

# “Next Level” Student Retrospective Report of Findings, September 2012

Prepared for Minnesota Zoo by *Blue Scarf Consulting*



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## **INTRODUCTION**

What motivates kids to take multiple programs at the Minnesota Zoo? What makes Minnesota Zoo programs so comfortable and engaging that some kids just keep coming back? How do these experiences support kids' interest in animals and wildlife conservation? The Minnesota Zoo (MN Zoo) offers over a dozen educational programs for youth tailored to encourage exploration of "what makes the MN Zoo tick." After 10 years of programming for hundreds of youth, a cluster of youth return again and again to learn more about animal care, wild wildlife conservation, zoo work, and volunteer opportunities. Nicknamed "Next Level" students by MN Zoo staff for their potential to become the next generation of zoo workers, these youth exhibit a level of interest and desire to understand and protect animals and wild life that goes well beyond initial program participation.

With support from the State of Minnesota's Clean Water, Land and Legacy Amendment, the MN Zoo engaged Blue Scarf Consulting, LLC, to conduct a retrospective study with past and present "Next Level" students to understand the ways in which MN Zoo programs motivate their interest in wildlife conservation and what aspects of zoo programming were most memorable or impactful for them. Specifically, the study aims to answer the following questions:

- How and to what extent does MN Zoo programming influence Next Level participants' career, academic, and personal/lifestyle pursuits?
- What aspects of MN Zoo programming (academic, experiential, social, professional networking) best support Next Level participants' choices for post-high school pursuits?
- In what ways can ongoing evaluation be useful in strengthening learner-centered MN Zoo programming?

This report contains the methods used to answer these questions and findings from data collected from field literature, Next Level students, and their parents during the late spring and early summer 2012, as well as recommendations for consideration for sustaining and growing MN Zoo youth programs.

## **METHODS AND SAMPLE**

### **Literature Review**

To help in answering the questions posed for the Next Level retrospective evaluation, a review of 14 studies was conducted between March and May 2012. The studies, including program evaluations, empirical studies, national longitudinal reports, frameworks, and technical reports, looked at three relevant dimensions of the MN Zoo study: the age group, program attributes, and zoo context. Four of these articles were particularly relevant in situating this study's results:

- Catalano, Richard. M. Lisa Berglund, Jean A. M. Ryan, Heather Lonczak and J. David Hawkins. "Positive Youth Development in the US: Research Findings on Evaluations of Positive Youth Development". *ANALS, AAPSS*, 591. January (2004).

- Lerner, Richard M.; Jacqueline V. Lerner; Jason B. Almerigi; Christina Theokas; Erin Phelps; Steinum Getsdottir; Sophie Nadeau, et al. "Positive Youth Development, Participation in Community Youth Development Programs, and Community Contributions of Fifth Grade Adolescents: Findings from the First Wave of the 4-H Study of Positive Youth Development." *Journal of Early Adolescence*, Vol. 25 No 1. February 2005 17–71. (2005.)
- McLaughlin, Milbrey W. "Community Counts: How Youth Organizations Matter for Youth Development." *Publication Network*. (2000).
- Owen, Kathryn, Murphy, Dana, Parsons, Chris. "ZATPAC: A Model Consortium Evaluates Teen Programs". *Zoo Biology* 28:429–446. Wiley-Liss, Inc. (2009).

Throughout the study, these studies—their ideas and recommendations—are used for comparison with the data collected to highlight where MN Zoo programs align well or not with these recognized "best practices" for youth programs.

### **Online Contact and Consent Questionnaire**

In late March 2012, an email from the MN Zoo Education Department containing a link to an online questionnaire was sent to parents (n=75) on the Zoo's contact list for students. The questionnaire, hosted by SurveyGizmo, provided an introduction to the Next Level study, detailed information related to the study's purpose, activities, benefits, volunteer nature of participation, and researcher contact; requested parental consent or decline, confirmation of student's age and current email contact for receipt of a student survey (Appendix A). If parents indicated a student was over 18 years old, a similar online contact and consent questionnaire was sent to the student for his/her consent to participate in the study. A total of 35 parents and three students (who were over 18 when they first participated in a Zoo program) responded. With one exception, parents gave their consent for their children to participate in the study. Thirteen students, now 18 years old or older were contacted for consent and all responded that they would participate.

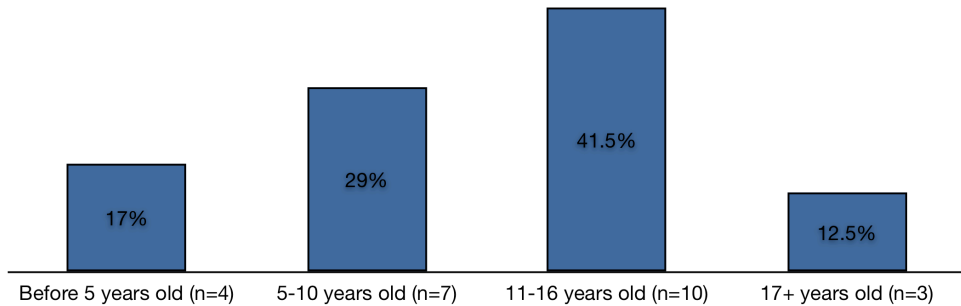
### **Online Student Survey**

At the end of April 2012, an email from Blue Scarf Consulting via SurveyGizmo containing a link to an in-depth survey for students was sent to 40 students, all of whom had consent or had consented to participate in the Next Level study. The survey consisted of multiple choice, check box, and/or open-ended questions to capture a participants' experiences related to the frequency, depth, and duration of involvement in MN Zoo programs; motivation for participation, general perceptions of the ways in which their involvement in Zoo programs and other related activities influenced curiosity and continuing interest in wildlife conservation and biological sciences; and pre and post retrospective Likert-like scales related to specific animal and wildlife concepts (Appendix B). Retrospective pre/post-scales allow for more accurate self-reporting than traditional pre/post scales, e.g., people answer a set of questions at the beginning of a program and then answer the same set of questions at the end of the program, because pre-questions are answered in the same frame of reference as the post-questions (Rockwell and Kohn 1989). When given an opportunity to learn how much they know about a subject prior to responding to a questionnaire, respondents can more accurately report on

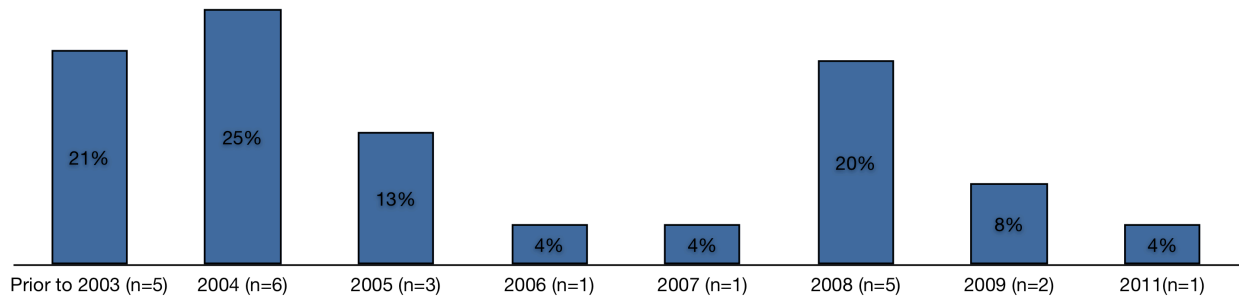
changes in knowledge, interest, and attitudes (Davis 2003). The survey was accessible online to students for eight days.<sup>1</sup>

A total of 24 students responded to the survey. Figures 1 and 2 provide a breakdown of their ages and the year when they first participated in MN Zoo programs. Students were instructed to give their best guess if they did not clearly recall this information.

**Figure 1: Next Level Student Beginning Program Age**



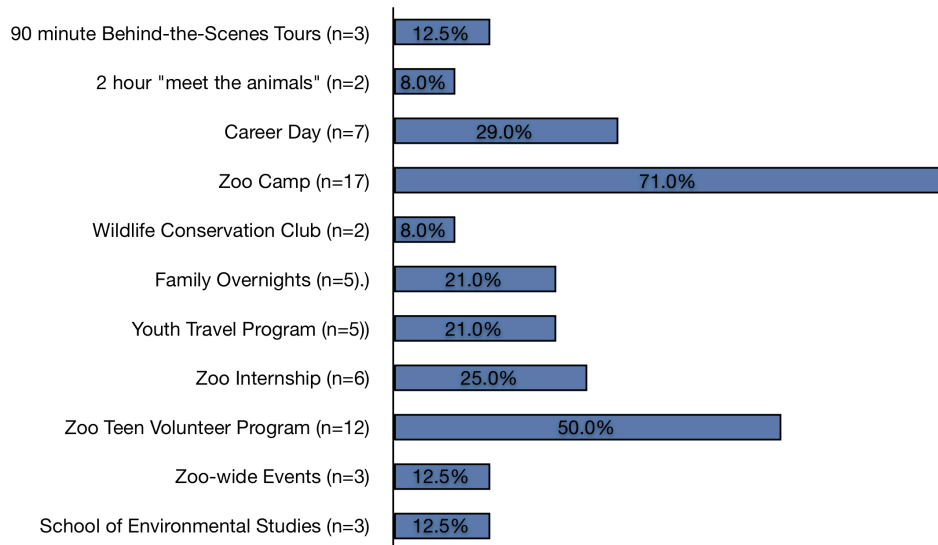
**Figure 2: Next Level Student Beginning Program Year**



Respondents indicated that, collectively, they had participated in 11 out of the 13 possible programs offered by the MN Zoo. Figure 3 provides a breakdown of program participation.

<sup>1</sup> Davis, Gregory A. "Using a Retrospective Pre-Post Questionnaire to Determine Program Impact." *Journal of Extension*, 41, no. 4 (2003). <http://www.joe.org/joe/2003august/tt4.shtml>. Rockwell, S. Kay and Harriet Kohn. "Post-Then-Pre Evaluation." *Journal of Extension*, 27, no. 2 (1989). <http://www.joe.org/joe/1989summer/a5.html>.

Figure 3: Student Participation in MN Zoo Programs



### Student Telephone Interviews

Based on data gathered through the Online Student Survey, 12 student respondents and 3 alternates were selected for a follow-up telephone interview. Interview questions consisted of semi-structure questions developed to gather in-depth examples of support students received during their MN Zoo program participation, key people and events that influenced or inspired their continued interest in animals and wildlife; specific day-to-day behavior changes toward animals and wildlife sparked by their MN Zoo program experience as well as ranked item questions drawn from McLaughlin's *Community Counts*<sup>2</sup> suggested features for successful youth programs (Appendix C).

Selection criteria focused on students' age and year when they began MN Zoo programs so that the telephone interview sample represented a range of ages and time past. A secondary criterion was the type of programs they attended to ensure that as many of the experiences offered students would be reflected in the sample. Interviewees were contacted first by MN Zoo Education staff to let students know they were selected and to expect Blue Scarf to contact them to schedule a 20–30 minute telephone conversation. Blue Scarf then contacted selected students with a few suggested days and times for a phone call. With a few exceptions (one student was out of the country, another declined to participate, and a third did not respond) interviews were scheduled and completed with minimum of difficulty.

<sup>2</sup> McLaughlin, Milbrey W. "Community Counts: How Youth Organizations Matter for Youth Development." *Publication Network*. (2000).

### **Online Parent Survey**

In early July 2012 an email from Blue Scarf Consulting via SurveyGizmo containing a link to a brief survey for parents was sent to the 35 parents who responded to the Contact/Consent questionnaire. The questionnaire consisted of open-ended questions related to the ways in which parents supported their children's interest in animals and wildlife, changes parents observed in their children's behavior toward animals and wildlife, the most useful aspects of the MN Zoo programs their children attended, as well as agreement scales for specific program aspects (McLaughlin 2000)(Appendix D). The survey was accessible for eight days. A total of 13 parents responded to the survey.

## LITERATURE REVIEW

Drawing on a decade of research on community-based programs in diverse communities across the country, McLaughlin's<sup>3</sup> "Community Counts: How Youth Organizations Matter for Youth Development" (2000) looks at positive outcomes for youth and at the characteristics of the programs that contribute to those outcomes. This study relied on young people to identify the organizations that engaged them in fun and challenging ways and offered a safe haven. The study looks at the nature of these experiences, the organizational and program practices that support them, and the impact on youths' skills, attitudes, and experiences.

The accomplishments of youth who participate in effective community-based organizations cluster into four areas: academics, self-confidence, civic responsibility, and paths to success. These youth achieve more in school academically; have a personal sense of value, hopefulness, and agency; feel a responsibility to contribute to the community; and learn life skills to navigate successfully throughout adolescence.

While these outcomes emerge across a variety of community-based organizations, the programs in which they occur are similar in critical ways. They distinguish themselves in the content of their activities, the spaces and settings, and the environments adults create. McLaughlin refers to these as *Intentional Learning Environments*. They are:

- *Youth-centered*, with youth at the center. Activities are accessible, challenging, and build on youth strengths. Youth have leadership roles and a voice in shaping activities. Adults pay attention and provide personal attention. These programs reach into the community to recruit a range of participants.
- *Knowledge-centered* with a clear focus on something—arts, sports, theater—and high-quality content. Together this deepens skills, builds competence, and embeds multiple lessons and life skills. Youth have multiple teachers, peers, and adults from the program and the community.
- *Assessment-centered* with cycles of planning, practice, and performance that provide structure, offer a sense of accomplishment and showcase talents. Feedback and recognition acknowledge a broad range of competencies.
- *Caring communities* that are built on trusting relationships, fair and clear rules, and expectations. Responsibilities for the organization and its space are shared. Constant access and sustained connections between youth, their community, and society are strengthened.

In "Positive Youth Development in the United States: Research Findings in Evaluations of Positive Youth Development Programs," Catalano et. al,<sup>4</sup> (2004) review the shift to a strength-

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<sup>3</sup> Ibid.

<sup>4</sup> Catalano, Richard. M. Lisa Berglund, Jean A. M. Ryan, Heather Lonczak and J. David Hawkins. 2004. "Positive Youth Development in the US: Research Findings on Evaluations of Positive Youth Development". ANALS, AAPSS, 591. January 2004.



based perspective on developmental changes for youth that has occurred over the last two decades. The positive youth development (PYD) perspective also has an interest in organizational and program practices that support youth development, key experiences for healthy development, and developmental youth outcomes. PYD programs are characterized by approaches that try to achieve one or more positive outcomes for youth. Based on the literature, Catalano identifies and defines 15 positive youth development constructs such as bonding, resilience, self-determination, competence, and a belief in the future.

A second part of the Catalano study looks at the characteristics of a wide range of PYD programs. Among those identified, 25 programs were considered effective, were analyzed, and were found to share six characteristics. Effective programs 1) addressed a minimum of five positive constructs, such as competence, self-sufficiency, and pro-social norms; 2) measured both positive outcomes and problem reduction; 3) had structured curriculum or program activities; 4) were delivered over nine months or more; 5) consistently attended to quality and consistency; and 6) served diverse audiences. While a broad range of strategies produced significant gains, a smaller set of themes was common to the success of these programs. These were:

- Methods to strengthen integration of various competencies;
- Building self-efficacy;
- Clear messages about high standards for youth behavior;
- Healthy bonding with adults, peers, and younger children;
- Expanded opportunities and recognition for youth;
- Structure and consistency in program delivery; and
- Intervening with youth for at least 9 months or longer

One prominent framework of PYD is referred to as the Six C's. It organizes thinking about PYD around six characteristics that contribute to and indicate well-being and thriving among current American youth (Lerner et al. 2005)<sup>5</sup>. This framework identifies five behaviors, or assets, that evolve across an adolescent's development as outcomes of community-based programs that aim to enhance youth development. When these five C's are present in a young person, a sixth C is expected.

- *Competence*: A positive view of one's actions in specific areas such as social competence (interpersonal skills); academic competence (attendance, school grades); cognitive competence (decision making); and vocational competence (work habits).
- *Confidence*: An internal sense of overall positive worth and sense of self-efficacy.
- *Connection*: Positive bonds with people and institutions reflected bi-directionally between youth and peers, family, school, and community.

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<sup>5</sup> Lerner, Richard M et. al. "Positive Development of Youth, Participation in Community Youth Development Programs, and Community Contributions of Fifth-Grade Adolescents: Findings From the First Wave of the 4-H Study of Positive Youth Development". *Journal of Early Adolescence*. Vol 25 No. 1 Feb. 2005 17–71.

- *Character*: Respect for societal and cultural rules, standards for correct behaviors, a sense of morality (right and wrong), and integrity.
- *Caring and Compassion*: Sympathy and empathy for others.
- *Contribution*: When the above five assets are present in a young person, youth contribute positively to themselves, their family, community, and civil society.

A landmark study conducted in 4-H programs by Lerner et al. (2005) was designed to determine whether empirical evidence supported positive youth development. The study of 1,700 fifth graders in programs across the country over four years explored the links between the Five C's model of PYD, youth contributions, and participation in community youth development programs. Of particular significance is the study's empirical evidence for the Five C's as well as evidence of their convergence on the Sixth C, Contribution. The study also indicated that youth benefit from structured out-of-school activities with high participation in youth development programs that are particularly linked to the growth of positive youth development.

Since 2004, ZATPAC, a consortium of six zoos and aquaria, has focused on researching, developing, and implementing a pre/post program survey instrument to assess teens' knowledge of environmental issues, skills, and abilities to take conservation actions (Owens<sup>6</sup>, et al. 2008). Teen programs were selected because of the depth of the programs, the resource commitment of both teens and the zoos that characterized the programs, and the role youth will play in addressing critical environmental issues. Two evaluation instruments were developed: an observation form and a survey of environmental knowledge, attitudes, and conservation behaviors.

The study found that teens that join zoo/aquarium programs are already actively engaged in many conservation behaviors. An interest in animals was the primary motivating factor for youth participating in the zoo programs. After participating in the programs, youth showed a statistically significant increase in reported knowledge of conservation and environmental issues and their abilities to research, explain, and find resources to take action on conservation issues of personal concern. Teens also showed statistically significant increases pre- to post-program for conservation behaviors such as, "I help with projects that restore wildlife habitat."

The findings from data collected with Next Level students and their parents provide insights into the ways and extent that MN Zoo youth programs reflect these studies' outcomes and recommended practices.

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<sup>6</sup> Owen, Kathy, Dana Murphy and Chris Parsons. "ZATPAC: A Model Consortium Evaluates Teen Programs." Published online 30 July 2008 in *Wiley InterScience* ([www.interscience.wiley.com](http://www.interscience.wiley.com))  
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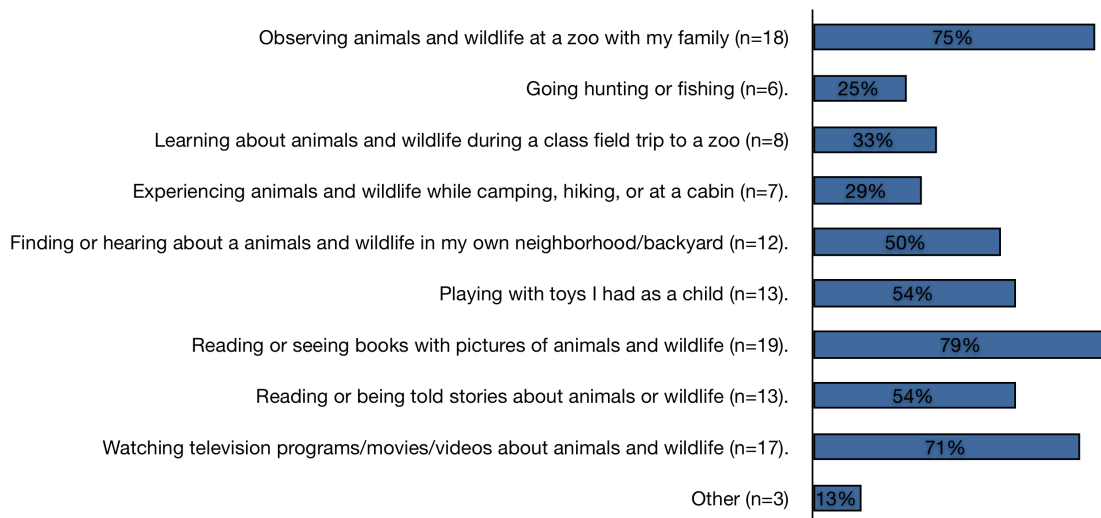
## FINDINGS

Next Level students “self-select” to participate in MN Zoo programs. Without exception the decision is based on their lifelong interest, specific transformational experiences, direct connections with particular individuals, and an intense desire to know more about animals and wildlife. Parents, teachers, and zoo staff played a strong role in supporting Next Level students’ interest in the natural world and students memories of seeing and hearing about animals and experiences with wildlife in their own backyard sparked and fanned their continued pursuit of knowledge, understanding, and familiarity with animals and wildlife within and outside of zoos.

### Earliest Memories

Student survey data revealed that, in addition to the expected high percentage of encounters with animals and wildlife through family zoo visits, picture books and television programs, Next Level students experienced animals and wildlife through a wide range of encounters. For example, one-half or more of respondents said their earliest memories of animals and wildlife came from finding or hearing about animals in their neighborhood or backyard, playing with toys or stuffed animals, and/or reading or being told stories about animals and wildlife. Figure 4 provides a breakdown of respondents’ early memories of animal and wildlife.

**Figure 4: Next Level Students’ Early Memory of Animals and Wildlife**



\*The “Other” category related to having pets or learning from pets.

One-third of respondents indicated that their earliest memory of animals and wildlife was during a class field trip to a zoo, indicating the powerful, lasting, and motivating impact such encounters can have on children. Finally, one-quarter of more of respondents also experienced animals and wildlife in their own habitat while hunting, fishing, camping, hiking, or at a cabin, all traditional Minnesota activities.

## Transformational Events

Specific events experienced early on in life can influence the paths we take and decisions we make throughout life. While nearly half (46%, n=11) of the Next Level students could not recall a particular transformational event or experience that sparked their interest in animals and wildlife, about one-quarter (25%, n=6) shared clear and vivid recollections of the defining moments that sparked their interest in animals and wildlife:

*In first grade we hatched baby chickens and I was able to take one home with me.*

*Playing in the backyard, finding/caring for baby squirrels, going to nature centers near my house.*

*I fell asleep watching Dora the explorer, and when I woke up, "the crocodile hunter" was playing on animal planet. After that, shows on animal planet where pretty much all I watched.*

*When I was three I went to Sea World and I touched a dolphin for the first time. Ever since that experience with the dolphin I have loved being around animals and taking part in zoo programs.*

*We were visiting family friends in Monterey, CA and we went to the aquarium and the beach. I remember sea otters and trying to save a sea star by throwing it back into the ocean. This is my first memory of falling in love with the ocean and marine life.*

Parents' recollections of the ways in which they supported their children's interest in animals reflect fairly typical family activities and experiences such as having pets, riding lessons, exploring local nature areas, learning about birds and wildlife through observation or catch-and-release. Library visits, reading about animals, scouts, and photography were also mentioned as supportive ways for children to explore their curiosity about the natural world. Five parents related their efforts to create supportive learning experiences for their children.

*We own several pets and my daughter does Agility Trials with our Dog and we take her to Horse Riding lessons.*

*At home, one of my daughters loves to walk to Nine Mile Creek and observe the birds and other wildlife she sees there.*

*We have pets, a cat and a dog. I make sure she has reading material about animals because she enjoys reading anything about animals she can get her hands on. We discuss current events relating to animals in the news. We visit places like Yellowstone Park.*

*She has had a lizard for a pet and 2 cats. We go camping. We built a cage, and watched caterpillars turn into cocoons and then emerge into monarch butterflies. It's fun to release them and watch them fly.*

*My children have also taken many nature related summer classes offered at parks and I have encouraged them to do nature related projects for their Girl Scout Gold and Silver Awards. I also have a camera that I encourage my kids to use to take nature related photographs and we have many books, DVDs, and magazines in the house related to ecology, evolution, taxonomy, botany, and wildlife.*

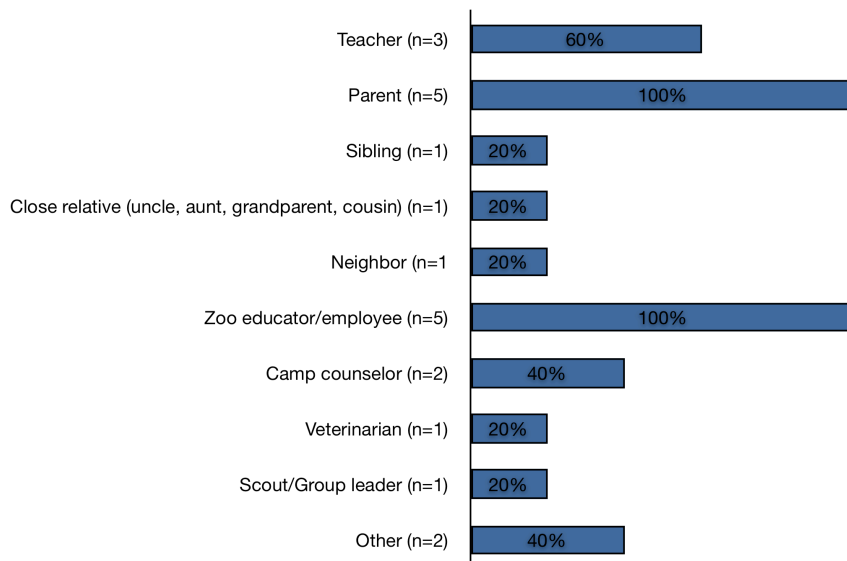
This last quote comes from a parent whose interest in wildlife seems equal to that of their children and appears to have some knowledge and/or experience on the subject. In addition to the information above, the parent added:

*We have had snakes, birds, lizards, chinchillas, ferrets, mice, cats and dogs as pets. I have also ordered insect pinning supplies from BioQuip so my kids could make insect collections. For a couple of summers we also had a dermestid beetle colony where we would put various dead animals (e.g. the head of a deer from a friend who goes hunting) so the beetles would "clean them up" in order to get their skulls.*

### Important People

Friends, relatives, neighbors, teachers, and others impact our lives in small and big ways. When Student Survey respondents were asked if there was a specific person or persons who sparked their interest in animals and wildlife, nearly half (46%, n=11) indicated there was not. The one-third who did recall that someone sparked their interest (33%, n=9) did not specify who in particular it was who sparked their interest in animals and wildlife. The remaining respondents (21%, n=5) indicated that a number of different people who played a part in building their interest in animals and wildlife. Specifically, all of five respondents included parents and zoo educators among the “important” people who played a role in their interest in animals and wildlife. Figure 5 provides a breakdown of those important people.

**Figure 5: People Who Sparked Next Level Students’ Interest in Animals and Wildlife**



\*"Other" people included animal program celebrities Jack Hanna and Steve Irwin.

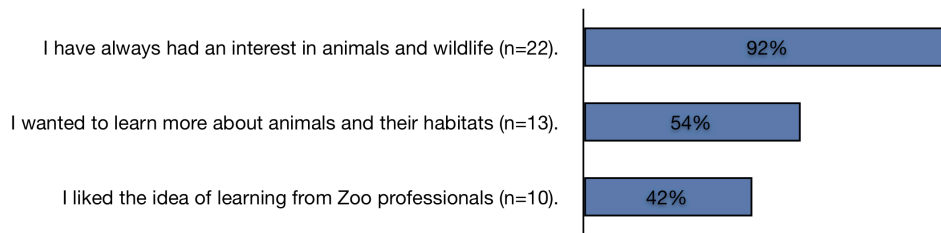
The importance of these relationships is consistent with Lerner’s finding (2005) that a sustained relationship with at least one committed adult who enhances a young person’s healthy engagement with the community and provides skill-building opportunities. This is echoed by “healthy bonding with adults,” one of seven themes characteristic of successful programs

identified by Catalano, and ties in with Next Level students' motivations for beginning and continuing MN Zoo programs.

### Motivations

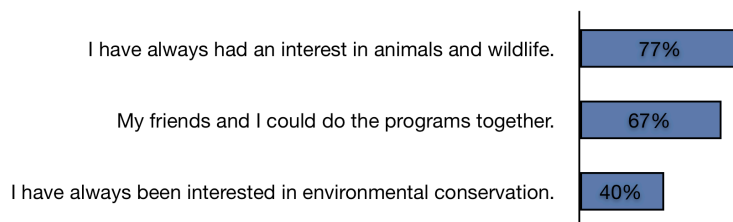
The Student Survey also asked questions about participants' motivations for beginning and continuing MN Zoo programs. Respondents were given 10 motivations from which they were instructed to select three. Figure 6 provides a breakdown of the top three initial motivations selected.

**Figure 6: Next Level Students' Top Three Motivations for Taking MN Zoo Programs**



To better understand which motivations were most important in deciding to begin MN Zoo programs, respondents were asked to prioritize their top three reasons by importance to them. Figures 7–9 provide a breakdown of participants' most important, important, and least important motivations.

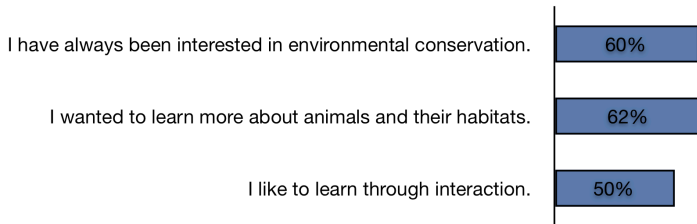
**Figure 7: Next Level Students' Most Important Motivation for Taking MN Zoo Programs**



Similar to respondents' initial motivations, an interest in animals and wildlife remains most important. This aligns well with ZATPAC study finding that an interest in animals was a primary motivator for participating in programs and also suggesting that these students come to the program with a greater degree of environmental sensitivity than other teens might and they come with their own interests and expectations. Another very important motivation for Next Level students was to do something they were interested in with friends. This suggests that the social component of MN Zoo programs was a major factor for students' initial participation.

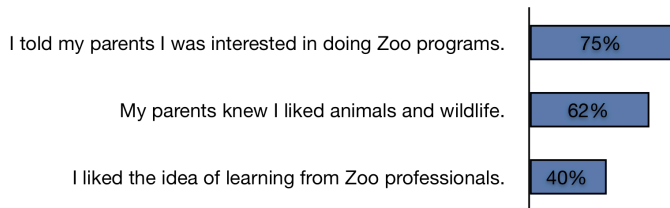
Second most important motivation factor continues to support the notion of following one's interests as a key decision factor for taking MN Zoo programs. Additionally, respondents indicated that learning by doing was an appealing feature of MN Zoo programs.

**Figure 8: Next Level Students' Second Most Important Motivation for Taking MN Zoo Programs**



Third most important motivation factor shifted in focus to parents' supportive role of student's interest in MN Zoo programs, animals, and wildlife. Similar to its place in the overall motivations for taking MN Zoo programs, the opportunity for learning from MN Zoo professionals reappears in this category. These findings reflect the research of both McLaughlin and Catalano.

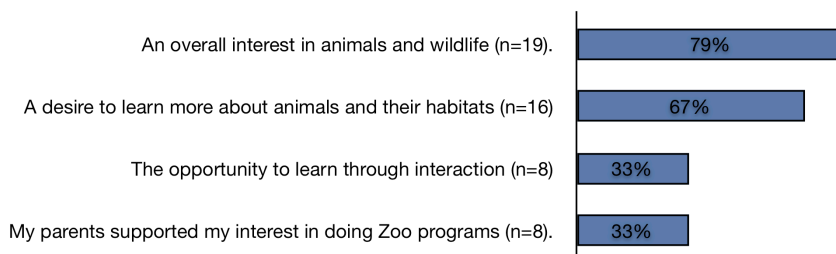
**Figure 9: Next Level Students' Third Most Important Motivation for Taking MN Zoo Programs**



The data makes it clear that an interest in animals and wildlife and the environment were the primary motivators for Next Level students' initial participation in MN Zoo programs. This finding is supported in the ZATPAC literature and remains a strong factor in student's continuing participation.

Students' motivations for continuing to take MN Zoo programs reflect their initial motivations with the opportunity to learn through interaction and parental support appearing equal in the top three overall motivations selected. Figure 10 provides a breakdown of the overall motivations for continuing MN Zoo programs; Figures 11–13 show the most important, important, and least important motivations.

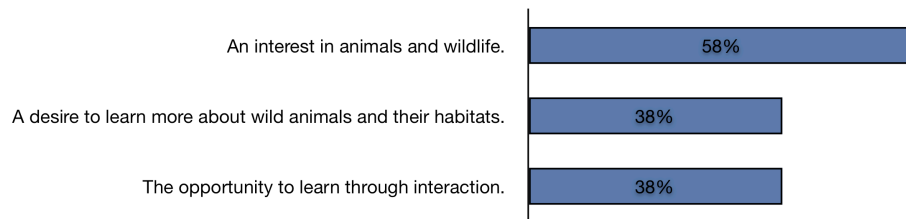
**Figure 10: Next Level Students' Top Motivations for Continuing MN Zoo Programs**



The most important motivating factor for students to continue MN Zoo programs remained their interest in animals and wildlife. Having been introduced and involved through MN Zoo programs with wild animals at some level, respondents reported the desire to learn more, as

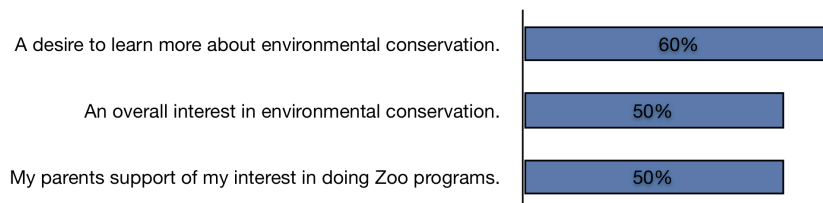
well as to learn through interaction as strong motivating factors for continuing MN Zoo programs.

**Figure 11: Next Level Students' Most Important Motivation for Continuing to Take MN Zoo Programs**



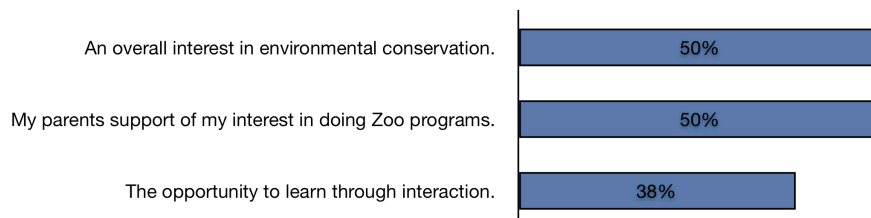
The desire to learn more about environmental conservation also continued to be an important factor for continuing MN Zoo programs. This finding suggests that the respondents' introduction to and experience with environmental conservation during MN Zoo programs made a strong impression to know more, suggesting a deepening connection with the natural world and interconnections between humans and nature. Further, students' persistent interest and exploration brings to mind three of Lerner's "C's": *Connection*, positive bonds with people and institutions reflected bi-directionally between youth and peers, family, school, and community; *Character*, respect for societal and cultural rules, standards for correct behaviors, a sense of morality (right and wrong), and integrity; and *Caring and Compassion*, sympathy and empathy for others.

**Figure 12: Next Level Students' Second Most Important Motivation for Continuing to Take MN Zoo Programs**



Respondents' third most important motivations reiterate their first and second most important factors for continuing programming, confirming that interest, adult support, and learning through interaction were key motivators for their ongoing participation in MN Zoo programs.

**Figure 13: Next Level Students' Third Most Important Motivation for Continuing to Take MN Zoo Programs**



Student interview data provides additional breadth and depth for continued participation. In particular, MN Zoo staff, program focus, interaction with and around animals, behind-the-



scenes opportunities, and learning with friends were all mentioned when interviewees were asked to talk a bit about what motivated them to continue with MN Zoo programs.

### Staff and Program Focus

*The people were really friendly and motivated to improve the lives of kids here and around the world and strive to help conservation movements of animals around the world. (Female, 22)*

*I think the zoo is wonderful and the teachers were awesome, the environment and the mood was happy. (Female, 14)*

*I've always been interested in marine life; two courses focused on marine life. That motivated me to do it. Teachers who taught my first marine biology program inspired me to do my 4th program because she was the teacher of that program. (Male, 18)*

*Most years I got the same counselor, Dawn; and I had Melanie for a while. It was nice having the same person over the years. I used Melanie as a reference to volunteer this summer at the Farm. (Female, 16)*

### Behind-the-Scene Experience

*It was mostly a combination. I loved going behind the scenes and seeing what the keepers got to do. I was eager to learn about animals and what professionals did. I always had fun wanted to come back (Female, 16)*

*I always enjoyed seeing animals in their natural habitat and how they acted. There's a nature center near where I live; I go hiking there and see an occasional fox or coyote. My mom sent me off to MN Zoo to see behind-the-scenes. It was really inspiring to me. (Male, 13)*

### Animal Interaction

*I really enjoying field learning, I was excited to go out and do hands-on activities and wanted to continue that. (Female, 20)*

*I think it's cool to be able to understand animals; they all have their own schedules and their lives; that's cool. I get along with dogs and cats. I'd like to learn about how they get along in their habitat and how they survive. (Male, 14)*

*I was really interested in animal behavior and training, especially operant conditioning of the animals. It really drew my attention to the internship. (Female, 26)*

### Social Interaction

*And a friend I made during the first program was going to the second program, so it was fun that we were both going to do it together. (Female, 20)*

*Mostly because my friends and I liked to do camps together; to see animals we enjoyed; I liked to go to zoo and going there with my friends. (Female, 13)*

When pressed for specific examples of *how* activities, experiences, speakers or instructors, and materials motivated continued participation, students shared additional recollections related to interacting with staff, behind-the-scenes experiences, learning, and doing things that built awareness and shaped students' thinking.

### Staff Interaction

*Everyone was so friendly and energetic and their values matched with my values. Making sure each person is provided for and having opportunities to grow and learn; valuing community and animals and the environment. (Female, 22)*

*Getting to talk with zookeepers and other professionals at the Zoo and hearing what they had to say. Nothing specific, just listening to them talk. (Female, 16)*

*Teachers were always open to helping you; they'd be your friend for the week. (Female, 14)*

*It was the instructors that I liked, what they focused on, like photography, which was personally interesting. (Female, 13)*

*My all time favorite teacher was Melanie. I learned a lot in [her] classes. We'd go there and learn all about it in fun ways. Learn about habitat; see the animals. (Male, 14)*

*The teacher; a trip to the Florida Keys; the whole thing was amazing. What stood out the most was when we went snorkeling at Loo Key. The teachers were amazing. We met people at a marine science lab; they pointed [out] species. (Male, 18)*

*Christine McKnight was my mentor; she gave me many opportunities to do behavior observation. I could do a behavioral observation of the Golden Lion Tamarin. (Female, 26)*

### Behind-the-Scene Experience

*When we would go behind scene, like how they were studying the coral reefs in the Florida Keys; And in the first program, to see how people work with dolphins at the MN Zoo. (Female, 20)*

*Seeing animals up close, because I had never been able to see the animals up close at the nature center. It had a better feeling; it motivated me to want to see more animals all over the world not just in MN. Inspiring to see animals as if you were there in the wild with them. (Male, 13)*

*Tigers and their biome and how they live in the tundra; how Zoo has the mating program; how they make it look like their habitat. (Male, 14)*

### Learning and Doing

*I'm more aware of conservation issues, how they work and how they affect animals. Like oil spills. (Female, 10)*

*I created my own farm class to do with younger children (preschool) that they used the following year. (Female, 24)*

*It's the place I learned everything out of school: environmental, conservation. It shaped how I liked science more than I liked other courses, like English. (Female, 16)*

Parents' feelings echo students' comments in relation to the strongest aspects of MN Zoo programs echo students' comments. Specifically, parents mentioned volunteer experiences, behind-the-scenes, and camps. One parent's detailed response provides a rich picture of her Next Level child's experience:

*My daughter loved the behind-the-scenes look at the zoo the best. She liked learning about their breeding programs, seeing baby animals, learning about propagating coral, and she really liked making enrichment activities for the animals and watching them use these items. She also liked seeing where the animals stayed at night, what they ate and seeing and smelling them up close. (I think she saw a tiger up close and said it had a distinctive odor.) Also, she was able to see a baby antelope and that was a special experience. One year they were taught how to take behavioral data on animals and practiced on some zoo animals. She also like putting out camera traps around the zoo and seeing what animals came by.*

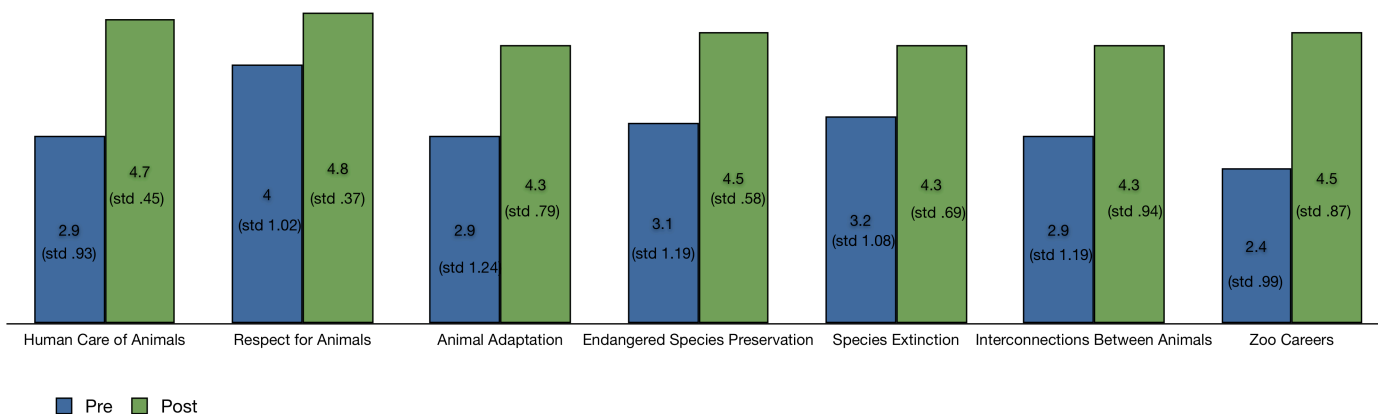
#### **HOW AND TO WHAT EXTENT DOES MN ZOO PROGRAMMING INFLUENCE NEXT LEVEL PARTICIPANTS' CAREER, ACADEMIC AND PERSONAL/LIFESTYLE PURSUITS?**

To identify Next Level students' shift in understanding of the specific topics covered in MN Zoo programs that may influence their academic, career, and personal pursuits, respondents were asked to review 13 topic statements and rate their understanding on a scale of 1 to 5, where 1 is "None" and 5 is "Really good." Specifically, they were instructed to think back to when they began MN Zoo programs and rate their understanding of the topics at that time. Then, respondents were instructed to rate their understanding now, having taken MN Zoo programs. The rating statements were divided into two sections. The first section, "Wildlife," included the following topics: Human care of animals; Respect for animals; Animal adaptation; Endangered species preservation; Species extinction; Interconnections between animals (food webs, predator/prey); and Zoo careers. The second section, "Environment," included: Habitat loss; Climate change; Local conservation; Global conservation; Human impacts on the environment; Biodiversity, and Ecosystems (plant communities, water cycles).

#### **Wildlife**

The mean scores and corresponding standard deviations (std) show a distinct and positive shift in students' understanding of Wildlife topics. Without exception, the post mean score for each topic increased nearly a point or more. Figure 14 provides a breakdown of the mean scores for the seven topics listed in the "Wildlife" section.

Figure 14: Next Level Students' Pre & Post Mean Score for Wildlife Topics (n=24)



Overall, respondents' pre scores suggest that they had a moderate to good understanding of Wildlife topics when they began MN Zoo programs. This is not surprising given previous data showing that students' interest in wildlife and animals was the most important motivating factor for taking MN Zoo programs. However, the generally wide standard deviations for the pre scores indicate a range of responses on the rate scale of 1 to 5. The higher post scores with lower standard deviations suggest a more narrow range of responses with less variance from respondents. In other words, coming into MN Zoo programs, students had a range of understanding about Wildlife topics; coming out of MN Zoo programs, students' understanding was more precise and informed.

Two specific topics that MN Zoo staff hoped all participants would have a really good understanding of having taken MN Zoo programs were *Human care of animals* and *Respect for animals*. In Figure 14 the shift in mean scores suggests that MN Zoo programs did indeed increase participants' understanding of caring for and, in particular, respecting animals. While these youth initially participated in MN Zoo programs with an interest in animals and conservation, their interest appears to have contributed to a growing understanding of care and caring for, a possible expression of Lerner's fifth C, Caring and Compassion.

Student interview data provides additional support for the increase in mean scores related to the *Human care of animals* and *Respect for animal's* categories. Students' responses reflect how their involvement in MN Zoo programs helped build their confidence to work with animals and wildlife. Increased self-assurance, likely from being around and handling animals, shares qualities with the sense of self-efficacy Lerner highlights in the Confidence. This confidence comes through in the youth's own words. For example:

*Makes me comfortable about different animals. Goats, for example, cleaning out the pen and feeding them. Being around them and getting used to them. (Female, age 13)*

*Helped a lot, I'm not afraid of animals any more. [Why] Because you get close to them and learn about them, pet them, animal visitors come to the Zoo camp classroom. Today we had a bearded dragon named Pancake and it was really cool. (Female, age 10)*

*Really helped because when I was really young, my dog sometimes would bite my sister not me. I learned that animals weren't mean. I learned how to handle animals. The Zoo Mobile came in to show how to hold animals, how to hold the snake so it won't bite. (Male, age 14)*

*It definitely made me think that some animal's reputations aren't quite true. Tigers don't look dangerous but they are dangerous. Animals are dangerous when they are provoked—like when we destroy their habitat or when they don't have enough food. (Male, age 13)*

*In some of the farm classes I had to handle some of the animals; I had to handle it and explain it to the children. (Female, age 24)*

The pre and post mean scores for understanding *Animal adaptations*, *Endangered species preservation*, *Species extinction*, and *Interconnections between animals* (food webs, predator/prey) are generally equal, 2.9 to 3.1. The post program standard deviations, however, show a wide range of values at program entry and much tighter agreement about these topics following participation, once again indicating that MN Zoo programs also made an impact in understanding for these four topics regardless of what age participants entered the program, the type or duration of their participation.

Another aim of MN Zoo programs and staff is to introduce and support participants' interest in MN Zoo careers. Here again, the mean scores suggest that students' understanding of *Zoo careers* increased. Indeed, the 2-plus point jump in pre to post mean score was the largest seen among the Wildlife topics. The standard deviation, already fairly tight at program entry, narrowed a bit after program participation supporting earlier motivation data that learning from MN Zoo professionals is an important factor for taking MN Zoo programs. It also underscored that interacting with MN Zoo professionals created better understanding of what they do in their day-to-day work and, perhaps, the academic course work and career paths needed to become professionals.

In addition to Caring and Compassion noted above, evidence of several more of Lerner's C's comes through in participants' responses. Multiple examples of Competence surface including cognitive competence as knowledge of animals; social competence as interpersonal skills required to interaction with MN Zoo professionals; and vocational competence as career choice exploration. Confidence is expressed in a variety of forms as well: awareness of personal responsibility; taking action on conservation issues of personal concern; and adopting strategies for being more active in wildlife conservation. Finally, Character and a sense of right and wrong and standards for behavior come through.

Student interview data provides additional support and context for Next Level Students' increased understanding for the Wildlife topics as they relate to academic, career, and lifestyle choices. Responses related to the ways MN Zoo programs supported what interviewees are currently doing in their lives included specific mention of guiding academic coursework and

career paths; paid and volunteer work (including monetary donations); and personal growth. For example:

### Academic and Career

*Showed me it's the right path for me. For example, when we sat in the coral reef section at the Zoo during the first program for an hour, it felt like 10 minutes. It showed me there were plenty of different things to know and study. (Female, age 20)*

*[I've been] Given good references for other internships, good experience, games I can play with children, factoids that I can share, help with working children. (Female, age 22)*

*This coming fall I am going to college in Tampa in Marine Biology. (Male, age 18)*

*The internships gave me experience to put on my resume. I am now doing animal husbandry for research animals. (Female, age 26)*

*[It] has shaped how much I love Biology and Science. Everyone's like, "Science, ick" and I am like, "Yesss!" Next year I am taking 5 science credits. (Female, age 16)*

*Definitely keeping my interest in science. I plan on majoring in science in college, either neurophysiology or orthopedic psychology (for humans). (Female, age 16)*

### Paid, Volunteer, and Support Experience

*Currently working with children as an adventure guide with Wilderness Inquiry over the summer. (Female, age 22)*

*I also volunteer at the Zoo. I did the Zoo Teen program two years and currently volunteer at the Zoo farm. (Female, age 16)*

*I volunteer at the zoo now, so I have a job. (Female, age 14)*

*It motivated me to make donations to World Wildlife Fund, to the Big Cat "thing." (Male, age 13)*

*From the internship at the zoo, it drove me to volunteer at the humane society. (Female, age 24)*

### Personal Growth

*The personal interest things, like photography. I learned about photograph, taking pictures of animals mostly when I'm on vacation. (Female, age 13)*

*In reading for non-fiction. I know a lot more about animals from animal books. Just know more in general. Easy to identify things and know what they are, animals and things in the environment. In science a little bit but nothing specific. (Female, age 10)*

*Inspired me to surround myself with animals. (Female, age 24)*

*Helps me in life and school. (Male, age 14)*

In addition to these three categories, some respondents shared that involvement in MN Zoo programs also created awareness and motivation for continued exploration and experience with animals and wildlife, built confidence for being around animals, and made them better team players, strengthening evidence of Lerner’s constructs of Confidence and Competence in participant’s responses.

*It's taught me a lot about the environment, and what we're doing to it. I am super-huge on the environment. (Female, age 16)*

*It made me want to go and spend more time outdoors and not stay inside. (Male, age 13)*

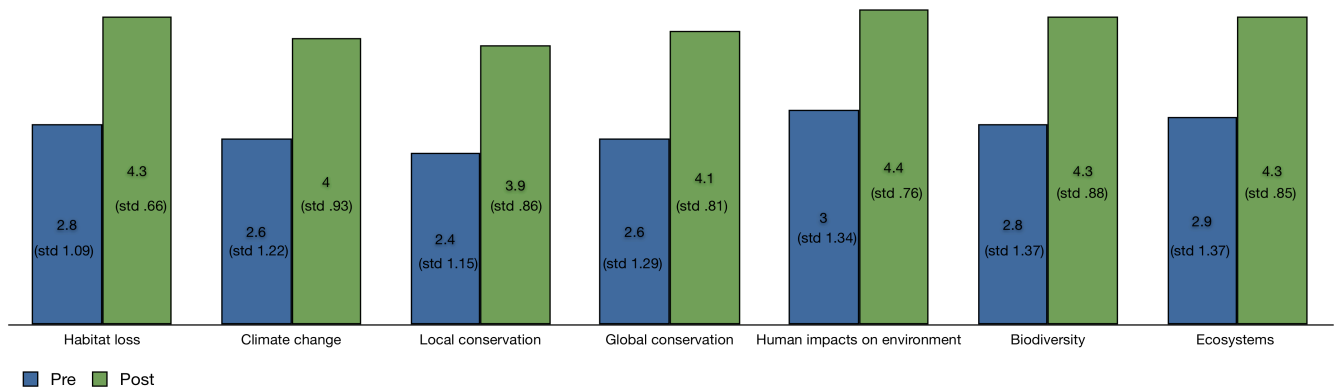
*Improved my working motivation like, if I get this done I can go to the zoo (Female, age 14)*

*It's helped my team building; when you go to camp you got to get along with people. Also when we talk about animals or anything environmental, I'm the first to raise my hand. I'm known as the Zoo Guy. (Male, age 14)*

### Environment

Similar to the mean scores for Wildlife topics, scores and their standard deviations (std) show a distinct and positive shift in students’ understanding of Environment topics. The mean scores for nearly each topic increased 1.5 points from pre to post. Figure 15 provides a breakdown of the shifts over time of students understanding of the seven topics listed in the “Environment” section.

Figure 15: Next Level Students' Pre & Post Mean Score for Environment Topics (n=24)



Specific examples of the experiences Next Level Students had were shared during telephone interviews. When asked about the most useful or important things they learned through the MN Zoo programs they attended, interviewees shared a range of recollections that related to career guidance, social behavior, animal behavior and care, and wildlife and environment awareness.

## Career Guidance

References to career guidance ranged from narrowing areas of focus to strategies for pursuing Zoo jobs to professional responsibilities. For example:

*I wanted to work with children and the outdoors, to be a teacher. [Zoo programs] defined my career path. Everyday seeing the kids learn and getting to know them and helping to facilitate the learning process. (Female, 22)*

*The field areas I could go into for study. Before it was broad areas; now I had specific areas to consider. I'm primarily interested in taking care of zoo animals. We met the people who work with sea turtles, dolphin trainers and sea otters; lab members and researchers who work on coral reef through zoo. (Female, 20)*

*What you can do to get a career at a zoo; you can do internships. You can't get where you want to be right away. The combined experience of the educators; they didn't focus on it but they talked about it. (Male, 18)*

*How to be in a professional setting, in the internship atmosphere. I had a mentor and we had to work on communication back-and-forth; I walked around the zoo and interacted with visitors and answered questions. I had to be on time and show up for 40 hours /week. (Female, 26)*

*What I took away from the zoo class, because I had to teach young children, was that I could be confident in teaching children, in presenting material. It was interesting that in the classroom you would teach them about the animal and then you could go see the animal and point those things out about the animal; they could experience the animal. (Female, 24)*

## Social Behavior

While not a prominent part of the experience, respondents shared recollections about the friendly atmosphere of the programs. Zoo staff and fellow participants were affable and welcoming resulting in pleasant and, for some, lasting relationships.

*I made really good friends. (Female, 22)*

*I learned social skills and met a bunch of zookeepers. I was a really shy. The teachers at the camps and zookeepers would say hi to you in the hallways and be really nice. Some kids would be animal-obsessed like me and others would basically be at daycare for their parents. But I made a lot of friends. (Female, 14)*

*[T]he team building and getting along. In some classes there would be a few kids who were new to the group or didn't know the other kids very well; they were sort of excluded, not on purpose but just because they didn't know the other kids as well. (Male, 14)*

## Animal Behavior and Care

One of the key goals of MN Zoo programs, respect and proper care of animals was mentioned by one-quarter of interviewees. Comments ranged from basic facts about and respect for animals and their environments to proper care of animal habitats to responsibility for animal care tasks.



*Keeping the habitats of animals clean and I learned that animals are like people, too and they need to be treated respectfully. I did a camp that we cleaned out different animals habitats, got to know their surroundings and how to take of habitat. Liked the horses the best. (Female, 13)*

*[J]ust plain facts about animals and the environment—that's how that animal does this. We watched videos during snack time; we played some games to learn facts; we walked behind the teacher who said "This is the de- Brazza Monkey." (Male, 14)*

*The observations of animal behaviors; there were tasks we were responsible for; they trusted that we would finish the task appropriately. (Female, 26)*

*I learned that animals are like people, too and they need to be treated respectfully. My teacher said not to knock on the glass on animals [enclosure], because it's like knocking on their homes and can be disturbing and disrespectful. (Female, 10)*

### Wildlife and Environment Awareness

Building awareness for the natural world and humans' impact on it is an important goal of MN Zoo programs. In addition to what respondents learned, where they learned it—Wildlife Conservation Club, the Bird Show—were shared during student interviews.

*Conservation and what was happening out in the world, [things] that I wasn't aware of to save endangered plants and animals. When I was in the Wildlife Conservation club we went and helped with seed collection for prairie grasses. And I realized that it was being done to preserve wild areas. (Female, 16)*

*Which species are endangered and how we can help. (Female, 13)*

*I learned how, if we destroy animal habitats, they won't be here forever. They/the zoo helped me understand why wildlife is so important to us; they were here first. (Male, 13)*

*The conservation of wildlife aspect. There are animals that are only in captivity; we should help to reintroduce them into the wild; we should preserve their habitat; and we should stop poaching. When I think of conservation, I think of the Bird Show. They stop the show and talk about how the Macaw's eggs are taken out of the nest; and how the bald eagle was on the endangered species list. (Female, 16)*

These experiences influenced Next Level students' day-to-day behavior centered on recycling, reducing energy and water use, using alternative modes of transportation, choosing to use biodegradable materials and eating sustainable food sources. Students also made direct connections between their behavior and MN Zoo programs and materials (Table 1). In many ways, these responses mirror the results of the ZATPAC study in pointing to ways in which zoos play an important role in educating the public about these behaviors: behavior toward wildlife, animals.

**Table 1: Connections between Zoo programs and Next Level Students' wildlife behavior.**

<b>Behavior</b>	<b>Zoo Connection</b>
<i>Greatest impact was Wildlife Conservation Club, the prairie grass seeding we did and wolf tracking opened my eyes to what I could do in my own life to help in conservation. (Female, 16)</i>	<i>Wildlife Conservation Club</i>
<i>Recycling and turning off the lights and water while brushing teeth. (Female, 14)</i>	<i>All of them (90 minute Behind-the-Scenes Tours; Zoo Camp; Zoo Teen Volunteer Program)</i>
<i>Introduced me to Seafood Watch, what's good to eat and from where. I use that whenever I go to have seafood. The second trip in the Florida Keys, how to help coral reefs by not throwing trash in the ocean, like soda can plastic circular. (Female, 20)</i>	<i>Zoo Camp</i>
<i>They gave us suggestions, like carpool or ride your bike to the zoo, to cut down on pollution. (Female, 13)</i>	<i>Summer Camp</i>
<i>Now if I see stuff on the ground I pick it up. I saw some worms on the ground today and I picked them up and put them back in the grass; make sure my dad doesn't scare away squirrels from the bird feeder because they have to eat, too. (Female, 10)</i>	<i>Zoo Camp</i>
<i>Before I wouldn't have cared if my friends...killed a frog; I wouldn't have done it. But now I stop them. We're eating healthier food too; or keeping them [animals] humanely. (Male, 14)</i>	<i>The Farmyard connection affected what we eat; changed how I think about chickens. Every camp has taught me to like animals more.</i>
<i>I don't drink out of Styrofoam. I don't cut down trees. I convinced my family to go "organic." We've started buying wheat bread, fruits that don't use pesticide, and we eat free-range chicken and cattle. (Male, 13)</i>	<i>The behind the scenes program showed me how animals are treated; convinced me that livestock are not treated too well.</i>
<i>I'm more conscious of recycling because of what I learned. Garbage can end up in the ocean. There's a card for eating fish that tells about fish that have been taken safely. (Sea Food Watch) (Male, 18)</i>	<i>Marine Biology course; definitely. I was part of the Wildlife Conservation Club. We restored natural prairie habitat.</i>
<i>The brochure that said to watch when you eat fish; cutting up plastic pop can holders because they get caught around animals' necks; plastic bags can get caught in their throats. If these don't get into a landfill, they can go through the sewers and into the lakes. (Female, 16)</i>	<i>A brochure at the Zoo. Years and years of the same thing being taught: protecting the world's wildlife, deforestation; If we have the power of making it worse, we have the power of making it better.</i>

Two of the older students shared deeper and more introspective impacts centered on value and perspective.

*I already understood a lot about conservation but the internship helped me value the wildlife I already have around me, local flora and fauna, like butterflies. (Female, 22)*

*Before I took the zoo programs I had a human-centered perception of animals. There are controversies about zoos caging animals. I learned that there's still an opportunity to teach people about animal habitats and preserving them. (Female, 26)*

Interviewees' descriptions of changes to their day-to-day behavior around animals centered on being able to recollect specific information learned during MN Zoo programs (primarily the Wildlife Conservation Club, Safari Camp, and Internships), a general awareness human's impact on animals, and actions to try and lessen those impacts.

*I know what a millipede looks like, and my parents put in at least one butterfly garden. (Female, 22)*

*Being aware of everything and other people's actions, like picking up things on the ground so an animal doesn't eat it and learning about different efforts being made in wildlife conservation. (Female, 16)*

*More aware of how animals are taking care of in zoos and theme parks, like Sea World. More conscience of animal health, volunteers in lab at school, weighs and measures blue jays. (Female, 20)*

*Know more about all of them. I notice and remember what my zoo teacher taught me about animals when I see them. (Female, 10)*

*I like to spend time at my dad's house where we have a pond. I like to watch the geese, ducks, herons, and turtles and how they co-exist. (Male, 14)*

*I look at them from a distance; if I ever see them in the woods, I would keep my distance. (Male, 13)*

*I always had a respect for animals, but knowing what little steps I can do makes a difference. For instance, some times letting nature take it's course is better like letting baby rabbits stay in their nest when their mother leaves. (Female, 26)*

*I don't use plastic or plastic bags as often. We have a hybrid Prius. (Female, 16)*

With one exception, parents' perceptions of changes in their children's day-to-day behavior around animals were minimal; focusing primarily on how the MN Zoo program participation supported current or practiced behaviors such as love of animals, zoo involvement. For example:

*My daughter has always loved animals and the programs at the zoo have supported and enriched that love. She is always interested to learn something new and the Zoo has helped provide that for her.*

One parent clearly saw how MN Zoo programs influenced her child’s outlook and schoolwork.

*I think her interest in nature and conservation has increased and is more global. She had a project for her English class last year and she had no trouble deciding what to do—she wrote a children’s book on coral reefs and how they were affected by global warming.*

Based on students’ descriptions, day-to-day behaviors related to the environment saw the least amount of change. In four cases, students said they didn’t do any environmental activities—recycle, pick up trash, plant trees or flowers—differently than before they entered MN Zoo programs. The remaining eight students said they were more conscious—planted trees and flowers, hung birdfeeders, and made donations. In nearly every case, students connected their behavior to a Zoo program or the Zoo itself (Table 2).

**Table 2: Connections between Zoo programs and Next Level Students’ environmental behavior.**

<b>Behavior</b>	<b>Zoo Connection</b>
<i>Mostly being more conscience, I haven’t changed things but am aware that [the] things that I do have an impact on the environment. I could see myself going on a conservation trip. (Female, 16)</i>	<i>Wildlife Conservation Club</i>
<i>My school did a tree-planting event; I planted my backyard with friendly flowers and birdfeeders (finch feeders). (Female, 14)</i>	
<i>We usually recycle. (Female, 13)</i>	
<i>I haven’t been cruel to the environment. I’ve always been careful; I don’t rip branches off of the trees. I’m not a tree hugger. (Male, 14)</i>	<i>Zoo Design; we learned more about conservation and how to help the environment.</i>
<i>Built a birdhouse in 6th grade. I made donations to the nature center near my house to help them keep their ponds clean. (Male, 13)</i>	<i>The zoo made a big point of emphasizing about spreading the word to help others learn. I volunteer at the Frog Camp at my nature center; the frog camp helps introduce little kids to nature.</i>
<i>The main thing is making sure, being aware of, the trash I produce doesn’t end up in their habitat. (Female, 24)</i>	<i>Because of all the recycling programs at the zoo.</i>
<i>I want to make a compost pile this summer at my house. (Female, 16)</i>	<i>I’ve seen the huge compost piles of the Zoo, walking around behind the scenes at the Zoo. Also I’ve Googled how to make a compost pile</i>

Strategies for being more active and involved in wildlife conservation that interviewees said they took away from their MN Zoo program participation reiterated typical and ongoing activities, such as recycling and not littering. Half of students interviewed mentioned volunteering or donating to wildlife organizations.

*Through volunteering, prairie grass seeding was an option we learned about. (Female, 16)*

*Donating to the funds to help save animals. (Female, 24)*

*[I have] donated to animal charities and World Wildlife Fund [and] follow their events, like Lights Out. (Female, 14)*

*Need to build your way up. Can't start at the top and expect respect. Volunteering [and doing] internships to gain experiences. (Female, 20)*

*You could volunteer with a group. I've done a little bit at the humane society working with animals. (Female, 13)*

*I'm now volunteering at the zoo. I donate every time I see one of the boxes. (Male, 14)*

Furthermore, two students talked about pursuing academic studies (University of Minnesota's School of Environmental Studies) or joining a wildlife organization (Sea Shepherds) as strategies for supporting wildlife conservation.

**WHAT ASPECTS OF MN ZOO PROGRAMMING (ACADEMIC, EXPERIENTIAL, SOCIAL, PROFESSIONAL NETWORKING) BEST SUPPORT NEXT LEVEL PARTICIPANTS' CHOICES FOR POST-HIGH SCHOOL PURSUITS?**

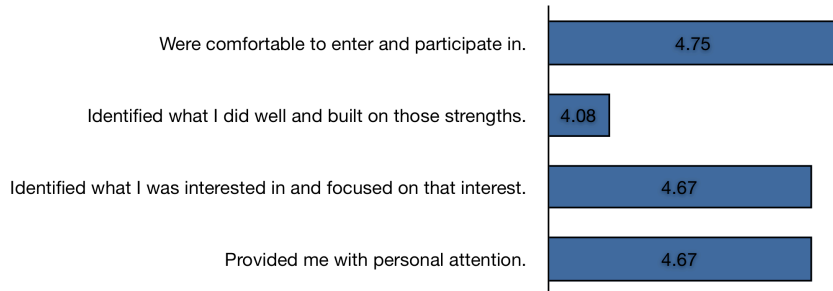
McLaughlin's work (2000) sets out a series of intentional practices youth programs should include within the framework of youth-centered, knowledge-centered, assessment-centered, and caring community framework. MN Zoo staff expressed interest in finding out about how program participants experienced aspects of three of these four framework components<sup>7</sup> in the programs offered at the MN Zoo. As part of student telephone interviews, respondents were asked to indicate their level of agreement, on a scale of 1 to 5, where 1 was "Disagree" and 5 was "Agree", with statements about specific aspects of the program. Figures 16–18 provide the mean scores for each.

When asked to rate aspects of the program that were youth-centered, participants indicated that the programs recognize their interests in animals and wildlife and built on them. Students mentioned particular teachers showing personal interest in them and helping them pursue opportunities.

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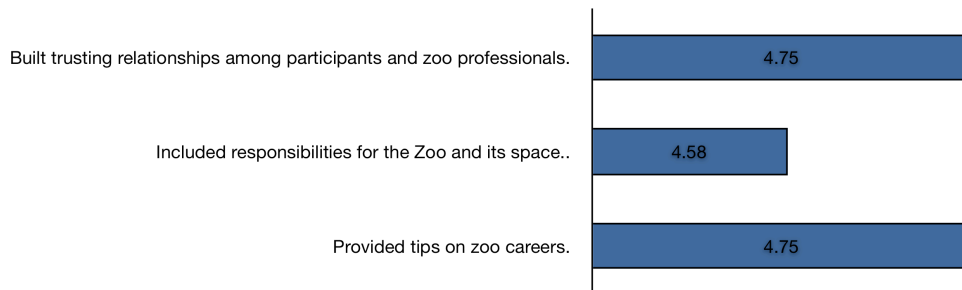
<sup>7</sup> Zoo staff excluded assessment-centered, which includes structured activities, opportunities to make decisions contribute an overall set of expectations but the visibility of accomplishments may not be clear.

**Figure 16: Next Level Student Interview Agreement with McLaughlin's Youth-Centered Program Aspects**



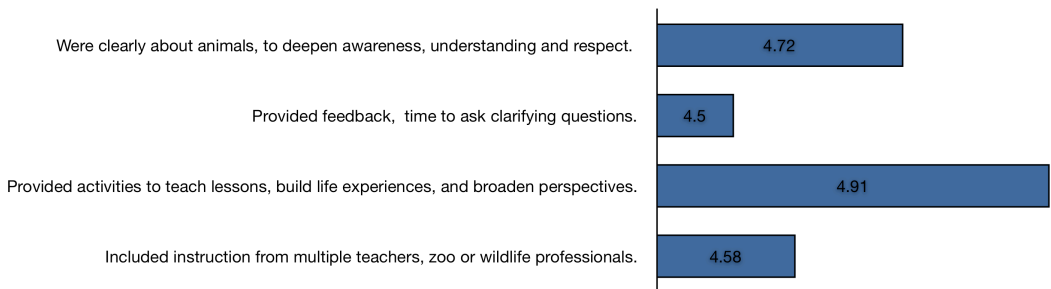
Respondents' high level of agreement about trusting relationships among participants and zoo professionals is congruent with key aspects of McLaughlin's Caring community.

**Figure 17: Next Level Student Interview Agreement with McLaughlin's Caring Community Program Aspects**



Likewise, respondents' high level of agreement about knowledge-centered aspects of the program supported a third area of McLaughlin's Intentional Environments. In the zoo context, these program aspects were: a focus on content and an appreciation of the zoo's expertise in animal care, habitat, conservation; activity-based content; and lessons embedded in many activities including taking responsibility for the spaces, recycling at the MN Zoo, etc.

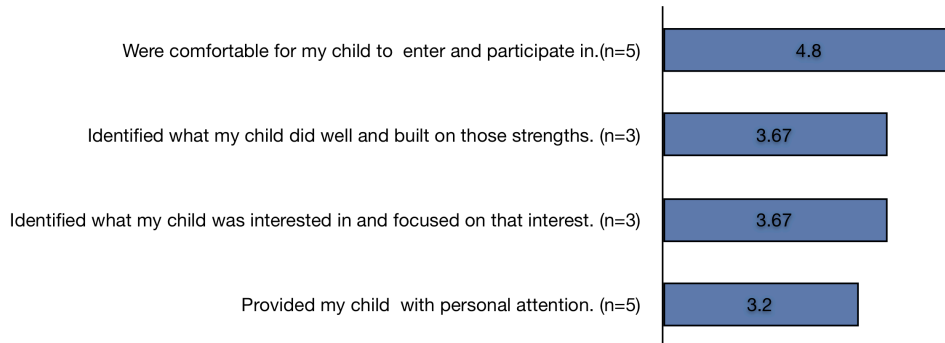
**Figure 18: Next Level Student Interview Agreement with McLaughlin's Knowledge-Centered Program Aspects**



Parents data, which represents just one-seventh (n=5) of the 35 parents who were sent the online survey and less than half of those who responded (n=13), provides limited but nonetheless insightful information related to McLaughlin's youth-centered, knowledge-centered, and caring community framework components. Figures 19–21 provide a breakdown of parents' agreement with statements about these components.

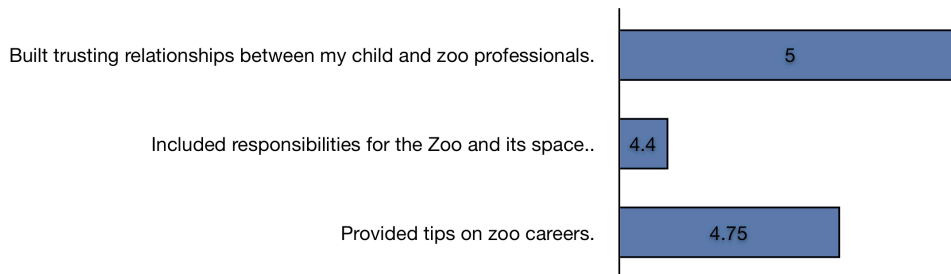
Parents' agreement with the comfortable and easy entry to programs nearly matches that of students. Parents did not agree as highly as their children in regard to MN Zoo programs identifying and building on their children's strengths and interests or the level of personal attention their received by MN Zoo staff.

**Figure 19: Parent Agreement with McLaughlin's Youth-Centered Program Aspects**



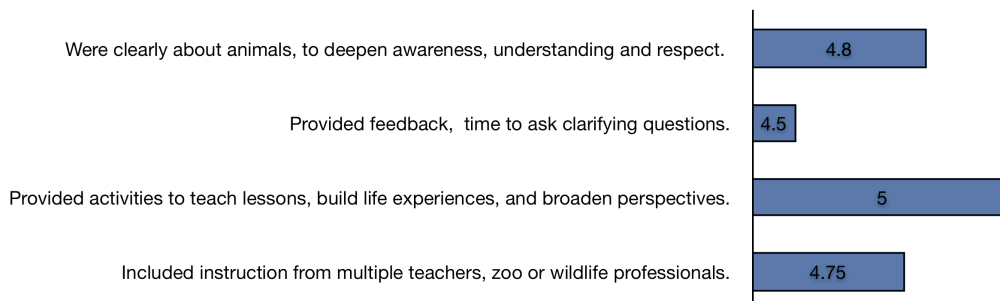
Parents' agreement with statements for McLaughlin's caring community component was very similar to those of their Next Level children. This finding suggests that parents felt MN Zoo staff and the assignments and information they provided was useful and within the context of the focus of the program.

**Figure 20: Parent Agreement with McLaughlin's Caring Community Program Aspects**



Parent's agreement with McLaughlin's knowledge-centered program aspects were also similar to that of their Next Level children, suggesting that MN Zoo programs and their staff deliver what they describe in program material and give students opportunities to ask questions about what they are learning and experiencing. Parents and students also recognized that MN Zoo program materials provided information meant to connect their Zoo experiences with everyday life.

**Figure 21: Parent Agreement with McLaughlin's Knowledge-Centered Program Aspects**



## IN WHAT WAYS CAN ONGOING EVALUATION BE USEFUL IN STRENGTHENING LEARNER-CENTERED ZOO PROGRAMMING?

Three words key words and the ways in which they work together are at the heart of answer this question: ongoing, evaluation, and learner-centered.

**Ongoing**, regular, and consistent ways of looking critically at students' understanding and interest coming in, shifts during, and after they exit MN Zoo programs allows for making adjustments for participants and provides a mechanism for program flexibility. Tracking students' progress from entry into programs for the purpose of monitoring and adjusting current or ongoing programs also lays the groundwork for expanding and planning new programs. Ongoing evaluation by scale – experience for participants, the program itself, set of programs – supplies multi-level and purposeful information for “making the case” for MN Zoo programs for decision-making.

**Evaluation** is the “systematic collection of information about the activities, characteristics, and results of programs to make judgments about the program, improve or further develop program effectiveness, inform decisions about future programming, and/or increase understanding” (Patton 2008). It can be done before, during, at the end, or after a program for the purpose of understanding ideas, testing materials, making changes and decisions. It can be a stand-alone activity or blended and threaded throughout some or all program activities. Evaluation is quite possibly the most useful tool in the programming toolkit as it can provide useful information quickly and deeply from those who plan, facilitate, and participate in programs. It is important to consider that to be truly useful, evaluation must map onto MN Zoo education goals at the least and, preferably, organizational goals. Ideally, these goals exist and are aligned with current best practices in the field. Realistically, they may be general ideas shared across the organization and possibly in need of revisiting or revision. The ZATPAC study provides perhaps the closest model for evaluation use given its conviction that ongoing evaluation of zoo teen programming is a strategy that advances environmental literacy of young people, supports the next generation of environmental stewards and increases the diversity of leadership of zoos.

**Learner-centered** focuses program efforts on the learner from conceptual planning through evaluation and offer opportunities for participatory evaluation with students and staff to shape programming and build professional and personal capacity. Joining existing initiatives such as ZATPAC, would allow MN Zoo to draw on and contribute to shared research and experience and strengthen its presence in the field.

The Next Level Student Retrospective Study provides a solid launch point from which evaluation can be continued in a number of meaningful ways and regardless of where MN Zoo goals may be. The MN Zoo has a great opportunity to shift from doing occasional investigation to creating a comprehensive approach to evaluation and to program planning that will serve the next generation of zoo professionals, internal staff and the organization itself.



## LOOKING FORWARD

As this study confirms, the MN Zoo has been successful in engaging young people in experiences with animals, conservation and wildlife, and it has been successful in engaging them over time. The powerful appeal of animals to these children and youth provides a compelling entry point and remains a strong factor in students' participation. The MN Zoo has built on this by offering a variety of programs across a range of ages, and delivering content that increases participants' understanding, care, and respect for animals.

The MN Zoo now has an opportunity to build on this study by developing a strategy for planning, strengthening and implementing its programs over the next few years. For programming practices, this could start with setting program goals consistent with department expectations and organizational interests. For evaluation this might include instituting regular evaluation like colleagues at ZATPAC or developing McLaughlin's assessment-center practice. If the MN Zoo has not already considered building a framework for all of its programs—how they serve particular audience groups, serve broader goals, and build on one another—this is an opportune time to do so. For instance, as part of this process, MN Zoo may consider starting with the following questions:

- How can MN Zoo serve a wide range of children and youth from pre-K to post secondary in developmentally engaging and challenging ways?
- Is “what makes the zoo tick.” a compelling enough question to support a large scope of programs for varied participants?
- What is the mix of global and local issues explored in programs that are meaningful to the wide age-range that MN Zoo serves?
- How do the MN Zoo Next Level programs relate to programs for teachers, school groups, and families?
- What are the program outcomes for different ages and how can they build on one another?
- What other programming formats might be responsive to their program goals and audience interests, such as project-based learning?

## Next Level Student Study Consent

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The Minnesota Zoo is conducting a study to better understand the motivation and experiences of "next level" students, youth ages 11 and older, that have participated in the range of programs it offers. The following is information related to the study and a request for consent to participate. Please read all of the information provided before giving consent to participate in our study.

---

### *Background Information*

The purpose of this study is to understand Minnesota Zoo program participants' motivations and experiences. Specifically, the study seeks to answer the following questions:

1. How and to what extent does Zoo programming influence Next Level participants' career, academic and personal/lifestyle pursuits?
  2. What aspects of Zoo programming (academic, experiential, social, professional networking) best support Next Level participants' choices for post-high school pursuits?
  3. In what ways can ongoing evaluation be useful in strengthening learner-centered Zoo programming?
- 

### *Procedure*

If you agree to participate in this study, your child will be asked to do the following:

#### Online Survey

During the last two weeks of April 2012, a link to an online survey will be sent to study participants via email. The survey will consist of several rating scales, multiple choice, check box, and/or open-ended questions to capture a participants' experiences related to the frequency, depth, and duration of involvement in Zoo programs; motivation for participation, general perceptions of the ways in which their involvement in Zoo programs and other related activities influenced curiosity and continuing interest in wildlife conservation and biological sciences. The survey must be completed by April 30, 2012.

#### Telephone Interview

Some online survey respondents will be contacted for a 20-30 minute follow up telephone conversation. Interview questions will consist primarily of open-ended, semi-structured questions aimed at gathering specific in depth examples of specific motivations and experiences before, during, and after participation in Zoo programs. Interviews will be scheduled between May 20 and June 8, 2012. Interviewees will be contacted via email to: 1)

confirm their participation; 2) schedule a mutually convenient time for the interview; and 3) receive a toll-free number to call for the interview.

---

### *Benefits and Risks*

#### **Benefits**

Other than helping Zoo to better understand the impact of its programs for youth 11 years and older, there are no direct benefits for participants of this study.

#### **Risks and Confidentiality**

There are no known risks to participating in this study. Responses will be reported in the aggregate and specific quotes will be attributed to respondents as, for example, "Male, 16 years old."

#### **Voluntary Nature of the Study**

The decision to participate in this study will not affect any current or future relations with the Zoo. If consent is granted to participate, participants are free to withdraw at any time without affecting those relationships.

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### *Contacts and Questions*

The researcher conducting this study for the Zoo is Cheryl Kessler, Principal, Blue Scarf Consulting. If you have questions now or later, you are encouraged to contact her at Cheryl@BlueScarfConsulting.com.

---

### *Consent*

**Your Name\***

---

**Your child's name:\***

---

**I have read this information. I have asked questions and received answers.  
Please check one of the statements below:\***

- My child is under 18 years of age and I agree that he/she may participate in this study.
  - My child is under 18 years of age I do not agree to his/her participation in this study.
  - My child is over 18 years of age.
-

*Over 18 Student Contact*

**Please provide a current, active email address where this information and consent request can be sent to your child.\***

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*Student Contact Information*

**Please provide a current, active email address where the Next Level Student Survey can be sent to your child.\***

---

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*Thank You!*

**Thank you for taking the time to read and complete this consent form.**

---

## Next Level Student Survey

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**THANK YOU** for participating in the Next Level Student Study!

Your responses to the questions in this survey will provide valuable information to help the Zoo understand how its programs inspire youth to care about animals and wildlife. It will also aid the Zoo in making decisions about future programs for youth.

The survey should take roughly 10 minutes to complete. Each question requires an answer and, if you should miss one, you will get a little reminder. Thoughtful and honest responses are encouraged and will in no way impact your current or future relationships with the Zoo or any of its staff.

Should you have any problems completing the survey, please send an email to Cheryl@BlueScarfConsulting. To begin the survey, click "Next".

---

### *ABOUT YOU...*

**What year did you first participate in Zoo programming? Your best guess is okay if you don't remember exactly.\***

- Prior to 2003       2003       2004       2005       2006       2007  
 2008       2009       2010       2011

**How old were you when you first participated in Zoo programming? Again, your best guess is okay.\***

- Before 5 years old     5 - 10 years old     11 - 16 years old     17+ years
- 

### *PROGRAM PARTICIPATON*

**Here's a list of programs the Zoo offers for youth. Which have you participated in? (Check all that apply)\***

- 90 minute Behind-the-Scenes Tours  
 2 hour "meet the animals" (i.e. Bear/Dolphin/Penguin Encounters, Reptile Care 101)  
 Career Day  
 Zoo Camp  
 Wildlife Conservation Club  
 Family Overnights (Dolphin, Farm, etc.)  
 College/University Travel Program  
 Wild Wolf EdVenture  
 Youth Travel Program (Guatemala, Costa Rico, Florida, etc.)

- Zoo Internship
  - Zoo Teen Volunteer Program
  - Zoo-wide Events (Spanish Day, Math Day etc...)
  - School of Environmental Studies
- 

***INTEREST***

**What is your earliest memory of animals and wildlife? (Check all that apply)\***

- Observing animals and wildlife at a zoo with my family.
  - Going hunting or fishing.
  - Learning about animals and wildlife during a class field trip to a zoo
  - Experiencing animals and wildlife while camping, hiking, or at a cabin.
  - Finding or hearing about a animals and wildlife in my own neighborhood/backyard.
  - Playing with toys I had as a child.
  - Reading or seeing books with pictures of animals and wildlife.
  - Reading or being told stories about animals or wildlife.
  - Watching television programs/movies/videos about animals and wildlife.
  - Other
- 

***INTEREST***

**Was there a particular transformational event or experience that sparked your interest in animals and wildlife?\***

- Yes  No  Don't remember
- 

***INTEREST***

**Briefly describe that transformational event or experience.\***

---

***INTEREST***

**Was there a particular person or persons who sparked your interest in animals and wildlife?\***

- Yes  No  Don't remember
- 

***INTEREST***

**Who was that person or persons? (Check all that apply)\***

- Teacher
- Parent
- Sibling

- Close relative (uncle, aunt, grandparent, cousin)
  - Neighbor
  - Librarian
  - Zoo educator/employee
  - Travel guide
  - Coach
  - Camp counselor
  - Babysitter
  - Friends' siblings
  - Friends' parents or relatives
  - Veterinarian
  - Scout/Group leader
  - Other
- 

### ***MOTIVATION***

**Take a look at the list below and, thinking back to when you first started attending Zoo programs, select THREE statements that best represent your initial reasons for participating in those programs. (Check only three)\***

- I have always had an interest in animals and wildlife.
  - I have always been interested in environmental conservation.
  - I wanted to learn more about animals and their habitats.
  - I wanted to learn more about environmental conservation.
  - I told my parents I was interested in doing Zoo programs.
  - I like to learn through interaction.
  - I liked the idea of learning from Zoo professionals.
  - My parents enrolled me, so I had to go.
  - My parents knew I liked animals and wildlife.
  - My friends and I could do the programs together.
  - Other
- 

### ***MOTIVATION***

**Still thinking of when you began going to Zoo programs, rank those three reasons in order of importance to you, from Most important to Least important.\***

---

**MOTIVATION**

**What THREE factors most motivated you to CONTINUE participating Zoo programs? (Check only three)\***

- An overall interest in wild animals.
- A desire to learn more about wild animals and their habitats.
- An overall interested in environmental conservation.
- A desire to learn more about environmental conservation.
- My parents supported of my interest in doing Zoo programs.
- The opportunity to learn through interaction.
- The idea of learning from Zoo professionals.
- My parents interest, so felt I had to go.
- My friends and I could do the programs together.
- Other

**MOTIVATION**

**Rank those three reasons that motivated you to continue to participate in Zoo programs in order of importance to you, from Most important to Least important.\***

**UNDERSTANDING**

**We are very interested in understanding how Zoo programs shifted or changed your understanding of topics related to WILDLIFE. Thinking back to BEFORE you became involved with Zoo programs, indicate in the left hand column your level of understanding WILDLIFE. Then, in the right hand column, indicate your level of understanding AFTER participating in Zoo programs. Repeat the process until you have responded to all seven topics.**

Understanding BEFORE					WILDLIFE	Understanding AFTER				
None	Some	Moderate	Good	Really good		None	Some	Moderate	Good	Really good
( )	( )	( )	( )	( )	Human care of animals	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	Respect for animals	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	Animal adaptation	( )	( )	( )	( )	( )
( )	( )	( )	( )	( )	Endangered species preservation	( )	( )	( )	( )	( )



<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Species extinction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Interconnections between animals (food webs, predator/prey)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Zoo careers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**UNDERSTANDING**

We are also interested in understanding how Zoo programs shifted or changed your understanding of topics related to ENVIRONMENT. Thinking back to BEFORE you became involved with Zoo programs, indicate in the left hand column your level of understanding ENVIRONMENT. Then, in the right hand column, indicate your level of understanding AFTER participating in Zoo programs. Repeat the process until you have responded to all seven topics.

Understanding BEFORE					ENVIRONMENT	Understanding AFTER				
None	Some	Moderate	Good	Really good		None	Some	Moderate	Good	Really good
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Habitat loss	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Climate change	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Local conservation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Global conservation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Human impacts on the environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ecosystems (plant communities, water cycles)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Biodiversity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**LAST QUESTION...**

**Thinking about the programs you participated in, please indicate your level of agreement with the following statements:\***

	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly agree</b>
Provided insights into how I can make a difference in wildlife conservation.	( )	( )	( )	( )	( )
Helped me explore paths for pursuing academic coursework.	( )	( )	( )	( )	( )
Helped me think about a career.	( )	( )	( )	( )	( )
Connected me to zoo professionals.	( )	( )	( )	( )	( )
Provided me with role models with like-minded interests.	( )	( )	( )	( )	( )
Introduced me to like-minded peers.	( )	( )	( )	( )	( )
Helped me build confidence to work with animals and wildlife.	( )	( )	( )	( )	( )
Helped me build competence to work with animals and wildlife.	( )	( )	( )	( )	( )
Made me aware of environmental issues connected to wildlife biology and conservation.	( )	( )	( )	( )	( )
Changed my attitude about environmental issues in general.	( )	( )	( )	( )	( )
Gave me ideas for changing my day-to-day behavior towards the environment.	( )	( )	( )	( )	( )
Gave me strategies for playing a stronger role in habitat conservation.	( )	( )	( )	( )	( )
Inspired me to care more about the planet.	( )	( )	( )	( )	( )
Inspired me to support and/or advocate for animals and wildlife.	( )	( )	( )	( )	( )
Made me a better person.	( )	( )	( )	( )	( )

**To complete the survey, click "Submit".**

**Thank you for taking our survey. Your response is very important to us.**

---

*Thank You!*

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## Next Level Student Telephone Interview

Thanks again for agreeing to this telephone interview. The interview consists of several open-ended questions as well as some rating questions all having to do with your experience with Minnesota Zoo programs. There are no right or wrong answers to these questions and we're interested in hearing both positive and negative feedback, so please feel free to be open and honest when responding to the interview questions. The interview should take 20-30 minutes, so let's get started.

### Background—these first questions are meant to gather a bit of background information.

What grade were you in when you attended your first zoo program?	Did something in particular motivate you to participate in a zoo program at that time?	Did you pretty much attend zoo programs every year after that?
--	--	--

### Perspective—the next questions have to do with your perspective related to MN Zoo programs.

I have three sets of statements that I'm going to read to you as we move through this interview. Each set has 2-3 statements that, on a scale of 1 to 5, where 1 is "Disagree" and 5 is "Agree", I'd like you to say what your level of agreement is for each statement. Here's the first set of statements, all of which start with, "Overall, the MN Zoo programs I attended:	The online survey had a couple of questions about motivation. Talk a bit about what motivated you to continue participating in Zoo programs. (Probe for specific animal, area of study, specific activity or zoo/wildlife professional)	Describe how your participation in Zoo programs supported that motivation (Probe for specific activities/experiences, speakers/instructors, materials; thread through programs, etc.)				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; padding: 5px;"><i>Were easy to enter and participate in.</i></td> <td style="width: 25%; padding: 5px;"><i>Identified what kids did well and built on those strengths.</i></td> <td style="width: 25%; padding: 5px;"><i>Identified what kids were interested in and focused on that interest.</i></td> <td style="width: 25%; padding: 5px;"><i>Provided personal attention</i></td> </tr> </table>	<i>Were easy to enter and participate in.</i>	<i>Identified what kids did well and built on those strengths.</i>	<i>Identified what kids were interested in and focused on that interest.</i>	<i>Provided personal attention</i>		
<i>Were easy to enter and participate in.</i>	<i>Identified what kids did well and built on those strengths.</i>	<i>Identified what kids were interested in and focused on that interest.</i>	<i>Provided personal attention</i>			

## Next Level Student Telephone Interview

### Support-the following questions have to do with support for doing Zoo programs.

<p>The online survey also asked about a person or persons who sparked and/or supported your interest in animals or wildlife. Who sparked that interest for you, how, and when?</p>	<p>Who supported your interest, how, and when?</p>	<p>Okay, here's the second set of statements that I'd again like you to say what your level of agreement is on a scale of 1 to 5, where 1 is "Disagree" and 5 is "Agree", all of which start with, "Overall, the MN Zoo programs I attended:</p>			
		<p><i>Built trusting relationships among youth and zoo professionals.</i></p>	<p><i>Included responsibilities for the Zoo and its space, for example recycling, composting, respecting wildlife, supporting conservation.</i></p>	<p><i>Built connections between youth, their community, and society through introductions to zoo professionals and people who study wildlife.</i></p>	<p><i>Provided tips on zoo careers.</i></p>

### Knowledge—Okay, let's talk for a bit about what you got out of participating in Zoo programs.

<p>What would you say is the most useful or important thing you learned about through the MN Zoo programs you attended?</p>	<p>Tell me a bit about that (Probe: looking for specific content, events, experiences with staff, etc.)</p>	<p>In what ways did your involvement in Zoo programs help build your confidence to work with animals and wildlife?</p>	<p>Okay, here's the third set of statements that I'd again like you to say what your level of agreement is on a scale of 1 to 5, where 1 is "Disagree" and 5 is "Agree", all of which start with, "Overall, the MN Zoo programs I attended:</p>			
			<p><i>Were clearly and intensely about animals, with the aim to deepen, awareness, understanding and respect.</i></p>	<p><i>Provided feedback and/or time to ask clarifying questions.</i></p>	<p><i>Provide a variety of activities to teach lessons, build life skills, and broaden perspectives.</i></p>	<p><i>Included instruction from more than one teacher, zoo or wildlife professional.</i></p>

## Next Level Student Telephone Interview

Behavior—We're nearly done. The next set of questions has to do with how Zoo programs influenced your behavior.				
Let's start with a definition of sorts. Tell me what "wildlife conservation means to you.	In what ways did the Zoo programs you participated in give you ideas for changing your day-to-day behavior related to wildlife conservation?	Did a particular Zoo program influence the changes you just described?	What are some of the day-to-day behaviors around animals that you have changed?	Did a particular Zoo program influence the changes you just described?
What are some of the day-to-day behaviors around environment that you have changed?	Did a particular Zoo program influence the changes you just described?	What are some of the strategies you've learned for being more active and involved in wildlife conservation?		Did a particular Zoo program influence the changes you just described?

<b>LAST QUESTION!</b>	<p><b>Thank you so much for sharing your experiences. This information will be very useful to the Zoo as they plan future programs.</b></p>
<p>Before we wrap up, do you have anything you'd like to share about your Zoo program experience that we haven't already covered?</p>	

## MN Zoo Next Level Parent Survey

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A few months ago you were contacted about a research study The Minnesota Zoo is conducting to better understand the motivation and experiences of "next level" students, youth ages 11 and older, that have participated in the range of programs it offers. At that time, you were asked for permission to include your child in an online survey and possible follow-up telephone interview. With both the student survey and interviews completed, we are now interested in hearing about YOUR role in supporting your child's zoo-related interests and observations of their Zoo program experience. In the interest of your time, we have come up with six questions aimed at gathering this data. Your honest and thoughtful response is greatly appreciated. Please click on "Next" to begin the survey.

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1) Share some of the non Zoo-related ways in which you have supported your child's interest in animals and wildlife?\*

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2) What do you feel were/are the strongest aspects of MN Zoo programming that your child has participated in?\*

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3) What kind of changes have you seen in your child's behavior towards animals and wildlife since they have been involved in MN Zoo programs?\*

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4) In your opinion, how have MN Zoo programs supported or helped your child's interest in animals and wildlife?\*

---

5) Please indicate your agreement with the following statements, all of which begin with, "Overall, the MN Zoo programs..."

	Strongly disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree	Don't know/Not sure
Were comfortable for my child to enter and participate in.	( )	( )	( )	( )	( )	( )
Identified what my child did well and built on those strengths.	( )	( )	( )	( )	( )	( )
Identified what my child was interested in and focused on that interest.	( )	( )	( )	( )	( )	( )

Provided my child with personal attention.	( )	( )	( )	( )	( )	( )
Built trusting relationships among my child and zoo professionals.	( )	( )	( )	( )	( )	( )
Included responsibilities for my child to do at the Zoo, such as recycling, composting, respecting wildlife, supporting conservation.	( )	( )	( )	( )	( )	( )
Provided my child with tips on zoo careers.	( )	( )	( )	( )	( )	( )
Were clearly and intensely about animals, with the aim to deepen, awareness, understanding and respect.	( )	( )	( )	( )	( )	( )
Provided my child with feedback and/or time to ask clarifying questions.	( )	( )	( )	( )	( )	( )
Provided my child a variety of activities to teach lessons, build life experiences, and broaden participants' perspectives.	( )	( )	( )	( )	( )	( )
Included instruction from more than one teacher, zoo or wildlife professional.	( )	( )	( )	( )	( )	( )

---

**6) Please share any additional experiences or observations you may have related to your child's experience with MN Zoo programs.\***

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**Thank you for taking the time to complete our survey.**

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