's traits are just as important as the dog's traits to provide a successful session. Kimberly Natal, principal, (2019) states that the handler, too, needs to be patient and build relationships with the child. Suzanne Chadwick, assistant principal, (2019) adds that the handler needs to understand the children. Some children may be very shy while others may be hyperactive. It is crucial that the handler understands such traits when working with the children. A handler should know when to provide support for the child's reading and when to push them. In addition, the handler must showcase a love for reading. It is key that students see that the handler loves to read. Christine Bennett (2019) explains that the handler must demonstrate "excitement about reading because if [they] are not excited about reading, how can [children] get excited about it?" Many times, children will ask what the handler's favorite book is or what they like to read. It is key that the handler shows such excitement that will enable motivation in the child's willingness to read. Motivation is a significant element to the environmental aspect of the session. Phyllis Warner (2019) adds that the handler must care and understand that reading is hard. If a child is too young to read, a handler can read to the child. Modeling reading is vital to reading success, and some students do not have this access at home.

At the Schools

In the school setting, the handler will ask the teacher or reading specialist to select children who would most benefit from the program. The teams read with the same children each week "so that a more trusted and secure relationship evolves" (Intermountain Therapy Animals, FAQs section). This AAT includes creating specific goals for each child and progress monitoring

is the key to making the dogs a part of the reading program to improve literacy skills. The R.E.A.D. program explains that this therapy is sometimes during the school day but sometimes right after school but it involves a “one-on-one experience with privacy or semi-privacy so that the child can blossom without the criticism of his/her peers” (Intermountain Therapy Animals, FAQs section). They add that “each child spends about a half-hour with the dog-a few minutes getting acquainted and comfortable; time reading; then a few minutes at the end for tricks and treats and less formal play. They often sit together on the floor with big pillows, the dog sits or lies nearby, usually with some physical connection between dog and child, and we see what unfolds” (Intermountain Therapy Animals, FAQs section).

How is the Dog Involved in the Reading Process?

R.E.A.D. make a “wonderful vehicle for communication” (Intermountain Therapy Animals, FAQs section). The handler can speak for and about the dog “to make many valid points about pronunciation and comprehension. The handler can say, for instance, ‘Rover has never heard that word before, Jimmy-can you tell him what it means?’ The possibilities are endless, and the child feels less embarrassed than when he is put on the spot” (Intermountain Therapy Animals, FAQs section). They add that there are “little games to play-the dog helps turn pages with his paw or nose, the child can give the dog a treat after completing a certain number of pages, etc. We encourage our teams to build on the unique personalities of both dog and handler, so each team develops their own singular ‘flavor,’ if you will” (Intermountain Therapy Animals, FAQs section). The child usually pets the dog when they are reading to them. While the child does this it relaxes the child and “lowers blood pressure and heart rate. And before you know it, the child forgets how hard he thinks reading is and starts to look forward to it. He comes

running in with enthusiasm the next week saying things like: ‘Oh, Olivia, I have a story today that I know you're just going to love!’” (Intermountain Therapy Animals, FAQs section).

The dogs should seem interested in the book. If a child notices that the dog is “looking,” they begin to feel valued when reading. If the dog does not seem interested or listening, the child may feel that his or her reading is not important. Thus, it is necessary that the handlers are involved to ensure their dog is interested. To do this, for example, the handlers may train their dogs to “look” at the page of the book the student is reading. Jenica, a handler, (2019) explains that she trained her dog, Chassy, to “look” at the book when a child reads. She states that children have said to her “wow he really is paying attention to me!” (Jenica, 2019). Think about that impact on children especially if they are unconfident readers or come from a home where they are not valued. That can make a difference in a child’s life.

How does the Handler not Interfere?

It is important to recognize that there is still an adult present during the sessions. A child does not just start reading to a dog. It has been documented in many therapeutic settings that when an animal is present in therapy, “people tend to forget about the other humans and their inhibitions disappear. It's why they often are considered powerful bridges for people who are suffering the after-effects of emotional or sexual abuse. They don't trust anyone and won't talk, but when an animal is introduced, they find it trustworthy” (Intermountain Therapy Animals, FAQs section) and something similar occurs in the reading setting. The webpage of R.E.A.D. proclaims that “of course, the handler is ALSO a supportive, positive, uncritical listener. The handler fulfills a crucial role in the process, in encouragement, helping the reader "help the dog understand"-which the kids are eager to do-it takes pressure off them and helps their abilities flow. They also work with comprehension, using the dictionary, etc.” (Intermountain Therapy

Animals, FAQs section). The handler, like mentioned before, speaks on behalf of the dog to engage their readers. For example, a handler may say “can you re-read that sentence, Irene did not hear you?”

Book Choice

As mentioned in the beginning of this paper, giving children the option to choose a book is critical to foster a ‘love of reading.’ During a R.E.A.D. session, handlers should provide multiple books for the session. If the students are at a library, they can pick their own books to bring to the session. In the school environment, the students can also bring a book of their choice. Thus, the students are given time to engage in a book they enjoy. It may be helpful for handlers to consult with teachers and librarians about the best, most up-to date choices (Intermountain Therapy Animals, FAQs section). Furthermore, it is important that handlers provide books from multiple cultures in order students to feel accepted and included in the book. Being culturally proficient needs to be implemented in the sessions. In addition, having appropriate reading levels is key to the program so that students are not faced with a book that is too hard that will result in frustration.

The Benefits of Therapy Dogs

It is scientifically proven that the interaction with an animal has significant benefits including many health and psychological benefits. For mental health, animals lifts spirits and lessens depression, decreases feelings of isolation and alienation, encourages communication, provides comfort, reduces boredom, decreases anxiety, helps children overcome speech and emotional disorders, creates motivation for the client to recover fast, and reduces loneliness (Paws for People). Furthermore, “qualitative studies demonstrate dogs can enhance communication, increase joint attending, decrease stress, increase self-esteem, and increase

motivation” (Chandler, 2001, as cited in Jacobs, 2013, p. 1). For physical health, pet therapy lowers blood pressure, improves cardiovascular health, releases endorphins (oxytocin) that have a calming effect, diminishes overall physical pain, and the act of petting produces an automatic relaxation response (Paws for People). For literacy, specifically, therapy dogs help children focus better, improve literacy skills, provide [a] non-stressful, non-judgemental environment, increases self-confidence, reduces self-consciousness, and encourages the love of reading in specific and learning in general (Paws for People).

How Therapy Dogs Aid in Reading: Reading Motivation and Reading Fluency

Reading aloud to therapy dogs have been shown to provide positive effects especially because of the fact that reading aloud to therapy dogs has been shown to decrease blood pressure (Friedman et al., 1983). Canine-assisted reading programs usually target children that feel self-conscious reading to an adult or peer (Lane & Zavada, 2013). Dogs do not judge the reader for making mistakes, creating a positive atmosphere for the student’s reading to thrive. As Sara Bernard states, “happy learners are healthy learners” (2010). This means that “there is a good amount of neurological evidence to promote the idea that if students do not feel comfortable in a classroom setting, they will not learn. Physiologically speaking, stressed brains are not able to form the necessary neural connections” (Bernard, 2010). She adds that fear and even feelings like embarrassment, boredom, or frustration can “spur the brain to enter the proverbial ‘fight or flight’ mode” (Bernard, 2010). Bernard (2010) explains that the “amygdala goes into overdrive and gets in the way of the parts of the brain” and thus, learning may be hindered.

Hall et al. (2016) created a flowchart to explain what happens when a child reads to a dog. If a child dislikes or is fearful of the dog, then reading to the dog is unlikely to be effective in reading skills. However, if the child likes, connects or feels supported by the dog, then two

things can occur- mood elevation or impact on arousal (Hall et al., 2016, p. 15). Mood elevation can occur generating a positive association with reading to dogs which increases in confidence with reading, attitude to reading, motivation to, and engagement with reading, and thus, creates improved reading skills (Hall et al., 2016, p. 15). When there is an impact on arousal, there can be an increase or decrease. This means that there can be an increase in confidence with reading, attitude to reading, motivation to and engagement with reading. Thus, improved reading skills occur (Hall et al., 2016, p. 15). Otherwise, there is a decrease in stress and anxiety associated with reading which increases confidence in reading, attitude to reading, motivation to and engagement with reading. Thus, improved reading skills (Hall et al., 2016, p. 15).

When children get nervous, especially when talking to others their blood pressure can rise very high, but that if a dog joins the scene, blood pressure will go down very low since they don't have to be self-conscious or worried or embarrassed (Intermountain Therapy Animals, FAQs section). This is most likely because of the fact that dogs are considered to be trustworthy. As mentioned above, reading aloud aids in reading fluency. When children are reading aloud to dogs, they do so without the fear of messing up. Thus, they can focus their energy on reading.

When children read to the dogs, they typically read familiar texts. Children typically bring their favorite books or books they have read before to share with the dogs. Thus, the children engage in repeated readings. As mentioned earlier, Rasinski (2012) explains the importance of repeated readings as he proclaims that “what students learn from the repeated reading of one passage partially transfers to the new passage. Several reviews of research on fluency have shown that word recognition accuracy, automaticity, comprehension, and attitude toward reading have been shown to improve with repeated readings” (p. 518). Since successful repeated readings are also focused in prosody, therapy dogs are a great way to engage readers to

do this. Reading to the dogs gives the child a purpose to read aloud and tell the story- not just read the words. When children read to a dog, they particularly like to tell the story. Thus, it is common that the children read to the dog with such expression to get the dog to enjoy the book. Rasinski (2012) states that when “prosody is emphasized, the goal of the wide and repeated reading is to achieve an expressive oral reading of the passage that reflects and enhances the meaning of the passage” (p. 519). It is also important to note that dogs are non-judgmental in the sense of repeated readings. While adults may get frustrated by reading the same text over and over again, “animals don't mind if a child reads *Go, Dog, Go!* by P.D. Eastman twenty times. This safe listening environment provides opportunities for kids to rack up lots of practice time” (Rodriguez, 2017).

Scientifically speaking research has shown the positive results of human- animal interactions (HAI) in which “increases in oxytocin production and decreases in cortisol levels, blood pressure, and galvanic skin measurements all point to a clear relationship between HAI and the reduction of stress and anxiety in humans” (Brelsford et al., 2017, p. 2). The reduction of stress allows for the children to learn. Brelsford et al. (2017) add that “animals may act as social buffers to the impact of psychosocial stress, by ameliorating its impact in humans, as well as providing a wider therapeutic role in human wellbeing” (p. 2).

Studies Related to Reading Motivation and Fluency

There has been an increase of using dogs for reading programs, but limited research is available as “it is unclear how robust the evidence for such classroom-based interventions is” (Brelsford et al., 2017, p. 2). In other countries, the implementation of therapy dogs have become a part of reading programs in the schools. Austria, for example, has changed their teaching practice in schools after having developed guidelines that enable teachers to bring their pet dogs

into schools and “a survey with 1400 teachers showed that almost 70% of employed animals in the classroom, with advantages found in attention, motivation, mood and wellbeing, socio-emotional development, and empathy, as well as cognitive development” (Brelsford et al., 2017, p. 2). However, while there are “anecdotal evidence in relation to the benefits of animals in educational settings and research publications into wider HAI and AAI are increasing steadily, methodological approaches and timeframes used across environments and treatments often vary and lack rigorous experimental designs making it difficult to draw conclusions” (Brelsford et al., 2017, p. 2).

A research study conducted by the Davis Veterinary Medicine Extension at the University of California found that school children who read to therapy dogs on a regular basis improve their reading fluency by twelve percent (Siejka, 2016, as cited in Loveridge, 2017, p. 3). In addition, Lamkin adds that C. E. Smith (2009) observed elementary students, some of whom had reading difficulties and “about half the students read to a therapy dog and handler for 8 weeks, gaining an average of 8 more words per minute (wpm) than students who didn’t read to dogs, with corresponding gains in accuracy” (p. 45). It is important to note that these children are reading to the dogs consistently, at least once a week. Therefore, showing that reading to the dogs not just once, may have more profounding impacts. AAT in nature, because of the emphasis on individualized learning and targeting literacy goals may be more beneficial to literacy abilities than AAA.

Brelsford et al. (2017) provide a systematic literature review of therapy dogs in accordance with Preferred Reporting Items for Systematic Reviews and Meta-Analyses. The investigation was largely socio-emotional but also included reading. For the studies to be eligible, they had to be conducted in formal educational settings and “incorporated a real animal

within the study design; and reported any cohort size, including case studies” (Brelsford et al., 2017, p. 4). In addition to the eligibility, only “studies reporting empirical research were used, including experimental, cross-sectional, longitudinal, randomized controlled, and case study designs [and] only research published in peer-reviewed journals was included” (Brelsford et al., 2017, p. 4). Studies included interventions with typically developing children but also included those with Down syndrome, autism, emotional and behavioral disabilities, attention deficit disorder, etc. (Brelsford et al., 2017, p. 4). Beetz (2013) found mixed significant improvement in positive attitude towards school and emotions relating to learning when an experienced school dog was in the classroom one day per week (as cited in Brelsford et al., 2017, p. 12). Kiman (2016) found mixed significant effect of dogs on reading scores for Kindergarten only; No significant effect of dog on reading scores for children in Grades 1-4 when the dog sat with a group one hour per class over one school year (as cited in Brelsford et al., 2017, p. 13). In addition, Kogan (1999) concluded that all data sources report a significant improvement in individual goals when the human- animal team was in the classroom with a child 45- 60 minutes per week for 12 weeks (as cited in Brelsford et al., 2017, p. 13). Furthermore, Le Roux (2014) found significantly higher reading rate, accuracy and comprehension scores with a dog present when the child read to the trained therapy dog 20 minutes per week (as cited in Brelsford et al., 2017, p. 13). Treat (2013) concluded significant effects of dog on reading skills; increase in feelings of self-efficacy, decreases in anxiety and increases in motivation to read when the child participated in guided reading with dog and teacher for 10-15 minutes 1-3 times per week (as cited in Brelsford et al., 2017, p. 13). Again, these studies that showed positive correlations between the use of therapy dogs and literacy skills, specifically reading fluency, and had the dogs consistently work with the children.

Other studies suggest that reading to a dog may have a beneficial effect on a number of behavioral processes which contribute to a positive effect on the environment in which reading is practiced, leading to improved reading performance (Hall, Gee & Mills, 2016). However, again, the evidence based on such inferences are made is of low quality (Hall, Gee & Mills, 2016, p.1). The repeating effect of reading behaviors included increased reading motivation and confidence. Bueche (2003) found reduced reading anxiety which improved reading self esteem (as cited in Hall, et al., 2016, p. 6). Bums (2014) also found reduced reading anxiety (as cited in Hall et al., 2016, p. 6). Dunlap (2010) concluded that children reading to dogs improved reading abilities and children had greater reading confidence (as cited in Hall et al., 2016, p. 6). Konarski (2019) used the Oral Reading Fluency (ORF), Nonsense Word Reading Fluency (NWF), and the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) along with the Elementary Reading Attitudes Scale (ERAS) to compare reading attitudes along with fluency skills (as cited in Hall et al., 2016, p. 6). Konarski (2019) found improved oral reading fluency (by three sounds) and nonsense word fluency (by four sounds). For a student with autism, specifically, an improved recreational and academic reading attitude was indicated (as cited in Hall, Gee & Mills, 2016, p. 9). Smith (2010) used the Informal Reading Inventory to assess the intervention that was three weeks with twenty minute sessions. Smith (2010) found that reading fluency improved by 30% (as cited in Hall et al., 2016, p. 7).

Using Therapy Dogs for Students with Disabilities

Reading to a dog has shown to bring significant benefits to typical children's reading abilities, but therapy dogs have also been used for students with disabilities in the realm of literacy. Lenihan et al. (2017) explain that several studies on the effects of therapy dogs have been focused on children with developmental disabilities. For example, one study found that

children with autism who were put in contact with an animal demonstrated increased use of language and had improved social interactions while with the animal (Sams et al., 2006, as cited in Lenihan et al., 2017, p.2).

Students with Autism

Autism Spectrum Disorder (ASD) encompasses a wide range of social and mental afflictions and “due to a lack of established treatments for ASD, alternative therapies have been the primary form of intervention. One of these alternatives is pet therapy” (Siewertsen et al., 2015, p. 22). Pet therapy has been shown to help students with autism achieve building relationships, communicating ideas, focusing, and responding to stimuli (Siewertsen et al., 2015). The presence of dogs have been “suggested to reduce physiological parameters of stress (decreased blood and cortisol) in children with autism” (Uccheddu et al., 2019). This results in a reduction of stress, anxiety, irritation, and promotes a more relaxed environment for these children to learn in. When the students are in this environment, learning can thrive. According to Konarski (2019), a child with autism improved on the Dynamic Indicators of Early Literacy Skills (DIBELS) and Elementary Reading Attitudes Scale (ERAS) after completing a reading-to-dog program (as cited in Uccheddu et al., 2019).

Motivation can be affected when using therapy dogs with children with autism. Stefania et al. (2019) conducted research to compare reading motivation and attitude of school-age children with autism. These students attended a ten session reading program with and without the presence of a dog (Uccheddu et al., 2019). The study showed that children had 100% attendance who read to a dog versus 75% attendance for children who did not read to a dog. Uccheddu et al. (2019) concluded that “after the programme, they [the students] were significantly more motivated and willing to read at home, as perceived by their parents. However, there were no

significant differences in scores on reading and cognitive tests within each group or between groups” (p. 1). They could conclude that reading to a dog can have positive effects on an ASD child’s motivation and attitude toward reading (Uccheddu et al., 2019). However, to see if there is a correlation between therapy dogs and cognitive abilities of these children, more research needs to be conducted (Uccheddu et al., 2019).

Social stories, developed by Carol Gray in 1990, are a social learning tool for students with autism that support the safe and meaningful exchange between parents, professionals, and those with autism (Gray, 2015). The use of social stories is an evidence based practice that includes what we may mistake for what everyone knows (Gray, 2015). Social stories can range from how to take a bath to how to give compliments to others (Gray, 2015). Students with autism will need to know how to interact with the dog and social stories could be used with children with autism to explain the rules for the child and dog when reading to the dog. Thus, using social stories to recognize the rules of the program would be beneficial. The student could also engage with other social stories when reading to the dog. This would enable practice in reading but also meet the individualized needs of the student with autism.

Students with Specific Learning Disabilities

Students with learning disabilities are often students who struggle to acquire literacy skills. Research has concluded that oral reading and repeated reading support reading fluency especially for students who are identified with specific learning disabilities. Students with specific learning disabilities often experience anxiety when engaging in literacy activities. Studies have shown that anxiety levels in students with identified learning disabilities are greater than the levels of anxiety experienced by students who do not have identified learning disabilities and “findings support the assumption that years of repeated struggles with reading ‘will have

disposed dyslexics to feel signs of stress, worry and anxiety when placed in a situation demanding literacy accuracy” (Carrol & Iles, 2006, p. 657 as cited in Treat, 2013, p. 4). Treat (2013) explains that “this can cause students with identified learning disabilities to read less (both orally and silently) than their peers who do not have identified learning disabilities, because they want to avoid an activity that generates an unpleasant emotional reaction. An aversion to reading is problematic” (p.5). Treat (2013) proclaims that “interventions that reduce feelings of anxiety about reading for students with identified learning disabilities may also boost students' motivation to read, including motivation to engage in oral reading” (p.7). Animal-Assisted Intervention (AAI) is a way to engage students to want to read along with incorporating students' individualized goals to provide specially designed instruction.

Treat (2013) used AAI with ten students with specific learning disabilities to see if students' reading abilities and motivation improved. She used the Gray Oral Reading Test (GORT-4) before the intervention and after. Standard scores for rate, accuracy, and fluency range from 1-20 with 10 considered to be average. Before AAI, the mean standard score for rate was 5.44. After AAI, the mean standard score for rate was 7.22. For accuracy, before the implementation of AAI, the mean standard score was 5.66. After AAI, the mean standard score was 9.0. Before AAI, for overall fluency was 5.0 and after AAI the mean standard score was 7.88. Thus, overall, there was a positive correlation. Treat (2013) also administered the Basic Reading Inventory (BRI). Before the AAI, the mean BRI fluency (wcpm) was 70.8 wpm. After the AAI, the mean wcpm was 94.6 wpm. This can suggest that using the therapy dogs have a positive effect on students with autism with regards to fluency.

Students with Emotional/Behavioral Disorders

Students identified with an Emotional/Behavioral Disorder (EBD) have a tendency to be fearful, engage in inappropriate behaviors in normal circumstances, have a pervasive mood of unhappiness, or have an inability to maintain or form relationships with others (IDEA). Those with EBD are arguably one of the highest at-risk groups for dropping out of high school (Thigpen et al., 2005, as cited in Boe 2008, p. 32). Specifically for students with emotional/behavioral disorders, animal-assisted therapy has shown to increase problem solving skills, self-esteem, and socialization skills (Boe, 2008). Although not directly linked to literacy, these skills can ultimately allow focus on school to absorb information or engage in learning. Providing love, support, and unconditional acceptance are traits that dogs can provide for humans that can be beneficial for students with EBD to allow this to happen. For students with EBD, support is part of their therapy and a dog can help the students learn trust, responsibility, and self-confidence (Boe, 2008).

An intervention involved animal-assisted therapy as part of boys' Individualized Education Plans (IEP). After the animal-assisted therapy, the boys demonstrated a decrease in negative comments, an increase in appropriate behavior, an increase in self-control, and a decrease in distractibility (Kogan et al., 1999, as cited in Boe, 2008). Another AAI was used with a student with EBD. To see if the intervention had an impact baseline data was recorded to see the frequency of how many times the student was involved in impolite language, impolite behavior, inappropriate listening, or disrespecting others. They also recorded the frequency in which the student was off task, did not complete assignments, engaged in inappropriate participation, or inappropriate problem resolution. In addition, they recorded the amount the student was engaged in being noncompliant, not following directions, loss of self-control, or being out of place. After four weeks of the intervention, the research indicated that "impolite

behavior decreased in treatment weeks two and four by showing a reduction of 6 tallies in week two and a reduction of 11 tallies in week four” (Boe, 2008, p. 39). For off-task behavior, it “decreased in treatment weeks two and four by showing a reduction of 12 tallies in week two and 14 tallies in week four” (Boe, 2008, p. 39). Non-compliant behavior also decreased “in treatment weeks two and four by showing a reduction of 8 tallies in week two and 32 tallies in week four” (Boe, 2008, p. 39). Thus, there was some improvement in the student’s behavior.

To assess self-esteem, The Rosenberg Self Esteem Scale and The Coopersmith Self Esteem Inventory was administered throughout the treatment. At week one, the student scored a 28 on the Rosenberg Self Esteem Scale and at week four scored a 30 (Boe, 2008). For The Coopersmith Self Esteem Inventory, at week one the student scored a 32 and at week four, the student scored a 35 (Boe, 2008). This suggests that there may be a positive correlation to having AAT for students with EBD.

Boe (2008) writes that the student she chose is one of the most challenging students in her classroom. This student was an eighteen year old male in a special education school, because of the severity of his disability. She states that the student was very interested in the project of working with a therapy dog. Boe (2008) proclaims that when asking the student to write his thoughts of working with the therapy dog, he willingly went to his desk and started right away which is typically a challenge for this student. She exclaims “the pride he had in his work with Lizzy (the therapy dog) appeared to be transferring to his daily academics” (Boe, 2008, p. 43). The student wrote:

Yes, at times it can be very frustrating because you need to say a command over and over so she knows it’s not playtime anymore. We still have a lot of work ahead of us. It is so fun that even staff is helping me out with teaching Lizzy her commands. It is actually

very rewarding because while you are teaching her you get to take a break to just sit and relax or play games with her (as cited in Boe, 2008, p. 43).

Although not indicated in the research itself, Boe (2008) explains that the student's attendance was perfect when he knew he was going to be working with Lizzy. The student would typically miss one or two days a week. Thus, it seems as if Lizzy gave the student a purpose to come to school.

The Teachers: What Educators are Saying about Therapy Dogs

When teachers are asked about their opinions on animal-assisted therapy, reading growth, motivation are the key words described by teachers, specifically about the R.E.A.D. program (Shaw, 2008). Specific comments by teachers included "students gained a lot more confidence in their reading orally and with their abilities to effectively use their reading strategies", "my student went up significantly in his reading and retelling a story," [and] "they were previously reluctant to read, now they view it as enjoyable" (as cited in Shaw, 2008, p. 7). Although therapy dogs can have such positive effects on the students, therapy dogs in schools can bring benefits to teachers to improve learning. Having a positive environment for students helps to ensure high quality education. Teachers can benefit second hand from the positive effects from therapy dogs and "with a calmer classroom environment, this can make it easier for teachers to teach their lessons and help students. As a result, this can create less anxiety and stress for the teachers and allow for smoother lessons and more effective learning" (Sheckler, 2017, p.8).

Teachers have expressed their views of the R.E.A.D. program on the Intermountain Therapy Animals web page. Laurie Rice, a third grade teacher from Mayville Middle School in Mayville, WI. states:

The children who were selected to read with the dogs couldn't wait to read! These children are not always self-motivated readers. Many avoid reading when asked to do so independently. With the R.E.A.D. program, children look forward to every minute of reading. They are motivated to read aloud for a purpose. Third graders used expression so they could "entertain" the dogs. Thank you! The kids can't wait to see them every time! (Rice, 2016, as cited in Intermountain Therapy Animals, reactions section)

Patricia Foley, Jacques Cartier School from New York explains:

The R.E.A.D. program is a huge success in our school. We are an elementary school in East Harlem. Many of the students are very poor and many have emotional or learning disabilities. R.E.A.D. has been a great motivator for children with emotional regulation issues, a strong academic influence for children with learning disabilities, and also teaches humane treatment of animals as well as social skills. The children often ask when the therapy dogs are coming and get prepared by choosing a book to read to them as well as making positive behavioral choices to be a part of the program." (as cited in Intermountain Therapy Animals, reactions section)

In addition to these teachers, an anonymous teacher discusses the impact therapy dogs have made to one student in particular:

I've truly enjoyed watching the reading growth my students have made. I'm amazed at one student in particular. At the beginning of the school year she came into second grade barely able to read and write. Her reading level was two years below grade level and she was not engaged in the classroom. She had made two years of reading growth in just eight months. She is an avid writer as well. Her amazing growth as a learner was sparked by our Reading Buddies Program. We were blessed this year to have Tracey and her

reading dog Otis as Reading Buddies in my classroom. They came weekly to read with my struggling student. My student created such a strong connection with Tracey and Otis throughout the year. She was willing to skip her own recess to read with them, she wrote daily letters to Otis (who would always write back!) and even created a book of poetry for Tracey and Otis for Mother's Day. My student's interest in reading and writing was sparked by her Reading Buddies, which in turn sparked her love of learning. Tracey and Otis have had a huge impact with the success of my student. Not only have they shared the love of reading with her, but they have also created a personal connection with her that she will carry with her forever. (as cited in Intermountain Therapy Animals, webpage)

The Parents: What Parents are Saying

According to D. Massengill Shaw (2008), parents of students involved with the R.E.A.D. program were happy to have their child in the program. Their responses included “participating in this program has brought joy of reading for my special needs child,” “my child is now more interested in reading and is not afraid to attempt new reading, all kinds of materials,” and “my son was behind in his reading but with the help of the program my son has advances from a level 6 reading to almost a 12 and the dogs are a great inspiration to him” (as cited in Shaw, 2008, p. 7).

Jannet Mayville (2007) from Canada explains her thoughts and appreciation for the R.E.A.D. program:

I am writing this letter to share my appreciation for the R.E.A.D. program. I think this is a program that should be offered to all schools and children who are behind in their reading skills. In the 2005-2006 school year, my son was diagnosed with a slight learning

disability. He was very much behind in his reading. I was asked by the school if I would be interested in him joining the R.E.A.D. program. I really didn't know much about it then, but I still thought it would be a great idea and extra help for his reading. After a few sessions I learned more about the program and saw how much my son was positively reacting to his sessions. I personally believe that attending those sessions has given him more confidence as a reader, on his own, out loud or even in front of his classmates. It has made him want to buy his own books. I owe Chelsea and Chantal Moore my gratitude for being such a positive role in my son's reading abilities. I wish more children will benefit from the same program (as cited in Intermountain Therapy Animals, reactions section).

Another parent, anonymously shared:

I saw [the results] first hand. My son is a reluctant reader. By contrast, I am a voracious reader, and I struggle with the concept that he doesn't like to read for enjoyment. Granted, he's only 6 and still learning to read, but he sees it as a chore. However, on Saturday, he was chomping at the bit to get to the library and pick out a book to read to a dog. (Yes, he picked out the book based on what he thought a dog might like! It had puppies and kittens in it!). When it was our turn, my son smiled, and didn't stop smiling for the next half hour. He ended up reading two books to Murphy. The second one was hard for him. I was in the wings, cringing as he stopped to study a word, waiting for him to throw the book down and walk away. But he didn't. (A first!) Linda coached him through, and Murphy put her chin on Austina's knee and patiently listened. After our turn was over, Austin wanted to hang out at the library and read more books. (Be still my heart!) The promised results are impressive and spill over into all aspects of lifeless anxiety, more

confidence and the sense of accomplishment does wonders for a child's self-esteem. The proof was in the pudding for me. Austin wants to set up a reading schedule for our dog at home (a crotchety old daschund whom I doubt will be amenable to the idea). He also asked me if he could go again (as cited in Intermountain Therapy Animals, reactions section).

These parents have shared their thoughts on the R.E.A.D. program, and it is evident that there are positive effects on reading that the parents are noticing.

The Students

Most students enjoy going to R.E.A.D. sessions (Shaw, 2008). Among the comments, confidence and comfort were two ideas the students expressed in their responses (Shaw, 2008). One student stated “I can read with more confidence every time I read to the dog. I feel that I am becoming better at reading. Because I feel if I wasn’t reading to the dog my reading would not be increasing. I also want to say thank you for your patience when helping me read” (as cited in Shaw, 2008, p. 8). Another student said “the dog comforts me when I read her a story. If a hard word comes to me I sound it out. I love reading with the dog and her amazing owner. They are so nice to me and all of the other kids want to read with her and the dog. If I can read with her and the dog every year I would” (as cited in Shaw, 2008, p. 8).

Jesse, a seven year old, explains:

Last year in grade 1, I didn't know how to read. It didn't make me feel very good about myself. After I started to read to Chelsea I felt good. I like to read to her because she helps me with words and she's a good listener. Now I can read a lot of different books. That makes me very happy. My favourite thing I like about Chelsea is that she does cool

tricks and barks to say "bye" to me. (as cited in Intermountain Therapy Animals, reactions section)

Emily, a six year old proclaims that “they sit there and don't interrupt. They don't ask questions like people” (as cited in Intermountain Therapy Animals, reactions section). Craig, age twelve, adds “it seems like they listen more. Mostly when you read to people they're looking around, not listening to you” (as cited in Intermountain Therapy Animals, reactions section). Kimberley, age ten explains that “I only like to read if I am in a good mood. I am usually in a good mood on Saturdays because I have a chance to read to Lucky” (as cited in Intermountain Therapy Animals, reactions section). Thus, children, of all ages, can see a difference when reading to a dog. It seems as if they seem more confident, more engaged, and happier readers. Some students can even tell a difference in their reading abilities- how empowering is that?

Common Concerns of Using Therapy Dogs in Academic Settings

Although there are many benefits of therapy dogs, there are concerns and criticisms of using animals in schools or libraries. Friesen (2010) explains that adults generally have a concern about cleanliness and children who have allergies. However, according to Elliot et al. 1985, “only 6% of people seen by allergists in North American have an allergic reaction as a result of animal dander” (as cited in Friesen, 2010, p. 262). In order to combat this concern, Elliot et al. (1985) state to choose the correct pet and groom regularly (as cited in Friesen, 2010, p. 262). Friesen (2010) adds to protect both the children and the dog, pre and post hand washing with a hand sanitizer is necessary. In addition, she proclaims that “ regular washing of a specific pillow or blanket for the dog to be used during the sessions, or if possible, holding the sessions outdoors, will help to reduce potential dander transfer. Finally, pre-arranging that the dog and handler arrive and leave through a designated entrance after classes have begun will decrease

potential contact with children who do have allergies” (Friesen, 2010, p. 262). ITA explains that “our animals are scrupulously clean and well-groomed before each session, which helps. In addition, they use a wonderful product (Nature's Miracle Dander Remover and Body Deodorizer) which helps to lessen the likelihood of any allergic reaction for several hours. If a child suffers from severe allergies or asthma, the R.E.A.D. program would probably not be appropriate or enjoyable” (FAQs section).

Another concern stems from the safety of the children. Dog bites are common with children, but implementing lessons to help children learn about a dog’s needs can help eliminate such concern (Jalongo, 2008). Lessons on how to interact with the dogs, approach the dogs, and help students who are afraid of dogs are all important lessons for children (Jalongo, 2008). If a dog is to come into the classroom, it is necessary that the teacher goes over such expectations to prevent any danger. Some students may not know how to properly interact with a dog. Administration, too, are recommended to be involved. Johnson et al. (2002) “recommend that administrative and staff concerns regarding safety and allergies need to be addressed early on, so an on-site meeting should be arranged to establish agreed- upon procedures prior to the beginning of a program” (as cited in Friesen, 2010, p. 262).

It is also critical to remain culturally responsive and proficient. Some families may not like the idea of animals in the classroom. In some cultures like Middle Eastern or South-east Asian, “dogs are perceived to be ‘unclean’ and therefore interaction between children and these animals is strongly dissuaded” (Jalongo et al., 2004, as cited in Friesen, 2010, p. 262).

Theory in Action: Social Constructivism

Donna Lamkin explains the theoretical framework behind the use of therapy dogs as reading partners. She proclaims that social constructivism can explain the unique and complex

phenomenon of dog-assisted reading since social constructivism emphasizes social interaction and shared experience (Lamkin, 2017, p. 11). Lamkin (2017) describes that in the “in the 1920s-1930s, Soviet researcher Vygotsky (1978) performed a series of studies into children’s cognitive development that laid groundwork for the learning theory that came to be known as social constructivism” (p.12). This theory focuses on the idea that learning is a social experience meaning “no one learns in isolation, but rather through the historical and current paradigms and constructs of their culture; that is, by interacting with others in their milieu” (Lamkin, 2017, p. 12).

How Does Social Constructivism Connect to Therapy Dogs?

When a child reads to a dog, the dog becomes a buddy. Although a dog is not the same as a human peer, “the dog provides students with many positive supports. The dog has an appealing social presence for children; the dog’s presence reduces anxiety, helps to calm, and improves mood; and the dog provides social support in the form of a ‘friend’ who likes and cares about the student” (ITA, 2015; Jalongo, 2005; Le Roux et al., 2014; Netting, Wilson, & New, 1987; Paradise, 2007; Shaw, 2013, as cited in Lamkin, 2017, p. 15). Lamkin (2017) adds that “social constructivism focuses on the social aspect of learning. In the dog-child reading intervention, the dog becomes part of the child’s social-learning community, offering ‘a unique form of social supports [that also invited]...peer interaction’” (Jalongo, 2005, p. 154 as cited in Lamkin, 2017, p. 15).

Not only does the therapy dog have a role with social constructivism, the handler does as well. The handler tends to “speak” for the dog by asking questions or comments from the viewpoint of the dog. Lamkin (2017) proclaims that:

In this scenario, the handler acts as a “more knowledgeable other,” yet the support is intentionally guided by the handler speaking for the dog, making the educational aid more casual and social instead of formally instructional. The handler/dog/reader triad becomes a cooperative learning “team” rather than a hierarchy. Together, these social changes create a less stressful, more enjoyable, and spontaneous atmosphere for learning, and can help make the process of reading personally meaningful for the student (p. 15).

Lamkin (2017) explains that Vygotsky stated that reading must be something the child needs relevant to life. In other words, “literacy tasks that are authentic, purposeful, and student-generated will more readily engage a child in the learning activity” (Lamkin, 2017, p. 16).

Additional research indicates that student success can be positively affected when relationships are formed and dogs, due to their nonjudgmental and highly social nature can provide students with a ‘friend’ to bond with (Lamkin, 2017). Reading to an important friend becomes a meaningful interaction and, thus, “the dog’s social relevance to the child can create a powerful impetus for learning” (Lamkin, 2017, p. 16). In addition, the idea from Friesen called a “soft social bridge” “created a safe, playful, enjoyable, and motivation interaction, encouraging learning in the social-constructivist form” (Lamkin, 2017, p. 16). The positive social interactions and successes in academic situations stemmed from working with the dogs can help build a child’s intrinsic motivation for reading that can be transferred to when the dog is not present (Lamkin, 2017, p. 17).

Therapy Dog Organizations in Maryland

Paws for People

Paws for People is a non-profit organization “committed to providing therapeutic visits to any person in the community who would benefit from interaction with a well-trained, loving pet”

(Paws for People, About Us section). PAWS serves Delaware, Pennsylvania, northeast Maryland, and southern New Jersey. Lynne Robinson, a teacher in public schools for twenty-three years, retired and rescued a golden retriever named Boo Radley. She realized the power of pet therapy and decided to create PAWS for People “to focus on the healing aspect of pet therapy and teach other therapy teams how to do individualized therapeutic visits for which PAWS is known” (Paws for People, History of Paws section). Since PAWS concentrates on individualized therapy, PAWs began to add specific programs such as PAWS for Reading, PAWS for Children (Autism Initiative, Mental and Physical Disabilities, Mental Health/ Behavioral Issues), and PAWS to Destress Program. In order to provide top quality sessions, PAWS added training in order to fit those programs. PAWS explains that “With [their] mission of loving individualized visits with gentle, sweet pets always at our heart, PAWS has grown to be the largest pet therapy organization in the Mid-Atlantic region serving all of Delaware and parts of PA, NJ, and MD and a diverse group of dedicated people and their amazing therapy pets” (Paws for People, About Us section).

PAWS for Reading

Paws for People has a specific program for reading- PAWS for Reading. In this program, teams are trained in literacy support to work with children in schools and libraries who are struggling or reluctant readers. There are three programs within PAWS for Reading- Library PAWS, Schools PAWS, Crossover PAWS, and PreK PAWS. Library PAWS is open to all readers at public libraries on a regular schedule. School PAWS includes certified PAWS for Reading teams who work in select elementary schools with students who are struggling or unwilling to read. In order to measure success, this program measures if there is an increase in confidence of reading aloud. Crossover PAWS is specific to students with special needs. In this

program, therapy teams gauge their sessions to meet their varying needs in order to meet the goals that are set by the teachers. PreK PAWS offers a fun reading experience that focuses on animal-activity packs. PAWS emphasizes the use of regular times for students. They provide 10-15 minutes of individualized reading and after the session, the readers get a bookmark, a sticker, and a pet calling card. In addition, they work with English Language Learners. Those involved in the PAWS for Reading program including teachers, librarians, the handlers, are “ seeing improvement in reading and communication skills, self-esteem, social skills, confidence, and students’ attendance rates. Nationwide, similar programs have tracked a rise in students’ reading test scores and attitude toward reading” (Paws for People, programs section). As cited from PAWS for People, a student participant states that “PAWS gave me a reason to read” (Paws for Reading section). A PAWS volunteer proclaims that “It’s a winning situation all around: dogs + kids + books = magic” (Paws for People, Paws for Reading section). Furthermore, a teacher exclaims that “PAWS for Reading is amazing! I am so thankful for the time the teams shared with the kids ...it has changed their lives” (Paws for People, Paws for Reading section).

Go Team Therapy Dogs in Frederick, Maryland

GO TEAM Therapy Dogs formed during the Waldo Canyon fire in Colorado Springs. When the fire destroyed hundreds of homes, the teams brought comfort to those who had to evacuate. The therapy dogs provide “comfort in a crisis, a hospital, an airport, a nursing home- anywhere people could use love from a four-legged friend” (GO TEAM Therapy Dogs, home page section). There is a local GO TEAM Therapy Dogs organization in Frederick, Maryland that provides reading programs for students in Frederick County Public Schools.

An Interview with a GO TEAM Handler

Francina Baldi is a handler for GO TEAM. Her dog, Giuseppe, and she visits elementary schools in Frederick County to support reading. The schools include Monocacy, North Frederick, Valley, Butterfly Ridge, Hillcrest, New Market, Waverley, and Ballenger Creek. Francina and Giuseppe go wherever they are invited. “It is the schools who invite us,” Baldi (personal communication, 2020) explains. As a handler, Baldi (2020) states the benefits that she sees when taking Giuseppe to the schools. The students that she and Giuseppe work with are students who just came to the country who have limited English vocabulary, students with disabilities, or struggling readers. She emphasizes that the reading to the dogs creates a non-judgement environment. “When you’re in the classroom when you are unsure of yourself, you worry” (Baldi, personal communication, 2020). However, she sees the students transform into a comfortable and calm student when reading to the dogs. She adds that some students have been faced with a lot of trauma. When they get the time with the dogs, they can love them, and that really affects their ability to learn and ultimately read. Some students just read and others use a lot of expression and even show the Giuseppe the pictures. Baldi (2020) explains that Ballenger Creek was the first school to invite GO TEAM to read with the children. She has seen a difference from when she first started taking Giuseppe there, two years ago, until now. She proclaims that there is a big difference in their reading. They have become calm and comfortable, and they begin to read with expression!

Not only does Baldi and Giuseppe attend during the school day, they attend literacy nights or afterschool reading programs. At schools like Hillcrest and Ballenger Creek, students get to pick a book and take home. This is a big deal for some students as they may not have books at home. She states that the children become so excited to pick out their book and read to the dogs.

Although there are wonderful benefits, unfortunately, there are not many handlers who can visit the schools during the school day. Not all of them are retired, so attendance relies on availability, Baldi (2020) explains. There is typically more attendance for after school events when handlers get off work.

Ballenger Creek Elementary School: Reading Intervention Teacher's Perspective

Julie Humbel, the reading interventionist at Ballenger Creek Elementary School, organized the GO TEAM Therapy Dogs to be a part of the reading program. She shares her input on the dogs at the schools in an interview. She explains that:

We started working with them in March, 2019 and have continued ever since. They make, on average, 2 visits per month to our school and we have about 15 - 20 students that participate in the program. We chose certain students to participate in the reading dog program based on a few different criteria: some students who have social, emotional needs and some students who are striving readers and needed a non judgemental setting to practice their reading skills. When choosing the students that we thought would benefit the most from the program we had input/recommendations from classroom teachers, EL teachers, Sped teachers, and reading interventionists. (J. Humbel, personal communication, 2020)

She explains that she started the program at Ballenger Creek to “support some students with Social Emotional concerns and also to support some of our striving readers that we knew could benefit from reading in a nonjudgmental setting and in turn boost their confidence and reading skills” (J. Humbel, personal communication, 2020). She proclaims that there are many benefits of having the dogs visits BCES:

The main benefit is the increased enthusiasm for reading! They look forward to the visits and are motivated to prepare themselves by reading more. The kids see it as a fun alternative to have a dog to read to, and don't even realize how their skills are improving, along with their reading confidence. We had 2 students from India last year with very limited English that participated and they just blossomed. Every week the dogs visited there was a noticeable improvement in their English skills and reading ability. Even the handlers would comment weekly about how they were improving. It is such a motivating program for these kids and they aren't intimidated by the dogs, so if they make an error it won't be judged. (J. Humbel, personal communication, 2020).

Specifically for reading motivation and reading fluency she proclaims that:

The more the striving readers are motivated by something to want to practice their reading, the more their accuracy and automaticity increases. Who doesn't want to read to a loving dog who lays in your lap while you practice a skill that's not always easy, but you get to do it in a relaxed setting? Students were more motivated to self select books and prepare ahead of time, reading in their classroom and at home. Some students chosen for the program were striving readers but also had attendance concerns, but once they knew they were part of the reading dog program their attendance improved. They did not want to miss the opportunity to work on their reading skills with a dog! (J. Humbel, personal communication, 2020).

Wondering if there were any challenges with having the dogs come to BCES, Humbel (2020) states “not really, just making sure we had a space available to put the dogs and handlers but we always planned ahead and were organized. The students each got about a 10-15 minute window of time to read with a dog. On average we usually have 3 dogs each visit” (J. Humbel,

personal communication, 2020). Humbel (2020) concludes that “Go Team Therapy Dogs is a great organization that provides so much positivity for so many. The dogs are all friendly and the handlers are personable and have built relationships with our staff as well as with the students that regularly read to the dogs” (personal communication).

Monocacy Elementary School: Reading Specialist’s Perspective

Jill Bowser, a reading specialist, at Monocacy Elementary School organized the therapy dogs to come to the school. After seeing that the dogs were visiting her husband’s school, she wanted to reach out to Go Team Therapy Dogs. She believes that the “the kids get time to connect with the animals and just relax for a bit” (J. Bowser, personal communication, 2020). This is a new program at Monocacy Elementary School, but it is planned to continue. Specifically for reading motivation and reading fluency Ms. Bowser (2020) explains “we thought it would provide a fun, stress free way for kids to practice their reading without the pressure of ‘performing’ for another adult or student ” (personal communication). Due to the school closure from COVID-19, the dogs were not able to come very much. However, Ms. Bowser wants the dogs to visit more consistently for the kids.

Wags for Hope in Frederick, Maryland

Wags for Hope is a local, non-profit therapy dog organization based in Frederick, Maryland certified under R.E.A.D who provide reading sessions with all age students in Frederick County Public Libraries, Frederick County Public Schools, and at Hood College for the Summer Reading Clinic in order to “inspire the love of reading in children with our pets” (Wags for Hope).

Wags for Hope Sessions, C. Burr Artz Public Library Observation

Sessions with Wags range from ten to fifteen minutes dependent on the amount of families that show up to the event. The coordinator for Wags for Hope, Bill Check (2020) states that “there are more families that attend the city libraries versus the rural, remote libraries” (personal communication). While observing two sessions, there was an immediate effort to make a connection with the child with welcoming phrases like “how are you?” There were books available for the children- books with dogs and various topics. The handler asks questions throughout the session that promote literacy thinking such as “do you think it is going to snow?” to reinforce predictions. The handler also ensures that the dog, too, is involved in the process such as “look Maize” when the pictures are key to comprehension. One child made the reading interactive with the dog as she showed the dog the pictures in the book and was very excited to do so. In addition, thinking aloud was present. When children read independently, the task can be passive. However, one child thought aloud- making predictions, clarifying words, and making connections to herself and other texts. In addition, both children that were observed read with expression- one of the fundamental aspects of reading fluency.

A Librarian’s Perspective: C. Burr Artz Public Library

Rorie Cox-Steib the head of Children’s Services at the C. Burr Artz Library provided her input regarding the Wags program at the library. Wags for Hope is held on a Sunday so the library gets families. She explained that:

While individual children that are brought in to this event are generally pre-school to 1st grade the whole family will join in. A shy child might turn to a parent to get the reading started, a slightly older child might want to show off their great chapter book reading skills to an adorable pooch, and even occasionally a teen might even join in the fun. The

main age of this mish mash of people though is Pre-School to 1st grade (R. Cox-Steib, personal communication, 2020).

In addition, Ms. Cox-Steib (R. Cox-Steib, personal communication, 2020) explained the benefits of having therapy dogs at the library in her opinion stating that:

The opportunity to read to a therapy dog for children helps in a number of ways, not just literacy through practice. Children can read to unbiased, calm, attentive beings who have no care for pronunciation. They also get to interact with caring adults outside of the classroom, their home, or the formal librarian customer setting. They get joy from interacting from animals they love. Ultimately though it makes reading fun. This can be particularly nice for children who are struggling. We want reading to be an intrinsic passion, by having a fun and soothing activity tied to reading we are bringing some joy to something that can be quite difficult.

In addition to this, Ms. Cox-Steib explains that staff really enjoy seeing the dogs. For the children, many of them “look at the dogs not just as animals but as friends” (R. Cox-Steib, personal communication, 2020) because the same therapy dogs tend to come every month, resulting in building rapport with the dogs and their caretakers. In regards to reading fluency specifically, Ms. Cox-Steib (R. Cox-Steib, personal communication, 2020) explains:

Reading to dogs allows children to read without the worry of correction, but it does give them the room for their own self correction. They can also focus on titles that they enjoy, not necessarily ones that are in their reading level. Children and adults read up and down a scale and giving children a chance for children to read something that might be below their formal reading level. This can give them confidence needed to gain fluency and earn a wider vocabulary and greater understanding of content.

Limitations of Schools

Although Wags tries to attend Frederick County Public Schools, it is rather limited, according to Bill Check (2020, personal communication). To have an impact on students, the dogs need to regularly be assigned to schools. It is difficult for handlers to commit to this, and therefore, are not available to make such impact.

Hood College Reading Clinic (2020)

Wags for Hope was involved with the Hood College Reading Clinic program. The children in this program were remedial readers- reading at least one grade level below their instructional reading levels. These students had deficits in reading and writing fluency which hindered their ability to comprehend texts. Most of the children involved with the reading clinic experience frustration, motivation, and had a negative attitude about reading and writing. As part of the intervention, therapy dogs were available to students fifteen minutes twice a week for four weeks. Students were assigned an individual time to read with the dogs. They picked a book of their choice provided by the clinician to bring to the dog. Students seemed very excited to read with the dogs (Dinterman, personal observation, 2020).

A Personal Story, Dr. Carly Fuhrman: Therapy Dogs in Loudoun County Public Schools

An interview was conducted with Dr. Carly Fuhrman to share her experiences of her therapy dog, Bailey, in Virginia, specifically Loudoun County Public Schools. Dr. Fuhrman, an educator for 43 years (special education K-12, counselor K-12, and principal of an alternative school 6-12), said that the time “Bailey was with [her] was the most impactful on students. Of course, there is not data, and that is some of the beauty- so much social/emotional may have impacted their academic learning” (C. Fuhrman, personal communication, 2020).

Paws4People

Dr. Fuhrman was put in touch with the year old group of Paws4People, located in North Carolina, by someone who had one of the original puppies. Paws4People in North Carolina is a different organization than Paws for People that was previously mentioned in this paper. At the time, she was retired from being an educator in Oregon. The organization's founders had been taking one of their dogs to Mountain View Elementary School in LCPS. They were trying to build the organization when Dr. Fuhrman got in touch with them. As Dr. Fuhrman got involved, Paws4People were trying to get real approval from the school board. To do this, Addie, the golden retriever, sat through the school board meeting. Dr. Fuhrman stated that "all of the members loved her and wanted one in their schools" (C. Fuhrman, personal communication, 2020). However, Dr. Fuhrman noted that now LCPS does not allow therapy dogs in the schools due to risk management.

Bailey, who technically belonged to Paws4People, went home with Dr. Fuhrman on July 3. Dr. Fuhrman stated that they were "inseparable from then on" (C. Fuhrman, personal communication, 2020). In order to become a therapy dog, Bailey and Dr. Fuhrman did puppy training that summer and in the fall went through training at an elementary school in South Riding, Virginia. Dr. Fuhrman spent time in a special education class. There, the students would brush the dogs, walk them in the hallway, and play with toys with them. In addition to her time in the special education classroom, Dr. Fuhrman brought Bailey to a second grade classroom as part of her training. Dr. Fuhrman noted that certification now is much more complicated, but after they were certified by Terry, Dr. Fuhrman and Bailey, along with one of the other handlers who had a chocolate lab named Molly, they went to another elementary school to work with a physical therapist and occupational therapist.

The Benefits

In addition to her time in the special education classroom, she spent time in a second grade classroom. Dr. Fuhrman explained that “we sat on the floor in the hallway with our dogs and individual kids would come and read to the dogs. The dogs didn’t correct their reading, just listened. It built confidence and fluency” (C. Fuhrman, personal communication, 2020). Dr. Fuhrman added that the teacher included the dogs in not just reading but writing as well stating that “there were some days the teacher would include the dogs in the writing segment of the class. They would talk about whatever she had as the topic, sometimes focused on the dogs, but then the students would write and the dogs would roam the class. The kids would stick their hands out and pet them as they passed by. The teacher felt it provided a calming atmosphere” (C. Fuhrman, personal communication, 2020).

The physical therapist and occupational therapist were doing therapy with kindergarten aged children with severe disabilities. The students were working on language skills during their literacy time. Dr. Fuhrman explained that “they individualized the responses, picture or vocal, and got to do what the picture indicated” (C. Fuhrman, personal communication, 2020). Such responses included “pet the dog” and “walk the dog.” Dr. Fuhrman explained a challenge that one student was petrified of the dogs. However, the student kept watching Bailey. Dr. Fuhrman stated that the student “started out at the back of the room, which was allowed. Over the weeks, she slowly moved toward us in the front of the room. She finally put her hand out and touched Bailey. It was an emotional moment for the adults in the room. She then participated in the activities, with a smile” (C. Fuhrman, personal communication, 2020). Thus, showing such an emotional benefit that aids in learning within the classroom. Another example of this was when Dr. Fuhrman went to a high school where she knew the staff. In the special education class that

she and Bailey visited, some of the students in the classroom taught Bailey how to shake hands. Dr. Fuhrman (2020) noted, “imagine the power that gave them.”

When there is a welcoming environment, students are more likely to learn. Indirectly, having the therapy dog in the school as a member of the community can create a positive atmosphere. As a high school counselor, Dr. Fuhrman proclaimed that “on dark winter mornings students would trudge in and there was Bailey, and the sleepy teens would brighten up and smile! She was a part of the ambiance of the school. She was there for about 10 years. Think how many students that involved!” (C. Fuhrman, personal communication, 2020). She also added that “the principal or other counselors would ask for Bailey to come in to sit with a distraught student” (C. Fuhrman, personal communication, 2020). Although this is an emotional approach for therapy dogs, this can indirectly boost a student’s ability to learn and wanting to learn. It is evident that Bailey became a part of the school community. Dr. Fuhrman stated that “parents would ask about her, send her treats, and look forward to her being at meetings. She had a calming presence at IEP meetings, disciplinary conferences, etc” (C. Fuhrman, personal communication, 2020).

Dr. Fuhrman included that the high school principal honored Bailey with a plaque in the main hallway with all of the outstanding students. She also added that “last year, he created an honor for teachers who demonstrated kindness and called it a ‘Bailey’” (C. Fuhrman, personal communication, 2020). Thus, showing the impact that Bailey had in the school.

In addition, Dr. Fuhrman added that “it is really difficult to measure the impact of having her [Bailey] with children of any age. However, if we think about ideal learning situations, students are accepted for who they are and what they are presently able to do” (C. Fuhrman, personal communication, 2020).

The Staff's Reactions

Therapy dogs in a school impacts everyone in the building including the teachers. Dr. Fuhrman noted that “most staff loved having her [Bailey] there. I had one teacher who did not understand. I just kept Bailey away from her.” She even stated that “there were teachers who would come in for their ‘Bailey fix’ to de-stress from a trying day” (C. Fuhrman, personal communication, 2020).

Going into the Schools: A Principal's Decision

Dr. Fuhrman explained that going into the schools was always a principal's decision. Some principals were very enthusiastic about therapy dogs coming into the schools, while others were hesitant. Before working as a full-time counselor, Dr. Fuhrman was asked to be a long-term sub as a counselor in a high school. When being interviewed by the Director of Counseling, Dr. Fuhrman told them that she had a therapy dog and asked if she could come to the school. Dr. Fuhrman proclaimed that the Director of Counseling was very excited and introduced Dr. Fuhrman to the principal. In fact, the principal had a personal experience of therapy dogs- her husband had just been through rounds of chemo and there was a therapy dog at the hospital. The principal exclaimed that the therapy dog was beneficial in a medical setting which made her thrilled to have Bailey come to the school.

The Challenges

Dr. Fuhrman said that the question that always comes up is “what about people who are afraid or have allergies?” Dr. Fuhrman (C. Fuhrman, personal communication, 2020) shared her perspective:

There were a few students who were either allergic or afraid. We always said to tell us. I had one student who was well over 6 feet, football player, who was terrified of Bailey.

He would wave at me through the office windows, and I put Bailey in another room or walked on the other side of the hall. If I was going into a class with a student with an issue, I would leave Bailey in the office. In all the years [of Bailey working at the school], there were only a few issues.

The Local Library

Going to the library was more regular in the early years for Bailey and Dr. Fuhrman. She explained that:

Someone from Paws4People organized the monthly visits with the various Loudoun County Libraries. Patrons would pre sign up for visits and children would bring books they wanted to read. We would sit on the floor with several other apirds of dogs and handlers around the room. One child and parent would sit with us and the child would read to the dog, give her treats, and pet as reading (C. Fuhrman, personal communication, 2020).

Conclusion

When students want to read for their own enjoyment, they will begin to be an engaged reader, thereby connecting to the world around them, themselves, others, and other texts. They will not just acquire the literal meaning of a text but use that knowledge to better themselves and ultimately their community. Therapy dogs can be used to foster such love. When reading to a dog, they listen, and they make children feel important. Unfortunately, many students experience trauma, and being with the dogs creates a safe space-allowing learning to be achieved. Barriers such as these can be eliminated as students become calm, confident, and fearful readers. Having such a relationship with an animal enables the student to really read the book- not just the words. Children cannot wait for their time to read with the dogs. It becomes a risk-free environment

where they can thrive with no judgement. Many studies have shown the positive correlation between reading attitudes and motivation along with fluent reading abilities (expression, accuracy, and rate). The individualized approach of canine-assisted reading, especially in AAT, can be a powerful tool. Since AAT focuses much on what the student can do, it creates achievable tasks for our students with disabilities. One question still remains- can therapy dogs be used to eliminate the achievement gap?

I pledge that I have neither given nor received any unauthorized aid on this paper.

Jennifer Dinterman

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