I, Katherine E Cummins, hereby submit this original work as part of the requirements for the degree of Master of Arts in Communication Sciences and Disorders.

It is entitled:
The Effect of a Canine Visitor on Social Communication Skills in a Preschool Classroom Setting: A Feasibility Study

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The Effect of a Canine Visitor on Social Communication Skills in a Preschool Classroom Setting: A Feasibility Study

A thesis submitted to the Graduate School of the University of Cincinnati in partial fulfillment of the requirements for the degree of Master of Arts in the department of Communication Sciences and Disorders of the College of Allied Health

by

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Abstract

Researchers have suggested that the presence of a trained canine visitor may positively impact a child’s social language and engagement, such as eye contact and turn-taking skills (Solomon, 2010). The purpose of this pilot-project was to determine if the presence of a trained canine visitor during a social skills enrichment group (SSEG) would increase the communication exchanges (speech acts) of two preschool children. Frequency data regarding speech acts was collected for two preschool aged boys across a total of nine sessions. The results indicated that both participants used fewer speech acts with the canine present in the classroom. The results of this study may have clinical implications for the use of canines in therapy services provided by speech-language pathologists.

**Keywords:** canine-assisted therapy, social skills
The Effect of a Canine Visitor on Social Communication
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Introduction

According to the U.S. Centers for Disease Control and Prevention’s Autism and Developmental Disabilities Monitoring Network, about 1 in 88 children have been identified with an autism spectrum disorder (ASD). Once considered rare, ASD is one of the fastest growing developmental disabilities. Impaired social communication skills are a core deficit in individuals with ASD (American Psychiatric Association, 2013) and if left untreated limit opportunities for language and cognitive development (Rogers, 2000). Furthermore, social communication skills predict adult outcomes (e.g. employment) in this population (Mesibov, 1984). Given the importance of social communicative competence for this population, it is imperative for clinicians to use effective treatment options to help these individuals ultimately obtain the highest level of independence across settings.

Autism Spectrum Disorder

Autism spectrum disorder is typically diagnosed by a team of professionals based on observed and reported behaviors utilizing the criteria established in The Diagnostic Statistical Manual of Mental Disorders, Fifth Edition (DSM-5; APA, 2013). Although the ASD population is heterogeneous, the central features of ASD include impairments in social interaction, impairments in verbal and nonverbal communication, and restricted range of interests and activities. These deficits can manifest as difficulty playing with others, preferring to be alone, or an inability to imitate the actions of others. This disorder is typically diagnosed in early childhood by the time the child enters preschool. Given that communication and social interactions are areas of concern for individuals with ASD, it is the position of the American Speech Language and Hearing Association
(ASHA; 2006) that speech language pathologists (SLPs) play an integral role in the screening, diagnosis, and treatment of children, adolescents, and adults with autism spectrum disorders. Further, to address the broad impact of the social communication challenges of individuals with ASD, ASHA proposes that speech language pathologists should deliver service in ways that increase active engagement with peers and allow individuals to build independence in the context of natural learning environments. Social skill training is one method of service delivery that addresses this need for contextualized interventions.

**Social Skills and Social Skill Interventions**

As more children diagnosed with ASD become fully included in regular education classrooms (IDEA, 2004), they are more consistently exposed to social pressures and demands, and as a result may face challenges in academics. Social competence is a multidimensional construct that encompasses multiple skills, such as recognizing and using culturally valued skills and having the flexibility to adapt one’s skills to be accepted by peers and attain one’s goals (Stump, Ratliff, Wu, & Hawley, 2009). Kaat and Lecavalier (2014) defined social competence as a subjective judgment on how one manages social interactions with others. Social competence has been strongly associated with successful school performance, transition into school and work settings, better job opportunities, and improved overall interactions with others (Rimm-Kaufman, Pianta, Cox, 2000). One might assume that individuals with less severe forms of ASD (i.e. verbal with average intelligence) may have better long-term outcomes than their peers with ASD who are nonverbal. However, researchers have indicated that persons with a less severe diagnosis are no more likely to marry or have a job than those with more disabling forms
of autism (Mordre et al., 2012). Therefore, the importance of early intervention in the area of social skills/competence for all individuals with ASD or a related disorder (despite their level of functioning) cannot be overstated. In fact, given the broad nature of the deficits in social competence attributed to ASD and related disorders, interventions which address the social competency needs of these individuals are critical in overcoming the debilitating effects of these disorders.

Many types of interventions to address social skill development in children with ASD have been developed. However, one type of intervention, social-skills groups have become increasingly popular because of the unique social context that they provide to intervention. Social-skills groups are used to teach individuals with ASD methods of appropriate interaction with peers. Typically, social-skills groups involve small groups of two to eight individuals (including some typically developing peers) and a teacher or SLP. Most social-skill group interventions include time for instruction, role-playing, and feedback to help learners with ASD acquire and practice skills to promote positive social interactions with peers (Kroeger, Shultz, and Newsom, 2007). Winner (2008) advocates for the use of social-skills groups so that children learn how to be social thinkers. It is possible to directly target social goals through explicit modeling and instruction so that children will develop the ability to “see outside themselves” with continued practice (Winner, 2008). As mentioned previously, many social skills training programs have been constructed to address social competence in children with ASD or related disorders. These programs have covered a wide range of skills, but have frequently lacked controlled assessment methods (Cutugno, 2009). The first group based social skills program was reported by Mesibov (1984). In this program, facilitators used modeling,
coaching, and role-play to address social competence in individuals with ASD (Mesibov, 1984). Additional research on the efficacy of social skills groups has been conducted; these studies have focused on different aspects of social competence including social anxiety and social aggression (Steerneman et al. 1996), emotion recognition (Wimmer and Perner, 1983), and theory of mind (Givers et al. 2006).

Kaat and Lecavalier (2014) examined the efficacy of social-skills groups in a methodological review of group-based social skills treatment. These authors reviewed 48 studies that examined social-skills group treatment and found that there is wide variety in social skill targets, assessment methods, and populations participating in treatment. Although there is a large range of social skill behaviors that many researchers and educators target, some common targets are: eye contact, appropriate content of speech (i.e. pragmatic functions of language), proper speech intonation, appropriate facial affect and motor movements, conversational speech, number of interactions, and an overall rating of social-skill proficiency (Matson, Matson & Rivet, 2007). Peer mediation, modeling, and reinforcement schedules (that may include prompting) are usually a part of social skill group-based interventions.

It has been said that social-skills groups can create better language outcomes for children because in these groups they are more involved in social situations (Murray et al., 2009). These repeated social situations provide a place for children to practice and learn social skills, and these groups in turn foster more or better interactions with peers. These social skills interventions are paramount for children diagnosed with autism spectrum disorder; the social skills groups provide a vehicle to practice and learn skills that will benefit them repeatedly in everyday life. As the communication profile of a child with
ASD is complex, successful treatment and intervention requires the collaboration of many disciplines. The role of the speech pathologist in social skills intervention, in particular, is essential as the SLP can provide specialized knowledge of communication techniques, as well as information about autism spectrum disorder.

**The Power of Canines**

It is certainly not a stretch to say that canines, and especially canines as companions and household pets, have brought joy and solace to many for countless years. Researchers have shared the stories of the “transformative and redeeming power of the child-animal relationship,” and the significance for “theories of culture, sociality and identity” (Solomon, 2010). In particular, this special bond with an animal can greatly impact a child. As Olga Solomon writes, “Animals as communicative partners give children a sense of “aliveness,” or what Daniel Stern calls “vitality affects,” that are continuously and perceptually present in the animal’s actions. In the flow of child—animal interaction, the animal’s subjective presence is continuously available, confirming the child’s own sense of agency” (Solomon, 2010). Boris Levinson, a prominent child psychiatrist, was one of the first researchers to acknowledge that the socio-communicative interactions of children with autism could be enhanced by a canine presence. Levinson states, “when the child plays with the dog, he establishes his own world, the boundaries of which he himself prescribes” (1969). As previously mentioned, children with autism inherently struggle with social competence and finding a sense of purpose and connection in a world filled with unknowns. In interactions with animals, children have opportunities to learn that agency has a shared meaning across species, constituting a common social world” (Myers, 1997). Canines, in the classroom or
hospital setting, can provide a powerful and unique intervention towards improved social interactions.

**Canine-Assisted Therapy**

Research has demonstrated that the presence of a trained canine visitor may be beneficial to a child’s learning environment, and to increased social participation. For example, in the past, studies involving a variety of animals (dolphins, birds, dogs, and cats) have documented the positive effects of animals on human behavior (Solomon, 2010). Specifically, evidence has been documented that pet-facilitated behavioral interventions, particularly with canines, has yielded success with subjects who have autism by enabling better social interaction and verbal responsiveness (Solomon, 2010).

Jalongo, Astorino, and Bomboy (2004) studied a canine visitation program in which trained therapy dogs were brought into contact with children in the primary grades. These researchers discovered that the therapy dogs used in the program offered a unique form of support to children’s learning, physical health, and emotional wellbeing (Jalongo, Astorino & Bomboy, 2004). Other researchers have found that therapy dogs can help children learn to use eye contact for social exchanges (a vital lesson within the classroom), take turns appropriately, and develop fine motor skills (Mockler, 2010), as targeted in the social skills group. It is becoming increasingly clear that a therapy dog provides significant gains to typically developing children as well as to children with special needs.

While there is research to suggest that the presence of a therapy dog benefits children’s overall behavior, there is relatively little evidence documenting how a therapy dog may help a child with ASD succeed in the classroom, engage with peers and
teachers, and have meaningful interactions on a day to day basis. Effective interventions for children diagnosed with ASD or related disorders remain elusive; implementing a canine visitor into a preschool classroom could be an initial step to make progress in this area. Given the potential benefit that a canine may bring to children in the area of social development, introducing a canine visitor in a social skills intervention may enhance children’s social interactions with one another. Therefore, the purpose of the present study was to investigate the effects of a trained canine visitor on the communication exchanges (number and quality) of two children participating in a social skills intervention group. Due to the previous lack of evidence regarding these parameters, this study may have clinical implications for social skills interventions for children with ASD or related disorders.

**Research Questions**

The following research questions will be addressed in this project:

1. Will the presence of a canine visitor increase the use of language (as measured by speech acts) in children participating in a social skills group?

2. Will there be a difference in children’s language use (as measured by speech acts) among the intervention activities in different centers when a canine is present?

This feasibility project will enable us to understand if the presence of a canine visitor in a preschool classroom may increase children’s language use and, thus, social interactions. It was anticipated that the level of communication between humans and animals would be enhanced, and an assumed acceptance of nonverbal communication between humans and animals would develop. This research is the first step in gaining a
better understanding of how a therapy dog may benefit the language behaviors (including pragmatic skills) of preschool children.

**Methods**

The protocol for this research project was a social skills enrichment group (SSEG) targeting social interaction skills. The group met over the span of a semester, totaling nine weeks.

**Participants**

**Children.** Two children, both males, participated in the group. At the beginning of the study, Participant 1 was 4 years, 4 months and Participant 2 was 4 years, 2 months of age. Participant 1 was diagnosed with features of an autism spectrum disorder in 2012, by a hospital based multidisciplinary team and has history of impaired pragmatic language skills. Participant 2 is typically developing and passed the Preschool Language Scale-5th Edition Screening Test (Zimmerman, Steiner & Pond, 2011) and has no history of impaired speech or language skills.

**Canine Visitor.** The canine visitor that participated in the program was a five-year old, female, purebred beagle. This canine was trained by an animal behaviorist and participated in the social group with a dog handler.

**Graduate Student Clinicians.** Two graduate students in a speech language pathology Master’s program led the social skills program. The graduate student clinicians were in their first year of a Master’s program and were completing a class in preschool language disorders. Prior to the start of the social skills group, they attended three structured training sessions that addressed the goals of the program, skill elicitation techniques, behavior management, and activity planning. The students were supervised
by a licensed and certified speech-language pathologist.

**Materials**

The social-skills group utilized a preschool classroom context to address the goals of the program. Children’s picture books, sensory stimuli (e.g. noodles, beans, water, goo, etc.), and craft materials (e.g. construction paper, glue, and paint) were used. A visual schedule that included pictures of the group activities was used to guide the children through the activities. Children were also given a small toy or sticker at the end of each session if they used the social skill targets during the group activities. See appendix B for a book list and materials that were included in the lesson plans.

**Procedures**

**Social Skills Curriculum.** The following social skills were targeted over a 9 week period: greeting one another, giving compliments, managing negative emotions, recognizing emotion in self and others, and sharing. Each social skill was targeted for two consecutive weeks. Each week the social skill target was introduced explicitly to the children and then the children were given opportunities to use the skill with a peer or group leader.

The sequence of the sessions was as follows. First, upon arrival, the children were asked to spend approximately fifteen minutes quietly playing with toys. During this time, the student clinicians would mediate the children’s play to encourage use of the overall social skill targets. Next, the children were guided to the reading center where the student clinicians introduced the social skill target of the day and a read a book to the children that specifically addressed that target. After that, the children moved to the sensory table and were encouraged to use the social skill target as they interacted with
one another at that table. For example, if the social skill target was managing negative emotions, the student clinicians would scaffold the children to utilize the strategies presented to them earlier when they became frustrated or angry during sensory play. Next, children would complete a craft activity. Again, the children were encouraged to use the social skill target of the day (and other targets as well) while interacting with one another during the craft. Finally, children were directed back to the library area to review the target skill, reflect on how the skill could be used throughout the week, and close the session. All sessions were video-recorded for later data analysis.

**Canine Visitor Attendance.** The canine visitor (“Bones”) participated in the social skills group every other week, with the exception of one two week period where the canine came two times in a row. Weeks: 2, 4, 7, and 8. When Bones was present during a session, her handler would move her to the centers in which the children were working (play area, book reading, sensory table, and craft table).

**Measures**

To document children’s language use, and thus, social interactions during the social skills group, a speech act analysis of the recorded social skills group was completed. Analyzing language samples for speech acts is one way in which we can understand how children use language in interactions (Bruner, 1975). The speech act coding scheme used in this study was based on the Inventory of Communicative Acts-Abridged (INCA-A) of Ninio, Snow, Pan and Rollins (1994). This classification method is frequently used in research to score the communicative intents of young children in natural interactions. After careful analysis of the samples collected, the following speech acts of the child participants were coded for in the recorded sessions: _requesting, asking_
questions, answering questions, and providing statements. These speech acts were chosen based on the observed interactions the two children had most consistently.

**Coding and Data Analysis**

Two trained students (one coder was the principle investigator and one coder was an undergraduate research assistant) coded the data for speech acts (requesting, asking questions, answering questions, and providing statements). The coders were trained based on the principle investigator’s perception of the speech acts.

According to the coding scheme developed by Ninio, Snow, Pan and Rollins (1994), the definition of a question is asking another to provide a response, and a request would be asking another for an object or to complete an action. Ninio, Snow, Pan and Rollins acknowledge that at times a speaker may intend a certain communicative goal, but achieve another, which is an inherent difficulty in coding for speech acts in research. See appendix B for speech act coding scheme used by the students.

Eight of nine social skills group sessions were used for analysis to be consistent with four times the canine was present, and four times the canine was absent.

**Results**

When the dog was present, Participant 1 had 7 questions, 7 requests, 5 answers, and 82 statements. When the dog was absent, Participant 1 had 11 questions, 4 requests, 4 answers, and 110 statements, as shown in Figure 1.
The Effect of a Canine Visitor on Social Communication

Figure 1. Bar graph showing the speech acts used by Participant 1 with the dog present and dog not present.

When the dog was present, Participant 2 had 108 questions, 31 requests, 28 answers, and 556 statements. When the dog was absent, Participant 2 had 115 questions, 27 requests, 39 answers, and 602 statements, as shown in Figure 2.

Figure 2. Bar graph showing the speech acts used by Participant 2 with the dog present and dog not present.
For Participant 1, the total number of speech acts in the book reading area was 147, in the sensory table area was 137, at the craft table it was 119, and in all other areas the total number of speech acts was 137 (as seen in Figure 3).

Figure 3. Bar graph showing the number of speech acts used in the different classroom areas by Participant 1 with the dog present and dog not present.

For Participant 2, the total number of speech acts in the book reading area was 611, in the sensory table area was 471, at the craft table it was 324, and in all other areas was 329 (as seen in Figure 4).
The Effect of a Canine Visitor on Social Communication

The purpose of this research was to document the effects of a trained canine visitor on the interactions of two preschool children in a social skills group. Specifically, we looked at the use of 4 types of speech acts (requesting, asking, answering, and stating) of the children when the trained canine visitor was present versus absent from the social skills group. Although we cannot make wide assumptions about the data collected because we had only two participants, there are some general observations that will help guide our interpretation of the data and, thus, future research. Further, some of these observations may have some clinical significance to those SLPs wishing to use canine visitors in therapy.

**Speech Acts**

The primary method of communication in virtually every interaction is a speech act. The types of speech acts included in this language analysis were questions, answers,

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**Figure 4.** Bar graph showing the number of speech acts used in the different classroom areas by Participant 2 with the dog present and dog not present.

**Discussion**

The purpose of this research was to document the effects of a trained canine visitor on the interactions of two preschool children in a social skills group. Specifically, we looked at the use of 4 types of speech acts (requesting, asking, answering, and stating) of the children when the trained canine visitor was present versus absent from the social skills group. Although we cannot make wide assumptions about the data collected because we had only two participants, there are some general observations that will help guide our interpretation of the data and, thus, future research. Further, some of these observations may have some clinical significance to those SLPs wishing to use canine visitors in therapy.
requests and statements. The goal with this research and data collection was to delineate the various forms of speech acts, where they occurred in the classroom, and under what conditions (with a canine visitor present or absent).

**Speech Acts with Canine Visitor Present versus Absent.** The analysis for speech acts revealed that both child participants communicated less with each other when the canine visitor was present. With a limited number of participants and sessions to observe, this data must be interpreted with caution. Despite this, there are a variety of reasons that this could have happened and they should be discussed. First, perhaps the presence of the canine visitor may have distracted children from interacting with one another. That is, perhaps the children spent more time interacting with the dog when she was present and less time interacting with others. Current research in animal assisted therapy would not support this, however, as evidenced in other research, social interactions increased with the presence of a trained canine visitor (Solomon, 2010).

Another reason that we may not have seen an increase in communication acts with the presence of the dog could be that the canine may not have been a strong enough motivator for eliciting a variety of speech acts, and these particular participants may have been more motivated by a different type of animal or animal breed. Research has supported the use of a variety of animals in animal-assisted therapy (Myers, 1997) and perhaps another animal may be a more fitting match with certain children. Finally, another cause for a decrease in communication with the presence of the dog may be that we used the canine as more of a passive participant in group activities. Maybe if we had the canine take a more active role in the social skills group, an increased number and range of speech acts may have been observed. Research has supported involving
animals in active ways in therapy sessions. For example, having children partner with an animal to achieve a goal (finding a toy, etc.) may elicit more socialization from participants (Myers, 1997).

Although there were no increases in communication among the children while the dog was present, structured observations of the sessions yielded some important information about how the presence of the dog may have benefited the children in other ways. As mentioned previously, Participant 1 has been diagnosed with autism spectrum disorder and several things were noticed when he was interacting with the canine. For example, Participant 1 repeatedly would bend down and converse with Bones—often without any direct prompting—and of his volition. While Participant 1 could initiate interactions with the dog, when he was directed to have the dog perform a trick, he had difficulty mediating the request. Despite this, he demonstrated (across several sessions with the canine present) an interest in interacting with the dog (i.e. bending over to pet him, making eye contact with the dog, providing comfort to the dog, etc.). Additionally, it was noted through clinician report, that Participant 1 experienced better eye contact and interaction with the SLP student clinicians and other peers when Bones was present. In one session, when asked what Bones was feeling (afraid to be away from master, crying), Participant 1 said, “Bones is nervous and is making me nervous, too.” This suggests that while Participant 1 was initially afraid of Bones, he also showed genuine empathy and incorporated the dog’s feelings with his own. Further, Participant 1 would often find solace in sitting with Bones by the door—perhaps lessening both of their anxiety. Although both children were interested in the dog, Participant 1 was the one who consistently went towards the dog with intention and camaraderie. Like the canine,
Participant 1 often spent time by the door; whether this was because both the canine and Participant 1 wanted to leave, or Participant 1 was showing fellowship, is difficult to determine. It was consistently observed that Participant 1 interacted with Bones in the most relaxed way when Bones was relaxed, further illustrating the depth of their social connection.

**Differences between the participants.** The interactions that were observed in the classroom showed that the child with the social communication impairment, Participant 1, was able to interact with Participant 2, but initially only if it was very scaffolded. In the first few sessions, Participant 1 was highly anxious and often avoided sitting with the other child and clinicians during circle time and activities. It was observed that Participant 1 overall had fewer speech acts of requesting and questioning than Participant 2. Participant 1 was asked much more structured questions, in the hope of eliciting responses (for example, asking questions rather than waiting for answers). In contrast, Participant 2 was able to ask more questions and had many more communication attempts overall. This finding is not surprising, however, given the fact that Participant 1 was diagnosed with autism and participant 2 was a child with typical language use. Rice, Cell, & Hadley (1991) found similar results when they investigated the speech acts of children diagnosed with a language impairment versus children with typical language skills. In their study, children with language impairments were more likely than their normal language peers to shorten their responses or use nonverbal responses. Over the course of the eight weeks, Participant 1 was observed giving the dog commands (such as giving the dog a treat, having the dog sit, having the dog find, etc.,) but again these actions were only completed with repeated verbal and visual prompts from the clinicians.
Participant 2 was observed to use more speech acts, and could interact both with the clinicians as well as the canine visitor with ease. Participant 2 could also complete desired actions with little prompting, and also easily shifted his focus from interacting with humans to the canine.

The differences observed between the two participants support previous research regarding social skills groups and the use of a peer model system to facilitate and support increased interactions (Mesibov, 1984). Participant 1 models his behavior off not just Bones, but Participant 2 as well. It was observed that Participant 1 may have been modeling his behavior (even communication) after Participant 2. It appeared that he would watch Participant 2 for how to proceed pragmatically.

**Speech Acts in Centers.** In addition to investigating the effects of the presence of the canine in the social skills group generally, we were also interested in looking at the differences in use of speech acts in the different learning centers. The four centers in the classroom were: dialogic book reading in a library area, sensory table, craft table and an area marked as other such as interactions occurring between the centers. The dialogic book reading and sensory table consistently had the most speech acts; the craft table had fewer speech acts overall as well as fewer prompted requests, questions and statements. While the numbers of social interactions were not strikingly different among the various centers in the classroom, it was interesting to see the different types of speech acts that were perhaps unexpected, and where in the classroom they occurred. It was concluded from the data collected that there was no significant differences in speech acts between the centers; however, in previous research, for example, Ninio, A. and Snow, C. (1999), found that the distribution of children’s speech acts is directly related to the activity they
are engaged in and the interaction they are experiencing. More complex speech acts were elicited during pretend play, and in interactions with peers. Dramatic play was not a part of the present social skills group. It would be interesting to investigate the effects of using a canine as an active participant in a dramatic play center to encourage an increase in speech acts.

**Other Observations**

**Parent Reports.** In the first week with the canine, and the second week of the program, Participant 1’s mother reported dramatic changes with him. Participant 1’s mother reported that “participant 1 hates books,” but when the canine was present in the library center, Participant 1 was more engaged and attentive to the books. She said he talked about the canine over the weekend, asking when he could go back and see him; his verbal output increased dramatically relating to the discussion of the dog.

**Limitations**

This data had several limiting and conflicting factors present in its collection. The various factors that we had little control over included the small sample size, the presence of the dog for alternating weeks associated with time a skill was first introduced, and the actions of the canine visitor. Additionally, having more data from parents regarding personal judgment of mastery of skills for each child would also further support and enhance the data collected. And finally, the fact that we did not have access to official objective measures documenting Participant 1’s medical diagnosis of ASD is also considered a limitation for this study.
The small sample size, that is, the presence of only two participants in the group, suggests that the data is not necessarily extendable to larger populations and could be considered a limiting factor. Scheduling of the canine visitor is also considered a limiting factor; the canine visitor came every other week and it was not possible to alternate which week the canine came pertaining to the lesson plan of the group, i.e., the canine was present more consistently for the second week. In this week, the children had learned the new skill the previous week, and continued to practice it that second week.

Furthermore, the fact that the dog was at first thought to be a “participant-observer,” that is, the dog was initially observed just in the classroom with no forced or structured interaction with the children, could be considered a limiting factor. After a few weeks, the dog was more involved with the children and participated in interactions with the children facilitated by the speech language pathologist graduate student. Having the dog present for longer periods and having the canine participate in activities demonstrated resulted in more active engagement with the canine—that is, the child had to ask the canine to do something, the canine had to complete the action, and a reward was given.

This more complex task may facilitate more interaction with the children and the canine and should be included in future studies.

**Future Research**

This project was in part a feasibility study designed to begin the process of investigating the effects of a canine visitor on the communication of preschool children. Accounting for the limitations is a first essential step in continuing this research. Investigating the speech acts between centers, for different environmental conditions, and for different clinical disorders with the dog present versus absent could pose thought-
provoking research questions. Also, implementing a social skills or language program that includes the presence of a canine visitor for longer periods of time would yield important findings on how a canine may help children with language impairments.

**Conclusion**

The purpose of this feasibility project was to investigate whether a canine visitor might increase preschool children’s use of speech acts while in a social skills group. The presence of the dog in the social skills group was an initial step to researching whether the presence of an animal can increase verbal output, reduce social anxiety, and provide an outlet and companion for children who have special needs. The focus of the group was on increasing social language skills, expressing feelings, recognizing one’s own emotions and the feelings of others, and improving vocabulary usage as it relates to “emotion” words. Further research is needed to investigate the effects of a canine visitor on children’s language use in a preschool setting in order to make any definitive conclusions regarding the benefits of canines in speech therapy.
References


Appendix A
Speech Act Coding Scheme

A=Dialogic Book Reading
B=Sensory Table
C=Craft Table
D=Other

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Appendix B
Books and Materials for Lessons

Materials:
“When I Feel Angry” book (circle time)
Cornstarch (sensory table)
Baking soda (sensory table)
Measuring cups (sensory table)
Water (sensory table)
Flashlight (craft table)
Rice and Beans (sensory table)
Measuring cups (sensory table)
Glue, Bags and food coloring (craft table)

Books:
“When I Feel Angry” written by Cornelia Maude Spellman