

All Ears Reading[®] Program and Home-Schooled Youth

Background

Animal-assisted therapy is a directed process and is designed to promote improvement in the physical, social, emotional, and/or cognitive functioning of human participants. Dogs are particularly well suited for animal-assisted therapy and are commonly used in this capacity. The *All Ears Reading[®]* program was developed by Tony LaRussa's Animal Rescue Foundation (ARF) as an animal-assisted therapy program to facilitate improvements in children's reading skills, their empathy toward animals, and their relationships with animals.

Study Objectives

The present study was designed to examine the process of implementing the *All Ears Reading[®]* program with home-schooled and un-schooled youth. The goals of the study were to document changes in reading fluency skills and attitudes toward animals over the course of a 10-week implementation of the *All Ears Reading[®]* program. In addition, interviews of participants and surveys of their parents/guardians were utilized to give a more in-depth understanding of the impact that the *All Ears Reading[®]* program had on the youth.

Methods

Participants in this study were 11 home-schooled and un-schooled youth from the Davis-Sacramento-Foothills area in California. The youth ranged in age from 6 to 12. All youth visited the UC Davis campus where they met with the *All Ears Reading[®]* program dogs and their handlers (UCD undergraduate interns trained by ARF) on a weekly basis. During these meetings, the youth would spend a few minutes interacting with the dog and would then read aloud for 15-20 minutes.

The *All Ears Reading[®]* program dogs are all animals that were rescued from public shelters by ARF. These dogs have been given permanent homes and the necessary training to serve as ambassadors of the *All Ears Reading[®]* program. The dogs that were part of this study were: Digory, a 10-year old male yellow Labrador mix; Lollipop, a 9-year old female Terrier/Chihuahua mix; and Molly, an 8-year old female Rottweiler mix. All are certified Canine Good Citizen (AKC) dogs who are members of ARF's therapy animal team, the Pet Hug Pack.

To assess reading skills, a test that measures reading fluency (words per minute) and accuracy (errors per minute) was given both prior to and following the 10-week program. This assessment was drawn from the Oral Text Reading for Comprehension Test designed by the California Reading & Literature Project (2001-2002). To assess the children's perceptions of their relationships with animals, the "Draw Yourself with an

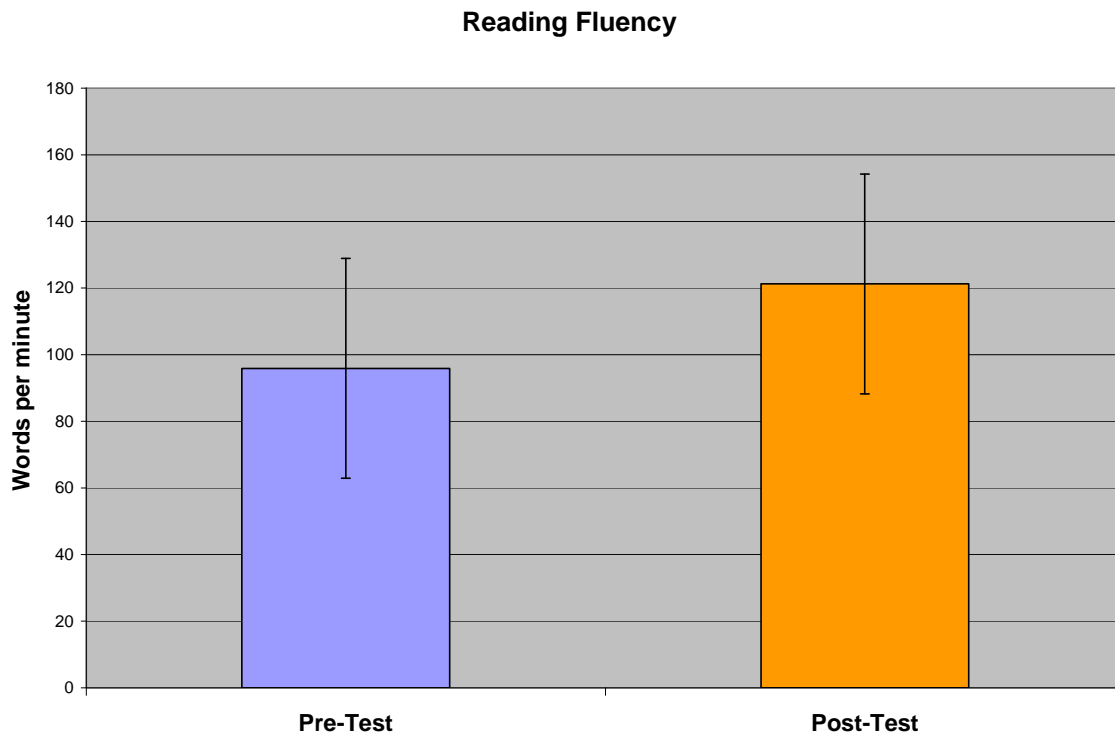
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Animal” assessment tool (Smith, Meehan, Enfield, & Castori, 2005) was used. This tool is a validated and reliability-tested measure of children’s self-perception of their relationship toward animals. To gain insight about the children’s experiences from their perspectives, focus group interviews were conducted; surveys were given to the parents/guardians to solicit their points of view.

Results

Reading Fluency and Accuracy

Reading fluency increased 30% over the course of the program. The average number of words per minute read by the youth was 96 during the pre-program test, and this increased to 121 by the end of the 10-week implementation. This improvement was statistically significant at $p < 0.001$ (Paired Student’s t-test). Reading accuracy remained consistent throughout the study with the youth making relatively few (approximately two) errors both in the pre-program and the post-program test.



Children’s Perceptions of their Relationships with Animals

Changes in children’s perceptions of their relationships with animals were not detected through the “Draw Yourself with an Animal” assessment tool. There was no change in the children’s scores on this test over the course of the study.

Pre-Project Focus Group Interviews

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The focus group interview held with the children before the study began revealed that several of the participants had negative associations with reading aloud. Some statements regarding reading aloud included:

“I don’t like it”
“It makes me self-conscious”
“I make mistakes”
“I’m not comfortable”
“I lack confidence”
“I feel slow and clumsy”

During the same interview, the children indicated that they had very strong positive associations with dogs. Some statements they used to describe how being around dogs made them feel included:

“Happy”
“Euphoric”
“Safe”
“Great”

Post-Project Focus Group Interviews

Following the completion of the project, the youth were asked to reflect upon their experiences. Their reflections revealed an excitement about their participation in the project.

Statements regarding participating in the project included:

“It was fun”
“So awesome”
“The best thing”
“Important for me because I want to become a veterinarian”
“A good way to learn more about dogs”

The youth also reported their perceptions about reading aloud to dogs. Statements regarding reading to dogs included:

“Dogs don’t critique you; they just listen.”
“I feel relaxed when I am reading to a dog because I am having fun.”
“I felt like I was reading out loud faster and better.”
“The dogs don’t care if you read really, really bad (sic) so you just keep going.”
“The beginning was worse than the end, ‘cause in the beginning I struggled to read because I didn’t really like it, but at the end I got better at reading and then I started to like it more.”
“The dogs help by not pushing me to do my work and by calming me.”

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The youth were also asked about their perceptions of the UCD undergraduate interns and their role in the process. The point of asking this question was to begin to understand the contribution to improvements in reading that may be attributed to the presence of an older (non-parental, non-teacher) person. While not conclusive, the information we received from the youth indicated that the presence of the undergraduate intern had a neutral impact on the process. The youth reported “forgetting” that the interns were there and remarked that they were “quiet, but helpful with hard words.” Overall the consensus among the youth was that they did not pay much attention to the undergraduate interns while reading, and were instead focused on their interactions with the Lolli, Molly and Digory.

Perceptions from Parents/Guardians

When parents/guardians were surveyed about their children’s participation in the project, 75% of them reported that their children read aloud more frequently and were more confident while reading aloud after participating in the *All Ears Reading*[®] program. In addition, 66% of the parents reported that their children appeared to be more confident when interacting with animals. Selected quotes from parents:

“I have noticed that he now reads because he wants to, not because he has to.”

“My son was always enthusiastic about coming for a reading session and he was positively energized (bubbly!) after a reading session.”

“My daughter reads aloud a lot more than she used to.”

“My son now reads aloud to his little brother. I love that.”

Conclusions

This group of children experienced highly significant improvements in their reading fluency over the course of this study. Coming into the study, this group had very positive associations with being around dogs and negative associations with reading aloud. Introducing the presence of a dog to the practice of reading aloud created an environment where the positive feelings of “happiness and safety” changed their perceptions of reading practice. By the final project interview, students described reading aloud as “fun” and “cool.” While we can not definitively report the mechanism by which this transformation in perception and performance happens, clues from the interviews with the youth indicate that the calming, non-judgmental presence of the dogs is important. Further evidence of the positive impact the presence of the dogs had on their sessions comes from the children’s reports on their experiences with the UCD undergraduate interns who facilitated the sessions. Their collective response was that while they enjoyed interacting with the interns, their primary motivation for attending the sessions, and their primary reward for participating in the sessions was the presence of Lollipop, Molly and Digory.

Overall, the success of this project can be described as creating a positive change in both perception and in skill with respect to reading aloud. These changes were facilitated by the strong positive associations the children had about dogs prior to beginning the study,

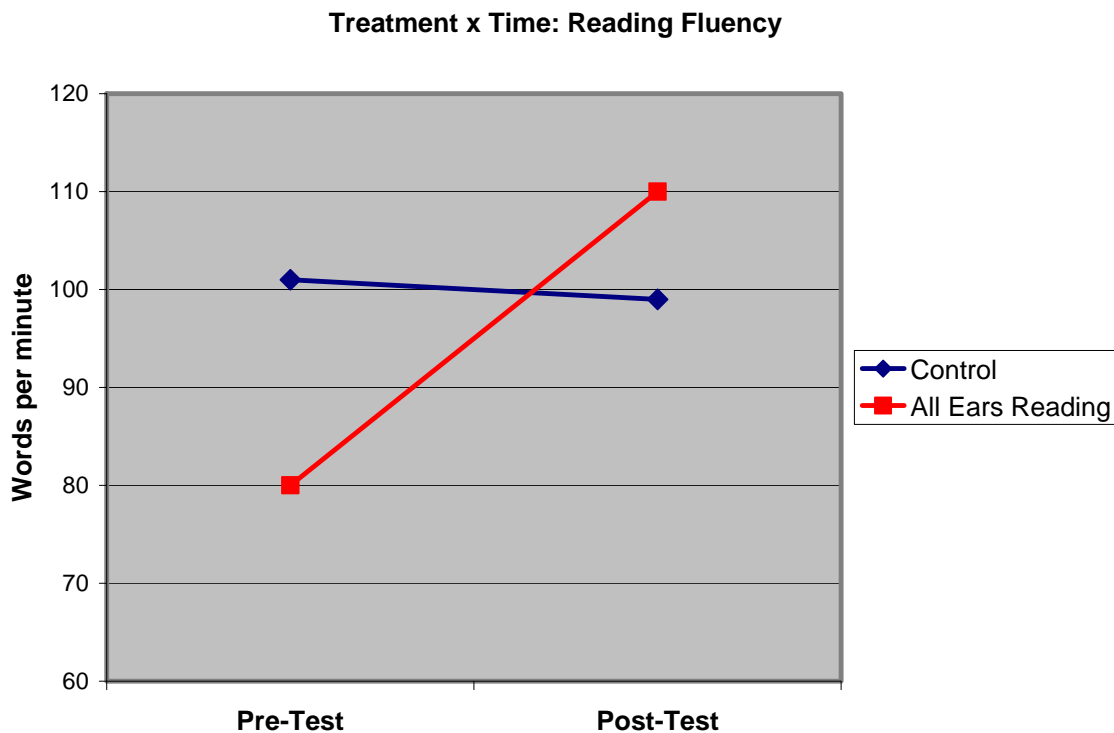
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and demonstrate the positive impact that animal assisted therapy can have on attitudes, behaviors, and skills.

Dixon Study Update

A similar study to the one described above was conducted in 2008 with three third-grade classes at Tremont Elementary School in Dixon, CA. Overall there was a 12% improvement in reading fluency in the classes that received the *All Ears Reading*[®] program. We also collected data on reading fluency in a control class. In our earlier report on this study we were unable to comment on the difference in fluency improvement between the *All Ears Reading*[®] program participants and the control group. These data have since been re-analyzed using a more sensitive statistical method and we are now able to report the following results:

Using PROC GLM, we were able to demonstrate a statistically significant ($F_{1,64}=11.43$; $p<0.001$) interaction between treatment (*All Ears Reading*[®], Control) and Time (pre-test, post-test). This means that the rate at which the two groups' reading fluency changed over time was significantly different. There was not a significant main effect of Time, which means that although the mean fluency in the control group was higher at the time of the pre-test, this difference is not statistically significant. The two groups can be considered statistically equivalent at the outset of the study, but the change in fluency over time was significantly greater in the *All Ears Reading*[®] group.



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