Animal-Assisted Literacy: A Supportive Environment for Constrained and Unconstrained Learning

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What you’ve created within the school is a kind of parallel universe—a warm, playful environment that motivates the children to learn. (Vice principal comment, 2007)

The children who needed it the most benefited greatly through increased self-confidence. . . . I think this is an amazing program and, across the board, every child from my class was so excited to go when it was their turn for Dog Club on Wednesdays. They all loved it and I would definitely be a part of this program again. Amazing, wonderful, and fantastic. (Teacher comments, 2006)

Over the last 20 years or so, the popularity of animal-assisted literacy learning programs has gained momentum in schools and libraries around the world (Intermountain Therapy Animals, 2011). To date, such programs are currently running in four Canadian provinces and 43 U.S. states, as well as in Australia, the United Kingdom, Italy, and India (Land of PureGold Foundation, 2009). To skeptics, it would seem that these programs are popular simply for their novelty effect. However, a deeper examination of the state of literacy education in North America reveals essential underlying reasons why these programs may offer timely and unique support for young learners.

Situated within the broader context of literacy education and grounded in research and literacy theory, we offer concrete examples in this article of the unique and valuable social, emotional, and academic support that animal-assisted learning can provide children. Specifically, we consider how an animal and a caring adult mentor can contribute to establishing and nurturing a supportive learning environment, and can offer genuine and unique opportunities for both “constrained and unconstrained” literacy development (Paris, 2005).
A Shift in Focus Toward a Safe and Caring Learning Environment

The fact that millions of children in North America struggle with learning to read is well-documented (National Center for Education Statistics, 2009); the reasons why remain a hot topic of debate. Some researchers (e.g., Hoffman, 2010; Lehr, 2010) suggest that reforms, such as No Child Left Behind, and the recent focus on skills-based instruction and standardized testing in primary classrooms, force educators to attend to a constricted set of pre-established outcomes, often at the expense of other areas of children’s development, such as social skills and problem-solving.

To face that challenge, many schools and educators are considering new approaches that invite balanced possibilities for nurturing a more complete conception of children’s literacy development: socially, emotionally, and academically (Hoffman, 2010; Lehr, 2010; Pickett & Fraser, 2010; Pressley, 2001; Purcell-Gates & Tierney, 2008; Riley & Jones, 2010). Indeed, the five global guidelines for early education established in a recent collaborative project between the Association for Childhood Education International (ACEI) and the World Organization for Early Childhood (OMEP) emphasize the importance of providing a safe and nurturing environment for children’s social, emotional, physical, and educational development (Sandell, Hardin, & Wortham, 2010).

ACEI’s guidelines are grounded in the principles laid out by sociocultural theorists, who articulate that the environment in which a child learns greatly impacts that learning (e.g., Dewey, 1963; Vygotsky, 1986). Contemporary literacy scholars believe that children need to feel safe to take the risks that will lead to literacy learning (Cambourne, 1988; Collins, 2004). An analysis of the National Assessment of Educational Progress (NAEP) database documents the positive connection between the quality of the classroom and school environment and student learning (Pickett & Fraser, 2010).

How might interaction with a dog and adult mentor contribute to a safe and supportive learning environment? Research examining children’s experiences and interactions with animals in therapeutic, educational, and medical settings has increased over the last 30 years (Nimer & Lundahl, 2007) and collectively suggests that dogs, in particular, due to their nonjudgmental and highly social nature, can offer a unique form of support to children’s learning ( Jalongo, Astorino, & Bombay, 2004). In the classroom setting, children’s interactions with dogs have contributed to their increased positive attitudes toward school through the dog’s modeling of acceptance and trust (Anderson & Olson, 2006). Involving a dog in academic activities can encourage positive student-teacher communication (Esteves & Stokes, 2008), and can serve to focus student attention on an academic task (Limond, Bradshaw, & Cormick, 1997).

A recent study (Friesen, in press) explored the experiences of one grade 2 class with a 10-week animal-assisted literacy learning program provided as a supplement to their established language arts program. In this study, animal-assisted literacy learning sessions invited playful, purposeful, and imaginative interactions among group members as they worked with text; allowed for multi-sensory and familial forms of interrelationship among group members; and positively influenced students’ broader school and at-home associations with literacy, fostered by their ongoing engagement in meaningful literacy activities (Friesen, in press).

Constrained and Unconstrained Literacy Skills Development

In addition to establishing a supportive and engaging learning environment, it is essential to consider the nature of literacy learning occurring within such an environment. Paris (2005) outlines important and specific differences between “constrained” and “unconstrained” literacy skills, a distinction that is helpful in articulating the kinds of learning that can occur during animal-assisted literacy learning programs. Paris defines constrained skills as “letter knowledge, phonics, and concepts of print” (p. 187)—skills that are constrained to a finite and narrow scope and are learned quickly. In contrast, examples of unconstrained skills include vocabulary, written composition, comprehension, critical thinking, problem solving, and oral language development—skills that continue to develop throughout a person’s life. As Hoffman (2010) emphasizes, “The significance of this distinction is that constrained skills are inherently easier to teach, learn, and measure for change through formal assessments, because they are considerably less complex. . . . Conversely, teaching an unconstrained skill like oral language is an infinitely more complex task” (pp. 11-12). As a result, current research has focused on constrained skills instruction and is most commonly emphasized in classrooms (Paris, 2005). Further, meaningful and authentic instruction in the teaching of all literacy skills means that “reading and writing and listening and speaking need to be about something real and significant, not just ends in themselves” (Hoffman, 2010, p. 15).
article will illustrate how animal-assisted literacy learning sessions can provide meaningful and novel opportunities for both constrained and unconstrained literacy skill development.

Program Design and Participants

Animal-assisted literacy programs are designed as a supplement to regularly scheduled language arts classes. Typically, they pair young students with a calm, trained animal (commonly a dog) and an adult literacy mentor in classrooms and libraries. The Intermountain Therapy Animals Association (I.T.A.), arguably the largest organization of its kind in the United States, has trained hundreds of Reading Education Assistance Dogs (R.E.A.D.) and their owners to work as “literacy mentor teams” in schools and libraries across the country (ITA, 2011). Anecdotal evidence from educators and parents who have participated in R.E.A.D. programs suggests that the children's enthusiasm about reading to the animals and subsequent confidence can carry over into their classroom experience, because the dogs offer “a wonderful combination of kindness, curiosity, and patience to the task of reading” (ITA, 2011).

The five animal-assisted literacy programs examined in this article took place in four French-speaking elementary schools in eastern Canada. The average length of each program was seven to eight months, with each child involved in one to two half-hour sessions (either individually or in a small group) per week with the adult literacy mentor and participating animal; the sessions commonly took place in the school library. In total, 45 children (27 boys and 18 girls) participated in the programs, with 26 of the children in grades 1-2, 16 of the children in grade 3, and three children in grade 5. The students came to these animal-assisted literacy experiences with a range of abilities and interest in literacy (although most of the children were working below grade level in language arts), and were referred to the program through their classroom teacher and the school administrator, the school resource teacher, and/or the speech therapist, with prior support and consent from each child’s parent or guardian. The dogs involved in the program included Prince, a 7-year-old male golden retriever and a retired service dog; Matisse, a 7-year-old female husky; and Lucky, a 4-year-old bichon frise. Although such animals are less common in animal-assisted literacy programs, one program featured a 4-year-old male Abyssinian guinea pig named Oreo.

Establishing a Caring, Playful, and Purposeful Learning Environment

As illustrated by the vignettes below, interaction with the animal served as a conduit for playful communication and fostered a sense of agency on the part of the child, which contributed to an emotionally safe and caring connection between the adult and child. Such repeated interactions over time encouraged an attitude of meaningful and purposeful care among group members and served as the foundation for goal-oriented literacy learning.

From the beginning of the program, the adult often acted as the interpreter of the dog's feelings and reactions. For example, upon seeing the child, the mentor would remark how happy the dog was to see him or her as demonstrated by the wagging tail. The adult spoke directly to the dog, saying something like: “You're so happy to see your friend, John, aren't you? Yes, you are.” The adult might elaborate, “I told you, didn’t I, Prince (or Lucky, or Matisse), that you’d see Dominique today. You missed him, right? You’re happy he’s with you now!” These interactions seemed to contribute to the children’s feelings of comfort with the dog and adult; over time, the students enjoyed a sense of agency and importance in their role of caretaker for the dog. For example, the students began talking to the dog while holding the leash as we walked to the room where the program occurred. One child would say, “Lucky, we have to go. What are you doing with your snout in those boots? Looking for food.” The adult mentor would then answer for the dog: “I love treats. I love treats. Where are the treats?” and then give the proper command to Lucky to come with them. The adult observed that, over time, the children took more and more appropriate initiatives, such as closing the door so the dog wouldn’t leave and bringing water for him.
During the sessions, the literacy mentor often ascribed a behavior to the dog that she wanted to address in the child. For example, one child named Junior had a short concentration span and was easily distracted. These difficulties greatly interfered with Junior’s ability to comprehend printed text. The adult told Junior that it was difficult for Prince to sit down and listen to the story he was reading, and would then ask the dog to sit without using the proper command: “Prince, you keep sniffing everything in the room and not concentrating on the story you’re going to hear. You won’t be able to listen to it if you don’t sit down and concentrate properly.” Naturally, the dog didn’t understand what the mentor was talking about, and Junior heard her asking Prince over and over again to sit down and listen. The behavior of the dog—walking all over the room and smelling everything—in some ways mirrored the behavior of Junior going from one page to the other, looking at the ceiling, talking to his mentor, and going back to reading again. When the adult finally gave Prince the proper command, the dog sat down. To help the dog stay still and concentrate on the story, the mentor asked Junior to slowly count to three while the dog sat still, and then begin to read Prince a page of the book. The adult would then say: “Good, very good, Prince, now you’re calm and concentrating on the story you’re going to hear.” The goal was to help Junior calm himself down enough to concentrate while counting to three. When Prince sat still and Junior counted to three, Junior congratulated the dog.

By focusing modifications on the animal, the child gains valuable practice in a new skill and experiences the empowered role of teacher during literacy sessions. Coupled with these interactions, opportunities for novel forms of formative and summative celebration of literacy learning within the context of these programs contributed to a supportive and emotionally safe learning environment for the participating children. For example, prompted with a “Bravo!” command, Matisse congratulated the children with a “high-five” by standing on her hind legs whenever the students achieved a personal literacy goal. Prince could turn a book’s page with his paw (with a little bit of help), which provided an ongoing source of amusement and inspiration for the students as they read. Matisse liked to put her front paws on the table—an act that was not allowed until we realized that the students believed that she was trying to look at what was written in their notebooks. At the end of the program, Matisse “wrote” a farewell letter to each child, and each student received a certificate outlining their participation and their main achievement in the project. Often, these certificates were presented during a classroom ceremony in which the principal handed out certificates.

**Authentic and Meaningful, Constrained and Unconstrained Literacy Development**

In addition to establishing a supportive and engaging learning environment, animal-assisted literacy learning sessions provided meaningful and novel opportunities for both constrained and unconstrained literacy skill development.

**Constrained Skills Practice.** These programs commonly prompted the children to test their knowledge of punctuation use and practice their decoding skills. For example, as a way to help the children remember to pause when they came across a comma or a period, the adult asked them to touch the dog and to stop reading while they were doing so. When the child came to a period, he would pause to touch the dog for at least two seconds; for a comma, he would pause only briefly to touch the dog. This technique served as a reminder for how long to pause. For another child who had difficulty with decoding, the adult created the following exercise: “I’d write a syllable on a sheet and if she could read it quickly, she’d draw a spot on the drawing of a Dalmatian. A Dalmatian full of spots gave her the privilege of giving the real dog a treat.”

The sessions also helped children to hone less constrained skills. Kayla, for example, struggled to write descriptions of visual images, such as when asked to look at a picture in a book and then write a word or sentence to describe it. To help Kayla, the mentor asked her questions about Oreo, the guinea pig, as he sat in his basket, such as, “How many ears does Oreo have?” Kayla would then write her answer on the chalkboard. The questions offered became increasingly difficult and Kayla remained focused and motivated, until she eventually came up with her own questions to ask and answer about Oreo. Each written response provided meaningful opportunities for lessons in capitalization, spelling, directionality of text, and sentence structure. Each time Kayla wrote a small sentence correctly, the adult would congratulate her, with Oreo as her witness: “Oreo, do you see how well she did? Can you believe it? You’re so happy that you want to eat a carrot. Let’s ask Kayla if she wants to give you a carrot.” Consequently, Kayla gained valuable practice working on concentration and observation while developing the skills necessary for meaningful written composition.
Unconstrained Skills Practice. Animal-assisted literacy learning invited numerous opportunities for meaningful written composition. For example, the adult would often invite the children to write to Matisse on the blackboard. The child invariably wrote something nice, such as “I love Matisse. Matisse is my friend.” This writing served as the springboard for relevant spelling and writing lessons for that week. At other times, the children wrote stories involving each member of their group, including Matisse, or were invited to write a get-well card for Oreo, the guinea pig, when he had to have emergency surgery.

On other occasions, to help children express more intonation in their reading, the adult mentor explained to the child that Prince cannot understand people’s feelings if people don’t translate them as they read. They talked about examples of anger and surprise and about how they might express their emotions. Although the students found the process very difficult at first, in the end they succeeded and the adult translated the wagging of the dog’s tail as a sure sign that it understood the feelings expressed by the students.

At times, the adult challenged the children to find a way to teach Matisse to jump over a stick, or to devise games involving hiding the dog’s treats to see if she could find them. Such activities encouraged the children in the group to work together using oral language to solve real problems, and invited possibilities for related literacy activities, such as writing about what they learned to teach other students.

In addition to the various skills illustrated here, animal-assisted literacy sessions offered ongoing lessons in social literacy for the participating children. For example, when an argument erupted between two students, they were reminded: “Friends of Matisse don’t fight! They argue and they settle or leave each other alone.” In this way, the dog provided a kind of ethos for the group. As is illustrated through the examples above, the dog took on many roles in these programs: The animal acted as a kind of classmate for the children in some situations, even a friend that accepted their displays of affection. At other times, the dog became their student (when the children taught the dog tricks, or asked the dog to do something). Sometimes, the dog served as a kind of teacher by providing them with an ethos. The club created around the dog’s presence seems to have given these academically challenged children a sense of belonging and pride, while providing them with valuable practice in both constrained and unconstrained literacy skills.

Discussion of Anthropomorphism
Anthropomorphism, or attributing physical qualities, activities, attitudes, and intentions to animals that historically have been determined to be distinctly human (Tyler, 2003), has been hotly debated over the past decade among scholars (Horowitz & Bekoff, 2007; Lulka, 2008). Over the past several years, the concept of anthropomorphism has been criticized for its implied distinction (and subsequent division) between mental faculties in human and non-human animals (Lulka, 2008). Central to this debate is a contradictory view of animals common in many societies, as explained by Guthrie (1997): Scientists promote physiological similarities between human and non-human animals in order to justify medical research, “while other (presumably cognitive) similarities that humanize animals are portrayed as excessive (and inadequately considered)” (Lulka, 2008, p. 183).

The children’s entertainment industry (media by Disney, in particular) has come under great scrutiny for its blatant anthropomorphism, with an entire universe designed around talking, walking, and often highly emotional animal characters in books and movies. Critics of anthropomorphism fear that children will come to expect similar behaviors from animals in their private lives, and warn that if children view animals as “people with fur,” they will not learn to appreciate and adequately fulfill their pet’s natural needs. However, as noted by Gambino, Davis, and Rowntree (2009), “Concern with distorting knowledge as objective reality should not over-ride the contribution of anthropomorphism in developing morality and subsequent behaviours” (p. 92). Gambino et al.’s (2009) study involving young children ages 4 to 5 years found that “even in young children, concern for natural elements based on anthropomorphic representations can co-exist with and complement more objective scientific knowledge” (p. 92).

Therefore, within the context of the programs discussed in this article, when aspects of imaginative anthropomorphism were integrated into the mentor’s interactions with the participating children, additional and more “objective” information about the animals’ unique needs also was provided. For example, while the mentor would, at times, orally interpret the dog’s body language for the children (i.e., express how happy the dog is to see the child when the dog wags its tail), at other times, information regarding specific care for the animal also was given when appropriate (i.e., emphasis on providing fresh
water for the dog, ensuring that the dog had regular exercise breaks, and making sure that the animal did not exhibit signs of stress). In this way, anthropomorphist elements were balanced with modeling and teaching empathy for the animals’ distinct and unique needs.

**Concluding Remarks**
The recent shift in focus from phonics-driven literacy programs to consideration of a more holistic conception of children’s social, emotional, and academic growth may be observed in the quietly gaining momentum and popularity of animal-assisted literacy programs in schools and libraries across the globe. This analysis of five such programs in eastern Canada suggests that these programs can contribute to a safe, playful, and caring learning environment in which children are able to gain valuable practice in constrained and unconstrained literacy skills, and can provide children with authentic, meaningful, and unique literacy experiences.

**References**


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