

Pets in the Classroom Study Phase I Findings Report

American Humane Association
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pets in the classroom





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Helping care for a furry or scaly class pet can be a fun and exciting exercise for any schoolchild. But did you know that having a hamster, guinea pig, lizard or even goldfish in the classroom has real educational, leadership and character-building value? Moreover, a class pet can teach children important values like compassion, empathy, respect, and responsibility for other living things, as well as give them much-needed leadership skills and stress relief.

That's what American Humane Association researchers found out while compiling the results of the first phase of the two-phase **"Pets in the Classroom"** study, which you will read about in these pages. The study's objective is to advance the research of Pet Care Trust's Pets in the Classroom program, which provides grants to Pre-K through eighth grade educators to adopt and provide ongoing care for small animals in their classrooms.

Certain challenges still remain, according to the study's findings, like teaching children to cope with pet loss, the cost of ownership for teachers, and responsibility for the animal when school is not in session.

The results from this phase not only provide important contributions to this exciting area of human-animal interaction research, but they also highlight the welfare needs of classroom pets. We hope through this study to examine and measure the degree to which these animals can help develop young people's academic growth and social and leadership skills, as well as instill in them the vital value of compassion, which will benefit them, the world's animals, and all of us throughout their lives.

Thank you to Pet Care Trust for the generous grant to American Humane Association to conduct this important study, and thank you for your interest in helping us to build a better, more humane world for our children and animals.

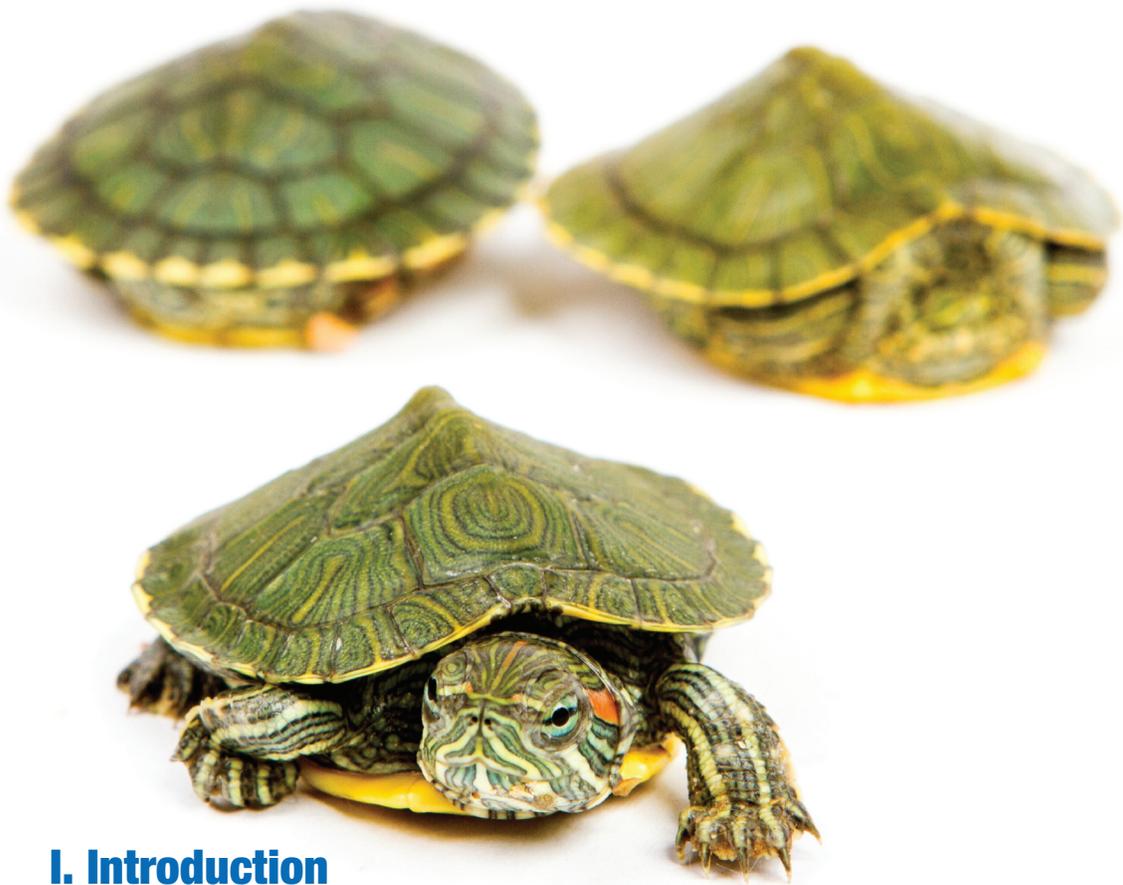
With kind regards,

A handwritten signature in black ink that reads "Robin R. Ganzert".

Robin R. Ganzert, Ph.D.
President and CEO
American Humane Association

A handwritten signature in black ink that reads "Amy McCullough".

Amy McCullough, Ph.D.
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I. Introduction

In September 2014, Pet Care Trust and American Humane Association formed a collaborative partnership to advance the state of research on pets in the classroom, and the conscientious use and care of animals to enhance learning, compassion, and pro-social behavior among students. The overall goals of this partnership are twofold: 1). To inform Pet Care Trust's Pets in the Classroom (PIC) Program, an educational grant initiative that provides financial support for teachers to adopt and maintain small animals in their Pre-K – 8th grade classrooms, and 2). To measure the social, behavioral, and/or academic effects of PIC classroom pets for children enrolled in select elementary level classrooms across the U.S. and Canada.

American Humane Association aims to conduct the *PIC Study* over two project phases. The first phase, which is the focus of this findings report, consisted of surveying and interviewing teachers who had received a PIC grant and had cared for their classroom pet for at least three months. From November 2014 to February 2015, nearly 1,200 teachers either completed a short online survey or participated in a brief telephone interview with an American Humane Association researcher. In few cases, there was overlap, with a small number of teachers taking part in both the survey and interview.

The primary research objectives of the *PIC Study* are as follows:

- 1) To gain valuable insight from teachers, who have received a resident classroom pet through the PIC Program, on how classroom pets are currently utilized across the U.S. and Canada, as well as what the perceived benefits and challenges are of keeping pets in today's classroom environment ("Phase I")
- 2) To inform the future design of a rigorous study (based upon the findings from Phase I) to measure the impact of classroom pets among children in select U.S. and Canadian elementary schools ("Phase II")



II. Executive Summary of Phase I Findings

Overall, while numerous and relatively diverse viewpoints were proffered by Phase I participants, certain distinct themes emerged regarding the primary uses, benefits, and challenges of having classroom pets. According to participating teachers, the top three most common ***uses*** of classroom pets were to: **1)** encourage responsibility and leadership among students; **2)** provide calm and relaxation when children are stressed or when their behavior is unstable, especially for children with Autism Spectrum Disorder (ASD) and other special needs; and **3)** enhance lessons regarding science and nature. Similarly, most teachers believed the top three ***benefits*** of classroom pets for children were to learn about: **1)** animal care and compassion; **2)** responsibility; and **3)** science and nature. Finally, the top three ***“school-specific” benefits*** of classroom pets reported by teachers included improvements in: **1)** classroom social interactions; **2)** behavioral issues in the classroom; and **3)** class participation.

Teacher participants also reported some challenges associated with having classroom pets. The top three most frequently reported ***challenges*** were: **1)** being responsible for additional costs (outside of the Pet Care Trust monies) to care for the animal over the course of its lifespan; **2)** caring for the animal outside of school hours and on holiday breaks and vacations; and **3)** managing the students’ interactions with the animal. As illustrated further in this report, teachers were quite thorough when discussing their first-hand knowledge and experiences, making these Phase I findings meaningful contributions to the PIC Program and to the human-animal interaction (HAI) field as a whole. Moreover, these findings have informed Pet Care Trust and American Humane Association in the design and implementation of an evidence-based study to measure the effects of classroom pets, to be conducted during Phase II.

III. Background and Significance

For many people, animals and pets take center stage in their daily lives, offering comfort, purpose, joy, and for some, even kinship. Currently, U.S. families own approximately 70 million pet dogs and 74 million pet cats, with most considering their animal companions to be valued members of the family (American Veterinary Medical Association, 2015). Animals, whether they be beloved pets, characters in a favorite bedtime story or imaginary friends, are often particularly important for children in the family (Melson, 2001). Indeed, children are often naturally drawn to animals and incorporate animal-related themes during play and other creative activities (Melson, 2001; Wilson, 1984). Moreover, several studies have highlighted the valuable role that companion animals play in the healthy development of children, particularly in regards to pro-social skills and empathy (Melson & Fine, 2006; Poresky & Hendrix, 1990; Vizek-Vidovic, Stetic, & Bratko, 1999). According to Melson and Fogel (1989), pets may be particularly helpful for boys in their development of nurturing behaviors.

Given the numerous benefits of family pets for children and youth, it is generally assumed that classroom pets also help children thrive – both at school with their teachers and classmates, and in their overall socio-emotional development (Daly & Suggs, 2010). This assumption has led to the frequent presence of pets in school classrooms (Gee, 2010). Although limited, current research indicates that classroom pets may indeed

have positive effects for school children, both in the U.S. and abroad. Like Phase I of the *PIC Study*, several research studies (Daly & Suggs, 2010; Rud & Beck, 2003; Zasloff, Hart, & DeArmond, 1999) have sought the perspectives of teachers regarding the use of pets in the classroom. Overall, surveyed teachers have reported that classroom pets (typically small animals, such as hamsters or turtles) are often used to instill respect in children for both animal and human life; guide children in the conscientious care of the animal and his/her habitat; integrate humane curricula across subjects; encourage student interest in animal science and behavior; motivate children to actively engage in school; modify and manage any problem behaviors among students; and teach children about important life events, such as death and dying (Daly & Suggs, 2010; Rud & Beck, 2003; Zasloff, Hart, & DeArmond, 1999). In addition to having a resident pet, most teachers remarked that they have incorporated some type of humane education into their lesson plans, ranging from observing birds in nature to interacting with visitor animals to utilizing formal humane education materials (Rud & Beck, 2003; Zasloff, Hart, & DeArmond, 1999). However, according to Daly and Suggs (2010, p. 109), research regarding the use of classroom pets “within the context of humane education” continues to be lacking and is a research area that should be pursued further.

According to teachers, having a classroom pet is associated with many benefits for school children. In general, surveyed teachers believed that several of the aforementioned motivations for adopting a classroom pet (e.g., instilled respect for life among children) were realized. In addition, some teachers observed that bonding with the pet helped with the children’s emotional expression of affection, and that interacting with the animal was a special and unique opportunity for those children without pets of their own (Zasloff, Hart, & DeArmond, 1999). Teachers from more than one study also specifically mentioned the positive impact they believed classroom pets had on the children’s language and vocabulary development, as well as writing (Daly & Suggs, 2010; Zasloff, Hart, & DeArmond, 1999). In the only known controlled animal-assisted activity (AAA) program utilizing guinea pigs in school classrooms (in Australia), O’Haire, McKenzie, McCune, and Slaughter (2013) found that children who cared for, and interacted with, classroom guinea pigs demonstrated significantly greater increases in social skills and decreases in problem behaviors when compared with their peers who were waitlisted to receive the AAA intervention. According to O’Haire et al. (2013), the guinea pigs may have possibly introduced a calm presence into the classroom, thus allowing students to feel safe in their social interactions with each other.

Similarly, two previous studies involving classroom dogs in Viennese elementary schools found that the presence of the dogs nurtured a more socially cohesive and integrated environment, with fewer aggressive (Hergovich, Monshi, Semmler, & Zieglmayer, 2002; Kotrschal & Ortbauer, 2003) and hyperactive (Kotrschal & Ortbauer, 2003) behaviors among students. Kotrschal and Ortbauer (2003) found these effects to be especially pronounced for boys, and noted that increased classroom cohesion was helpful for those children who tended to be socially withdrawn. The fact that animals often serve as “social lubricants” or catalysts for social interaction most likely contributed to these findings (McNicholas & Collis, 2000). Moreover, Hergovich et al. (2002, p. 37) demonstrated that child-dog interactions in the classroom promote young children’s development of autonomous functioning and self/non-self segregation, both of which are “the foundation of sensitivity towards the needs and moods of other people.” These findings have broad and promising implications for a classroom pet’s ability to encourage pro-social skills and to foster empathy among school children. However, as O’Haire et al. (2013) highlight, dogs do not typically serve as classroom pets. Thus, additional research is needed regarding the specific impact of commonly utilized classroom pets – small animals - on children’s empathy development.

Previous research has underlined the potential of humane education to cultivate caring for animals, as well as compassionate understanding of others. Ascione and Weber (1996) found that 40 hours of humane education curricula - blended with the teaching of other classroom subjects - over the course of one school year had positive effects for a sample of elementary school children, especially those at the fourth grade level. Those children who experienced humane education demonstrated enhanced attitudes toward animals, with evidence that these effects were maintained at least one year post-intervention. Moreover, Ascione and Weber (1996, p. 192) found that enhanced animal attitudes generalized to human-directed empathy, particularly for those children who were highly involved or had “quality relations” with their pets at home. It is important to note that this study did not incorporate classroom pets into the humane education intervention, thus it is currently unclear whether the presence of an animal (either alone or in combination with formal humane education) would generate similar effects. Nevertheless, these findings indicate that lessons involving the humane care and consideration of animals and their wellbeing can be effective modes of increasing “children’s sensitivity toward other living beings” (Ascione & Weber, 1996, p. 193).

The *PIC Study’s* Phase I findings build upon this research, and are unique in that they provide up-to-date information from those teaching in today’s classroom environment, as well as diverse teacher perspectives from multiple classrooms and age/grade levels. While much of the previous research summarized above has focused on elementary school classrooms, the *PIC Study* has expanded its population of interest to include students in pre-kindergarten through middle school. In addition, most of the existing research includes samples that were narrowed to one state or region; in contrast, Phase I of the *PIC Study* has allowed American Humane Association researchers to compare teacher perspectives across states/regions/provinces/territories in both the U.S. and Canada (where PIC classrooms are currently located).



IV. Methods

A. Participant Recruitment and Selection

In October 2014, 5,000 teachers were selected by Pet Care Trust and recruited by Pet Care Trust and American Humane Association to participate in an online survey, with the intent of obtaining a sample of at least 1,000 survey respondents. Likewise, 250 teachers were selected by Pet Care Trust and recruited by Pet Care Trust and American Humane Association to participate in a telephone interview, with the intent of obtaining a sample of approximately 50 teachers willing to be interviewed. Both groups were recruited via purposive sampling, based on the following criteria:

- Eligible teachers needed to have received a PIC grant to adopt a classroom pet, which required that they:
 - Teach students between the grade levels of Pre-Kindergarten and 8th grade
 - Live in either the U.S. or Canada
- Eligible teachers had to have had the animal(s) in their classroom for at least three months (or approximately one school term) in order to allow enough time for teachers to comment on their experiences and perspectives of having a classroom pet

In late October 2014, American Humane Association piloted the survey and interview questions with a small sub-sample of eligible teachers selected by Pet Care Trust. This pilot testing process confirmed that the questions were useful and appropriate to conduct the study.

In November 2014, Pet Care Trust recruited the 5,250 selected survey and interview participants via outreach emails written by American Humane Association. Potential survey participants were provided a link to the online survey, while potential interviewees were asked to provide their contact information and interview availability.

Since initial recruitment for both groups was slower than anticipated, the following recruitment protocol modifications were made in January 2015:

- The pool of potential participants was increased by 41,835 teachers (half of these teachers were emailed to participate in the survey, and half were emailed to participate in the interview)
- Outreach was further expanded in early 2015 to include six posts on the Pet Care Trust Facebook page, asking eligible teachers to take part in the survey or interview
- To further incentivize participation, all teachers who had responded and/or participated in a survey or interview were entered in a drawing to win one of five \$100 Amazon Gift Cards (provided by Pet Care Trust)

By February 2015, 1,131 teachers had completed the online survey, and American Humane Association researchers had interviewed 41 teachers by telephone, achieving theoretical saturation.



B. Protocol Development

Upon completion of a literature review regarding the applications and effects of classroom pets (see “Background and Significance” above), American Humane Association researchers conceived of questions for both the online survey and telephone interview. Both participant groups were asked to comment on how they typically utilized the pet(s) in their classroom, as well as the primary benefits and challenges of classroom pets for their students. In addition, the interview included questions geared toward the feasibility and design of future research (i.e., Phase II).

The final online survey consisted of 22 total questions, including demographic inquiries. Twenty-one of these were multiple-choice questions, although most included an “Other” option where teachers could provide an individualized and/or expanded answer (**See Attachment 1: PIC Online Survey Questions**). Additionally, all 10 of the interview questions were open-ended (**See Attachment 2: PIC Telephone Interview Questions**). Both the survey and interview took approximately 10 – 30 minutes to complete, depending upon how much information the teacher chose to share.

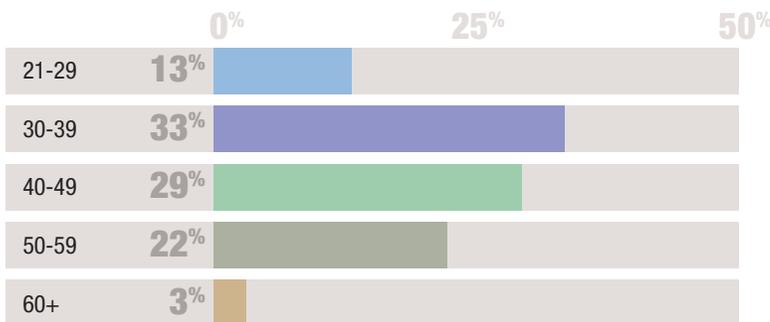
American Humane Association’s Institutional Review Board (IRB) approved these protocols initially in September 2014, and then again in January 2015 when modifications to increase enrollment were needed. Each participant signed an informed consent form prior to participating, as well as completed demographic questions.

V. Participant Demographics

A. Teacher Demographics – Survey

Age of Survey Respondents

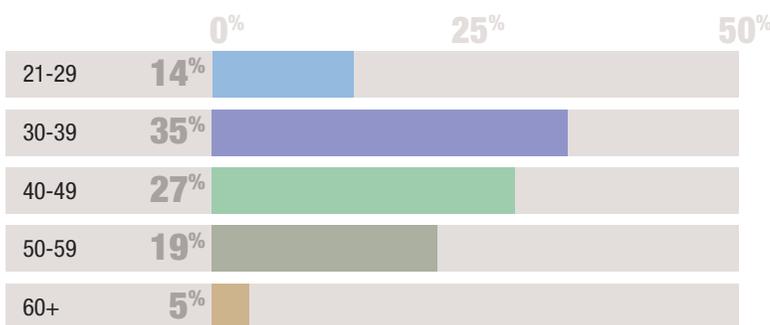
Figure 1



Over a period of approximately 3.5 months, 1,131 teachers completed the online survey. Most survey respondents (33%) were aged 30-39 years, followed by 40-49 years (29%) and 50-59 years (22%). Very few were over the age of 60 (3%), and none were younger than 20 (See Figure 1). The two most common categories for number of years teaching were represented by those teachers who had been teaching for 21 years or more (20.9%), and those who had been teaching for 7-10 years (20.3%).

Age of Interview Respondents

Figure 2



In addition, the survey respondents were overwhelmingly female teachers (93%), with only six percent identifying as male. Three respondents selected “Other” and 13 respondents skipped this question (regarding sex/gender). Approximately 88 percent of the respondents identified as White/Caucasian, with nearly an equal percentage of teachers (approximately 5% each) selecting African American or Hispanic American as the race/ethnicity that best described them. Approximately one percent of respondents identified as American Indian/Alaskan Native, as well as Asian/Pacific Islander.

Survey respondents primarily hailed from the U.S. (98% of respondents), with all 50 states (plus Puerto Rico) being represented. The most common U.S. locations were Florida (9.4% of respondents), Texas (8.8% of respondents), California (6.7% of respondents), North Carolina (5.5%), Georgia (4.9%), Pennsylvania (4.5%), and Illinois (4.4%). Conversely, approximately one percent of respondents were from Canada, and 5 of the 13 Canadian provinces and territories were represented; the most common Canadian locations were Ontario (0.72%) and Alberta (0.27%). Only one percent of survey respondents skipped this question.

B. Teacher Demographics – Interview

Over a period of approximately 3.5 months, 259 teachers completed the online Interview Availability and Background Information Survey. Of those 259 teachers, the first 60 were approached and 41 teachers were ultimately interviewed. The majority of the interviewees were aged 30-39 (35%) and 40-49 years (27%) (See Figure 2). The most common responses for number of years teaching were 7-10 years (25%), 4-6 years (22%), and 21 or more years (17%).

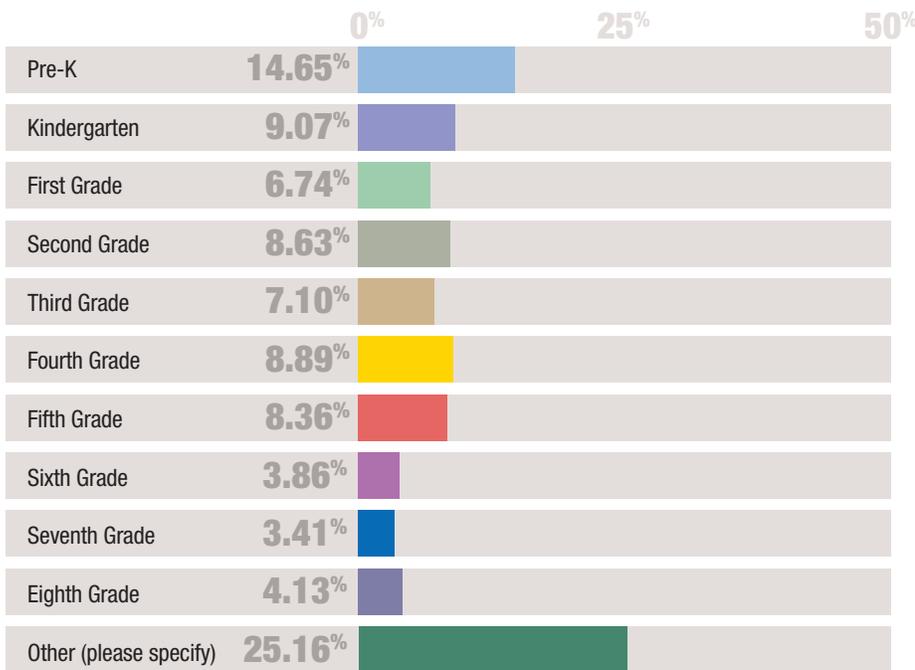
In addition, the interview respondents were overwhelmingly female teachers (89%), with only 11 percent identifying as male. Approximately 80 percent of the responders identified as White/Caucasian, with nearly an equal percentage of teachers (approximately 8.5% each) selecting African American or Hispanic American as the race/ethnicity that best described them. Three percent of respondents chose not to answer this particular question.

C. Student and Classroom Demographics – Survey

Most teachers who completed the online survey taught younger children, with Pre-K only teachers comprising 14.6 percent of respondents and Kindergarten only teachers comprising 9.13 percent. Teachers who taught

Grade Taught by Survey Respondents

Figure 3



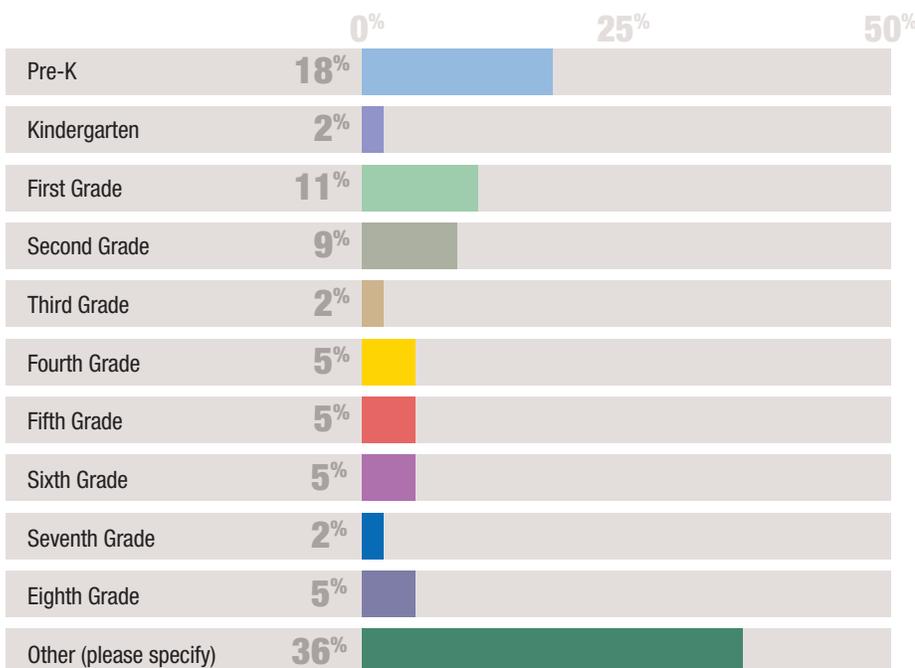
fourth grade only (8.9%), second grade only (8.7%), and fifth grade only (8.3%) were also relatively common. The lowest percentage of survey respondents taught seventh grade only (3.35%) (See Figure 3).

The majority of survey teachers remarked that they taught either numerous grade levels (e.g., “3-6”) and/or certain types of students or subjects [e.g., “Preschool Program for Children with Disabilities”, “Special Education” (n = 53), “Life Science”, “Technology K-3”, “Gifted Intervention, Grades 1-8”, etc.]. Most surveyed teachers had either an average of 11-20 students in their classroom each day (31.3%) or 21-30 students (30.2%).

D. Student and Classroom Demographics – Interview

Grade Taught by Interview Respondents

Figure 4



Most teachers who participated in the interview taught mixed grade level classrooms (36%), followed by Pre-K only teachers (18%). Teachers who taught first grade only (11%) and second grade only (9%) were also relatively common (See Figure 4). Similar to the surveyed teachers, interviewees tended to have either an average of 11-20 students in their classroom each day (38%) or 21-30 students (30%).

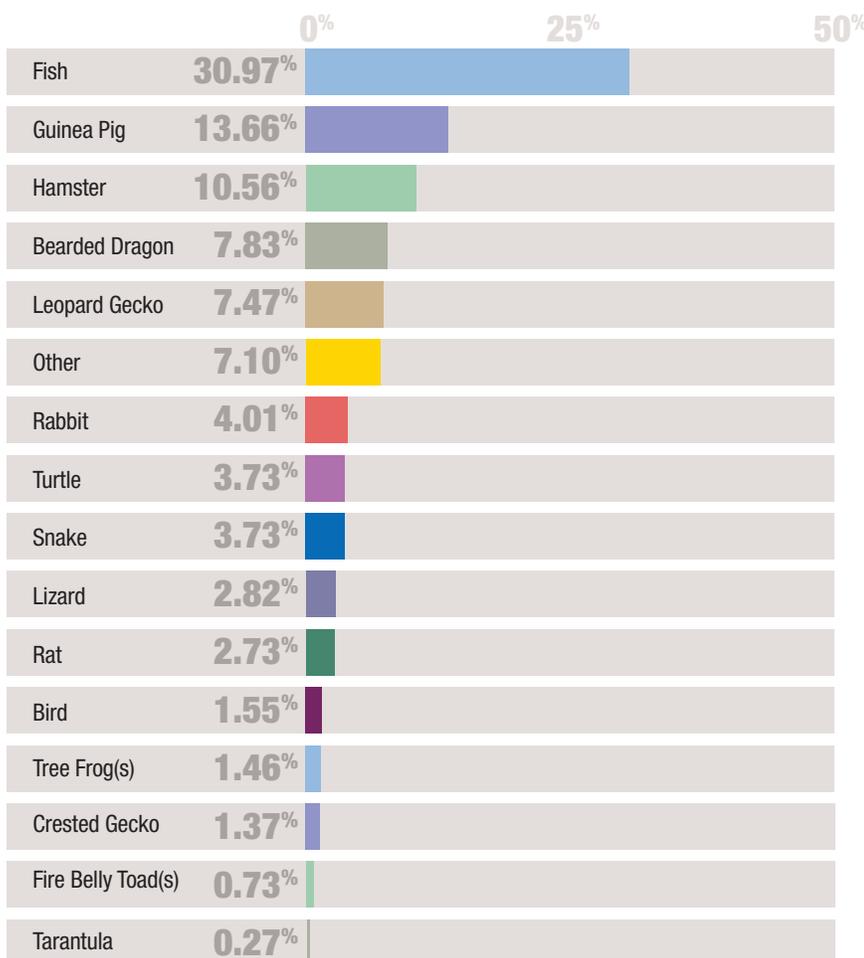
E. Household and Classroom Pet Demographics – Survey

Perhaps not surprisingly, almost 90 percent of survey teachers shared that they owned a pet in their home, with dogs (77%), cats (46.7%), and fish (31.2%) being the most popular type of animals. Interestingly, the least common household pets among responding survey teachers were rats (2.4%), as well as hamsters and horses (both 3.8%). Other pets owned by teachers included chinchillas, chickens, cattle, goats, pigs, ducks, and hermit crabs (among several others).

By far, the most common classroom pets adopted by surveyed teachers were fish; 31 percent of surveyed teachers had fish in their classroom. The next most common type of classroom pet was the guinea pig (13.7%), followed by the hamster (10.5%), the bearded dragon (7.8%), and the leopard gecko (7.3%). The least common classroom pets among the listed choices were tarantulas (0.27%) and fire belly toads (0.73%)

Type of Classroom Pet- Survey Respondents

Figure 5



(See Figure 5). Hermit crabs were also popular classroom pets, although they were not included in the survey’s list of choices. Several teachers also owned more than one classroom pet, such as a “rabbit, hamster, fish, 2 turtles,” “fish and lizards,” and “Beta Fish and Dwarf Frogs.”

Most of the teachers surveyed had had their classroom pet for either 1-2 years (30%) or for 3-6 months (29%). Only seven percent of teachers had had their classroom pet for less than 3 months. Similarly, most teachers reported their pet’s age to be 1-2 years (29%) or 7 months to 1 year (21%). 12.7 percent of teachers reported that they did not know the age of their classroom pet. Very few classroom pets (0.9%) were younger than 1 month.

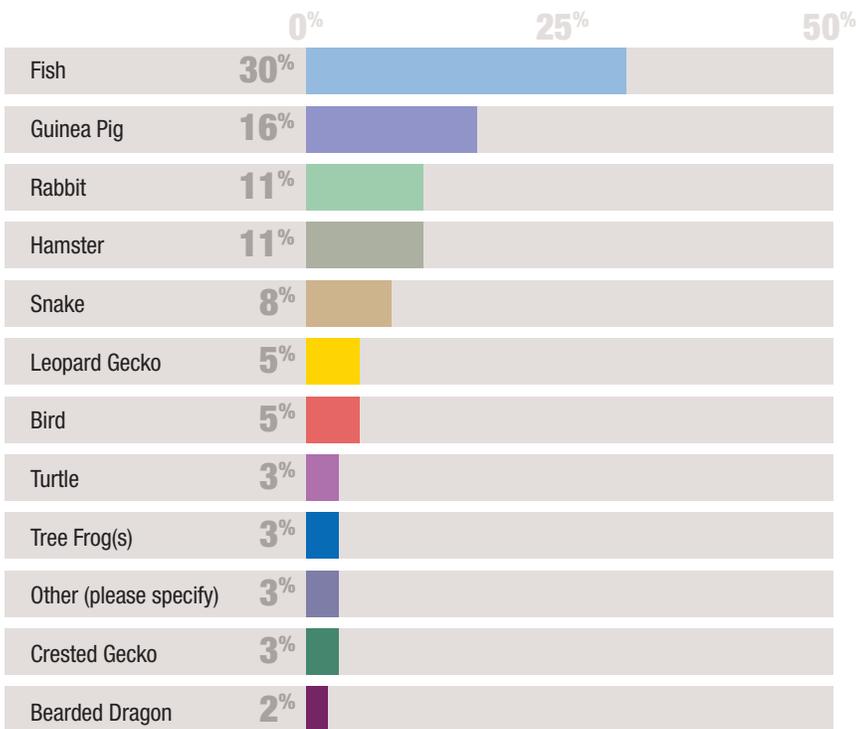
F. Household and Classroom Pet Demographics – Interview

Similar to the survey respondent demographics, approximately 86 percent of interviewed teachers shared that they owned a pet in their home, with dogs (34%), fish (19%), and cats (17%) being the most popular animal types. Other pets owned by teachers included reptiles, rabbits, guinea pigs, livestock, and pigs.

As seen in the surveys, the most common classroom pets adopted by interviewed teachers

Type of Classroom Pet- Interview Respondents

Figure 6



were fish; 30 percent of interviewed teachers had fish in their classroom. The next most common type of classroom pet among interviewees was the guinea pig (16%), followed by hamsters and rabbits (11%, each). In contrast to the survey participants, the least common classroom pets among the listed choices were bearded dragons (2%) (See Figure 6).

Most of the interviewed teachers had had their classroom pet for either 3-6 months (38%) or for 1-2 years (30%). Eight percent of interviewees had had their classroom pet for less than 3 months.

VI. Survey and Interview Findings

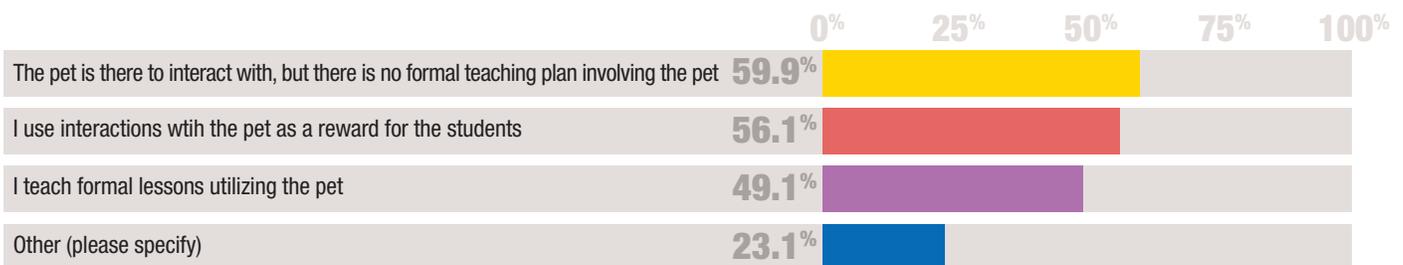
Uses and Applications of Classroom Pets

In response to the survey question, “How do you use your classroom pet?”, nearly 60 percent of surveyed teachers responded by selecting, “The pet is there to interact with, but there is no formal teaching plan involving the pet.” Conversely, 49 percent shared that they do teach formal lessons that utilize or integrate the classroom pet in a purposeful way (See Figure 7).

Clearly, some surveyed teachers utilized their classroom pet both “formally” and “informally.” Likewise, analyses quickly revealed that there was little consensus on what teachers considered to be formal vs.

How Do You Use Your Classroom Pet?

Figure 7



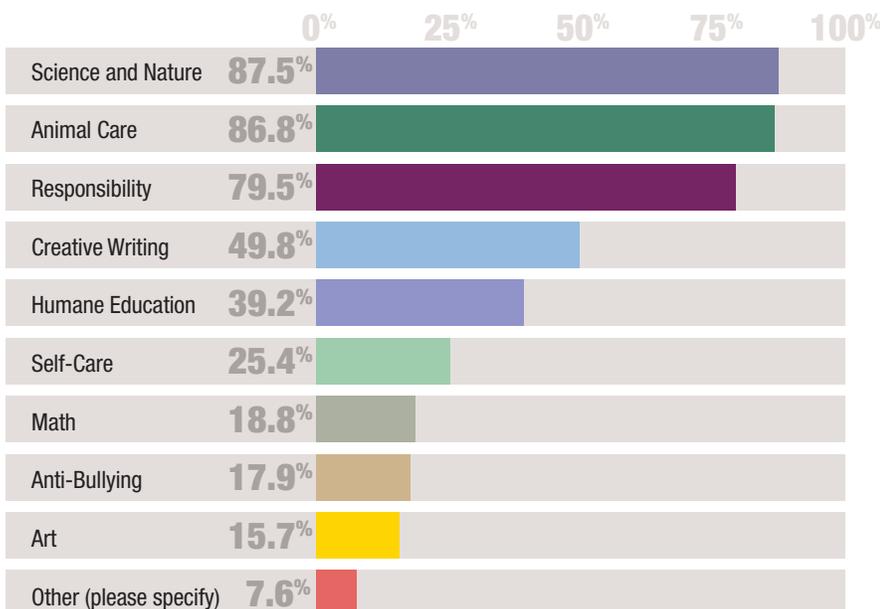
informal lessons (e.g., the use of pet care in order to encourage or teach responsibility was viewed differently according to individual teachers' perspectives). **Figure 8** below shows how animals were utilized by surveyed teachers who shared that they integrated their classroom pet into *formal* lesson plans, with “Science and Nature” lessons being the most common and “Art” lessons being the least common, among the provided response options.

In addition to the options above, nearly eight percent of survey respondents shared “Other” modes of formally incorporating pets into their lesson plans. These diverse applications included the following:

- Non-fiction and technical writing, including grammar and research
- Speech and language therapy, including foreign language (i.e., Spanish), communication, and oral presentations/public speaking
- Reading
- Democracy, including voting on the pet's name
- Inquiry – how to ask good questions
- Health and Nutrition
- Music, including creating songs about the classroom pet
- Religion
- Peace and compassion

Types of Formal Lesson Plans Utilized

Figure 8



Approximately 56 percent of surveyed teachers remarked that they used interactions with the pet as a reward and/or motivation for positive student behavior (**See Figure 7**). “[The Leopard Gecko] has been a good incentive for some students to work hard and behave properly,” said one surveyed teacher. Another indicated that opportunities to care for the pet outside of school would be granted to those students who had earned the privilege: “Students with the most stickers at the end of week take home the Beta Fish [for the weekend].” Most interview participants also mentioned leveraging time with classroom pets to promote good student behavior and/or academic achievement. In fewer cases, interviews revealed that pet care (e.g., cleaning dirty cages or soiled bedding) was also used to discourage negative classroom behaviors.

Finally, 23 percent of surveyed teachers selected the choice “Other” in response to the question, “How do you use your classroom pet?” and provided their own individualized perspectives (**See Figure 7**). In the following paragraphs, we discuss these “Other” perspectives from the survey, as well as thoughts and experiences shared by interview participants. Overall, survey and interview participants tended to use their classroom pets in very similar ways, as outlined below by nine primary themes (A – I).

A. Encouraging Responsibility and Leadership

Far and away, the most common use of classroom pets among surveyed teachers was to build responsibility and leadership among their students, particularly in the area of caring for other living things (primarily feeding, watering, grooming, cleaning enclosures/aquariums, providing attention and opportunities for physical activity, and/or enriching the animal's environment). "I teach [the students] how to care for the pet and to always put the pet's needs first," remarked one teacher. "Student enthusiasts share their knowledge with other interested students," stated another survey respondent. "These students also direct younger students on the care, feeding and handling [of the animal]." The use of animals to encourage responsibility and leadership was also a very common theme among interview participants.

Often, teachers in both the survey and interview group shared that their students would perform a designated and regular (e.g., daily or weekly) role as the classroom's official pet caretaker (or "pet helper," "zookeeper," "veterinarian helper," "[pet] parent," etc.). While these jobs were typically assigned as part of either a reward or rotating system, one teacher stated that s/he had "the students fill out job applications and go through an interview to help take care of the pet." This process not only ensures that the student is prepared to properly care for the animal, but also exemplifies the usefulness of classroom pets in teaching children "practical life skills" and "responsible pet care and ownership." Remarketed one survey teacher,

"I have truly been amazed by the excitement the students have about caring for the animal. They count the days until it is their turn. They take this job very seriously."

B. Providing Calm, Relaxation, and Relief from Stress and Anxiety

According to many survey and interview participants, another common use of classroom pets (particularly fish) was to bring a sense of calm and relaxation to their students. One participant shared that, "watching the fish helps students relax and is a great change of pace from electronics and the busy lives that most of [them] experience." Moreover, classroom pets were described as being particularly helpful for children who are stressed, tense, or in need of de-escalation. "To see a child light up when it is their turn to feed [the pet], or to quietly sit with an upset child and just... watch... as they calm, is such a gift," shared one teacher. In addition to the animals themselves, "the sights and sounds" of the fish aquariums were also described as a unique "calming force" in the school environment. For example, one teacher believed that, "the sound of [running] water is soothing in the classroom."

Several teachers stated that they often used the calming effects of their classroom pets to specifically address the needs of their students with ASD, behavioral challenges, and/or learning differences. One teacher said, "I have invited students with behavior disorders who are acting out to come and look at the fish, and they are instantly calmer," while another remarked, "The children and adults alike are able to relax and get distracted from [the child's] illness or pain when observing the fish." In addition to fish, other animals were also used by teachers to help struggling children with special needs relax. "I work with students with learning differences," stated one survey respondent. "Maggie (the guinea pig) is very calming to many of them when they are feeling upset or frustrated," s/he continued. One surveyed teacher went as far as to characterize the classroom pet (unspecified species) as "therapeutic for my students with Autism."



C. Bringing Science and Nature Lessons to Life

A large number of teachers who completed the online survey and telephone interview stated that they used the classroom pet to help illustrate scientific concepts, including habitats, ecosystems, environmental conservation, climate, life cycles, genetics, reproduction, adaptations, and animal behavior. One surveyed teacher, who had adopted a red-eared slider turtle for her classroom, remarked, “It’s cool for the students to get to see hibernating happen since in the wild you don’t really come across hibernating animals because they hide themselves so well.” Likewise, concepts such as the pet’s diet and their role in the food web were also included in many of the teacher’s lessons, and across grade levels. One 7th grade science teacher, who participated in a telephone interview, remarked:

“[Having a classroom white tree frog] makes the lesson come alive. When I am talking about a particular animal biology or behavior lesson, it is right there in the classroom to observe. I don’t have to rely on a picture or a book or a video. When we are talking about the food web and we feed him live crickets, they can observe it happening in real time. He puts the skin on the lesson.”

The ways in which animals were used to teach scientific concepts was rich and varied. For example, a teacher who taught multiple grades in her classroom, said, “The younger kids created ‘dream homes’ for [the pet] after a unit on habitats, while the older kids keep records of length and weight to measure [the pet’s] eating habits and growth patterns.” One survey respondent used the responsibility of properly caring for the classroom fish to “teach students to monitor water pH” and to “show the [potential] results of pollution.” Other participants from both groups remarked that instances of pet loss in the classroom were useful tools in teaching younger children about the stages of life, including death and dying. Animals were also used to discuss human biology, as well as choices we can make to advance our own health and wellbeing.

D. Enhancing Reading, Writing, and Storytelling

The educators we surveyed and interviewed frequently mentioned the use of classroom pets to enhance “language arts” (i.e., reading and writing) lessons. Several teachers commented on the positive impact their classroom pet had on the literacy and comprehension skills of their students. Here are several examples of these remarks:

“Students love reading to the pet because the pet just listens...or tries to chew on their book.

The children love reading to our bearded dragon. He cocks his head as if he is actually listening to them read and it improves their reading fluency by reading aloud to him.

Our Guinea Pig, Squeaks, has had such an impact on so many of my students! One of my students never wanted to read. After Squeaks came to our classroom, he is reading all the time because he sits next to the cage and reads to Squeaks!

Students read to the class pet. This motivates students to read independently.

Teachers also deemed classroom pets to be very helpful in facilitating writing ability and interest among children, from technical and research reports to creative stories and poetry to journaling and letter writing. For example, one interview participant shared that s/he used the pet as a prompt for student pen-pal letters, both to other children with a similar classroom pet and even to the pet itself. According to another teacher, s/he used the classroom gecko “for a variety of writing assignments, from writing persuasive arguments trying to convince other teachers to get a pet, to using him to enhance our ability to write using specific details.” Similarly, a surveyed teacher seemed to combine science and writing lessons via observations of his/her classroom pet’s behavior: “We do a daily journal observation and log of what our hermit crab has done in his terrarium.” In addition, one teacher shared that his/her students tended to express their affection for their classroom guinea pigs through the written word. S/he shared,

“Books, poems, and other odes have been written about these guinea pigs – I am positive that if my students remember one thing from this year, it will be the love they had for their pets!”

Finally, some teachers described their use of the classroom pet to aid in customary language and grammar curricula. One teacher said, “I have found countless ways to weave our pet into the learning standards and get my students interested in learning verbs and nouns.” Likewise, another teacher remarked, “Our fish are used to stimulate and encourage expressive language skills” in the students.

E. Instilling Empathy, Compassion, and Respect for Others

Encouraging their students to be kind and compassionate to others was clearly important to the teachers who participated in this first study phase, and many indicated that they used the pet to help boost these traits in their classroom. “Having pets is an INVALUABLE aid for helping the children gain pride, caring, and empathy for the needs of themselves and others,” opined one teacher. One survey respondent said that s/he taught her/his students that the classroom pets “are part of our community – they have to be cared for just as we care for our friends.” Another teacher remarked,

“The fish help us share our values based curriculum. We can relate caring for the fish to values such as caring for animals, caring for the world, respect for life, and so much more.”

While difficult, the death of classroom pets often revealed the impact that the animals had on children’s empathy and compassion for the animals and those who loved them. “My turtle just passed away last year,” shared one teacher. “I had him for 27 years. The children wrote notes after he died. It was very sweet.”

Time and again, teachers mentioned the following (or similar) sentiments as beneficial lessons that sprang from interactions between children and the classroom pet(s):

- “Sympathy, empathy, and responsibility”
- “Compassion for living things”
- “Love and care of all creatures”
- “Loving caretaking”
- “Nurturing the animals”
- “Character lessons, anti-bullying”



F. Exposing Children to New Experiences and Opportunities

One common theme that characterized the teacher’s commentary was the effective use of classroom pets to introduce students to new experiences and opportunities. “It has provided our students the opportunity to care for a pet, learn to deal with the death of a pet, and develop an understanding that the responsibility for a pet does not fade as the novelty of it does,” shared one teacher. These opportunities appeared to be especially beneficial for students who did not (or could not, for various reasons) have a pet of their own at home, as exemplified by the following teacher statements:

“*Most [of my] students do not have a pet at home and here they can say they have one.*

In many cases, as with our population (high poverty), these are the only pets [my students] are able to enjoy.

My school is a non-profit for homeless and low-income families. Our three little frogs have given these underserved children a wealth of love and responsibility.

My students are at-risk preschoolers and many are not able to have a pet at home. It is wonderful they can have a pet at school to love and care for.

Many of my inner city students are unable to have a pet in their home because of apartment complex rules. This grant enables them to learn to care for all living creatures. I am so thankful for this reason.”

Moreover, several teachers remarked that these new experiences with unique, unusual (“they have never seen anything like [the leopard gecko]”), and/or even traditionally unpopular animals (particularly rats were mentioned) go a long way in reducing biases and unfounded fears among their students. “My students benefit so much from interacting and learning about all kinds of creatures that they don’t see in our neighborhood, or that have a negative stereotype attached to them,” said one surveyed teacher. “[This has been a] very eye opening experience for my students, a light bulb moment.” Likewise, another teacher shared that s/he had “enjoyed having a pet in the classroom and really believed it had helped many students overcome preconceived fears and misinformation.” These powerful lessons have the potential of benefiting not only animals, but also translating in a broader context to the way these children view those who are different from them across their lives. Additionally, being exposed to new experiences at school fosters both interest and excitement in learning about unfamiliar concepts, customs, and/or ideas. Said one interview participant, “[The classroom leopard gecko] opens up worlds of wonder for my students.”

G. Building Loving and Supportive Relationships at School

While the length and nature of the children’s interactions with the classroom pets tended to vary from teacher to teacher (anywhere from 30 minutes per day at the animal’s cage to having the animal freely roam the classroom), it was clear that many children felt bonded to the animals, and that these relationships enriched the overall “classroom community.” The children also seemed to have opportunities to develop their own unique, “independent,” and accepting friendships with the classroom pet. “For kids who need something to attach to, to have a friend, the rabbit has been there for them,” remarked one teacher. Another teacher believed that, by interacting with the classroom pet, his/her students could “connect with something that loves them unconditionally.” These natural and beneficial bonds between the children and animals appeared to pave the way for several participants to “teach lessons around socio-emotional topics” and “social skills” in their classrooms.

Having the animal present at school also appeared to ease other classroom social interactions and relationships, both between the students, as well as between the students and the teacher. According to one survey respondent, the turtle he/she adopted had “helped to develop unusual friendships” between children in his/her classroom. “The turtle has helped some of the more challenging students in the school want to interact with individuals they would have bullied or ignored in the past.” Interestingly, one teacher believed his/her own relationships with his/her students had improved as a result of adopting the pet: “I have developed a connection with many students because of our [mutual] love for animals.” Indeed, it was clear that, often, “pets in the classroom humanize the room”, and the overall teaching and learning experience, as one teacher remarked.

H. Increasing Pride and Joy in the Classroom

Similar to enriching student and teacher relationships, classroom pets were also utilized by several teachers to instill a sense of pride and joy in their students. “I feel that having a pet in the classroom makes the classroom a more welcoming environment for students and parents, because the students love to show off the pets at any given time,” said one teacher. Likewise, one teacher shared that having a pet “makes students excited to be part of my classroom family.” Increased cohesion, inclusivity, and acceptance in the classroom “community” or “family” was credited by numerous teachers as comforting for children who miss their family

or have “trouble letting their parents leave in the morning.” “The tank brings out a smile in even the most timid of children,” said one teacher. Other testimonials that illustrate the pride and joy that children experience as a result of having a classroom pet include the following:

“Kids who don’t have pets at home can start to learn the responsibility of having one. Kids take pride in having a classroom pet!”

We take our rabbit to rabbit showings/competitions. He has won 2nd place for 2 years.

If a stranger enters our classroom, the first thing [the children] talk to them about is Ruby the Snake.

[Our rabbit] is the highlight of my room, and my students feel happy and welcome because she is here.

Receiving our grant for the pet was the highlight of my students’ year. They love our class pet, and it gives them something within the school that they feel is “theirs.””

I. Improving the Management of Behavioral Issues

Classroom pets were clearly helpful to teachers when attempting to improve, modify, or even curb problematic behaviors in the classroom. Said one teacher, “We have noticed a sharp decrease in behavior issues” since acquiring the classroom pet. Arguably, one reason for this observed improvement in behavior may be because classroom pets were often used as a “reward” or “incentive” for positive and conscientious behavior (see above). For example, one teacher remarked, “Some of my children really look forward to their time with [our classroom pet], and as such, it has improved their behavior and grades.” Another teacher expressed the following,

“Having my guinea pig in the classroom has impacted our classroom environment in more ways than I could have imagined. Within the first week, I had far fewer behavioral issues. I even had colleagues, administrators, and paraprofessionals mention that they noticed the change too. I truly believe our furry friend has done more for my kids, socially and behaviorally, than I could have done as an educator.”

Again, surveyed and interviewed teachers overwhelmingly mentioned the particular behavioral benefits of pets for children with ASD, learning differences, and/or other special needs. In particular, pets were described as useful in helping these children calm down (see above), focus, and “reset.” Below are just a handful of quotes that exemplify how pets are used to help assist these children in developing pro-social, calm, and healthy classroom behaviors:

“I feel that it helps our classroom operate as a caring community and helps students with behavioral issues manage their feelings.”

“ I currently have hamsters and rabbits in my room and they are tremendous assets. They are good for the kids to interact with and also help aid students with anger issues.

We discuss many ways to stay calm within ourselves and help our pets stay calm.

I have found my pet especially rewarding to my students with special needs. I had a student with Autism who adored having a pet in the classroom and [the animal] helped reinforce positive behavior in said student. ”



The Benefits of Classroom Pets

From the findings already included in this report, it is likely not at all surprising that the teachers participating in Phase I of the *PIC Study* reported numerous benefits of having a pet in their classrooms. Additionally, teachers were overwhelmingly thankful for the opportunity to apply for and receive their grants from Pet Care Trust, with one teacher proclaiming that, going forward, “We [will] never be without Pets in the Classroom.”

Nearly half of the survey respondents (42%) selected children being able to “**learn animal care and compassion**” as the number one benefit of having a classroom pet from the options provided (See Figure 9). This was followed by being able to: “**learn responsibility**” (24%), “**learn about science and nature**” (20%), “**learn empathy**” (7%), and “**learn social skills**” (4%).

As with the previous survey questions, teachers had the opportunity of selecting “Other” (3%) and providing their own perspectives. Common “Other” primary benefits of classroom pets offered by surveyed teachers were:

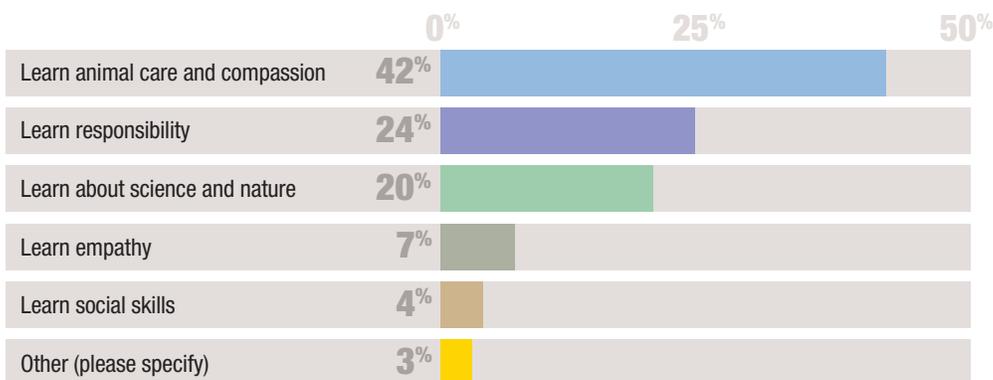
- Reading
- Language
- Calm and stress relief, including for children with ASD and other special needs
 - “I work with special needs students who sometimes need to be soothed and calmed; I believe the fish have helped [with this] over the years.”
- New and/or unique opportunities, especially for students who do not have pets at home
 - “[Classroom pets] really have helped several kids from non-pet families become less frightened of animals”
 - “For many students, this was their first experience with rats as pets, and they’ve learned what gentle, curious, and clean animals they really are!”

Less common “Other” primary benefits included:

- Sensory “balance” and experiences
- Interest and excitement in school
 - “Engagement of children’s natural curiosity”
- Increased patience
 - “[The children] have to sit still if they want to hold [the pet]”
- Friendships
 - Pets “facilitate social interactions” between children
 - Having classroom pets “has been really beneficial for the kids who don’t have a lot of friends, but love animals”

Primary Benefit of Having a Pet in the Classroom

Figure 9



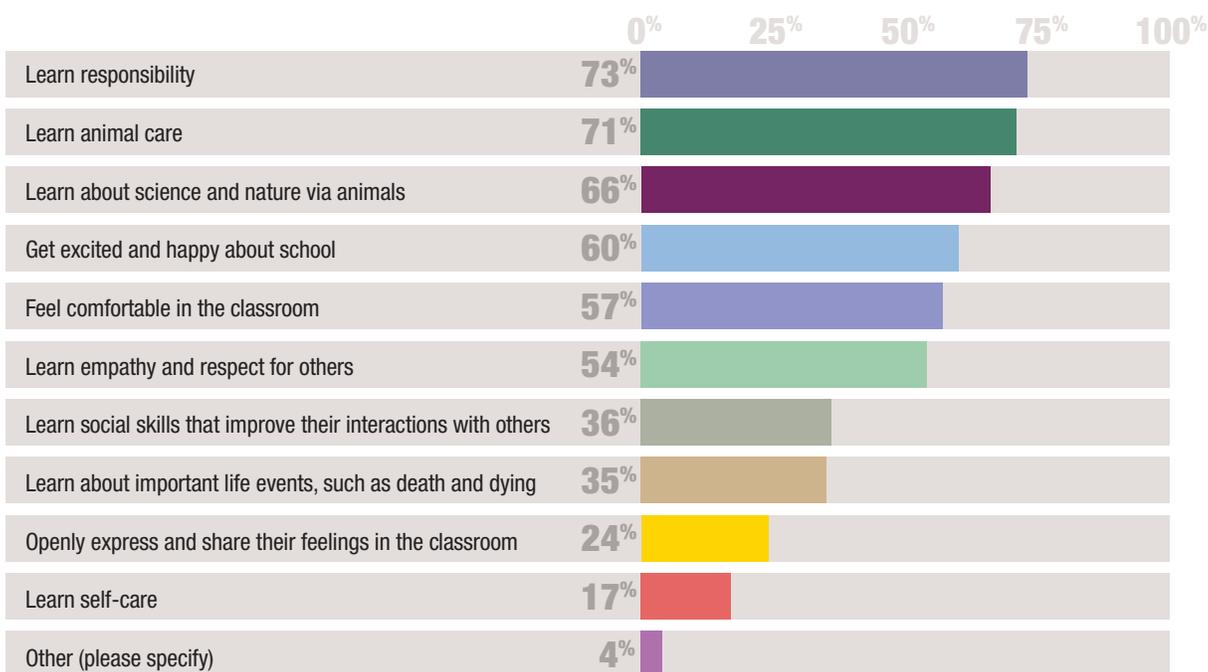
Interview responses closely resembled and often matched those from the survey, with learning about science; acting responsibly; feeling calm during times of stress; being exposed to new experiences and opportunities; demonstrating positive and/or improved behaviors; and showing compassion for animals and people mentioned frequently by interviewees as primary benefits of classroom pets.

The next survey question asked participants to answer the following question by selecting one or more options from a list: “Complete this sentence: ‘My classroom pet helps my students _____’ (check all that apply).” Similar to the teacher’s views regarding the primary benefits of classroom pets, the two most common answers to this question were “**learn responsibility**” (72.5%) and “**learn animal care**” (70.4%) (See Figure 10), followed by:

- Learn about nature and science via animals (65.6%)
- Get excited about school (60%)
- Feel comfortable in the classroom (56.5%)
- Learn empathy and respect for others (53.5%)

Complete This Sentence: “My Classroom Pet Helps My Students _____”

Figure 10



In addition, approximately 4.1 percent of teachers selected “Other” in response to this question (See Figure 10). “Other” popular (and familiar) ways that pets were believed to help students included:

- Feel calm and relaxed in stressful situations
- Experience new animals and opportunities (“it has taught them to look past the outside and see things differently”)
- Feel pride and ownership
- Build friendships and community (children “bond with new students, as they introduce our furry friend to students who move in during the middle of the year”)

- Learn to share and be patient (students need to “take turns – feeding frogs is the favorite job in class!”)
- Make positive choices and modify negative behaviors (“in order to earn incentive time with animals”)
- Have real life and experiential learning (to “make a text to world connection”)

Additionally, unique and/or rare “Other” responses to this question included:

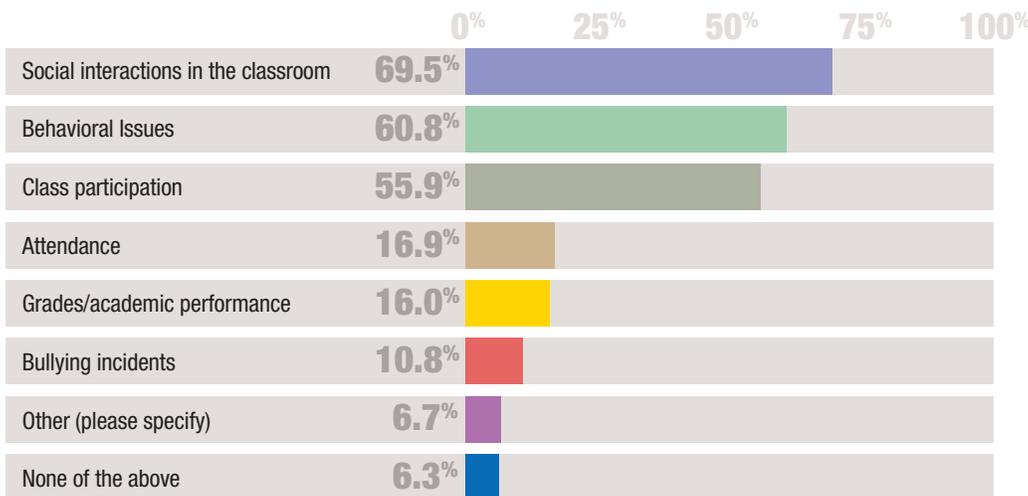
- “Make connections to home”
- “Focus and attend to schoolwork activities”
 - “I have several students who struggle with staying on task, but [our rabbit] has helped them tremendously. He allows them to take a break when feeling distracted. They can interact with him and then return to their work more focused.”
- “Talk to each other about something other than video games and television”
- Appreciate “the beauty of God’s creation”

The final survey question regarding pet benefits, “I feel having a classroom pet has improved _____ (check all that apply),” asked teachers to select their answer(s) from a list of options (See Figure 11), with **social interactions in the classroom** (69.4%), **behavioral issues** (60.1%), and **class participation** (55.7%) being the most common.

In addition, approximately 6.3 percent of respondents selected “none of the above” in response to this question, while 6.7 percent of teachers selected the “Other” option; it is possible that many of the same teachers who selected “none of the above” also selected “Other.” Not surprisingly, the “Other” improvements

I feel having a classroom pet has improved: (check all that apply)

Figure 11



resulting from classroom pets included responsibility and leadership; decreased stress and anxiety; curiosity and enthusiasm about school; respect and kindness for others; classroom tranquility and cohesion; attention and focus on the task-at-hand; understanding of scientific concepts and the environment; helpfulness and teamwork; connections with home life; and language skills.

At the end of the online survey, teachers were given the opportunity to share any other thoughts or comments they may have had. This opportunity revealed two additional, unique benefits of having pets in the classroom (which were also mentioned by interviewees).

First of all, it was clear that the animals were not only beneficial to the children inside the classroom, but also to the teacher, as well as to other children and staff throughout the school. “It has been a much more fulfilling experience for both the kids in our classroom and others in the school (including teachers) than anticipated,” said one teacher. “[My students] ask questions and have started looking up interesting facts and sharing them with me and their friends,” remarked another survey respondent. S/he continued by saying, “It has been a wonderful and exciting experience not only for them, but for me!” In addition, one teacher simply stated, “We have all fallen in love with [the pet].” Interviewed teachers also echoed this sentiment, with many participants remarking that their previous students would often come to visit the pet after they had graduated to a higher grade level. Below are several testimonials that underline the far-reaching benefits of classroom pets for students and teachers alike:

“*Norbert*” has become somewhat of a celebrity in our school!

Having Petunia the Pig here helps relieve stress among the adults, too. Many teachers come in to visit the guinea pig each day!

I would never have expected to become attached to our little Gecko.

It has improved my rating as a teacher in the area of a welcoming, attractive, and orderly class environment, as well as in the area of building class and school community. This rating of me as a teacher earned me enough points to become eligible for the distinguished teacher pool for my district, which helps my career. Thank you for your investment in the lives of children, animals, and in the lives of professional educators.

The kids love our guinea pig, “Skittles.” I even have former students that come back almost every day to visit her.

I will always have a rat now that I have had one in my classroom!

The second unique, related benefit shared by both surveyed and interviewed teachers was the belief that having a classroom pet could potentially increase pet ownership in the students’ families. “It has helped us encourage parents to let their children have a pet at home,” said one teacher, while another remarked, “I have children who would have NEVER thought that they could care for an animal who now have asked their parents for a pet!” An increase in responsible pet ownership has the potential to benefit not only families, but also countless animals in need of loving, caring, and conscientious homes.

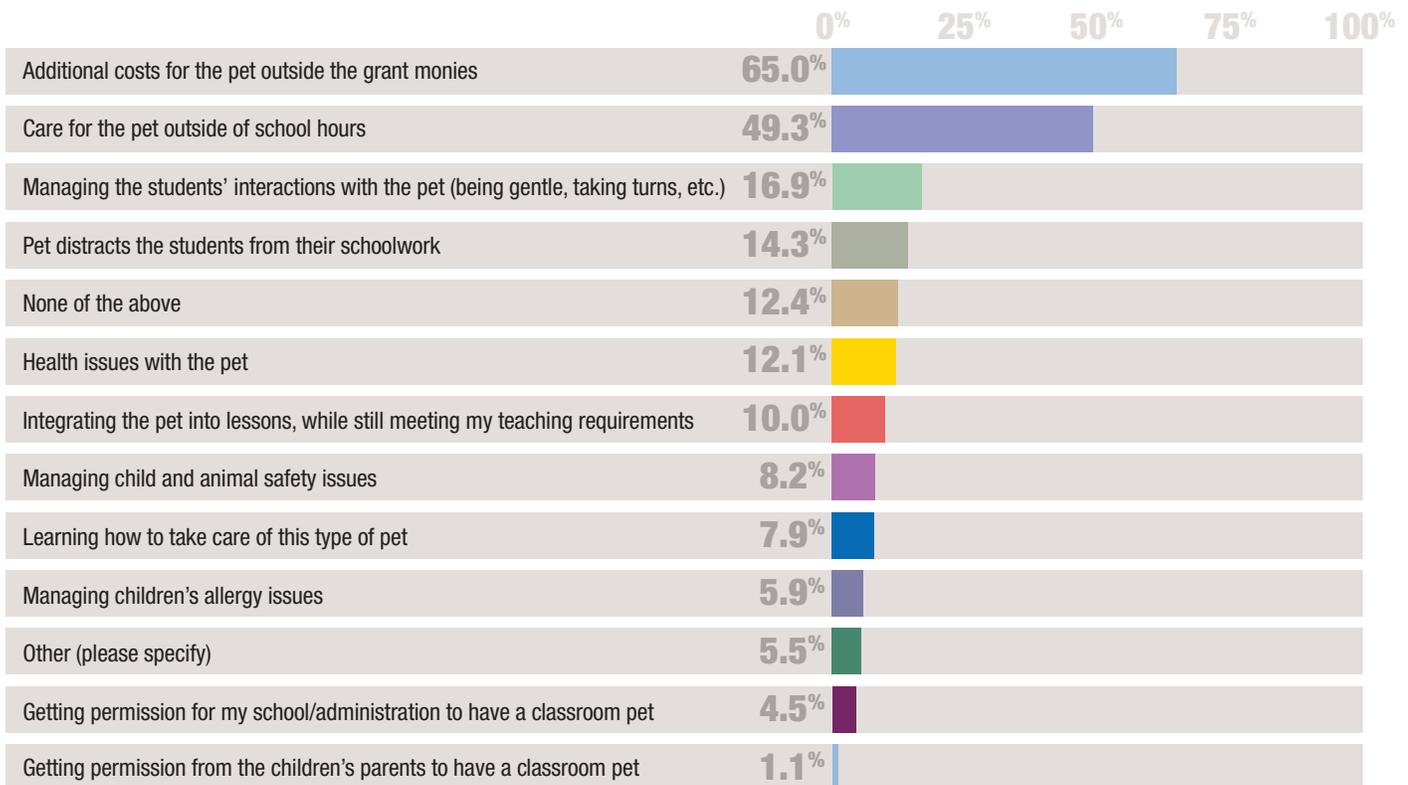


Challenges of Classroom Pets

In addition to the uses and benefits of classroom pets, researchers were also interested in any challenges associated with caring for a companion animal in the school environment. See **Figure 12** for the teachers' responses to the survey question, "What challenges have you experienced having a pet in the classroom (check all that apply)?"

Challenges of Classroom Pets

Figure 12



By a relatively large margin, the most common challenge reported by surveyed teachers was "additional costs for the pet outside the grant monies" (65%). Those participating in the telephone interview also viewed pet care expenses as challenging. Regarding this challenge, teachers provided the following comments:



The cost [of keeping a pet in the classroom] is a HUGE consideration.

I am happy to have the aquarium in the class, but I didn't plan to spend as much money on it as I have.

High vet costs are an issue for me.

The costs associated with the pet may limit our ability to keep him for the future.

[Costs] have been a deterrent for other staff in our center because they can't afford to maintain a pet properly.



In addition, approximately 49 percent of the surveyed teachers indicated that it could be challenging to “care for the pet outside of school hours.” Said one surveyed teacher, “I really enjoy having him, [but] it can be challenging during breaks when I have to take him home with me.” Interviewed teachers also identified this as somewhat challenging. Indeed, the added responsibilities of work and expense are significant considerations that anyone must make before making the choice to adopt an animal, including both family and classroom pets. Several teachers not only acknowledged the reality of these responsibilities, but also sought to share this information with their fellow teachers who may be interested in acquiring a classroom pet. “I think Maggie is a wonderful addition [to my classroom], but she is also a lot of work, so it’s good for people to know what they’re taking on when they decide to have a classroom pet,” remarked one teacher. “It is a long-term commitment!” s/he continued. Likewise, another teacher opined, “Any teacher looking to use the grant should definitely be prepared to take care of, and be financially responsible for, the pet for its life span.” Finally, managing the students’ interactions with the pet, such as crowding around the cage and ensuring gentle handling and quiet voices, was viewed as a challenge by approximately 17 percent of surveyed teachers.

Additionally, 5.5 percent of surveyed teachers had faced “Other,” less common challenges. The most frequently mentioned of these “Other” challenges was experiencing the passing of the classroom pet. This challenge was highlighted frequently during conversations with interviewees as well. Fish appeared to be most susceptible to unexpected or premature death. However, while these losses were often “heartbreaking” for students and teachers alike, respondents shared that they sometimes used these instances to “explain death to the children” and “teach them about the importance of life.” Additional “Other” challenges included pet escapes in the school; teacher allergies; pet odor; long travel distances to the pet supply store in rural communities; properly cleaning, maintaining, and/or repairing the equipment and enclosures specific to their pet; competition among students for the pet’s attention; and “finding a pet [the students] can hold and touch” (i.e., animals other than fish).

Approximately 12 percent of survey teachers did not view any of the provided options as challenging. One teacher remarked, “I have experienced the above and do not view them as ‘challenges,’ but rather as part of the responsibility I took on when adopting our class pet.” Getting permission from the school administration and/or the children’s parents to have a classroom pet seemed mostly easy and straightforward as well (only 4% and 1% of teachers, respectively, considered these processes to be burdensome). Likewise, fewer than 15 percent of teachers considered the following to be challenges associated with having a classroom pet:

- Pet distracts the students from their schoolwork (14.3%)
- Health issues with the pet (12.2%)
- Integrating the pet into lessons, while still meeting teaching requirements (9.8%)
- Managing child and animal safety issues (8.3%)
 - “I previously had gerbils, but they bit two different students”
 - “Some students like to drop debris into the tank”
 - Challenges with “banging on the glass” [of the enclosure]
- Learning how to take care of this specific type of pet (7.7%)
- Managing children’s allergy issues (6.0%)

These reported challenges represent important factors for all people to consider before welcoming pets into primary and/or classroom families, and the responsibility of monitoring and caring for the animal's wellbeing must be continuously prioritized. Some interview participants expressed interest in connecting with other PIC teachers to share experiences and tips on how to overcome potentially difficult aspects of classroom pet ownership (e.g., through a species-specific listserv, etc.). Likewise, one interviewee believed that resources regarding animal care and wellbeing would be helpful to have on-hand when adopting a classroom pet. In order to help address the challenges expressed by teachers, and to help ensure the welfare of classroom pets, please see **Appendix A** for American Humane Association's recommendations for enhancing the PIC initiative.

Overall, despite these challenges, the majority of teachers again expressed their gratitude to Pet Care Trust for enabling them to adopt a pet to assist in student learning. Said one teacher,

“ I appreciate all of the help in aiding with having a pet in the classroom! Yes, the funding requirements are much higher than the \$50 grant, but ANY help is appreciated. ”



VII. Future Research

As mentioned above, interview participants were also asked to provide their perspectives regarding future research on the effects of classroom pets, particularly as they pertained to implementation. While most interviewees had not attempted to measure any effects themselves, all were open to serving as participants in future studies. Likewise, while most interviewed teachers were a bit uncertain about what the exact process would entail, the majority believed that it would not be difficult to obtain the approval of the school's administration or the children's parents to conduct such research.

Many of the interviewed teachers shared important considerations for future research involving teachers who currently have a pet in their classroom (such as themselves). These included the following:

- Keep instrumentation anonymous and as short as possible
- Provide age-appropriate measures in both English and Spanish
- Adapt the study to meet school and student schedules, so as not to interfere with current or required lesson planning and academic standards
- Perhaps limit data collection to one school term, as assessing each child over the course of an entire school year could prove difficult

This feedback from interviewees will continue to be helpful as American Humane Association and Pet Care Trust embark on the design and successful implementation of Phase II (please see below for preliminary details).

VII. Summary and Next Steps

Surveys and interviews conducted with teachers during Phase I of the *PIC Study* yielded valuable perspectives on the current uses, benefits, and challenges of incorporating classroom pets across multiple grade levels and in diverse regions of the U.S. and Canada. Moreover, these findings provide a comprehensive and contextual framework in which to design the next phase of this exciting HAI research. Overall, Phase I findings indicate that teachers view both the uses and benefits of classroom pets as primarily centering around the following six objectives:

- To teach children responsibility and leadership via animal care
- To teach children compassion, empathy and respect for all living things, including animals, humans, nature, and the world we share
- To enhance and enrich a variety of traditional academic lessons, from science to language arts
- To provide an avenue for relaxation when children are stressed or when their behavior is unstable and/or challenging to manage (for both typically developing children and those with special needs)
- To help students feel comfortable and engaged in the classroom and with their peers, so that the school environment is more conducive to quality learning, growth, and social connections
- To expose students to new experiences and opportunities (particularly for those who do not have pets of their own), which may translate to a decrease in unfounded fears and biases among children

According to survey and interview participants, the primary challenges of having a classroom pet included:

- Spending out-of-pocket money to care for the pet, both on a daily and long-term basis
- Assuming responsibility of pet care and/or other accommodations when school is not in session
- Ensuring safe, productive, and educational interactions between the students and the pet(s)
- Managing and coping with pet loss for students and themselves

American Humane Association researchers are currently in the process of optimizing the design and implementation for Phase II of the *PIC Study*. In this phase, researchers will seek to measure the effects of resident classroom pets for children in selected elementary grade levels over a period of weeks during the fall school term. Current grant recipients of Pet Care Trust in both the U.S. and Canada will be recruited, with participants being randomized into either the treatment (with a classroom pet) or control (no classroom pet until data collection has commenced) cohort. While all participating teachers will be experienced with having pets in their classrooms, caring for a classroom pet will be a new experience for children enrolled in the study.

Based on the findings from Phase I, as well as study recommendations from interviewed teachers, researchers hypothesize that children and teachers with a pet in the classroom will benefit in the areas of increased social skills, decreased problem behaviors, and/or improved academic competence when compared to children who do not have a pet in the classroom. Subsequently, researchers will evaluate and identify a survey measure and time period to best collect the relevant data.

Phase I of the *PIC Study*, as well as other current studies, suggest that the use of pets in classrooms and humane education may benefit children in a variety of ways. However, evidence-based research in this area is currently limited. Findings and lessons learned from Phase I have prepared researchers to rigorously examine the social, behavioral, and/or academic effects of resident pets for children who experience them in the classroom environment. Accordingly, Phase II of the *PIC Study* will enable Pet Care Trust and American Humane Association to explore unique, important, and applied directions for today's classrooms, thereby lending powerful credibility to the value of human-animal-relationships.



Appendix A

Animal Welfare Recommendations for the Pets in the Classroom (PIC) Initiative

In addition to providing financial assistance to teachers who wish to incorporate a pet into their classroom, American Humane Association recommends Pet Care Trust provide the following critical information to teachers regarding the safety and well-being of classroom pets in order to ensure the health and welfare of both the children and the animals.

Important Questions for Teachers to Consider When Applying for a PIC Grant:

- What is the purpose of your classroom pet?
- How will you incorporate the pet into your teaching to ensure both the children and animal(s) benefit from their interactions with each other?
- What type of pet is the best choice for your classroom based on factors such as, space, age and/or developmental stage of the children, animal traits and needs, local availability of pet food/supplies/vet care, etc.?
- What information about species-specific animal care do you know or will need to learn to take care of your classroom pet (e.g., type of food, habitat needs, exercise/play requirements, cleaning the pet's area, etc.)?
- What are the stress signals your species of pet exhibits and what is your plan for giving the animal a break(s) from interaction and/or the classroom environment?
- What is your plan for a safe introduction of the pet to the children in the classroom (e.g., short visits to class initially, gradually increasing the amount of time the pet interacts with the children, etc.)?
- What rules or policies will you establish on how the children may interact with the pet and how will you respond if these rules are not followed?
- How will you continuously support safe and respectful interactions between your students/other students/staff and the animal?
- What procedures will you have in place for making arrangements for pet care over breaks (e.g., planning to care for the animal yourself, screening child homes for other pets, providing training to parents, etc.) or if the pet needs to be removed from the classroom (e.g., if a new student arrives who has pet allergies)?
- What plan do you have in place for evacuating with the pet in the case of an emergency, such as a fire or severe weather?
- How will you respond if your pet becomes ill or injured?
- What cultural considerations do you need to bear in mind given diversity in your classroom?
- How will you manage children who have allergies or fears of animals?
- How will you help the children deal with the passing of the classroom pet?
- How will you cover the long-term expenses of pet care that exceed the amount of the grant?
- In addition to your other professional responsibilities, how will you manage the extra time necessary to properly care for the pet?

Online Resources

(adapted from Gee, Fine & Schuck, In Press)

The following resources may be made available to interested teachers and current grant applicants via the PIC website, Facebook page, newsletters, and other correspondence. Species-specific information and resources may also be provided to teachers at the time they receive their grant coupons/certificates (such as in a small kit where teachers can reference and maintain the information in one location). In addition, we suggest establishing a species-specific list serv where teachers can communicate with each other and share information and knowledge regarding their classroom pet experience. Ideally, periodic webinars regarding pet care, animal welfare, and humane education would also occur so that teachers have the opportunity of staying up-to-date on how best to care for their classroom pet.

Resources for Teachers/Educators:

- American Humane Association: <http://kindness100.org> (humane education curriculum for grades pre-K through five)
- National Education Association: <http://www.nea.org/tools/lessons/pets-in-the-classroom.html>
- AVMA Tools for K–12 Educators: <https://www.avma.org/KB/K12/Pages/AVMA-educational-resources.aspx>
- AVMA guidelines for AAI and resident animal programs: <https://ebusiness.avma.org/ProductCatalog/product.aspx?ID=64>
- BC SPCA: <http://www.sPCA.bc.ca/youth/teacher/>
- HEART: <http://teachhumane.org/heart/programs/classroom-programs/>

Example Policies for School Administrators:

- MSPCA Angell: <http://www.mspca.org/programs/humane-education/resources-for-educators/animals-in-education/school-policy-on-classroom.html>
- Calgary Board of Education©: <http://www.cbe.ab.ca/policies/policies/ar6004-list.pdf>

Animal Selection:

- Species selection: <http://www.carefresh.com/petcare>
- Amphibian selection: <https://ebusiness.avma.org/ProductCatalog/product.aspx?ID=224>
- Fish selection: <https://ebusiness.avma.org/ProductCatalog/product.aspx?ID=223>
- Rabbit selection: <https://ebusiness.avma.org/ProductCatalog/product.aspx?ID=226>
- Rodent selection: <https://ebusiness.avma.org/ProductCatalog/product.aspx?ID=125>
- Fostering: <http://www.giveshelter.org/classroom-animals-in-schools.html>

Humane Treatment:

- American Humane Association: <http://www.americanhumane.org/>
- Five Freedoms (Brambell report): <http://www.fawc.org.uk/freedoms.htm>
- National Humane Education Society: <http://www.nhes.org>
- Institute for Humane Education: <http://humaneeducation.org/>
- Association for Professional Humane Educators: <http://www.aphe.org/>
- AVMA AAI Wellness guidelines: <https://ebusiness.avma.org/ProductCatalog/product.aspx?ID=67>

Disease Control/Information:

AVMA: <https://ebusiness.avma.org/ProductCatalog/product.aspx?ID=478>

AVMA: <https://ebusiness.avma.org/ProductCatalog/product.aspx?ID=128>

CDC: <http://www.cdc.gov/features/animalsinschools/>

CDC: <http://www.cdc.gov/healthypets/>

CDC: <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5605a5.htm>

By sharing the above consideration topics and online resources with teachers who apply for a PIC grant, Pet Care Trust can help ensure the welfare of participating animals and, ultimately, help increase the effectiveness of the PIC initiative.



Attachment 1 – PIC Online Survey Questions

1. What is your name?
2. What is your age?
 - 18-20
 - 21-29
 - 30-39
 - 40-49
 - 50-59
 - 60 or older
3. Are you male or female?
 - Male
 - Female
 - Other
4. Which race/ethnicity best describes you (please choose only one)?
 - American Indian or Alaskan Native
 - Asian/Pacific Islander
 - Black or African American
 - Hispanic American
 - White/Caucasian
 - Multiple Ethnicity or Other
5. In what state/U.S. territory or Canadian province do you live?
All Canadian provinces are listed at the end of the U.S. states (Wyoming), and are in alphabetical order
 - List of U.S. states, plus Puerto Rico
 - List of Canadian provinces
6. What city do you currently live in?
7. Which grade do you currently teach?
 - Pre-K
 - Kindergarten
 - First grade
 - Second grade
 - Third grade
 - Fourth grade
 - Fifth grade
 - Sixth grade
 - Seventh grade
 - Eighth grade
 - Other (please specify)
8. On average, how many children are in your classroom each day?
 - 0-10
 - 11-20
 - 21-30
 - 31-40
 - 41-50
 - 51-60
 - 61-70
 - 71-80
 - 81-90
 - 91-100
 - 101+
9. How many years have you been a teacher?
 - 0-3
 - 4-6
 - 7-10
 - 11-13
 - 14-17
 - 18-20
 - 21+
10. Do you currently own a pet in your home?
 - Yes
 - No
11. Which type of pet do you currently have in your home (check all that apply)?
 - Bird
 - Dog
 - Cat
 - Fish
 - Horse
 - Reptile
 - Rabbit
 - Guinea Pig
 - Hamster
 - Turtle
 - Rat
 - Other (please specify)

12. What type of classroom pet did you recently obtain through the Pets in the Classroom grant?

- Bird
- Rabbit
- Guinea Pig
- Hamster
- Lizard
- Turtle
- Fish
- Rat
- Snake
- Tree Frog(s)
- Leopard Gecko
- Crested Gecko
- Fire Belly Toad(s)
- Bearded Dragon
- Tarantula
- Other (please specify)

13. How long have you had your classroom pet?

- Less than 3 months
- 3-6 months
- 7 months – 1 year
- 1-2 years
- 2-3 years
- Longer than 3 years

14. Approximately how old is your classroom pet?

- Less than 1 month old
- 1-3 months old
- 3-6 months old
- 7 months – 1 year old
- 1-2 years old
- 2+ years
- Unknown

15. How do you use your classroom pet (check all that apply)?

- I teach formal lessons utilizing the pet
- The pet is there to interact with, but there is no formal teaching plan involving the pet
- I use interactions with the pet as a reward for the students
- Other (please specify)

16. You indicated that you teach formal lessons utilizing the pet. Please check all of the following types of lessons that apply.

- Humane Education
- Anti-Bullying
- Self-Care
- Animal-Care
- Science and Nature
- Responsibility
- Art
- Math
- Creative Writing
- Other (please specify)

17. Approximately how much interaction does your classroom pet receive from your students on a daily basis?

- 30 minutes or less
- 30-60 minutes
- 1-2 hours
- 2-4 hours
- More than 4 hours

18. If you had to choose only one, which of these is the main/primary benefit your students receive from having a classroom pet?

- Learn empathy
- Learn responsibility
- Learn social skills
- Learn animal care and compassion
- Learn about science and nature
- Other (please specify)

19. Complete this sentence: "My classroom pet helps my students _____." (check all that apply)

- Learn empathy and respect for others
- Learn responsibility
- Learn social skills that improve their interactions with others
- Learn animal care
- Learn self-care
- Learn about science and nature via animals
- Get excited and happy about school
- Feel comfortable in the classroom
- Openly express and share their feelings in the classroom
- Learn about important life events, such as death and dying
- Other (please specify)

20. I feel having a classroom pet has improved: (check all that apply)

- Attendance
- Behavioral issues
- Bullying incidents
- Class participation
- Grades/academic performance
- Social interactions in the classroom
- None of the above
- Other (please specify)

21. What challenges have you experienced having a pet in the classroom? (check all that apply)

- Care for the pet outside of school hours
- Health issues with the pet
- Pet distracts students from their schoolwork
- Additional costs for the pet outside of grant monies
- Learning how to take care of this type of pet

- Managing the students' interactions with the pet (being gentle, taking turns, etc.)
- Integrating the pet into lessons, while still meeting my teaching requirements
- Getting permission from my school/administration to have a classroom pet
- Getting permission from the children's parents to have a classroom pet
- Managing child and animal safety issues
- Managing children's allergy issues
- None of the above
- Other (please specify)

22. Is there anything else you would like us to know about your experience with pets in the classroom?

Attachment 2 – PIC Telephone Interview Questions

1) How do you typically utilize your pet in the classroom?

2) How long/how often is your pet interacted with on a daily basis?

3) What do you feel is the number one benefit of having a pet in your classroom? Have you tried to measure those effects? If so, how?

4) Do you feel having a classroom pet has an impact on attendance, class participation, behavioral issues or grades that would be measurable?

5) Would you be willing to have your students complete a questionnaire(s) to attempt to measure an effect? For example, an empathy survey.

6) Would you be willing to complete a measure(s) to attempt to measure an effect?

7) Do you feel it would be difficult to get permission from your administration/parents to participate in a research trial? What steps would that entail?

8) Do you feel it would be feasible for a classroom like yours to first serve as a wait-list control group and complete measures for a period of time before you received your classroom pet?

9) What challenges (if any) do you foresee may be associated with participating in a research study to measure the effects of classroom pets?

10) Is there anything else you would like us to know about your experience with pets in the classroom?

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