DEVELOPING CHILDREN'S AWARENESS OF THE HUMAN-ANIMAL BOND: AN ASSESSMENT OF THE EXPERIENCES AND BENEFITS THAT CHILDREN RECEIVE IN THE UNITED ANIMAL NATION'S HUMANE EDUCATION AMBASSADOR READERS (HEAR) PROGRAM

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TABLE OF CONTENTS

I. INTRODUCTION

The HEAR Program

United Animal Nations (UAN) is a non-profit group headquartered in Sacramento, CA, whose mission is "bringing animals out of crisis and strengthening the bond between people and animals through a variety of programs, including emergency sheltering, disaster relief services, financial assistance and education."[1] The primary focus of UAN's work since its founding in 1987 has been direct care and placement of animals. In 2007, the UAN launched a new program, Humane Education Ambassador Readers (HEAR), an innovation that focused on mitigation of animal suffering through education.

In the HEAR program, adult volunteers read carefully selected story books to children in grades 3-6 in schools or other educational settings, and hold discussions with the children about the themes of the stories. The stories all involve relationships among people and pets, and the themes center on pets' needs, humane care of pets, and formation and benefits of the animal-human bond. The methods of discussion center on questioning to foster children's critical thinking, with all questions and themes serving this broad question about the core theme of the human-animal bond: "I am learning about animals; what are animals learning about me?" The immediate aim of the HEAR program is to help children learn about pets and about pet-people relationships, and to help children develop respect, compassion, and empathy related to treatment of pets and all animals. The ultimate goal of HEAR is to contribute to animal welfare through education.

The purposes of the pilot evaluation

The UAN contracted with Inverness Research[2] to conduct a small-scale pilot study of the HEAR program in action. The main purpose of the study is to examine the nature and apparent benefits of HEAR as a model for humane education. Our focus questions are these:

1. What learning opportunities does the HEAR model afford students?
2. What are the potential benefits of the HEAR model?
3. What elements of the model are most significant and promising?

We hope the results of this study will help inform the UAN staff as they work to refine and develop the program further and, ultimately, to expand its reach through fund-raising or publicizing its model. Because ours is the first study of the program, and because the program itself is so young, our equally important purpose is to illuminate the model's key features and to explain how its design helps to produce the benefits that it does. Part of our purpose in portraying key features of the model is, additionally, to provide critique and formative feedback that will help the staff strengthen the program.

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[1] See www.uan.org home page.
[2] Inverness Research is a national educational evaluation group headquartered in Inverness, CA. IR has over 20 years' experience studying efforts to improve K-12 education. See www.inverness-research.org.

Overview of this report

Following this introduction, we have organized the remainder of the report into these sections:

II.   SUMMARY FINDINGS—a short statement of the take-away message of this report.

III. DESIGN OF THE HEAR PROGRAM—an explication of the key components of the HEAR model and their rationale.

IV. FINDINGS: THE NATURE OF THE STUDENTS' LEARNING EXPERIENCE—an examination of how the HEAR program functions to create a learning environment and experience for students. We discuss a) Initial engagement with characters and themes; b) Building and reinforcing knowledge; c) Developing perspective-taking through critical thinking; and d) Reinforcing and extending knowledge and empathy.

V.   REFLECTIONS ON WAYS TO STRENGTHEN STUDENTS' LEARNING EXPERIENCES—formative feedback on ways to strengthen the program and optimize student learning opportunity.

VI. BENEFITS OF THE HEAR PROGRAM—apparent benefits to students, the volunteers, and the children's regular teachers.

VII. IMPLICATIONS OF THIS STUDY—for humane education and for school-based education. We also discuss implications for further research beyond this small pilot.

Research methods

We began our study[3] by familiarizing ourselves with the HEAR program. We interviewed the lead developer and then-director of the program, focusing on the program's "theory of action." By theory of action, we mean the logic model that drives the program design, materials, and activities in relation to its goals. We also interviewed the Executive Director of the UAN. We then examined key program documents, including the books themselves, as well as the many web-based materials that have been prepared to help guide the volunteers' work with students; these include guides for reading the stories, leading discussions, and involving the students in extension activities. We also observed a full-day training session for volunteer readers.

We then gathered data that would enable us to analyze the program in action with students. We selected one 3rd grade school classroom as our core case to follow in depth, and we supplemented this with a smaller set of data collected from the program being conducted in a 6th grade classroom. Our data consisted of the following:

- videos (on dvd) of the reading-discussion-activity sessions with students
- student work produced during the sessions
- interviews with the volunteer readers and teachers

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[3] The study took place between October 2008 and May 2009.

For the core case, we collected data for all 5 weekly sessions;[4] for the 6th grade class, we collected data from 2 of the 5 sessions (weeks 3 and 5). Additionally, we interviewed the manager of an after-school program within a community service organization that serves children in poverty; this after-school program is a HEAR site.[5]

We chose the 3rd grade classroom as the core case because that age group is more central to the program's mission, which is to serve children primarily in 3rd and 4th grade. Additionally, the volunteer reader had previous experience with the program and had assisted with the training, so we could assume that we would be observing a competent enactment of the program as it is designed. Finally, the classroom teacher had experienced the HEAR program the year before and so would be able to share a perspective from two experiences. We added data from the 6th grade classroom not for a formal comparison, but rather to give us at least some sense of perspective on the range of variation in the program given a different grade level, reader and classroom teacher.

We analyzed the video data by transcribing the classroom discussion and coding teacher questions and student comments. We defined codes so as to capture evidence of student engagement and learning that reflect program goals, e.g., student statements that show knowledge about pet care or demonstrate perspective-taking that can lead to empathy. Because this was a pilot study, we did not enter the analysis with a hypothesis, but rather aimed to document student participation in a natural context for analysis against program values and goals. We also coded teacher questions so as to gain insight into the model and how it is designed to evoke student thinking and promote learning. These data, along with examination of student work products, form the basis of our discussion in section IV.

To assess the benefits of the program, we rely both on our own analyses of the program in action and on interviews with the volunteer readers and teachers.

II. SUMMARY FINDINGS AND REFLECTIONS

As we will note many times in this report, this is a small-scale study of a program in an early stage of development. Thus, we cannot make conclusive statements. At the same time, our examination of the program design and observations of the program in action give us enough confidence to state the following broad findings and offer a perspective on their significance.

- The HEAR model offers an engaging, thought-provoking, and substantive learning experience to students.

Our direct observations of student participation and their work products, as well as our interviews with teachers and volunteer readers, suggest that the HEAR model, when skillfully implemented, engages students' interest, expands their knowledge of responsible pet care and the human-animal bond, and strengthens their capacity to step into the shoes of others and

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[4] Video data were lost for session 5 because of camera malfunction.

[5] While we were able to interview the manager, the site declined to provide video data for the study.

express empathy and compassion. There are some indications that the model has potential to affect students' behavior related to pets and animals in need.

- The HEAR model adds value to students' everyday education.

The HEAR model is designed such that it is highly congruent with high-quality mainstream language arts instruction, and also congruent with the child development mission of both schools and non-school educational settings, such as community organizations that serve children and families. And yet HEAR focuses deeply on a theme—responsible pet care and the human-animal bond—that may not often be covered explicitly in these educational contexts. Thus, it has potential to add significant value to children's formal education.

- HEAR is a robust and potentially scalable model.

HEAR is a soundly designed and well-specified model that volunteer readers can implement reasonably well with a modest amount of training. It appears to be amenable to replication. Thus, we believe it has strong feasibility for dissemination and expansion.

- The HEAR model calls for further refinement and continual attention to quality control.

Not surprisingly, the effectiveness and impact of the HEAR model depend upon its being grounded in well-designed materials and being skillfully implemented. It will be important for the home organization, the UAN, to provide steady support to further development and refinement of all components of the model and to ongoing internal assessment and strengthening of its implementation with students.

We have studied many educational improvement efforts in which organizations that are external to schools wish to contribute to teaching and learning. The HEAR program stands out as being a soundly designed model for infusing engaging and academically rich curriculum on a socially important theme into students' everyday educational experiences. The HEAR program also stands out as offering animal welfare organizations an innovative and replicable model for expanding their mission and reach. With steady investment in quality of implementation and in growth, along with additional research into variations for different contexts, we believe the HEAR program has potential to make a significant contribution to children's pro-social development.

III. DESIGN OF THE HEAR PROGRAM

The HEAR program was developed primarily by a skilled elementary school teacher who has experience in humane education and who specializes in teaching language arts. Below we identify major components of the model and explain what we believe to be their purposes and strengths.[6]

Core theme

The HEAR program is built around the core theme of <u>the human-animal bond</u> as it is represented in the person/family-pet relationship.[7] Embedded in this theme are several assumptions: that animals (pets) are dependent on humans for their basic needs and welfare; that pets are sensitive and have feelings such as sadness/happiness and fear/security; and that pets and humans are capable of communicating with and learning from one another, and of forming relationships that are mutually beneficial. All elements of the model, from the literature to the volunteer training, are anchored to and reinforce this theme and these assumptions.

The presence of and adherence to a clear core theme is a real strength of this model. As researchers, we often study programs that have goals and activities but which lack clear and well-specified underlying values, principles, or concepts. A lack of clear, guiding foundation often results in programs that have difficulty with ongoing quality improvement, growth, and sustainability. Programs that have well-specified and generative underlying core principles and themes, however, usually have greater capacity for improvement and ultimately greater overall effectiveness. Often there are very few core values; it is not the number of tenets or core concepts, but their clarity and appropriateness, that is important. As with all programs, it is important that HEAR program leaders continually re-visit and refine core values and themes through reflection on program activities, making sure that both the activities and the core ideas are appropriately specified and mutually strengthening.

Carefully selected literature

The substantive foundation of the model is high-quality children's literature—specifically, picture books aimed at an audience of children of ages 6-12. By high-quality literature, we mean books that are on the regular children's book market and have strong and interesting characters, engaging plots, and artful illustrations.[8] HEAR books are selected carefully for their attention to core themes; not every good story about pets qualifies. During the volunteer training, an hour was devoted to analyzing differences between books that did and did not pass muster for the program. Of all the available books that include pets and children as characters,

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[6] Our rendering of the components is not comprehensive; those wishing to learn more or replicate the model should visit the UAN/HEAR website and contact the program director.

[7] We note this because the program does not address other potential issues, such as endangered wildlife, vegetarianism, use of animals in research, and so on.

[8] We emphasize this because much reading material that grades 1-3 children are exposed to in school is not literature *per se*, but rather story-like texts that are constructed to serve sequences of phonics instruction and very basic literal comprehension.

only those that portrayed some aspect of appropriate care of pets, constructive human-animal communication, and positive development of a human-animal bond were selected.[9]

Again, we believe that the quality of the literature is a strength of this model: while the books vary somewhat, they generally elicit authentic student engagement, evoke students' own experiences, and offer in-depth information and ideas to students to promote their critical thinking.

A well-grounded theory of reading and learning from literature

HEAR's instructional approach is based on a theory of reading and literature that was first formed by Louise Rosenblatt in 1937 and has persisted.[10] The theory is referred to as "reader-response" theory. Most simply put, the theory states that the meaning of literature—story, poem—is formed through the interaction between the author's text and the reader's engagement at the point in time of reading and as the reader reflects over time. This is as opposed to what is called New Criticism, an alternative theory in the 1950's and early 60's, which held that the text has absolute authority over meaning and that only a few well-trained scholars are able to grasp it and pass it on to students. Reader-response theory assumes that readers bring their lives and personalities to a text, interact with the content of the text, and derive personal meaning, which involves a combination of acquiring new factual/conceptual information and having an evocative experience:

> *The special meaning, and more particularly, the submerged associations that these words and images have for the individual reader will largely determine what the work communicates to him. The reader brings to the work personality traits, memories of past events, present needs and preoccupations, a particular mood of the moment, and a particular physical condition. These and many other elements in a never-to-be-duplicated combination determine his response to the peculiar contribution of the text. (Church: 30-31)*

There are two significant advantages to anchoring the instructional approach to Rosenblatt's theory. First, the theory is recognized very broadly among those with any training in literature or literature instruction as the leading theory in the discipline. Thus, it is likely to give the HEAR program credibility in the education system as an enhancement to language arts curriculum. Second, the theory when put into action—which calls for fostering a "transaction" between the text and the reader—has a kind of common sense, universal feel to it that teachers, volunteers, parents, and children themselves are likely to recognize: reading literature with genuine personal engagement, thinking about what it offers in the form of new ideas and information, experiencing the evocation of emotion and memory, discussing responses with other readers and noticing that there is both commonality and variation in how different people respond to and make sense of text. These are all processes that readers of literature naturally experience. Thus, while it takes some skill to foster the text-reader transaction in a formal

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[9] See the UAN/HEAR website for a list of books used.

[10] For a short but very informative explanation of the theory and its historical impact on literature instruction, see Gladdys Westbrook Church: "The Significance of Louise Rosenblatt on the Field of Teaching Literature." *Inquiry* 1:1 (Spring 1997) 71-77. Retrieved from http://www.vccaedu.org/inquiry/inquiry-spring97/i11chur.html.

educational setting—i.e., to facilitate discussions well—it is development of a skill that feels generative and natural.

A sequence of five weekly sessions

The HEAR model is not an isolated experience; rather, children experience five weekly sessions that take 30-60 minutes each. Each session focuses on a different book. This continuity enables the program to take a cumulative approach, starting with books that are relatively simple and moving toward those that are more complex conceptually, while inviting students to recall and synthesize what they gain from multiple sessions. This design intends to make the experience more memorable and give it lasting impact.

A four-part classroom experience

Building on the underlying reader-response theory, each of the five sessions of the HEAR program focuses on one book and includes four elements:

1. **Pre-reading** involves a very brief discussion designed to focus students' attention and initiate a constructive text-student interaction. Volunteers introduce students to the themes of the book by evoking their personal experiences and knowledge (e.g., Have you ever seen a guinea pig? Have you ever communicated with a dog? Have you ever told someone you're sorry?), and by orienting students to the story through questioning and/or showing illustrations (e.g., Can you see what is in the baby carriage? How do you think the dog in this picture feels?).

2. **Reading discussion** involves the volunteer reading the story aloud, showing illustrations, and asking questions along the way that engage students in making meaning from the text (e.g., Why did Willie apologize to Freckles? Why does Mr. Miller look so much happier now than before? Why is Duncan jumping on Dolores' easel? What do you think is going to happen next?).

3. **Group summary** involves further discussion after the reading. Its purpose is to engage the students more deeply in the themes and provoke their critical thinking. Often, this part of the session mixes references to the text (details of the story) with invitations to think beyond it (e.g., What are some other ways that Willie could have treated Freckles? What are some new ways that Dolores will play with Duncan now? What would the Gustin family need to learn before they adopt another dog? What would you tell your friends before introducing them to your new guinea pig? Would you rather have a dog or a cat?).

4. **Post-reading activity** engages students in some form of art (usually drawing) and/or writing. The purpose is to create an open-ended context for students to continue individual and collective creative exploration of the information, concepts, and feelings the stories and discussion evoke.

The volunteer reader—a visiting adult

Like much of the work of non-profit organizations, implementation of HEAR depends greatly upon volunteers from the community. Following screening that allows them to have contact with children, the HEAR program involves volunteers in a full day of training and then in leading all five sessions of a program in a given context. The children experience the novelty of having a special guest adult work with them and the continuity of working with one volunteer over time.

The supporting materials

All aspects of the HEAR program are well-specified and supported with materials available on the web site. These include lists of core and additional books and information about them, activity guides with sample questions for discussion and extension activities to choose from, and a listserv that distributes information and tips to volunteers. The materials, while very detailed, assume that novice volunteers need at least some formal training to begin working with the program.

The training and support of volunteer readers

Volunteer readers experience a full-day formal training session that includes an orientation to the purpose, structure, and theory behind the program; engagement with the stories and their themes (and criteria for selecting them); and information (including a short video) about leading discussions in the classroom. The training session we observed included an experienced volunteer sharing her experience and enthusiasm.

Volunteers then receive individual coaching and support on an as-needed basis. Novice volunteers usually follow a story sequence that is suggested by the coordinator. Depending on their experience and comfort in classroom settings and with children, novices might buddy up and observe sessions, and then lead their own sessions once they feel confident.

IV. FINDINGS: THE NATURE OF THE STUDENTS' LEARNING EXPERIENCE

HEAR sessions aim to engage students in multiple ways with stories' characters and themes. This engagement is intended to support students in building knowledge about pets' traits and the care they need, as well as in developing students' ability to take the perspective of both human and animal characters, a form of critical thinking that develops empathy. The HEAR model assumes that this combination of knowledge and perspective-taking is vital to children's growing understanding of the human-animal bond and their development of compassion for living creatures. In this section, we examine the nature of students' actual learning experiences during the sessions, drawing from video-tapes of sessions and student work products.

Initial engagement in characters and themes

Pre-reading discussions introduced students to the main characters in the story and to the major theme. For example, in the 3rd grade classroom, where the first book was *Oh, Theodore*—in

which a young boy and a guinea pig become familiar with one another's traits and behavior—the volunteer asked students if they had any pets and what they knew about guinea pigs. This focused students and launched them into a discussion of many facts about guinea pigs and their needs as pets.

In the 3rd session—on *Duncan and Dolores*, about a girl who initially alienated her cat by treating her as if she were a human instead of a cat, but who ultimately learned about how to be a friend to a cat—the volunteer focused students first on the characters and then on the theme:

> V[11]: The book is called Duncan and Dolores. [shows cover.] Who do you think Duncan is?
> S: The baby?
> V: Take a closer look - it is in a carriage, but it's a cat.
> S: It's a cat.
> V: Which is Dolores?
> S: The girl.
> V: Has anyone ever scared a cat before on accident or on purpose?
> S: I tried to scare it away from our house. I threw a rock at it…on purpose. I did it because I lived next to a house that had cats that climbed over the walls and always played with me and my sister's outside toys. One time it even popped one of our blow up balls.
> V: This is a story about a girl that wants to be friends with a cat so bad, but she keeps scaring him and chasing it away.

Similarly, in the 4th session—on *Lucky Boy*, in which a neglected dog is adopted by a man who understands the dog's needs and who is rewarded with the dog's love—the volunteer engaged students immediately in a major theme of the story:

> V: This is a story about a dog.
> S: Yea! [several]
> V: Have you ever seen a dog alone in a yard before?
> S: I have.
> S: Yes.
> V: This is a story about a dog that lives in two different situations. But before we get into that, who can tell me what it means to be lucky?
> S: Like when you are playing a game and you get lucky when you win?
> S: Like if you need something real bad and you don't have it, and then suddenly you get it, you get lucky?
> V: What does a dog need to be lucky?
> S: A gold bone!
> S: A family.
> S: An owner.

The students' responses clearly reveal that this strategy successfully engaged them in key themes and piqued their interest in the characters. Our observation of HEAR in the 6th grade class revealed this same strategy and effectiveness. In *Freckles and Willie*—in which a boy neglects his dog when he gains a new human friend, then feels remorse and changes his behavior toward his dog—the themes of empathy and compassion are forefront. The volunteer

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[11] V=Volunteer utterance; S=student utterance.

engaged students immediately in the theme by asking students about their experience with apologizing:

> *V: Have any of you ever said sorry to someone before? [several nod.]*
> *V: What do you think it means to say you are sorry?*
> *S: You didn't mean to do it?*
> *S: Something you did wrong.*
> *V: Ever heard of someone saying sorry to a dog before? [some nod, one says no.]*
> *V. Why would someone apologize to a dog?*
> *S: If you accidentally step on their tail.*
> *V: If you hurt them.*
> *S: If you forget to feed them.*
> *S. The neighbors next door–sometimes when you look over the fence, the dog is drinking rainwater.*
> *V: Does that remind you of any of the books we read?*
> *S: The one that was brown--Orville.*
> *S. And Buddy Unchained—he didn't have any food or water sometimes.*

Notice that toward the end of this sequence of discussion, the volunteer capitalized on a "teachable moment" by hearing a student comment about a neighbor's dog "drinking rainwater" and then tying the discussion back to books they had read previously whose themes dealt with related events. This questioning reflects a level of skill in facilitation that helps serve the program's learning goals.

Building and reinforcing knowledge through discussion

In the 3rd grade classroom, we observed that discussion during the first two sessions was devoted primarily to developing students' factual knowledge about pets' traits, needs, and how to take care of pets. The 3rd and 4th sessions, while including some focus on factual knowledge, more often emphasized the more complex cognitive task of taking the pets' or human characters' perspectives. In the 1st and 3rd sessions, which introduced factual knowledge and perspective-taking respectively, questions emphasized student recall of details from the story (e.g., "what does Theodore like?"). In the 2nd and 4th sessions that built on these, questions more often invited open-ended responses (e.g., "what does a dog need to be lucky"?). The chart below, which documents types of student responses in each session, displays this pattern:

Table 1.
Patterns in student responses to questions

Session/Story	Factual knowledge (n)	Taking other (pet or person) perspective (n)	Response to recall question/ summary (n)	Student-initiated from open-ended Q (n)
1. Oh, Theodore!	8	3	9	4
2. Mrs. Crump's Cat	14	11	4	17
3. Duncan and Dolores	3	10	6	5
4. Lucky Boy	4	8	3	8

Below is an excerpt of discussion from session one, emphasizing recall of Theodore's traits:

> V: What does he [Theodore] like?
> S: Apples, melon.
> V: What else does he like?
> S: When the boy opens the fridge.
> …
> V: What does he not like?
> S: When the phone rings.
> S: When they slam the door.
> S: When his friends come over to play.
> S: When the boy laughs really loud.

In the discussion of *Mrs. Crump's Cat* during session 2, the volunteer's questions prompted students to show their knowledge of cats' needs, including their physical needs (e.g., "warmth," "a comfortable bed," "water,") and cats' feelings or well-being ("love," "toys," "a space to play"). Students also exhibited knowledge of human responsibility toward pets. In contrast to the discussion during session 1, however, questions in session 2—more of which were open-ended, such as "what do cats need?"—invited students to exhibit knowledge both from recall of the story and from beyond the confines of the story. This pattern appears in the chart below:

Table 2.
Patterns in student responses to questions

	Within the context of the day's story (n)	Extended/ generalized beyond the day's story (n)	Response to recall question/ summary (n)	Student-initiated from open-ended Q (n)
1. Oh, Theodore!	11	2	9	4
2. Mrs. Crump's Cat	5	16	4	17

Using a reader-response approach to literature meant that discussions were inherently unpredictable because students expressed their personal perspectives. Depending on what students said, volunteers had opportunities to reinforce knowledge by recalling discussion from an earlier session or to add new information. For example, in the 3rd grade's discussion of *Lucky Boy*—in which a neighbor adopted a dog that had been neglected by his family—students became fascinated with the meal of eggs and bacon that Lucky Boy was given. Note that the volunteer is called on to respond to a combination of students' interests and family pet-feeding habits, the influence of TV commercials, and also the teacher's enthusiasm for feeding dogs a diet of human food. The volunteer's challenge is both to honor student interest and facilitate their learning:

> S: Eggs and bacon—that's what dogs can eat. That's what my dad gives him.
> V: Oh, he does? I'm not sure that's super healthy for dogs.
> Teacher: But they love it, I'm sure!

V: They love it but they might get a little chubby.
S: Maybe for dessert.
S: Can you feed dogs bacon?
V: You can give a little but I wouldn't give it to them all the time because it wouldn't be healthy.
S: On this commercial it shows bacon for dogs.
V: Oh yeah, bacon strips, but those are made just for dogs.
S: Whenever my sister makes eggs she gives my dog a piece of ham because she always jumps on my sister's leg.
V: Well, dogs do love people food…

Similarly, the volunteer in 6th grade helped build students' knowledge of dog communication by reinforcing what students had learned before and adding her own knowledge:

V: Do you think that dogs have feelings?
S: Yes.
V: How do they show it?
S: Start wagging their tail, jumping, licking you.
V: Yes, by their actions, like we learned in the other books.
S: When their ears are down they are sad.
V: Yes their ears tell a lot.
…
V: Why do dogs need constant attention?
S: They get lonely
S: My dog, when they are gone he sleeps all day. When they get home he wants to run around and when they put him away he cries.
V: Dogs are pack animals–they don't like to be left alone.

We could observe, then, that with skillful facilitation, students had considerable opportunity to gain and express knowledge related to the program's goals.

Developing perspective-taking through critical thinking

The main theme of HEAR is the human-animal bond. Factual knowledge such as what we discuss above—pets' traits and the basic needs that owners need to provide for—are vital to children's ability to form such bonds. However, the HEAR program model is based on the idea that facts are not all that children need in order to develop an appreciation of the human-animal bond that might evolve into a lasting orientation toward care for living creatures. The HEAR model assumes that people also need empathy and compassion to form and sustain human-animal bonds. To move children toward these traits, the HEAR model attempts to develop students' ability to adopt others' perspectives through discussions of stories. In the sequence of four full sessions[12] in the 3rd grade class, we could observe cumulative attention to perspective-taking through questioning and student response. As noted in the table above, the 3rd and 4th sessions elicited students' perspective-taking more often than their factual knowledge.

In the discussion of *Mrs. Crump's Cat*—in which a lonely older woman slowly befriends a stray cat through a series of humorous events—during the 2nd session, which emphasized knowledge

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[12] Data for the 5th session were lost due to video camera problems.

about cats, the volunteer asked one question that invited students to take the perspective of a cat and speculate beyond the story. In the students' responses below, we can see that two of three students appear to take a cat's perspective, and one student seems to project his own perspective onto the cat:

> V: *What do you think cats dream about?*
> S: *Mice.*
> S: *Being a football player.*
> S: *A cat could dream that it's being chased by a dog.*

In the 3rd session—on *Duncan and Dolores*, where a girl finally learns how to stop scaring her pet cat—the volunteer's questions more often changed the focus of student thinking from factual knowledge to taking characters' perspectives (both human and animal characters). In the exchange below we can see students are being asked first to adopt Duncan's (the cat's) perspective:

> V: *Why would Duncan be afraid of Dolores?*
> S: *She made him dress up, and do things he didn't want to do.*

A few minutes later, students are invited to adopt Dolores's perspective and, drawing from their empathy for Duncan's predicament, say how she could improve her treatment of Duncan:

> V: *What do you think Dolores could do different in her behavior towards Duncan?*
> S: *Be nice to him.*
> V: *What are some ways she could be nice?*
> S: *By not yelling.*
> S: *She shouldn't [make him] do something he didn't want to do…*

The 4th session focused on *Lucky Boy*, in which an elderly widower adopts a neglected dog and they relieve one another's loneliness. While some of the discussion focused on dogs' diets (as noted above) and their need for an occasional bath, most of the discussion invited students to reflect critically on themes of the story from Lucky Boy's perspective and through open-ended "why" questions:

> V: *Why do you guys think Lucky Boy was happier with Mr. Miller than with the Gustins?*
> S: *He got to go on walks.*
> S: *The Gustins wouldn't play with the dog but Mr. Miller would.*
> …
> V: *Why do you think dogs like attention, like Mr. Miller gave him?*
> S: *Because dogs are cute. [note that this student appears to have interpreted the question as something like "Why did Mr. Miller pay so much attention to the dog?", i.e., adopting Mr. Miller's perspective instead of Lucky Boy's.]*
> S: *They want the owner to care for them.*
> S: *They want you to play with them.*
> S: *Because they are really hyper animals.*
> V: *What else?*
> S: *They need to exercise.*

In the 6th grade class, the volunteer focused even more deeply on perspective-taking. In the discussion of *Ginger Finds a Home*—in which a girl patiently gains the trust of a stray cat over a period of time—the volunteer explicitly reinforced students' empathic responses by making a link between the cat's predicament in the story and students' experience of being frightened in strange situations where they have not yet gained trust. Notice the volunteer's repeated use of "why" to open questions and follow up on student responses, and her ability to reinforce key themes of patience and trust; these show skill at fostering critical thinking as called for in the HEAR model:

> *V: Why do you think it is important for the girl to have patience for the cat to come up to her?*
> *S: If she came right away the cat wouldn't want to be with her.*
> *V: Why?*
> *S. The cat would be scared.*
> *V: Be frightened maybe?...Do you remember back to your first day in kindergarten, all those unfamiliar faces, you're not yourself yet? You wait to see what happens and what the teacher is like. Then you can relax and act normal. It's the same with animals.*
> *S: I seen this one big dog, I had an opposite experience, a pit-bull. I was scared of him but then when I found out it was nice, it wanted to play with me--*
> *V: …then you felt differently-–you trusted him. [student nods]*
> *V: Why is trust important?*
> *S: If you don't trust it you might not want to play with it.*
> *V: Why does the cat learn to trust the girl?*
> *S: She was nice, she brought him food each day.*
> *V: So it took time, it didn't happen in the first day.*
> *S: The cat did not got used to her at first, but when he saw she brought the food he felt more himself.*

Similarly, in the 5th and final session in the 6th grade—about *Freckles and Willie*, where a boy who was momentarily disloyal to his dog friend acknowledged it, apologized, and changed his behavior—the volunteer directly elicited students' empathy first for Freckles (the dog), and then for Willie. Here we see the volunteer asking open-ended questions and also reinforcing student comments that reflect comprehension of key themes:

> *V: How do you think Freckles felt?*
> *S: Bad*
> *S. Sad.*
> *S: Left out.*
> *S: He felt jealous.*
> *S: Lonely.*
> *V: He didn't have anyone else now; Willie had a new friend but he didn't.*
> *S: It was like he wasn't wanted any more.*
> *…*
> *V: How does Willie react when he can't find Freckles?*
> *S: Sad*
> *S: Worried.*
> *V: Why was he worried?*
> *S: Because he thought Freckles ran away.*
> *S: He probably blamed himself.*

V: Why do you think he blamed himself?
S: Because he was with Jane and it changed his mood with Freckles.
V: Why does Willie apologize?
S: Because of bad things he said to Freckles.
V: He hurt Freckles' feelings…
S: …even if Freckles doesn't understand what he was saying.
S: He knew the way Freckles felt.
V: That's why he was sorry.
S: He put him in the basement.
S: He did something wrong…

Following this, the volunteer invited students to step into Willie's shoes, asking them to think critically beyond the story about how he could have changed his behavior so that it was more compassionate toward Freckles:

V: How could Willie have treated Freckles differently?
S: Not put him in the basement but in another room?
S: He could have played with both of them instead of playing [just] with Jane.

These interchanges show that students at these age levels—roughly 8 to 11 years old—are capable of taking the perspectives of both human and animal characters and of experiencing empathic responses.

Reinforcing and extending knowledge and empathy

In the HEAR lesson structure, a creative extension activity follows the discussion. When well designed and supported with adequate time and facilitation, these activities can enable students to explore the new knowledge, attitudes, and feelings that the stories and discussions evoke.

For example, after the 3rd graders discussed *Duncan and Dolores*—which ended with the two friends reconciled and with Duncan in Dolores' bed—students were invited to imagine and draw the next scene of the book. Several of the students' drawings displayed a similar scene (Duncan in Dolores' bed) but with Dolores and/or Duncan expressing happiness about the new-found understanding and friendship. In one student's drawing, for example, Dolores is shown as saying "Meow Meow Here I am," which suggests the student has recognized that Dolores learned to communicate better with her cat; and Duncan is saying "I love you," showing the student recognized the cat's change of heart after Dolores learns to take better care of her. Several other students drew scenes in which Dolores is offering Duncan food or a toy, suggesting they understand that Dolores's future behavior would probably exhibit her new-found understanding of what Duncan would like.

Similarly in the 6th grade group, after discussing *Ginger Finds a Home*—in which a girl patiently befriends a stray cat—students were asked to create a multi-frame cartoon, fictional or true, about "how you formed a relationship with a pet." One student created a cartoon about a pet being adopted from a shelter; it was narrated from the pet's point of view, ending with the words "I'm saved." Another student created a first-person fictional account in which he found a bird and took it home but forgot to feed it; when the bird left the boy's house and returned to

live in its tree as a result, the student apologized and promised to take better care of it, and the bird returned to him. A third student's cartoon strip told of a boy that found a stray rooster and took it home. In the student's story, the rooster got used to the boy "day by day…The rooster felt like it was home, and knew that was his friend." At the end of the story the rooster got sick and the family cared for it until it was well.

For us as researchers, the student work in these sessions provides a window onto student learning from the program. We can see that key themes about friendship, loyalty, forgiveness, and kindness appear in students' self-generated work. We also see that students are able to adopt the perspectives of animals and can imaginatively project changes in their own or other people's behavior that reflect empathy and care.

Summary

The observations we discuss above suggest strongly that the HEAR model, when skillfully implemented, is soundly designed to promote students' knowledge about and empathy for pets and to help develop students' awareness and appreciation of the human-animal bond. Our observations also show that students of this age bring a genuine interest in animals and in people-pet relationships to these books, and can readily engage with and respond deeply to their themes.

V. REFLECTIONS ON WAYS TO STRENGTHEN STUDENTS' LEARNING EXPERIENCE

Our analysis of these sessions also reveals a few weaknesses in implementation of the model and design of some of its materials. The weakness are minor compared to the strengths. In this section we identify some weaknesses that, if corrected, can help the model come even closer to achieving its goals.

Questioning strategies

The HEAR model asks volunteers to employ questions strategically. In many case we observed adept questioning, including open-ended questions that required critical thinking and follow-up questions to probe deeper. For example, this effective sequence of question and follow-up prompted greater comprehension and empathy:

> *V: How does Willie react when he can't find Freckles?*
> *S: Sad.*
> *S: Worried.*
> *V: Why was he worried?*
> *S: Because he thought Freckles ran away.*
> *S: He probably blamed himself.*

And the question and follow-up below asked students to agree or not agree with a proposition, and then to demonstrate their more detailed knowledge about it, which the volunteer reinforced:

V: Do you think that dogs have feelings?
S: Yes.
V: How do they show it?
S: Start wagging their tail.
S: Jumping.
S: They lick you.
V: Their actions, like we learned in the other books.

Despite several instances of adept questioning like the above, we also observed lost opportunities when the volunteer did not probe students' thinking as fully as possible through questions or follow-ups. For example, while pointing to an illustration in a story a volunteer said, referring to a cat, "He doesn't look very happy, does he?" A more fruitful moment for student thinking might have occurred if the volunteer asked, "How does the cat look here?" and then "Why do you think he looks ----?" Similarly, a volunteer asked students "What is the cat doing?" and then "Now, what is he doing?", both of which elicited student comment, and the discussion ended there. The volunteer could have provoked critical thinking by asking "Why is he doing ----?"

There are also times during discussions when the children run off on a lengthy tangent about animals they have seen or pets they have had. The challenge for the volunteer is to sense when and how—particularly by using questioning-- to bring the focus of discussion back to the story and theme, so that the discussion serves as a transaction between children and text.

Extension activities

The extension activities are designed to serve at least two purposes: to sustain student engagement and enjoyment, and to reinforce and extend learning related to key themes. Volunteers choose from several suggested activities—the resource bank includes at least three for each story—and we are able to comment only on those that were used in these sessions. Among these, we observed a wide range of quality in terms of student engagement and evidence of learning. Activities that appeared most capable of simultaneously engaging student interest, tapping their creativity, and extending their learning included:

- Creating a multi-panel cartoon-story following *Ginger Finds a Home*. While this task required careful set-up (folding the paper, understanding the nature of the multi-panel cartoon structure), it effectively elicited creative stories that reflected students' knowledge and feelings.

- Creating the next scene (primarily through illustration but with some writing) from *Duncan and Dolores*. Simpler than the cartoon activity, it enabled students to combine writing and drawing and to reinforce what they learned about human-animal communication and friendship.

- Creating a greeting card following *Freckles and Willie*. Again allowing students to combine writing and drawing in a simple but generative format, working in this genre (greeting card of any kind) reinforced students' taking a perspective and communicating a heartfelt

message to a pet. Several students took the opportunity to write greetings to pets that had died and in other ways to express gratitude to their pets for being fun and good friends.

In contrast, some extension activities seemed to limit, or at least not promote, student engagement and learning. They also seemed to provoke some silliness/distraction in students, which was a contrast to the rapt engagement usually displayed in the reading and discussions. These included:

- Creating a kind of poem about Theodore's guinea pig characteristics by choosing words that begin with the letters of T-H-E-O-D-O-R-E listed vertically. Even the volunteer said she had to use the dictionary to find words starting in O. The students' work products reflected quite contorted efforts to find words that fit the assignment; many were nonsensical or inaccurate, chosen only because the word began with the right letter. Here the form inhibited or derailed, rather than generated, student thinking and learning.

- Asking students to role-play a conversation between Lucky Boy and Mr. Miller, who adopted him. The students were quite confused and reduced to silliness, either because the task was too challenging or not adequately introduced. The volunteer switched to an activity in which students listed words associated with friendship around a drawing of a dog. Students were able to accomplish this and listed many relevant words (loyal, helpful, kind, etc.) but this task undershot their creative capacity where the role-playing probably overshot it.

- The activity that asked students to draw a picture of what cats dream about (after reading *Mrs. Crump's Cat*) was thought-provoking to us as researchers because we could not deduce the activity's objective from seeing the student work products and hearing the volunteer's facilitation of the activity. A number of students had cats dreaming of mice or of being chased by a dog (for example), while others had cats dreaming about playing football. The volunteer praised each drawing as "good" as long as it portrayed something. This led us to ask whether the activity's purpose is to reinforce students' knowledge about cats, invite students to take the perspective of a cat, or simply to engage students in a fun activity. Part of the problem in assessing student learning and ability to take others' perspective here is that we don't really know what cats dream about—perhaps football is one of their dream subjects, along with mice.

Selection of literature

The literature is very carefully selected with clear criteria, and these selections are vital to the success of the program. What is missing, to date, are stories that feature families of color. We know that program staff are aware of this and are searching for more. It is clear to the teachers and volunteers, too, that children need some stories that reflect their own images more obviously.

Carefully adapting to different age levels

Both the teachers and volunteers believe the HEAR program can be relevant to students from 3rd (or even younger) to 6th grade. They find, however, that they need more guidance on

selection of books, questioning strategies, and extension activities to make a reliably good match for the age level. This need has implications both for the bank of resources and for the training of volunteers. It's especially important to remember that the volunteers—while they may have some experience working with children or may even have been teachers—are not expert at classroom instruction or, more specifically, in adapting materials and activities to a range of students.

Being vigilant about triggering children's emotions about pets

In our observations of seven classroom sessions in two sites, we did not directly observe an incident in which a teacher or volunteer was caught unprepared by a student's highly emotional reaction to a story or a personal experience with a pet. When we began studying this project, we did wonder whether this happens and whether the HEAR program prepares teachers and volunteers for it. One of the teachers we interviewed brought up an incident in which a student's experience with a lost dog made him so emotional he could not participate in class, and she felt the HEAR stories had acted as a trigger. The teacher suggests that volunteers and teachers be prepared to address these occasions constructively:

> *He couldn't concentrate because he came in upset already, and I didn't know what had happened, and he pushed one of our other kids…So I think to be alert…just being aware of the behaviors, because when I spoke with him about it and he shared that his dog had just ran away…I think it is great not just for the HEAR volunteer to be aware of that, but also whoever is going to be the site leader, to just to be more aware that other emotions, other things could come up because of their participation in HEAR.*

In this case, the teacher invited the father in and had a very constructive conversation with him about acknowledging his own feelings to the boy and reinforcing his understanding of the closeness of the person/family-pet bond.

One of the volunteers discussed the sequence of books she used, and noted that *Buddy Unchained*—which is her favorite because it addresses the common problem of pet neglect and suffering, and strongly emphasizes empathy—would have been inappropriate as the first book:

> *I really liked [Buddy Unchained] being set back a little bit [in the schedule] because it had really important issues about neglect and it is definitely a sad book…to me it's overall the best book in the program, because it does reach out to the kids and get them feeling that empathy for the animal when the kids are throwing rocks at them and he is on the chain. I like to see the reactions from the kids in that situation. They say, 'oh those kids are mean and if I saw them doing that, I would yell at them' and I think it is great for them to show empathy towards that kind of situation. I think if that was the first book that we started off with it would have been too quick. It was good to start off with a simple, easy book and then get to that place.*

The teacher recommends—and it makes sense to us, given the inherent emotional quality of stories about pets in need—that volunteers and teachers be highly vigilant and well-trained to help students experience difficult emotions that get triggered.

Volunteer training and coaching

A significant strength of the program is the comprehensiveness and specificity of the materials that support implementation of the model. The training day that we observed was well structured and paced and included many experiences that the volunteers found helpful. Volunteers who have experience with other organizations commented that the preparation and support available for this work is far and away more carefully developed than what they have had elsewhere. It is also vital that the HEAR coordinator suggests an order for the books over the five sessions and gives the volunteer the big-picture rationale for the order. Thus, our suggestion here is relatively minor.

The volunteers varied in how much individual coaching they received, and it seems to us that some form of one-on-one coaching before and during the volunteer's first series is essential. One brand new volunteer benefited greatly from working slowly up to leading the sessions herself after working together with a partner volunteer. Another commented that the HEAR coordinator provided helpful coaching with a classroom management issue. The volunteers also commented that hearing praise for what they were doing well motivated them to get even better. As the number of volunteers grows, it seems obvious that they will be an important resource for each other. Having the experienced volunteer at the training was valuable, and paying even more attention—then or in coaching—to practical "how to do it" and "what is the experience really like" would make the training even better.

VI. BENEFITS OF THE HEAR PROGRAM

In a study of this small magnitude that focuses on a program in a fairly early stage of development, it is not possible to "prove" that a model fosters either immediate or long-term student learning and growth. We don't intend discussion in this section to support that kind of claim. Rather, we offer our reflections on benefits that the model appears to have, primarily for students and also for teachers and volunteers.

Benefits to students

With few exceptions, students' rapt attention to the stories and participation in the discussions reveals that they engage in them both affectively and cognitively.[13] We could observe this as researchers, and the children's regular teachers observe this also. Students readily make connections to their personal experiences with pets, and they respond to volunteers' questions with interest and in a way that reveals their comprehension of the characters' interactions and the themes of the stories.

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[13] One volunteer said a few students in one class started out the series acting very silly and not taking the activities seriously, but they became as engaged as the other students part way through, and then contributed to the final discussion of what they were learning about animals and what animals were learning about them. One student remained uninterested until the volunteer tapped his interest in reptiles, which brought him into learning about pet care.

In the students' own words

Three weeks after the 5th session, the 3rd grade students were invited by their teacher to write freely about what they learned and their favorite part of the program. A few students simply said they liked the stories, which indicates at a minimum that the experience left a favorable impression. What some students wrote, though, reveals not only their engagement, but also both the gaining of knowledge and the formation of new feelings, including empathy and care. A few students wrote straightforward pieces about what they enjoyed and learned. An example:

> *My favorite part was when we talk about the difference between dogs and cats. I learned about what animals need to be nurished. (boy)*

Several students displayed changes in their attitudes and feelings of care, as well as their desire to learn even more. Among them:

> *I learned that it is not so bad to have a cat as a pet. Before I thought that a cat would like skrach me. But now I realy want one! ☺ My favorite part was when we learned that it is hard work to have a pet. (cat dog) And they can be a lot of fun to play with. (boy)*

> *I feel like pets shouldn't ever get hurt by people. (girl)*

> *I learned that many animals are in need. I think my favorite part of animals they are cute, fuzzy, and adorable. Lots of things changed the animals had a perfect home. I understand animals because how they look. Still I want to learn more about animals that know one knows. I feel bad for some animals that been hit and hurt. I just love animals and I will never hurt one. (girl)*

The teachers' perspective

We interviewed one teacher who had invited the HEAR program into her classroom the year earlier also, so could speak from both experiences. We also interviewed the director of a community-based after-school program for children in poverty that is also a site for the HEAR program.[14] We asked both people about the benefits they observe for children.

- Builds self-esteem and motivates students to take an important subject seriously

The after-school program manager believes that the HEAR program creates "a safe environment for [children] to be able share their ideas." She believes this is important in creating a strong sense of community:

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[14] After repeated attempts, we were unable to schedule an interview with a second teacher. As is customary in this kind of research, we promised all interviewees confidentiality and anonymity in reporting. We are aware, however, that UAN and HEAR program staff may be able to identify the interviewees by context since so few sites were included in this study. We trust that all parties involved will respect the ethics of confidentiality underlying the research.

I think whenever you give the children a chance to verbalize their thoughts and their feelings, and to know that their ideas, what they are contributing, is being valued--I think that just creates a sense of community within the group.

She also commented that it is beneficial that the students are able to build a relationship with an adult other than the teacher who works with them everyday: "It seems like they are craving that attention from someone, and it is a different type of bond…than having me who they see every day." The teacher also believes it is advantageous that an outside special adult is devoting attention to the children. She believes the program "boosts [her students'] self esteem":

They feel important, feel that their teacher and the adults that came thought they were important enough to come in and talk to about this. That really empowers them to feel like they can take this seriously, and trust their ideas and thoughts about it and talk about them.

She also commented that because the students live in "such a pet culture" but may never have had a pet, it was important that they "really feel like they could discuss it and they have some good information and a good story…kids that have never had anything close to a pet, they are fascinated."

- Stimulates additional student-directed learning

The teacher told us a strength of the program is that it takes place over time in five sessions: "sometimes it takes more than one visit to snap somebody's attention." She observed that some students began independently seeking more knowledge about pets:

Some of them were doing a little research on their own in-between visits…. it really got them to think about things, understand, want to learn more.

She recalled one girl who "got so interested that she was reading all of these books about dogs":

I have a collection of dog books that talk about the different breeds and just general books about dogs being companions to human beings. So, she was even borrowing and taking some of them home to share with her mother…Her mother finally said she could have a dog, and so there is this big project going on in their household, partly because of the program….

One volunteer told us that the school where she was working with children was getting rid of old books and buying new ones, and that because of the interest among children that the HEAR program generated, many of the new books were about animals.

- Builds students' knowledge and potentially affects their behaviors related to caring for pets

While this study can make no claims about long-term effects, there are some signs that the experience makes a strong impression on students that can affect their behavior toward pets. The teacher stated that a major benefit of the program is that:

It really makes it realistic at a young age about what it means to take a pet into the home, that it is a big responsibility and to really think it through …The kids are interested in animals, but a lot

of them really don't have a lot of experience with having a pet, or if they have, it has been really limited or in-and-out kind of thing.

The after-school program manager echoed this benefit, noting that the stories teach students—and by extension, sometimes their families—about the responsibility of pet ownership.

They educate the children on specific things in terms of how to take care of a cat or a dog and teaching them that it is more than just having a pet, it is a lot of responsibility. So, it wasn't just telling a story, it was really trying to educate them, so that they would be able to share that information at home with their parents, because for the most part, some of them had a dog or a cat at some point.

She also said that her students have become more knowledgeable about how to treat pets and about pet behaviors. She saw evidence of the lasting impression that *Oh, Theodore* made on one boy:

A boy in 5th grade has a guinea pig, and so he wanted to bring the guinea pig in, and I said 'sure, that is great.' He brought the guinea pig in and then, without me saying anything, he said 'yeah, but I have to tell the kids what he likes and what he doesn't, because he may bite them.' So he realized that every animal does have specific behavior and I think it all came from the HEAR program.

One of the volunteers engaged her students in her own personal experience of finding a lost dog and attempting to find its family. She talked about the problem that the dog's lack of a collar presented and described flyers she had put up in the neighborhood. She was moved by the students' interest and felt that their reactions signaled an awareness and maybe a capacity to prevent such situations from happening:

They all seemed to really get the idea of how to approach situations like that or what the importance was of having a name tag on your pet or to have the microchip. I heard a lot of stories of kids saying, 'our dog got out and we never saw him again and I miss him.' I could tell the kids were like, 'okay, next time we get a pet, I am going to make sure that if my dog gets out, we make fliers and we put them every where and we go to the pound and so that we can find him again.' So, it was really nice to hear them speak that way, that there was actually a connection made of how to prevent something like that from happening.

- Builds students' empathy and compassion for pets

The after-school program manager noted, as we observed also, that the discussions deliberately aim to develop students' empathy:

[The volunteer] will focus on how the cat might have been feeling or the dog, or also how the adult or the child in the story would have been feeling, so that gets the children to put themselves in that situation …trying to understand the different emotions going on.

The teacher believes that the program helps students "have more compassion" and awakens them to animals' predicaments in new ways. Importantly, she believes the program helps students "understand the problems out there without scaring them about all of the animals that are suffering." She commented that one goal of the HEAR program that especially appeals to

her is to enable children to "become aware of problems and maybe try to think of ways to solve some of these issues…just the idea that they might actually have some power to be able to make changes, speak up , that it is right to care about animals and not want them hurt." Thus, she is pleased to have observed that students are "more aware of what is around them" and that they share more of their experiences in class. She told us:

> *Since the visits especially, the kids will talk about an animal sighting or an animal that they thought maybe was lost or wasn't being cared for that was loose. They notice things. One boy today was really upset because he had seen an animal run out into the street and then its owner really whacked him when he caught him. Just that alertness and sharing it. Some kids might see something like that and not even bother to bring it up, if you hadn't been having discussions along those lines in the classroom.*

The teacher believes that "it is good for them to be able to talk about something like that that is upsetting." On this day, for example, she opened up a discussion about "Sure, it was dangerous for the dog to be in the street, but is there a better way to train them?"

The after-school program manager shares these views and, further, believes she can help sustain them through ongoing work with students that builds on the HEAR foundation. She could, for example, develop an activity—such as a car wash to benefit the SPCA—that would engage students actively in helping and protecting animals. She sees HEAR as being the beginning that can extend beyond the classroom:

> *It doesn't just stay in the classroom, but it is something that the kids get to really experience and give back. I think it has a more lasting effect if it is something that we continue to reiterate and reinforce. They see that this is real and not just a book.*

Benefits to teachers

The HEAR program is not designed to benefit teachers *per se*; however, the teacher and after-school program manager we interviewed identified several benefits, and we imagine that these could extend to others in similar positions.

• Adds joy and creativity to teaching and learning

The teacher told us that, beyond the chance to have someone else "run the show" in her classroom for an hour, the HEAR program simply added happiness to her classroom:

> *I really enjoy teaching and I really enjoy my class…It is so fun to see other adults come in and work with the same group that I have been working with day in and day out…It is just another wonderful experience as a group, learning about something special, and it is so enjoyable, and it makes everybody happy. The parents love hearing about it, too.*

She added that, because of the new "test-oriented" curriculum in her school, she doesn't teach creative writing or art as much as she used to. She believes one reason the children are so engaged in the HEAR program is that "they love to draw and write about things":

…so any chance that they can be a little creative with what they are thinking about, they just love it.

- Addresses a human development issue that teachers care about

Like most teachers, those we talked with care deeply about children's development of compassion as part of their pro-social development. Further, they support the program's long-term mission of empowering children to care for animals, particularly children who are routinely exposed to neglected pets in their neighborhoods. The after-school program manager said that HEAR addresses a personal goal that she has for her children, which is to develop empathy and caring not only for animals but also for family and friends. She imagines extending this foundation with continued reading:

> *Later on if we continue with reading, it is not just about animals, but maybe it is stories about self-esteem or different things about bullying, depending on what is going on with the children. We could bring in reading as a teaching tool and as a shared experience.*

HEAR thus supports part of these teachers' moral philosophy of education. While not all teachers may have a special interest in animal welfare, we suspect that most care about pets to some extent and, especially, want their students to develop compassion.

- Addresses goals for student literacy

The classroom teacher appreciated the ways in which HEAR offered direct support for her school's efforts to achieve standards for literacy. In particular, she noted that HEAR "goes along with our emphasis on reading comprehension as far as being able to discuss the story and respond to new ideas." She said also that the students are more motivated to write about the HEAR literature than the regular test-oriented writing prompts:

> *Sometimes it is hard to get kids to write when we give them tasks for their report cards…They like writing about [these stories]*

The after school program manager commented that the HEAR program built on students' enthusiasm for pets (another staff person had brought her dog as an audience for students to read to) and thus made reading more purposeful and enjoyable for students. She believes the combination of reading, discussion/comprehension, and sharing of personal thoughts and responses will help students academically, which is one of her program's goals:

> *Part of our program is to keep encouraging the children to read and to work on their comprehension...I think teaching the children that there is a message being sent through reading, that there are books that share your own experiences, or books that really educate you, and that you could have a similar experience as another child. If we didn't have the group reading, we would not be able to really learn that from each other.*

Benefits to volunteers

The HEAR program does not focus on the benefits to volunteers but we believe it is important to outline them in this report. We think an appreciation of these benefits can help contribute to recruitment.

- A different outlet for animal lovers

One volunteer commented that animal welfare is her passion but she simply cannot work in animal rescue and adoption because she gets overwhelmed by emotion. Volunteering for the HEAR program was the perfect outlet for her desire to make a difference for animals:

> *I have always been a huge animal lover--that is like my passion in this world. I get very emotional and sensitive about it. I wanted to finally stop turning my head from all of the sad things that would bother me and try to actually work towards the cause for once and instead of saying, 'I am so sensitive, I can't handle it'…So it was perfect timing to be able to volunteer and work with something that I have a passion for…I found it perfect.*

It seems to us that working for the welfare of animals within an educational context with children might be a highly desirable opportunity for a good many people.

- The satisfaction of bringing joy to children and helping both children and animals

Just as the teachers pointed out that having a special visitor made a deep impression on the children, the volunteers felt great satisfaction in bringing special pleasure to children. One of them said, "All of the visits were always really fun." Further, participating in HEAR gave the volunteers an outlet for sharing relevant personal knowledge with children, in one case knowledge about reptiles and other exotic animals that the students were vitally interested but which weren't characters in any of the selected stories.

The volunteers also want to have a positive long-term influence on children, helping the "next generation" contribute to a more humane environment for animals. One said "I hope I'm making a difference for animals and kids."   Over time as the program grows, benefits may arise that go beyond the immediate feeling of satisfaction: one volunteer told us "Through this program, I have decided to become a teacher."

<div align="center">VII. IMPLICATIONS OF THIS STUDY</div>

This is a small-scale study of a model in its early stages, so it is premature to make bold claims. Nonetheless, what we observed suggests that the HEAR model, when strengthened and expanded, has real potential to contribute to children's education and development. We identify broad implications here.

Implications for humane education

- The HEAR model represents an innovation beyond "one-shot" humane education.

The classroom teacher we interviewed had had a prior experience with a more traditional form of humane education, in which an animal control officer visited the class and brought along a rescued dog that the children could meet. She said the experience "opened the eyes" of some of her students, many of whom had never interacted with a dog or were terrified of dogs because they had only seen them chained in back yards. While that experience was very positive according to the teacher, she added that "It was a one-shot. What is really nice about the HEAR program is over time, because sometimes it takes more than one visit to snap somebody's attention."

As noted before, teachers tend to foster students' ongoing interest between the multiple sessions of HEAR and after they are over. This teacher's comment implies that schools are an important setting for humane education because teachers have expectation, and schools provide capacity (e.g., libraries, web access), for serious, ongoing study:

> *I think because they are hearing about it in a school setting, that gives it weight, and because I make a big deal and always share the materials, and we go to the website when we went to the computer lab and so they could see some other aspects to it, also.*

- The HEAR model has a design that makes it feasible for wide-scale dissemination.

The HEAR model is very well specified and, while it has multiple components, it is not overly complex. Volunteers can do a reasonably competent job after a day of training and some coaching, as long as they adhere to the lesson scaffolds and materials. These features make it fairly easily replicable and thus, at least hypothetically, scalable.

Implications for school-based education

- HEAR can infuse seamlessly into language arts curriculum.

We as researchers and the teachers agree that the HEAR program, when implemented optimally, creates learning opportunities that are important and appropriate to these age levels. In other words, it is a natural fit for elementary education. Both the teacher and the after-school program manager agree that nearly all children are naturally interested in animals (including pets) and are also capable of feeling empathy and learning compassion. The teacher put it this way:

> *It is such a good age to catch them. One of the reasons that I like this particular age [3rd grade] is that they really are very pure in many ways. They really want to do the right thing, unless they are really unhappy about something terrible that is happening to them. They really have a lot of energy and they are just discovering the world and what they can do.*

- The HEAR model is feasible for dissemination as teacher-led curriculum.

We noted earlier that a strength of the program is the specialness of having a guest adult read to the students. Nonetheless, both we as researchers and the teacher that we interviewed believe that the HEAR model could also be designed and distributed as a teacher-led curriculum unit. The teacher noted (and we agree) that each session has all the parts of a "classic language arts lesson": an important theme (such as human-animal bond), well-selected quality literature, skillful reading of picture books, well-facilitated discussion of the theme to foster student-text interaction, and follow-up creative activity involving writing and art. Her comment below shows how well the model matches her own schema for effective language arts instruction, implying that she could easily apply her own teaching skills to implement the HEAR curriculum:

> *The strongest part is having [the program] literature based. I think it really is effective because they are at school… The literature selections are just right. The students remember the titles. The picture books are so good--they have fairly complex text and ideas, and if you are reading through as a group, it is nice to have some good illustrations… It is very high level because what is being asked of them is to respond verbally and that is so important. I like the chance for discussion while they are working on their projects too and being able to talk to each other.*

Directions for further research

Our study had several purposes: to portray the model as it works with children, to formatively assess the nature and quality of implementation in a pilot site, and to reflect on apparent benefits to children. Additional studies would help strengthen the program and contribute even more to its growth. These are some questions that we believe merit further study.

- What are important variations in the model that would best serve students of different ages?
- How does the model play out in non-school informal or semi-formal educational settings?
- How do the benefits to children vary across different contexts (age levels, educational settings)?
- What are the lasting effects and longer-term benefits to children?
- What is the optimal training and support program for volunteers?
- What would be the advantages and disadvantages of creating a model for teacher-led implementation?

Because the potential benefits to children are so great, and there appears to be such a strong "fit" between this model, teachers' moral philosophies, and educational goals for children, we believe these questions could well be of interest among graduate students in Education. Partnering with educators to sponsor research could mutually benefit UAN and universities.