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The Effects of Therapy Dogs on Students

Chloe Romack

Western Michigan University

Abstract

This thesis explores the effects therapy dogs have on students. It begins with a literature review of 17 articles that involve animal-assisted interventions with students and children. The main topics covered include the definition of a therapy animal and how dogs can influence learning, socialization, emotional well-being, anxiety, and depression. It also discusses how dogs can be used in therapy and special education classrooms as well as the major concerns of dogs in schools. Drawing upon the previous research, a survey was sent to school staff in the Paw Paw Public School District. The participants of this study consisted of 54 staff members from early education up to high school who have worked with students. A total of 45 staff members had observed the therapy dogs in the schools and nine staff members had not observed the dogs. Each staff member was sent a voluntary online survey to give their opinions about how therapy dogs affected students' learning, participation, social interactions, and emotional well-being as well as how to improve the therapy dog program. The survey consisted of both quantitative and qualitative questions. The quantitative questions were a mixture of both multiple-choice and Likert scale questions. All quantitative answers were graphed, and the Likert scale answers were averaged. For the qualitative answers, categories based on the main answers were created and given a total score from how many responses fit the category. The results show that therapy dogs had the most positive impact on emotional well-being for students followed by learning, social interactions, and participation. Many staff members did not answer the qualitative questions or did not observe the dogs long enough to form an opinion, but those who did respond mostly mentioned the positive impacts the dogs had on students. Finally, 68% of all staff members answered yes to wanting the therapy dogs to visit them and their students in the future, with those who had observed the dogs in the past having more positive answers than those who had

not observed the dogs. The results of this study show the impact dogs have on students from the perspective of school staff members and how animal-assisted education programs can be improved upon.

Introduction

Prolonged exposure to stress in children can cause adverse impacts on learning and well-being (Meints et al., 2022). There are currently many ways to relieve stress in schools, but therapy dogs are a new intervention to solve this problem (Meints et al., 2022). Therapy dogs are used in many school programs and settings which include aiding in behavioral management, connecting students, counseling sessions, reading programs, and more (Baird et al., 2022).

A therapy dog is a common term used to describe a dog trained to participate in animal-assisted interventions (AAI), which includes animal-assisted activities (AAA), animal-assisted therapy (AAT), and animal-assisted education (AAE). AAI is an umbrella term that includes AAA, AAT, and AAE (Kirnan et al., 2018). AAI incorporates animals in health, well-being, and education interventions for people (Jones et al., 2019). AAA is more generalized because it focuses on recreational activities that promote a better quality of life (Kirnan et al., 2018). AAT is focused on creating and achieving goals established by a specific person or client (Kirnan et al., 2018). Commonly, AAT is administered by or alongside a trained health or human service professional while AAA is administered by a volunteer or paraprofessional (Kirnan et al., 2018). Finally, AAE is done in an educational setting and often combines components of AAA and AAT (Kirnan et al., 2018).

The purpose of this study is to learn about the effects therapy dogs have on student learning, participation, social interactions, and emotional well-being in an academic setting. Teachers and staff members who work in the Paw Paw Public School District answered survey questions on the perceived benefits and disadvantages AAE has on students. This study helped to identify interest in AAE for teachers and staff who have and have not observed the therapy dogs

in the schools. The survey was used to analyze AAE's effect on people and how the therapy dog program can be improved.

Literature Review

Therapy dogs are commonly confused with service and emotional support dogs. A service animal has extensive training to assist with a specific person's disability and has access to any public location without permission, as protected under the Americans with Disabilities Act (Schoenfeld-Tacher et al., 2017). Emotional support animals provide comfort to their owner, but they do not require specific training, and they are typically not allowed in public locations (Schoenfeld-Tacher et al., 2017). In contrast, therapy animals do not provide specific assistance to one person; rather, they receive training to provide emotional support for many people, and they are allowed in public facilities with permission (Schoenfeld-Tacher et al., 2017).

Although research suggests that therapy dogs have a positive impact on students, there are other perspectives to consider. Some concerns include safety, allergies, cultural ideas, and students' attitudes towards dogs (Friesen, 2009). Some cultures believe dogs are unclean and interacting with dogs should be discouraged (Friesen, 2009). It is important to be aware of any people who may not be comfortable around a dog when AAI is being implemented. Other concerns involve the safety of the students and the dog. The dog should have a trained handler who can understand the dog's emotions and provide proper care to avoid negative interactions or injury (Friesen, 2009). Besides providing basic needs for the dog, compared to other animals, dogs in schools and other therapeutic environments are reasonably inexpensive (Friesen, 2009). Because of this, dogs are great for being used to reinforce or change behaviors in students (Protopopova et al., 2019).

Previous researchers have found that AAE may be a useful tool for student learning. When a dog is present in a classroom, some research suggests that children pay more attention to the teacher, show a better understanding of instructions, and make fewer errors (Meints et al., 2022). It is still unknown if AAE can have a direct impact on memory because some researchers, like Trammell (2019), did not find any positive effects on memory in the presence of a dog. One of the issues with the research on this topic is that there is a wide variety of tasks to test memory performance which may show differing results (Trammell, 2019). In a study done by Gee et al. (2012), they researched the speed and accuracy of recognizing objects in preschool children. Gee et al. found that children could recognize objects more accurately, faster, and with more distractions when a dog was present compared to a person. Past research has also shown that preschool children make fewer mistakes in the presence of a dog when completing a picture-matching task than with a stuffed dog or a person (Gee et al., 2012). It is suggested that the presence of a dog may be motivational to children which improves memory performance (Gee et al., 2012).

Not only can dogs possibly help with memory, but dogs can also help students with their reading scores and confidence. The Reading Education Assistance Dogs (R.E.A.D.) program, which started in 1999, helped students improve their reading scores by at least two grade levels in thirteen months, with some students improving up to four grade levels (Jalongo et al., 2004). This was the first of many studies that researched the effects of dogs on reading scores. Previous researchers have reported that students who read to a dog show significant improvements, specifically in their fluency and pacing while reading aloud (Baird et al., 2022). Studies also show that dogs can increase scores for reading accuracy compared to the presence of a stuffed animal (Le Roux et al., 2014). Although there is a lot of research that suggests reading to a dog is

positive, some researchers reported no difference in reading skills compared to the control groups (Le Roux et al., 2014). Researchers have shown that reading to a dog can help increase confidence and overall reading enjoyment in children (Baird et al., 2022) and can increase class participation (Le Roux et al., 2014). Finally, therapy dogs provide unconditional support to students which makes it possible for them to make mistakes while reading without the threat of punishment or being ridiculed (Le Roux et al., 2014). By reading to a dog, it can help create positive attitudes and promote learning.

Children with special education needs (SEN) often face more challenges in learning material and may struggle with attention, language delays, and cognitive deficiencies (Kirnan et al., 2018). They also may have difficulties with aggression, non-compliance, or other disruptive behaviors (Kirnan et al., 2018). Most children enjoy interacting with animals, and this enjoyment can be used in schools to reinforce appropriate behaviors and discourage inappropriate behaviors (Kirnan et al., 2018). Previous studies have found that teachers and staff members noticed fewer problem behaviors during class when a dog was present (Baird et al., 2022).

AAI may also improve behavior, communication, and social skills, especially in children diagnosed with autism spectrum disorder (ASD) (Jones et al., 2019). Past research has shown that a dog's presence can decrease the severity of ASD symptoms and total problem behaviors (Stevenson et al., 2015). Dogs may also reduce aggressive or extreme behaviors in children with conduct disorders or attention-deficit hyperactivity disorder (O'Haire, 2012). Although researchers suggest that AAI is useful for SEN children, some negative impacts were noted in previous studies. One study found that the presence of a dog can increase blood pressure and behaviors such as hand flapping in SEN children (Kirnan et al., 2018). Another problem is that many of these studies have a small sample size and are less generalizable (O'Haire, 2012).

Additionally, there is a wide range of students that may be included in a SEN program including intellectual disabilities, ASD, physical disabilities, and children with multiple disabilities (Kirnan et al., 2018). All these factors affect the outcome of studies that include SEN programs, so there should be more research on this subject.

Animals are known to help children with everyday socialization who may struggle to communicate (Kirnan et al., 2018). Past research found that therapy dogs can increase verbal and nonverbal social behaviors in children with ASD and can decrease withdrawal behaviors (Stevenson et al., 2015). The most reported benefit of AAI for children with ASD is an increase in social interaction according to literature reviews (O'Haire, 2012). A study also found that children without a disability were ten times more likely to interact with a student with disabilities when a dog was present (Jalongo et al., 2004). Lastly, AAI with SEN students show improvements in interacting, responding, smiling, using an appropriate tone of voice, making eye contact, and relationships with their peers (Kirnan et al., 2018).

The purpose of AAI is to promote relaxation, reduce stress, and provide social support (Kirnan et al., 2018). Well-being is defined as having positive emotions, relationships, and environments that can be induced through AAI (Henderson et al., 2020). Mental health struggles in adolescents can negatively affect learning and social functioning which can cause distress (Jones et al., 2019). Past research suggests that interacting with animals can decrease stress, heart rate, blood pressure, loneliness, and feelings of isolation (O'Haire, 2012). Animals can also increase social interactions, connections to people, and socio-emotional functioning (O'Haire, 2012). Interacting with an animal can be beneficial in promoting physical, social, and emotional well-being for students. Although many studies conclude that animals reduce stress and lower cortisol levels, some studies have found minor or mixed results (Meints et al., 2022). Some

researchers have found no significant improvements in depressive symptoms or overall well-being after interacting with a therapy dog (Baird et al., 2022). Although some researchers did not find therapy dogs to be useful, dogs have been found to provide a sense of accomplishment and improve the ability to cope with anxiety (Baird et al., 2022). School examinations are a major stressor for most adolescents, especially students in secondary school (Perry et al., 2017).

Providing the opportunity to interact with therapy dogs for all students, not just children, may be helpful to those with school-related stressors. Lastly, therapy dogs can provide unconditional love and support which can promote feelings of comfort in students, no matter who they are or what they are experiencing (Protopopova et al., 2019).

Therapy dogs can be a great addition to enhance trauma-focused therapy (Signal et al., 2017). Animals are known to create a safe, trusting, non-judgmental, and accepting environment that may promote healing and development in therapy (Dietz et al., 2012). Childhood sexual abuse (CSA) is very prevalent with around eighteen percent of girls and eight percent of boys being sexually abused globally (Dietz et al., 2012) Dietz et al. (2012) found that group therapy for CSA had decreased anxiety, depression, anger, post-traumatic stress disorder symptoms, dissociation, and sexual concerns when AAT was implemented. Another study reported that the caregivers of children who experienced CSA noticed a positive change in behavior and mood at school and home after AAT (Signal et al., 2017). Children who experience CSA or other traumatic events benefit from AAT, but AAI may also reduce psychological distress and mental illness (Jones et al., 2019).

Depression is common in secondary students, and many report having elevated symptoms of depression, anxiety, and stress which is linked to suicide (Perry et al., 2017). Research has found that over seventy percent of children confide in animals, which is generally considered

therapeutic (Jalongo et al., 2004). Because of the prevalence of mental health concerns in students of all ages, schools are an ideal location to provide interventions (Perry et al., 2017).

The presence of dogs in AAT may also promote and increase the acceptability of receiving these services and make students more willing to participate in therapy sessions (Jones et al., 2019).

Methods

Participants

This study consisted of 54 staff members from the Paw Paw Public School District. Participants of this study had to work with students from at least one of the schools, or they could not participate. Participants were allowed to fill out the survey, regardless of whether they had observed therapy dogs interacting with students in school or not. Forty-five of the participants had observed therapy dogs in the past and nine participants had not observed the therapy dogs before. Out of the 54 responses, 51 participants gave information about what buildings they worked in. Figure 13 shows where most participants worked between those who have and have not observed therapy dogs in the school. In total, 16 participants worked in the high school, 12 participants worked in the middle school and later elementary school, 10 participants worked in the early elementary school, three participants worked at the community and family center, and two participants worked in every building. Forty-nine participants responded to what roles they have at the school. Figure 14 shows the roles of participants at the schools between those who have and have not observed therapy dogs in the school. Twenty-nine total participants were teachers, six participants were paraprofessionals, five participants were administrators, four participants were mental health clinicians, counselors, or social workers, four participants were secretaries, one participant was a clerk, and one participant was a behavior specialist.

Materials and Procedures

For the survey of this study, a Google Form was used to collect the data (Appendix B). The survey was anonymous, but participants were permitted to put their emails at the end of the survey. To send out the survey, an email was written (Appendix A) and sent to Paw Paw Public Schools, which was forwarded to all teachers and staff throughout the district.

After collecting the data from the survey, graphs were created for the results of each question (Figure 1-14). The quantitative answers were graphed using the total responses on a scale from one to ten. Multiple choice answers were graphed using the total responses of each answer. For the quantitative answers, categories were created using the most used responses. Any answer that was left blank was counted in the *no answer* category. Answers that were put in the *other* category included responses that did not pertain to the question asked, were difficult to read and understand, or did not fit in any category. The *no answer* and *other* categories were combined in the results. To code the rest of the qualitative data, numbers were assigned to each category. Each qualitative answer was given at least one or more numbers that represent a category that it related to. Finally, each number for the categories was added together and graphed to represent the main topics discussed for every question.

Results

For staff who have observed therapy dogs, there was a lot of support for therapy dogs in the schools. Participants rated their opinion of dogs in general in Figure 1. Twenty-six participants rated dogs at a ten, seven participants rated dogs at a nine, and six participants rated dogs at an eight. For this same question, two participants rated dogs at a seven, and one vote was

given to dogs at six, five, four, and one. Overall, the average score for staff's opinions of dogs was 8.91.

In Figure 2, staff who observed therapy dogs were asked to rate their opinion of dogs impacting students' learning and to explain their answers. For this question, ten participants rated a ten, nine participants rated a nine, six participants rated an eight, seven participants rated a seven, five participants rated a six, four participants rated a five, one participant rated a four, and one participant rated a one. On average, participants rated dogs impacting students' learning as a 7.74. Participants were also able to explain their rating to this question in which there were seven main categories from the results. Sixteen participants stated that the dogs have a calming effect and reduced anxiety, nine participants stated that the dogs improve learning, concentration, and engagement, and eight participants mentioned that dogs boost confidence and positive emotions in students. Three participants stated that dogs were a great opportunity for a "brain break" for their students and two participants stated that the dogs not only helped students, but the staff as well. Finally, ten participants stated that they did not observe the dogs enough to form an opinion, ten participants did not answer, and one participant provided another answer that was difficult to understand.

In Figure 3, staff who have observed therapy dogs were asked to rate their opinion of dogs impacting students' social interactions and explain their answers. Nine participants rated a ten, three participants rated a nine, six participants rated an eight, six participants rated an eight, 13 participants rated a five, and one participant rated a one. The average score for this question was 7.18 and seven participants did not answer. From the explanations, seven categories were created from the results, 14 participants explained that the dogs promote conversations and build relationships, seven participants stated that they boost confidence and positive emotions, and

four participants said that the dog's presence teaches students interpersonal skills, two participants explained that students interact with and trust dogs more than adults, one participant stated that the presence of a dog causes jealousy among students, six participants did not observe the dogs enough to form an opinion, 15 participants did not answer, and two participants provided other answers that did not answer the question and did not fit into any category.

For Figure 4, staff who have observed therapy dogs were asked to rate their opinion of dogs impacting students' participation and explain their answers. For this question, three participants rated a ten, three rated participants a nine, ten participants rated an eight, five participants rated a seven, five participants rated a six, five participants rated a five, one participant rated a three, and one participant rated a one. The average score for this question was 6.74 and seven participants did rate their opinion. For the participant's explanations, four categories were created from their answers. Thirteen participants stated that the dogs improve engagement, motivation, confidence, and concentration while four participants explained that the dogs provide emotional support during activities. Finally, 12 participants did not observe the dogs enough to form an opinion, 18 participants did not answer, and one participant provided an answer that was difficult to understand.

In Figure 5, staff who have observed therapy dogs were asked to rate their opinion of dogs impacting students' emotional well-being and explain their answers. For this question, 17 participants rated a ten, six participants rated a nine, 11 participants rated an eight, three participants rated a seven, three participants rated a six, and three participants rated a five. The average rating was 8.51 and only two participants did not answer. For the participants' explanations, six main categories were created. Eighteen participants explained that dogs promote positive emotions and interactions, 15 participants stated that they help students during

a crisis to cope properly, three participants said that the dogs motivate students to arrive or stay in class after a crisis, and one participant explained that some students are not comfortable around dogs. Finally, two participants did not observe the dogs enough to form an opinion, 15 participants did not answer, and one participant gave another answer that was difficult to understand and did not fit into any category.

For Figure 6, staff who have observed therapy dogs were asked to rate their opinion of dogs impacting students overall. For this question, 15 participants rated a ten, seven participants rated a nine, 11 participants rated an eight, four participants rated a seven, one participant rated a six, four participants rated a five, and one participant rated a four. The average score was 8.35 and two participants did not answer the question.

In the final part of this study, participants were asked to give any final thoughts on therapy dogs. In Figure 7, staff who have observed the therapy dogs were asked to explain the advantages and disadvantages of dogs in the school. Four categories were created for this question based on the answer provided. Seventeen participants mentioned positive impacts the dogs have on students, eight participants mentioned bad experiences that could or have happened with the dogs, four participants stated they had not observed them enough to form an opinion, but wanted to see the dogs more, 18 participants did not answer, and one participant provided other information that did not fit into any category. For Figure 8, Staff who observed the therapy dogs were asked to explain their recommendations for the therapy dog program at the school. Eleven participants stated that the dogs need to be more visible and available to students and staff and six participants explained that it would be beneficial to create a sign-up sheet or schedule for the dogs. Finally, four participants wanted the dogs more involved in events and group activities, 19 participants did not respond, and five participants provided other information

that did not answer the question, was difficult to understand, or did not fit into any category. The last question was to know if staff who have observed therapy dogs want to see them more in the future. A total of 34 participants said yes to this question, three participants said no, and eight participants said maybe.

In Figure 10, staff who have not observed the therapy dogs were asked to rate their opinion of dogs in general. Five participants rated a ten, one participant rated an eight, one participant rated a seven, and two participants rated a five. The average score was 8.33 for this question. The same staff were asked if they would like to have the therapy dogs visit in the future. For this question in Figure 12, three participants said yes, three participants said no, and three participants said maybe.

For Figure 11, staff who have not observed therapy dogs were asked to rate their opinion of dogs impacting students and to explain their answers. One participant rated a ten, two participants rated a nine, three participants rated an eight, one participant rated a seven, one participant rated a five, and one participant rated a one. The average rating for this question was 7.22. For the explanations provided, four categories were created. Five participants said negative comments about dogs disrupting learning, five participants stated positive comments including calming and motivating students, one participant was unsure of how dogs could be useful, and one participant did not answer.

Discussion

Results of this study show the many benefits therapy dogs have on students as well as things that could be improved. Most of the participants involved in this study had a positive view of dogs in general. For the staff who have observed the therapy dogs in the past, the major

benefits in descending order include an increase in students' emotional well-being, learning, social interactions, and participation. Out of these participants, only 10 of the qualitative answers provided disadvantages about the therapy dogs in the school. Most of the disadvantages provided were about students and staff members who may not like dogs or have allergies. A major category in every qualitative question also had a large total of participants who did not answer or did not observe the dogs enough to provide an opinion. Besides this, 75% of all the participants wanted the therapy dogs to visit them and their students more often in the future. For the staff who had not observed the therapy dogs, their average score for how therapy dogs impact students was 7.22 compared to those who had observed the dogs scoring their impact on students at 8.35. Only 33% of staff who had not observed therapy dogs wanted the dogs to visit them and their students in the future. It may be useful for this study to be replicated in a couple of years after the therapy dog program becomes more established in the school district to see how the results change over time.

Limitations

The main limitation of this study was the number of participants and responses to each question. Although many participants answered the quantitative questions, many did not answer the qualitative questions to explain their answers. Besides those who did not answer the qualitative questions, many participants stated that they could not form an opinion because they had not observed the therapy dogs enough. This study would benefit from having participants interact with and observe the therapy dogs for a minimum amount of time, so they could answer more of the questions. Another problem is that most of the participants who filled out the survey had observed therapy dogs in the past. Only 9 participants did not observe the therapy dogs which makes their opinions less generalizable to other staff. This study could benefit from more

participants. It would have been best to have a larger range of roles in the school. Most of the participants were teachers in this study, even though there are many other staff who work in the school. Having more participants could provide a better understanding of how therapy dogs affect students in the school beyond classroom settings.

This study was sent to all staff members at the Paw Paw Public School District. The survey was not required to be filled out and the participants completed it on their own volition. Many of the participants could have bias when completing the survey which does not represent the general staff at the school. In the future, it would be useful to make a similar study that was done through random selection. This would be better for generalizability in terms of using a random sample.

Lastly, this study asked about the effects of therapy dogs on students from the perspective of staff members. This study would be stronger if students were also able to fill out a survey about how they feel about therapy dogs. Although the staff members were able to answer more complex questions, many stated that they had not seen the dogs enough to form an opinion. It can also be difficult for staff to observe how the dogs could help students' emotional well-being. This study could be improved by having students fill out a survey on topics similar to what the staff filled out.

Implications

Therapy dogs in Paw Paw Public Schools is a relatively new program created in 2021. This study was able to provide evidence of how this program helps students. A total of 18 staff members responded to the end of the survey with their emails. This helps the school know who is most interested in the therapy dog program and who they should visit next. This survey also

allowed staff members to give their thoughts on how to improve the therapy dog program. This can be useful for Paw Paw Public Schools as well as other schools that have or plan on having therapy dogs in the future. Schools can better their therapy dog programs by considering the results of the advantages, disadvantages, and recommendations provided by this study from staff members. This study is unique because it shows how therapy dogs are beneficial for their students from the perspectives of staff members. The results of this study provide evidence that not only can students benefit from the dogs, but the staff can also notice an improvement in students.

Although most of the responses to the survey were positive about the therapy dogs, there were a few other viewpoints that should be recognized. The main concern is about the people who are afraid of dogs. A few staff members mentioned themselves or a student of theirs who had a traumatic experience with dogs in the past. Having dogs in schools for those who are afraid can cause unnecessary stress for certain individuals. The other main concern was about people who have allergies to dogs. This shows the importance of receiving consent from all staff, students, and parents before implementing therapy dogs in schools. By receiving consent, the therapy dog team can avoid certain people who do not want to interact with the dogs for any reason.

Other common responses from the survey were that only the “troubled” or “bad” students see the therapy dogs while other students are often forgotten. The therapy dog program at Paw Paw Public Schools is new and there are a small number of therapy dog teams for the whole school district. To help staff members better understand how the therapy dog program works, it may be useful to provide education about how the dogs are used in the schools. It is also important for staff members to learn about where the therapy dog teams are normally located and how to contact the therapy dog handlers if a staff member or student needs support. Another

negative response about therapy dogs is that they disrupt learning during class. To help staff members with this concern, explanations and demonstrations on how dogs can promote learning should be provided to all staff members to educate them about the benefits they provide. Also, the results of this survey can be used by the therapy dog program to help to not disrupt classes. Creating a schedule and letting staff know ahead of time when the dogs will be arriving can prevent interruption of learning. The therapy dogs should be used as an asset for educational settings, so staff members should be knowledgeable about the dogs and work together with the therapy dog program to promote learning and well-being.

Conclusion

Therapy dogs in schools appear, from the perspectives of school personnel, to improve students' emotional well-being, learning, social interactions, and participation. Many staff members noticed a positive change in student behavior which can promote a healthy learning environment. Although there are mixed results from previous research on AAE and therapy dogs, this research provides a different strategy by researching school staff instead of students. Even though this study had a small number of participants, it can be used as an extension of previous studies of AAE using dogs. Future researchers should incorporate larger sample sizes for similar studies on therapy dogs in schools to provide evidence that they can be a useful tool for staff and students.

References

- Baird, R., Grové, C., & Berger, E. (2022). The impact of therapy dogs on the social and emotional wellbeing of students: A systematic review. *Educational and Developmental Psychologist, 39*(2), 180–208. <https://doi.org/10.1080/20590776.2022.2049444>
- Dietz, T. J., Davis, D., & Pennings, J. (2012). Evaluating animal-assisted therapy in group treatment for Child sexual abuse. *Journal of Child Sexual Abuse, 21*(6), 665–683. <https://doi.org/10.1080/10538712.2012.726700>
- Friesen, L. (2009). Exploring animal-assisted programs with children in school and therapeutic contexts. *Early Childhood Education Journal, 37*(4), 261–267. <https://doi.org/10.1007/s10643-009-0349-5>
- Gee, N. R., Belcher, J. M., Grabski, J. L., DeJesus, M., & Riley, W. (2012). The presence of a therapy dog results in improved object recognition performance in preschool children. *Anthrozoös, 25*(3), 289–300. <https://doi.org/10.2752/175303712x13403555186172>
- Henderson, L., Grové, C., Lee, F., Trainer, L., Schena, H., & Prentice, M. (2020). An evaluation of a dog-assisted reading program to support student wellbeing in Primary School. *Children and Youth Services Review, 118*, 105449. <https://doi.org/10.1016/j.chilyouth.2020.105449>
- Jalongo, M. R., Astorino, T., & Bomboy, N. (2004). Canine visitors: The influence of therapy dogs on young children's learning and well-being in classrooms and Hospitals. *Early*

Childhood Education Journal, 32(1), 9–16.

<https://doi.org/10.1023/b:ecej.0000039638.60714.5f> p

Jones, M. G., Rice, S. M., & Cotton, S. M. (2019). Incorporating animal-assisted therapy in mental health treatments for adolescents: A systematic review of canine assisted psychotherapy. *PLOS ONE*, 14(1). <https://doi.org/10.1371/journal.pone.0210761>

Kirnan, J., Shah, S., & Lauletti, C. (2018). A dog-assisted reading Programme's unanticipated impact in a special education classroom. *Educational Review*, 72(2), 196–219.

<https://doi.org/10.1080/00131911.2018.1495181>

Le Roux, M. C., Swartz, L., & Swart, E. (2014). The effect of an animal-assisted reading program on the reading rate, accuracy and comprehension of grade 3 students: A Randomized Control Study. *Child & Youth Care Forum*, 43(6), 655–673.

<https://doi.org/10.1007/s10566-014-9262-1>

Meints, K., Brelsford, V. L., Dimolareva, M., Maréchal, L., Pennington, K., Rowan, E., & Gee, N. R. (2022). Can dogs reduce stress levels in school children? effects of dog-assisted interventions on salivary cortisol in children with and without special educational needs using randomized controlled trials. *PLOS ONE*, 17(6).

<https://doi.org/10.1371/journal.pone.0269333>

O'Haire, M. E. (2012). Animal-assisted intervention for autism spectrum disorder: A systematic literature review. *Journal of Autism and Developmental Disorders*, 43(7), 1606–1622.

<https://doi.org/10.1007/s10803-012-1707-5>

- Perry, Y., Werner-Seidler, A., Callear, A., Mackinnon, A., King, C., Scott, J., Merry, S., Fleming, T., Stasiak, K., Christensen, H., & Batterham, P. J. (2017). Preventing depression in final year secondary students: School-based randomized controlled trial. *Journal of Medical Internet Research, 19*(11). <https://doi.org/10.2196/jmir.8241>
- Protopopova, A., Matter, A. L., Harris, B. N., Wiskow, K. M., & Donaldson, J. M. (2019). Comparison of contingent and noncontingent access to therapy dogs during academic tasks in children with autism spectrum disorder. *Journal of Applied Behavior Analysis, 53*(2), 811–834. <https://doi.org/10.1002/jaba.619>
- Schoenfeld-Tacher, R., Hellyer, P., Cheung, L., & Kogan, L. (2017). Public perceptions of service dogs, emotional support dogs, and therapy dogs. *International Journal of Environmental Research and Public Health, 14*(6), 642. <https://doi.org/10.3390/ijerph14060642>
- Signal, T., Taylor, N., Prentice, K., McDade, M., & Burke, K. J. (2016). Going to the dogs: A quasi-experimental assessment of animal assisted therapy for children who have experienced abuse. *Applied Developmental Science, 21*(2), 81–93. <https://doi.org/10.1080/10888691.2016.1165098>
- Stevenson, K., Jarred, S., Hinchcliffe, V., & Roberts, K. (2015). Can a dog be used as a motivator to develop social interaction and engagement with teachers for students with autism? *Support for Learning, 30*(4), 341–363. <https://doi.org/10.1111/1467-9604.12105>
- Trammell, J. P. (2019). Therapy dogs improve student affect but not memory. *Anthrozoös, 32*(5), 691–699. <https://doi.org/10.1080/08927936.2019.1645514>

Figure 1

Staff who have observed therapy dogs in the past at school rate their opinion of dogs.

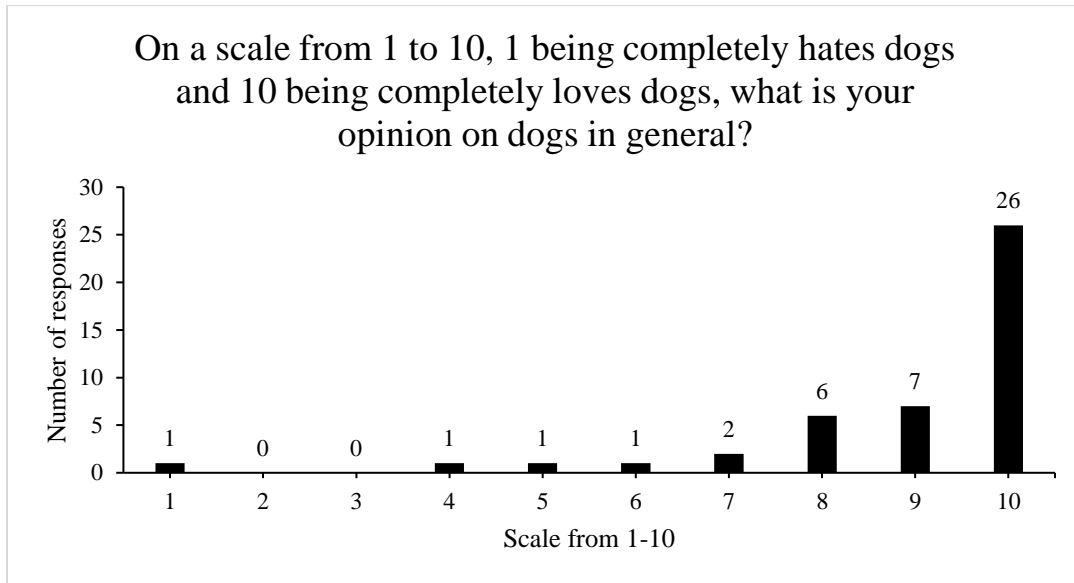


Figure 2

Staff who have observed therapy dogs in school rate their opinion of dogs impacting students' learning and explain their answers.

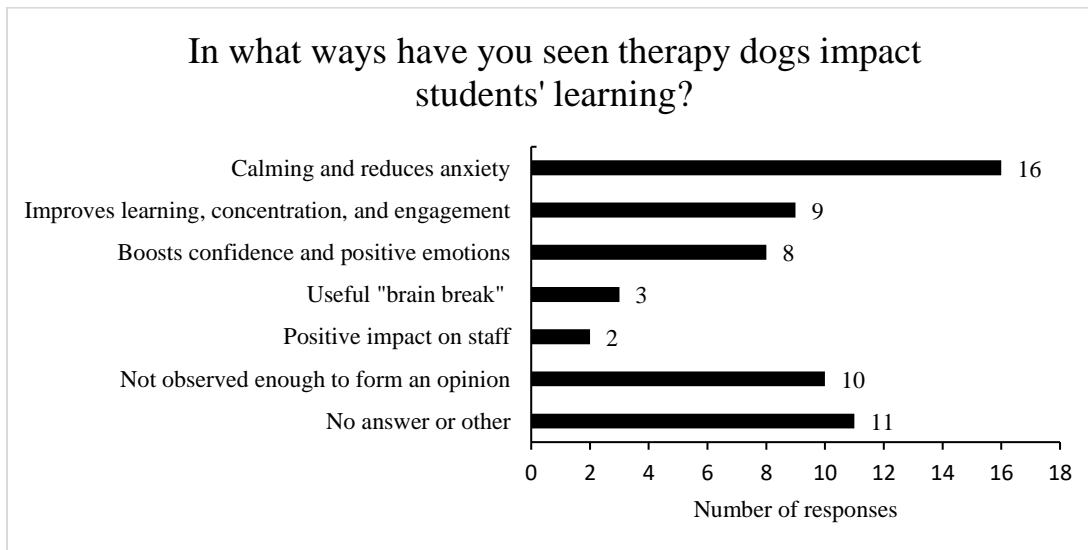
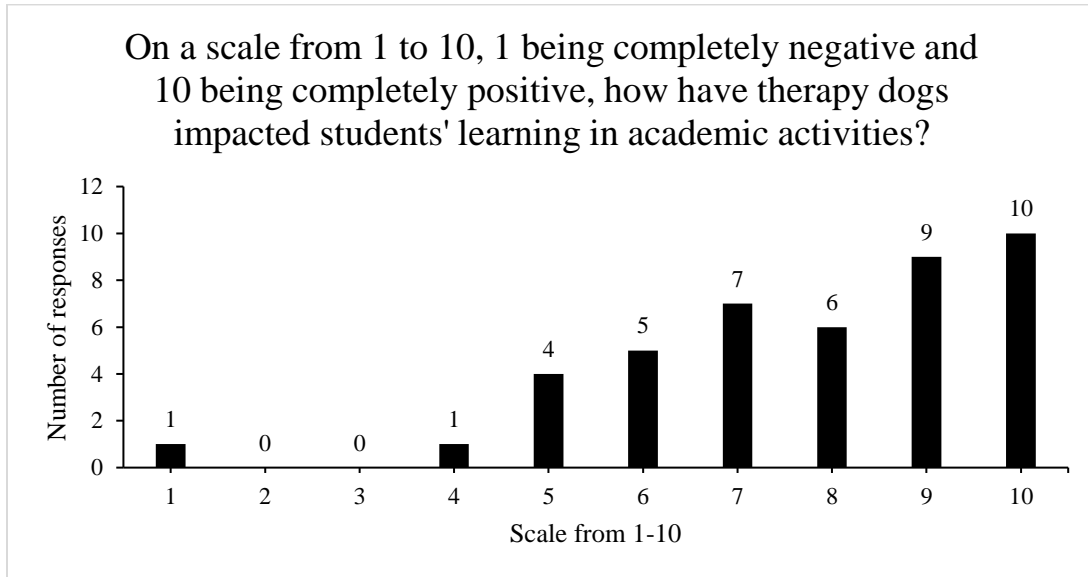


Figure 3

Staff who have observed therapy dogs in school rate their opinion of dogs impacting students' social interactions and explain their answers.

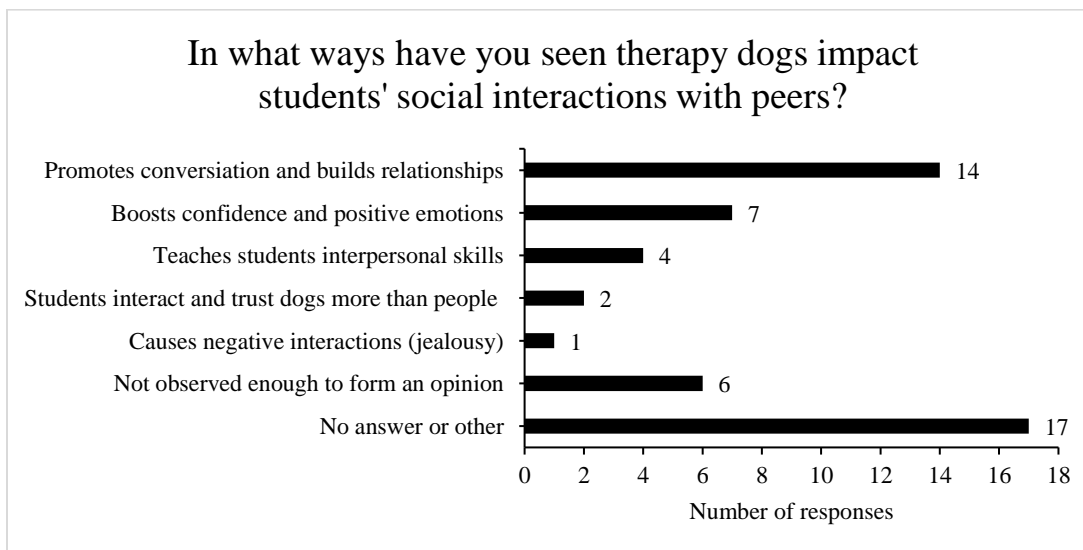
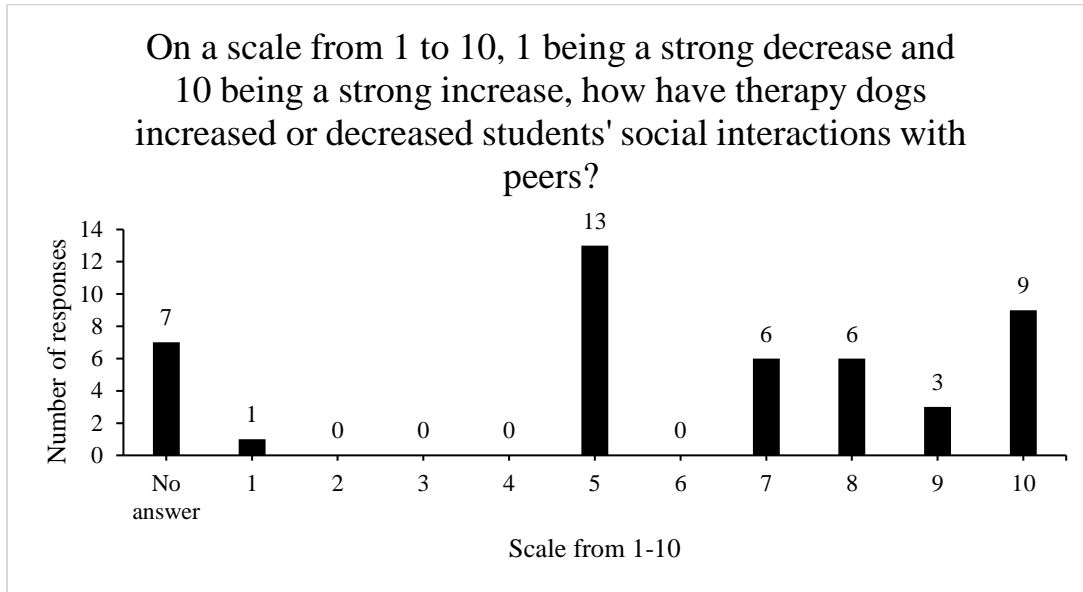


Figure 4

Staff who have observed therapy dogs in school rate their opinion of dogs impacting students' participation and explain their answers.

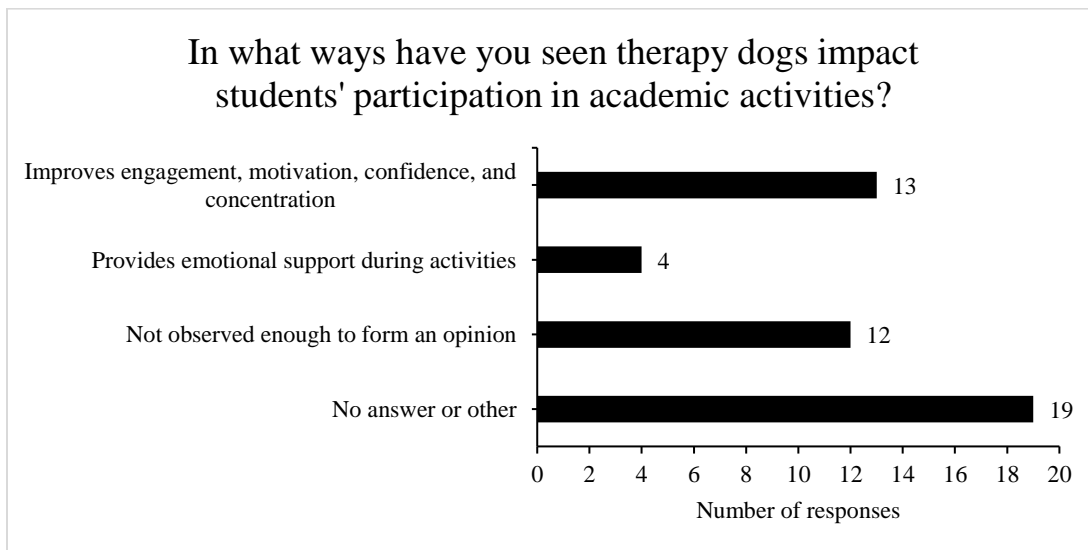
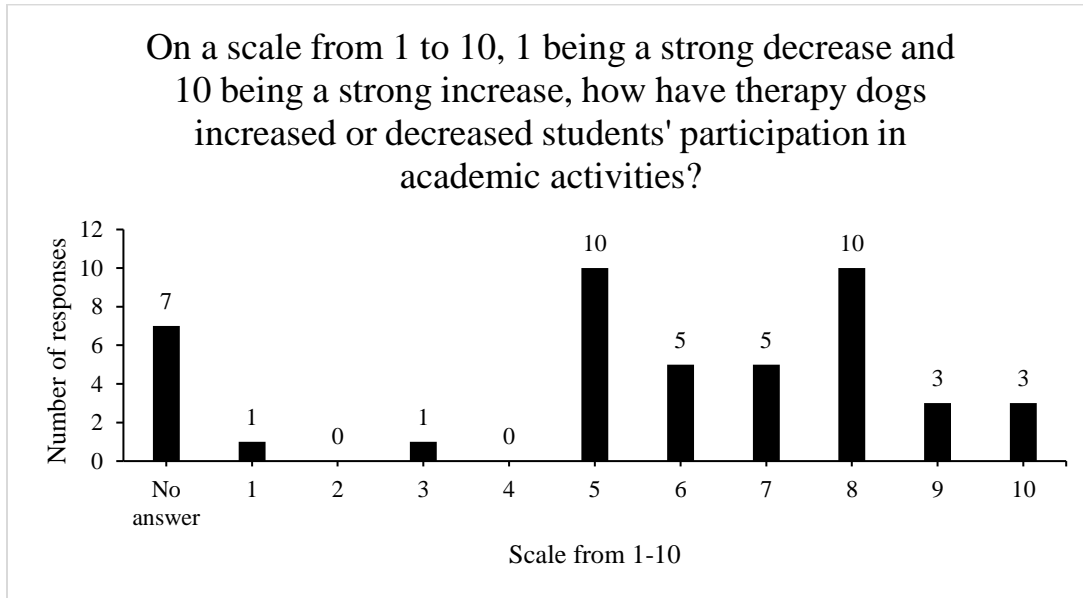


Figure 5

Staff who have observed therapy dogs in school rate their opinion of dogs impacting students' emotional well-being and explain their answers.

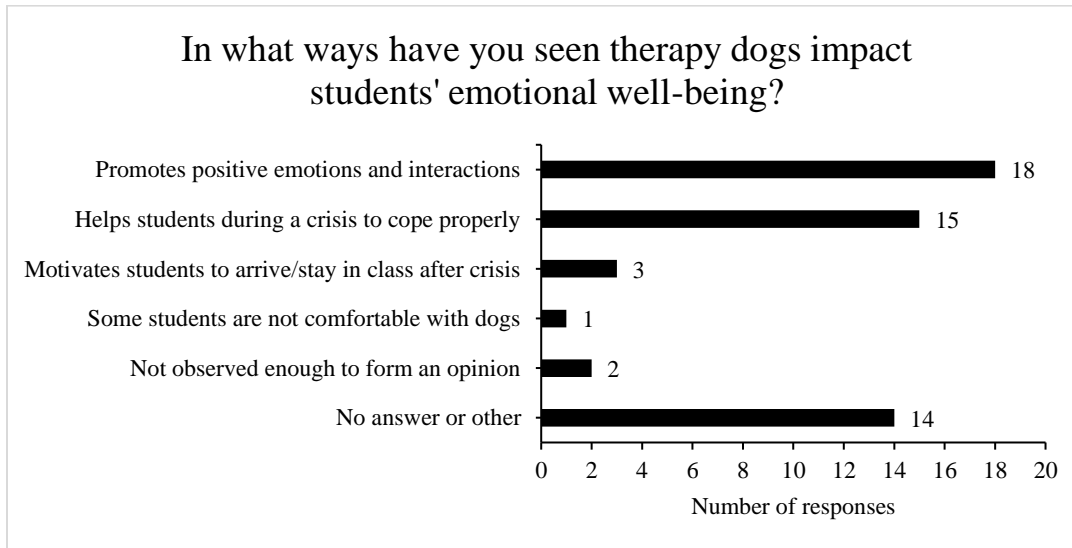
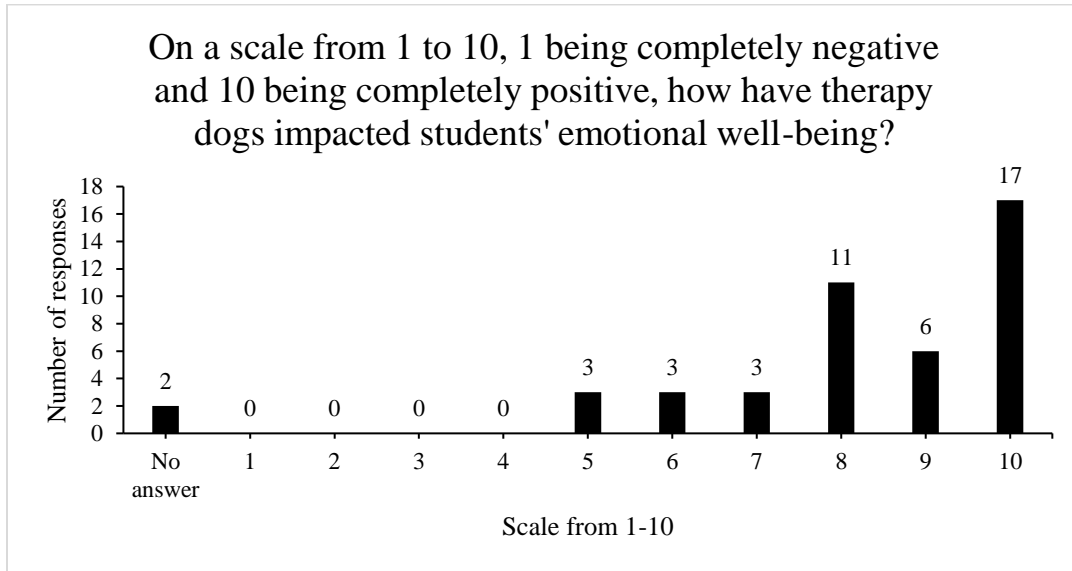


Figure 6

Staff who have observed therapy dogs in school rate their opinion of dogs impacting students.

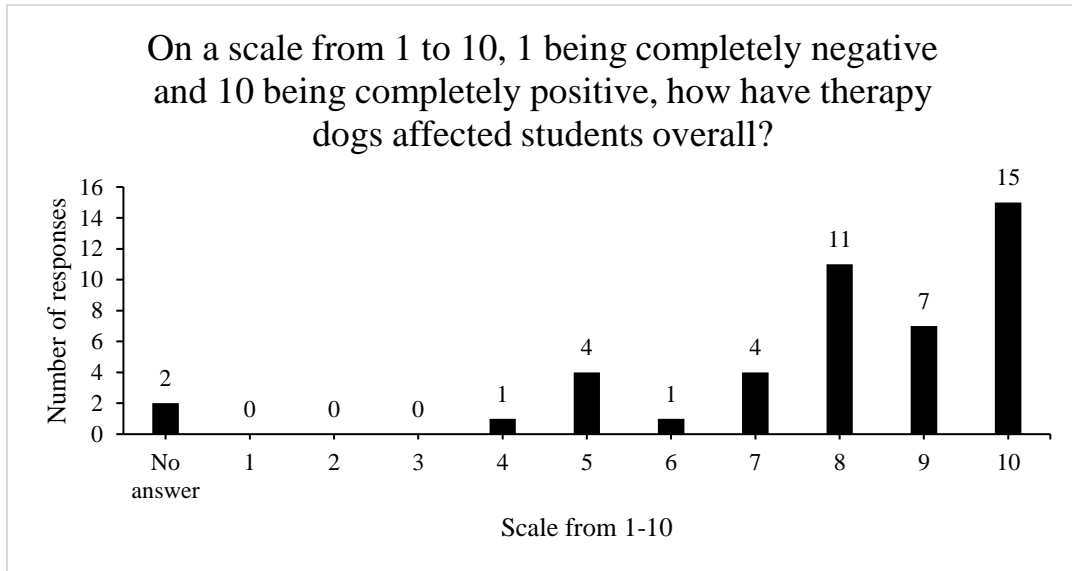


Figure 7

Staff who have observed therapy dogs in school explain the advantages and disadvantages of dogs.

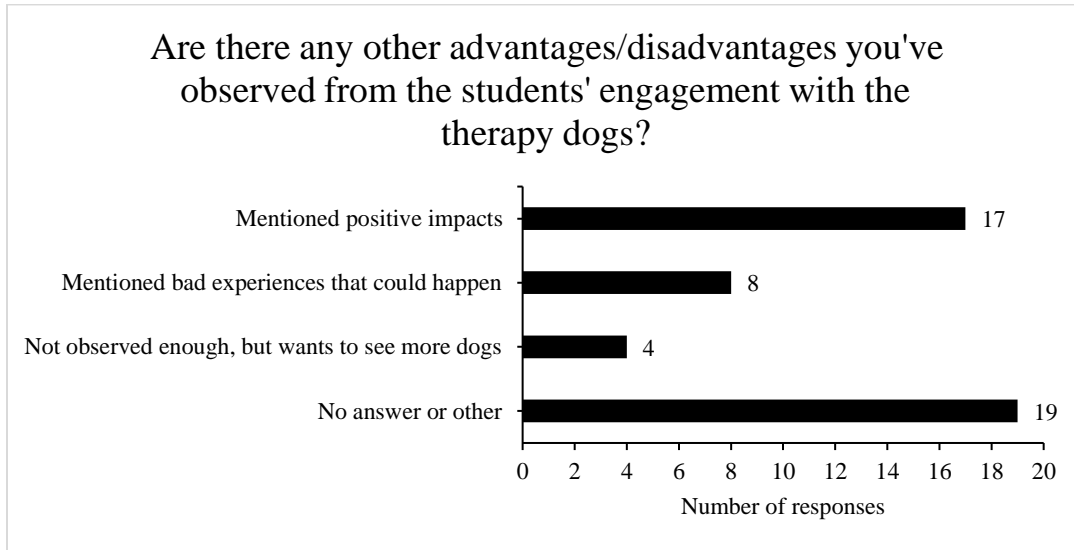


Figure 8

Staff who have observed therapy dogs in school explain their recommendations for the future.

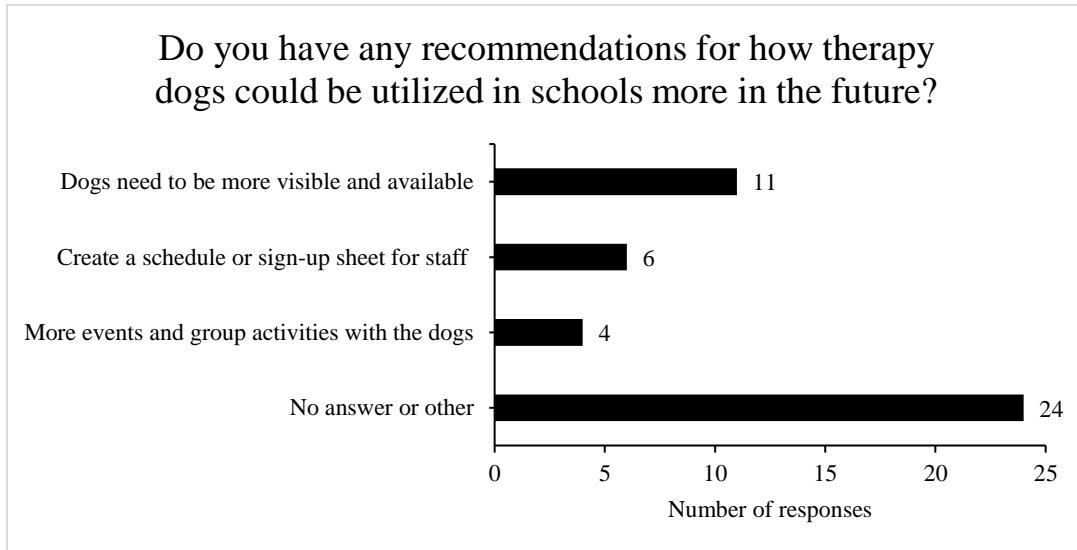


Figure 9

Staff who have observed therapy dogs in school answer if they would like to have dogs visit more in the future.

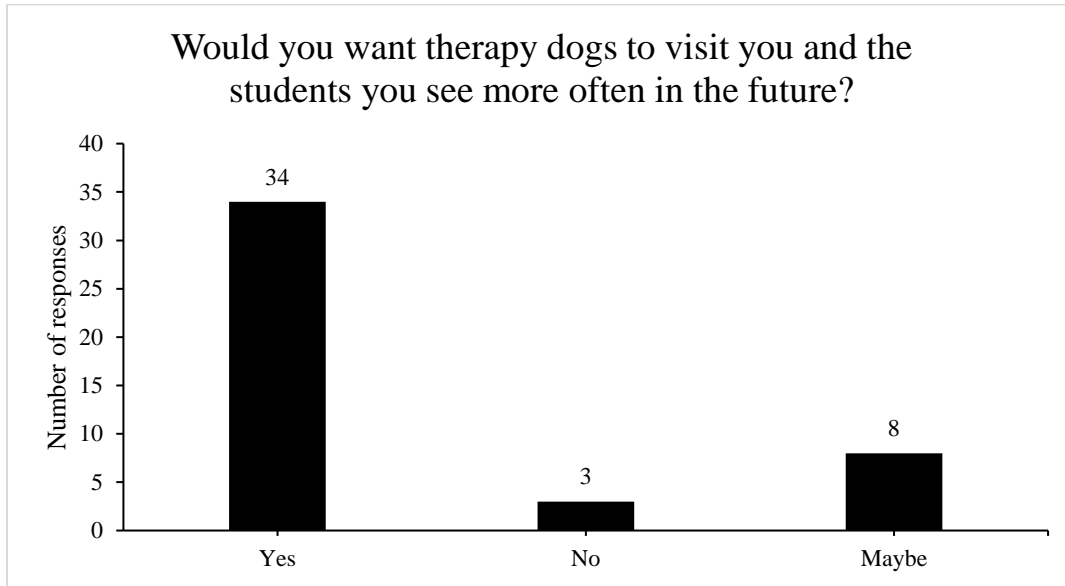


Figure 10

Staff who have not observed therapy dogs in school rate their opinion of dogs.

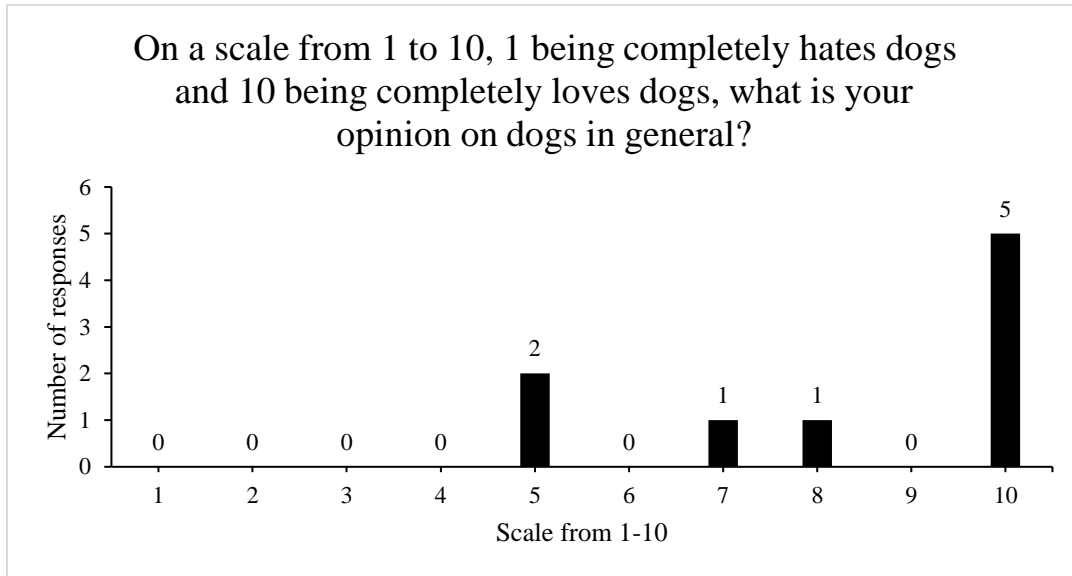


Figure 11

Staff who have not observed therapy dogs in school rate their opinion of dogs impacting students and explain their answers.

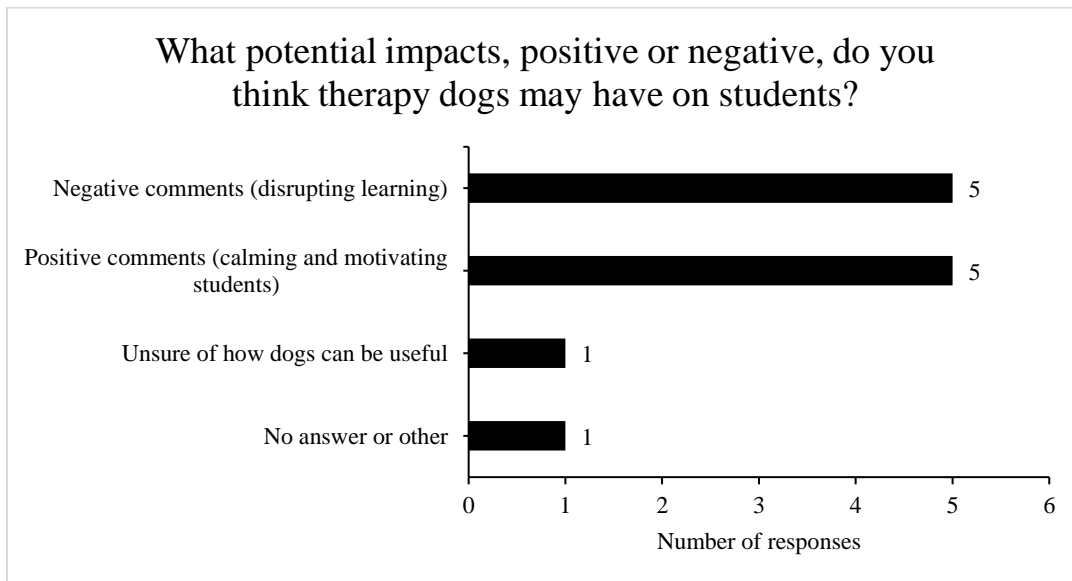
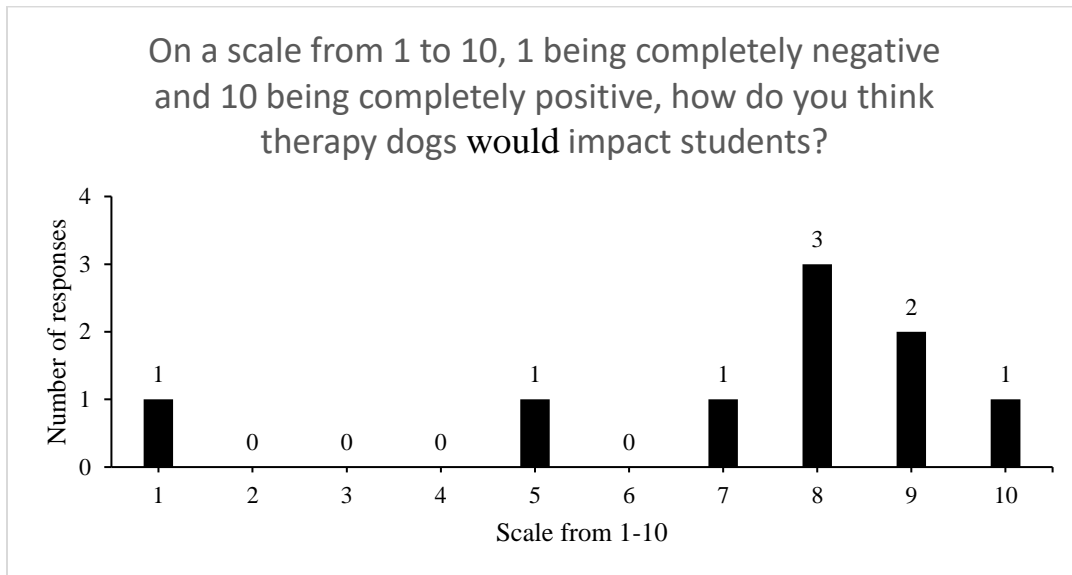


Figure 12

Staff who have not observed therapy dogs in school answer if they would like to have dogs visit in the future.

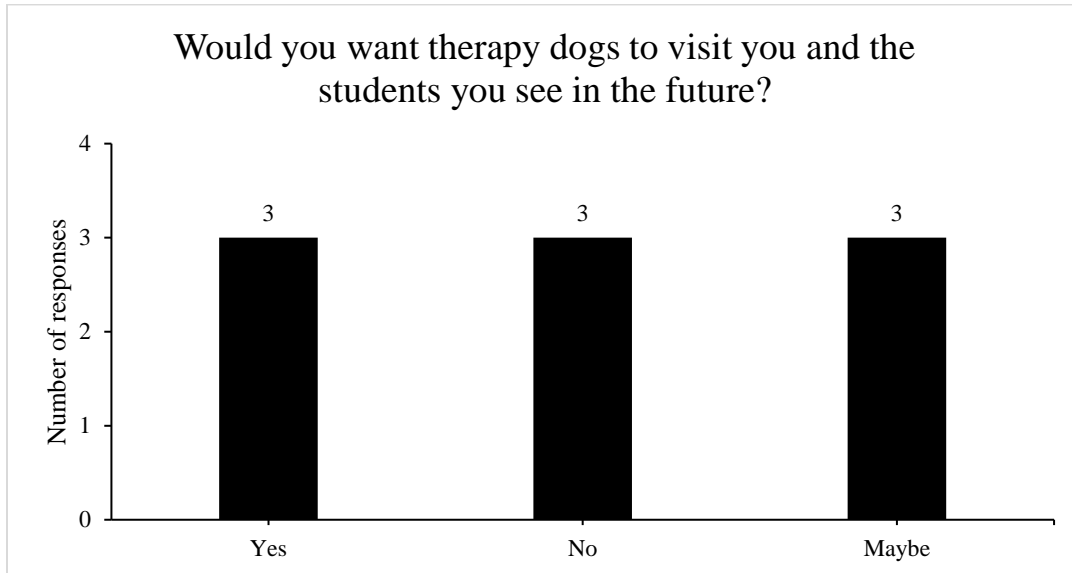


Figure 13

Where staff work who have and have not observed therapy dogs in the Paw Paw Public School District.

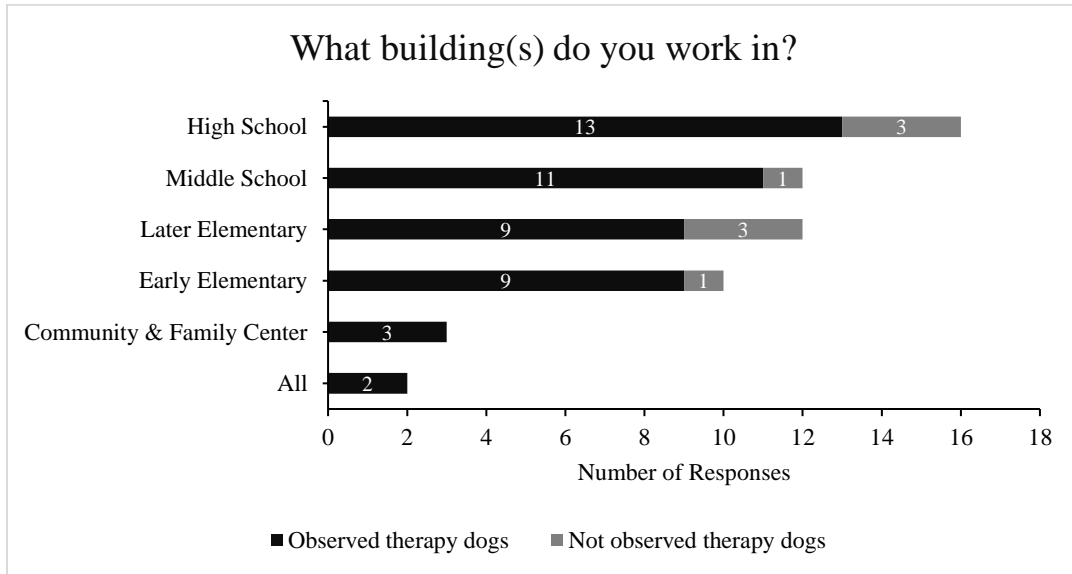
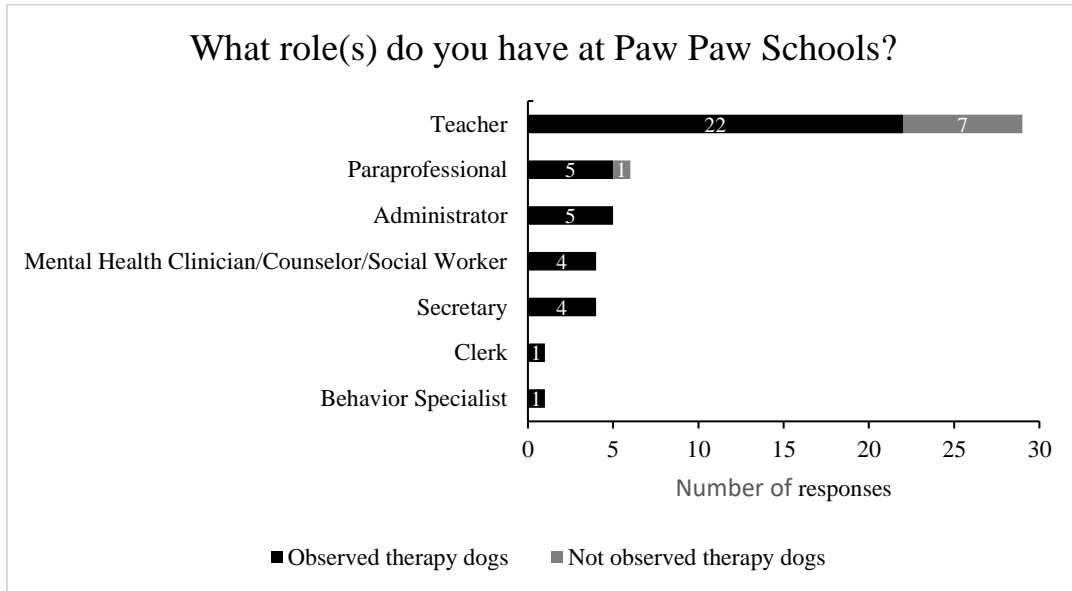


Figure 14

The roles of staff who have and have not observed therapy dogs in the Paw Paw Public School District.



Appendix A

Hello,

My name is Chloe Romack, and I am researching the effects of therapy dogs on students. I would appreciate you filling out the online survey that I have linked below. The survey will take approximately 10 minutes and all answers will remain anonymous.

https://docs.google.com/forms/d/e/1FAIpQLSfSWknofZ_wLmEF052bIWdzELrJBjXcORsWlw4evCRuzS6x3Q/viewform?usp=sf_link

Please contact chloe.e.romack@wmich.edu or angie.moe@wmich.edu with any questions.

Thank You

Appendix B

The Effects of Therapy Dogs on Students

* Indicates required question

1. Do you agree to participate in this research study? *

**Western Michigan University
Department of Sociology**

Principal Investigator: Dr. Angie Moe
Student Investigator: Chloe Romack

You are invited to participate in this research project titled "*The Effects of Therapy Dogs on Students*."

STUDY SUMMARY: This consent form is part of an informed consent process for a research study and it will provide information that will help you decide whether you want to take part in this study. Participation in this study is completely voluntary. You may choose to not answer any question. The purpose of the research is to: study the impact therapy dogs have on learning, social interaction with peers, participation in class, and emotional well-being of students and will serve as Chloe Romack's thesis for the requirements of the psychology department. If you take part in the research, you will be asked to complete an online anonymous survey. Your replies will be completely anonymous, so do not put your name anywhere on the survey. Your time in the study will take approximately 10 minutes to complete the survey. The possible risk and costs to you for taking part in the study may be time to complete the survey and potential benefits of taking part may result in more therapy dog programs in schools. Your alternative to taking part in the research study is not to take part in it.

The de-identified (anonymous) information collected for this research may be used by or distributed to investigators for other research without obtaining informed consent from you.

Should you have any questions prior to or during the study, you can contact the principal investigator at Dr. Angie Moe at 269-387-5276 or angie.moe@wmich.edu or the student investigator at Chloe Romack at 574-527-1783 or chloe.e.romack@wmich.edu. You may also contact the Chair, Institutional Review Board at 269-387-8293 or the Vice President for Research and Innovation at 269-387-8298.

This study was approved by the Western Michigan University Institutional Review Board (WMU IRB) on 10/11/2023.

Participating in this survey online indicates your consent for use of the answers you supply.

Mark only one oval.

- Yes, I agree to participate in this research study *Skip to question 3*
- No, I do not agree to participate in this research study

2. Most questions on this survey will be optional. If you are not sure how to answer any questions or if the question does not apply to your profession, you can either skip the question or contact Chloe Romack or Dr. Angie Moe. We ask that you do not include any identifying information when answering any of the questions you choose to write about another person. We appreciate you answering all the questions to the best of your ability. If you have read through everything, please click Next *

Mark only one oval.

Next

Question 2

3. Are you a teacher or staff member of Paw Paw Schools who work with students? *

Mark only one oval.

Yes *Skip to question 4*

No

Question 3

4. Have you observed therapy dogs interacting with students in Paw Paw Schools before? *

Mark only one oval.

Yes *Skip to question 5*

No *Skip to question 19*

Skip to question 4

If you answered yes,

Answer all questions to the best of your ability. You may skip any question if you are not sure or the question does not apply to you.

5. On a scale from 1 to 10, 1 being completely hates dogs and 10 being completely loves dogs, what is your opinion on dogs in general?

Mark only one oval.

1	2	3	4	5	6	7	8	9	10
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Explain your answer to the previous question.

7. On a scale from 1 to 10, 1 being completely negative and 10 being completely positive, how have therapy dogs impacted students' learning in academic activities?

Mark only one oval.

1	2	3	4	5	6	7	8	9	10
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. In what ways have you seen therapy dogs impact students' learning?

9. On a scale from 1 to 10, 1 being a strong decrease and 10 being a strong increase, how have therapy dogs increased or decreased students' social interactions with peers?

Mark only one oval.

1	2	3	4	5	6	7	8	9	10
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. In what ways have you seen therapy dogs impact students' social interactions with peers?

11. On a scale from 1 to 10, 1 being a strong decrease and 10 being a strong increase, how have therapy dogs increased or decreased students' participation in academic activities?

Mark only one oval.

1	2	3	4	5	6	7	8	9	10
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. In what ways have you seen therapy dogs impact students' participation in an academic activities?

13. On a scale from 1 to 10, 1 being completely negative and 10 being completely positive, how have therapy dogs impacted students' emotional well-being?

Mark only one oval.

1	2	3	4	5	6	7	8	9	10
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14. In what ways have you seen therapy dogs impact students' emotional well-being?

15. On a scale from 1 to 10, 1 being completely negative or 10 being completely positive, how have therapy dogs affected students overall?

Mark only one oval.

1	2	3	4	5	6	7	8	9	10
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

16. Are there any other advantages/disadvantages you've observed from the students' engagement with the therapy dogs?

20. Explain your answer to the previous question.

21. On a scale from 1 to 10, 1 being completely negative and 10 being completely positive, how do you think therapy dogs would impact students?

Mark only one oval.

1	2	3	4	5	6	7	8	9	10
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

22. What potential impacts, positive or negative, do you think therapy dogs may have on students?

23. Would you want therapy dogs to visit you and the students you see in the future?

Mark only one oval.

yes

no

maybe

Skip to question 24

If you would like to help better the Paw Paw Schools therapy dog program, you can answer the following optional questions. Otherwise, you can click the submit button.

24. What building(s) do you work in?

Check all that apply.

- Early Elementary
- Later Elementary
- Middle School
- High School
- Other: _____

25. What role(s) do you have at Paw Paw Schools?

Check all that apply.

- Teacher
- Administrator
- Paraprofessional
- Mental Health Clinician/Counselor/Social Worker
- Other: _____

26. If you are interested in having the therapy dogs visit you and the students you see more often, please leave your email below.
