

BEST PRACTICES FOR DELIVERING AMBASSADOR ANIMAL PROGRAMS TO NEW AUDIENCES

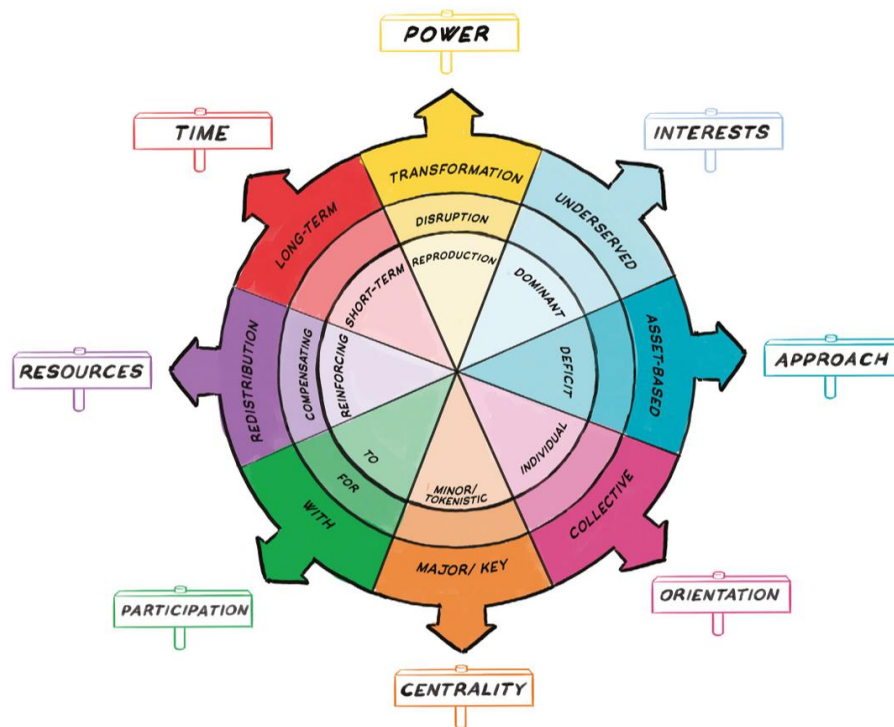
GUIDING FRAMEWORKS

AZA best practices for ambassador animal well-being¹

One of the best ways to demonstrate your commitment to empathic approaches to diversity is by showing it directly in how you care for animals during the ambassador animal outreach program. Animals are all different and have unique needs and challenges. Following the AZA ambassador animal guidelines is a good starting point to demonstrate the respect and care for the diversity present within the animal kingdom.

The Equity Compass Tool²

The Equity Compass tool helps to promote social justice mindsets with respect to policies and practices in real institutions. It invites reflection on several dimensions of equity, as represented below in the compass, and described in more detail in the table.



POWER	To what extent are dominant relations being reinforced vs. challenged and changed? For example, the idea of scientists or zookeepers as white men; narrow representations and forms of science knowledge and practice; stereotypes about experiences that participants may have had with animals or zoo's in general. spaces) Who has agency, power and legitimacy? Are dominant, unjust relations and conditions being reproduced, challenged or meaningfully transformed?
INTERESTS, NEEDS, & VALUES	Whose interests, needs and values drive the policy and/or practice? Those of the dominant (e.g. the institution, industry, economy) or underserved people and communities?
APPROACH	How are the interests, knowledge, identities and resources of underserved people and communities being recognized and valued (an 'assets-based' approach)? Are (some) participants treated in deficit terms (as 'lacking' information, aspiration, interest and somehow being 'out of place')? To what extent are all participants valued and recognized for who they are, rather than who they are not?
ORIENTATION	To what extent does the practice contribute to individual outcomes? To what extent are the outcomes also collective (e.g. for families, wider communities) and/or the wider field? Do the outcomes extend beyond the specific experience or program?
CENTRALITY	How central, major, intentional and foregrounded are equity issues in the program and organization? Are equity issues everyone's core business or are they minor, token, peripheral concerns (e.g. restricted to special programs, and temporary funding)? How are issues and experiences of injustice recognized and challenged?
PARTICIPATION	Is the practice being done 'to', 'for' or 'with' underserved people and communities? Who has ownership and voice in decision making? How participatory is the practice? Are participants producers or just consumers of content? Is the practice exploitative/ tokenistic? Are the participants valued partners? How is identity and agency being supported?
RESOURCES	Are resources and efforts mostly directed at more privileged people and those who already have a connection to the zoo? How are the STEM knowledge, skills, and social networks of underserved people being supported? Is the approach/experience reinforcing dominant relations and conditions, taking a compensatory approach or is it more meaningfully redistributing resources and changing ideas about what resources are valued?
TIME	Is the practice one-off, short-term or longer-term? Is attention being paid to supporting people's trajectories and progression over time and across contexts? How are pathways being brokered and supported both within the experience and beyond the moment/ program/ setting?

ZOO LEADERSHIP AND STAFF

Provide staff and volunteer training

- Ideally, staff would have a voice in training-related conversations and decisions
- Training should celebrate the diversity of participants, educate on equity-related issues, and focus on inclusivity and access for all participants
- Training should involve local community organizations that represent the participants you plan to deliver programs to
- Training materials should be provided in a variety of formats (e.g. written, lecture, interactive, one-on-one)
- Training should occur before programs start, so they can influence design choices for specialized populations
- Training should encourage staff to be aware and reflect on their own experiences regarding outreach group populations
- A safe and trusting training environment will allow staff to consider how to recognize and improve on any potential biases
- All staff who are engaging with participants should receive training, to better understand participants' needs
- Training should be continuous and part of an open dialogue during the program deliveries, so that improvements can be made throughout the program delivery as needed
- Training should continue after programs are implemented, in order to understand lessons learned and areas for improvement
- Solicit and respond to staff feedback throughout the process

Case study: When designing ambassador animal outreach programs for new audiences, Minnesota Zoo sought out training from local community organizations that serve people with Alzheimer's disease, autism, and adults with disabilities. These community organizations trained program designers and implementation staff on the specialized needs of these populations. Based on these trainings, the staff were able to design customized programs that were sensitive to the unique needs and challenges of these populations. They also shared information from these trainings with naturalists who led the ambassador animal programs, to ensure that all staff were aware of how to sensitively engage with these new groups.

Zoo leadership and administration as program supporters

Members of the zoo leadership and administration team have much to contribute to new ambassador animal outreach efforts. Here are some examples of how they can help support these programs:

- Integrate outreach programs as fundamental part of Inclusion, Diversity, Equity, and Access plan
- Include outreach programs in strategic planning process
- Integrate outreach programs into organization's mission, vision, and values
- Allocate funding toward zoo outreach programs

- Allocate staff time toward zoo outreach programs
- Hire and train staff from diverse backgrounds for outreach programs
- Provide equitable salary and career development opportunities to education staff ³
- Trust your staff: Be willing to let them experiment and try new ideas
- Promote and share the work of zoo outreach programs
- Seek external funding for these programs

Have a growth mindset

It's important to promote and model a healthy *growth mindset* ⁴ about our understanding of groups we serve in outreach programs.

- Be aware that all of us have limited perspectives and worldviews, and be willing to grow and improve throughout the process.
- Accept and respond to feedback and suggestions about areas of strength and development.
- Recognize your limitations, and get outside assistance as needed.

Case study: The Saint Louis Zoo has been recognized by AZA for their outstanding community involvement and engagement.⁵ The zoo's commitment to recognizing their areas for growth, focusing on authentic relationships, and working with external organizations (e.g. an 18 month Community-Engagement and Participatory Research Initiative with University of Missouri) offers promising pathways to improvement.

Plan around practical constraints

When planning new zoo outreach programs, it's important to consider the typical ebbs and flows in education staff work flows, so as not to put too heavy a burden on staff during peak times.

- It makes sense to offer more outreach programs during times when there are fewer on-site zoo visitors and field trips.
- This allows for an even distribution of staff labor, without increasing burden on them during busy times.

Case study: An analysis of Chester Zoo in England found that 70% of the variation in visitor attendance levels could be predicted by time of year and weather.⁶ Most zoos are aware of their seasonal and weather variations in visitors and educational program. Use this information strategically to plan new zoo outreach programs during off-peak times.

EMPATHIC DESIGN

Create outreach programs for underserved populations

Most zoos have educational outreach programs for K-12 schools, which provides either in person or virtual zoo experiences for children through field trip experiences. These meet an important need, and there are also many other groups who could benefit from outreach programs like Zoomobiles, but are often excluded from such programs.⁷ These include anyone who might have difficulty visiting the zoo, whether because of resources (including finances, transportation, unusual work schedules, etc) or health (including mental and physical health). Such underserved populations include, but are not limited to:

- People with limited financial resources
- People with housing insecurity
- People who live far away from zoos (e.g. rural environments)
- People who are in prison
- People who are in hospitals or other institutions
- People with disabilities (including mobility-based, visual impairments, hearing impairments, cognitive impairments)
- People with Alzheimer's or dementia (including those in care homes or with caregivers)
- People with psychological disabilities (including autism, schizophrenia, or other impairment that could affect their zoo experience)

Case study. Though not a zoo, the Museum of Life and Science in Durham County, North Carolina, provides a good example of developing tailored programming to an underserved group via its Science Together program. The museum worked collaboratively with a homeless services organization / shelter and families in the shelter to create customized science-based programming for the families. Their process involved repeated check-ins, collaborative reflections, understanding mutual interests, and developing programs that resonated with families. The process culminated in monthly programming available to shelter families, and customized to respond to ongoing and changing needs. A research article was published by Cawley and colleagues (2022) in the Journal of Museum Education that shares lessons learned from this project.⁸

Get to know your audience, and responsively listen to them

- Hire staff and volunteers for programs who are from the communities you are trying to serve, or those who have experience working with the communities.
- Listen to and work with the diverse demographic and geographic communities that make up your audience (e.g. focus groups, community meetings, listening sessions, community asset mapping, local events, surveys, observations)
- Do this throughout the process, not just before; it will help you to be agile and responsive to changing community needs and responses to your programs

- When possible, provide focus groups, programs, and materials in other community languages besides English (including ASL)
- Grow in your empathic imagination / perspective taking for diverse groups
- Regularly check in with and get feedback from participants in your programs
- Be flexible and willing to make changes based on participants' feedback and changing needs
- Be mindful of what program details mean to participants. Even something as simple as program titles communicates a lot of information to participants⁹

Design programs that match participants' needs

Underserved zoo audiences may have needs that differ from more frequent zoo visitors. Besides listening to your audience, there are other techniques that can help to support engaging and meaningful ambassador animal outreach experiences for all.

- Use universal design principles whenever possible. This involves building in a variety of accommodations for different needs into the design of each program.
- Before starting any program, prepare participants for the encounter by explaining (verbally and with pictures) what they can expect
- Research finds that zoo visitors prioritize entertainment, learning about animals, and conservation information during zoo experiences.¹⁰ Design programs to be interesting and informative for audiences.
- Consider diverse learning styles when creating programs and materials
- Provide multimodal learning experiences that include images, tactile objects (like animal biofacts), audio, video, movement, and interactivity
- If possible, provide program information in other community languages besides English
- Provide programming in non-traditional locations, such as hospitals, parks, community fairs, hospitals, long-term care facilities and other institutional environments. These do not have to be live (e.g. recorded programming in hospitals) or in person (e.g. animal webcams).
- Vary the program's length of time based on knowledge and understanding of participants' attention and comfort
- Be flexible and responsive to what is happening in the moment with the animal and with the participants. It's okay to go "off script" to ensure that people feel comfortable and safe during the program.

COLLABORATION

Nurture trusting relationships and long-lasting community partnerships

Build authentic relationships over time with diverse community members. This helps to provide outreach services to other groups besides those who may actively seek out ambassador animal programs on the zoo's website (e.g. schools looking for field trips). Consult with local therapists (art therapists, mental health, occupational) to develop specialized techniques and programming for participants with specific needs.

Invite representative community members to advisory roles

- Form key partnerships and collaborations with diverse community groups and leaders
- Use a model of community cultural wealth that focuses on assets that community members bring, rather than a deficit model.¹¹
- Co-create outreach experiences and programs with input from diverse community stakeholders. Doing so will increase interest and engagement to programs.

Case study: Zoo Active Leaders in Volunteer Education (Zoo ALIVE) is an ongoing teen volunteer program at the Saint Louis Zoo.¹² The program was designed to develop future environmental leaders through youth-oriented programming and transformative experiences. Research has found that participation in this group helped to promote more environmentally sustainable behavior in teens.¹³

Collaborate with other like-minded institutions

There are other zoos, aquariums, and informal science organizations that have knowledge and expertise on outreach programs and/or would be open to yours. Find them, and share ideas, resources, and data to create higher quality programs for participants!

Case studies:

- The Advancing Conservation through Empathy (ACE) for Wildlife network is a growing group of accredited zoos and aquariums organized around creating, using, and evaluating practices to foster empathy for wildlife and people, leading to conservation actions. They use scientifically-based principles to develop and evaluate programs, and would be a good place to start for advice about designing strong ambassador animal outreach programs for new audiences.¹⁴
- The Zoo and Aquarium Teen Program Assessment Consortium (ZATPAC) is a collaborative initiative of six leading zoos and aquariums to better assess and evaluate the impact of their teen programs. Their methods would likely be applicable beyond teen programs and to other specialized populations.¹⁵

Collaborate with academics

Academics are often eager to work with zoos in a variety of collaborative ways, and these types of partnerships can be mutually beneficial.¹⁶ With the right value and goal alignment, academic partners can:

- help to identify and seek funding
- consult on scientifically-supported program design
- collect and analyze data to evaluate programs
- publish and share results in both academic and non-academic outlets

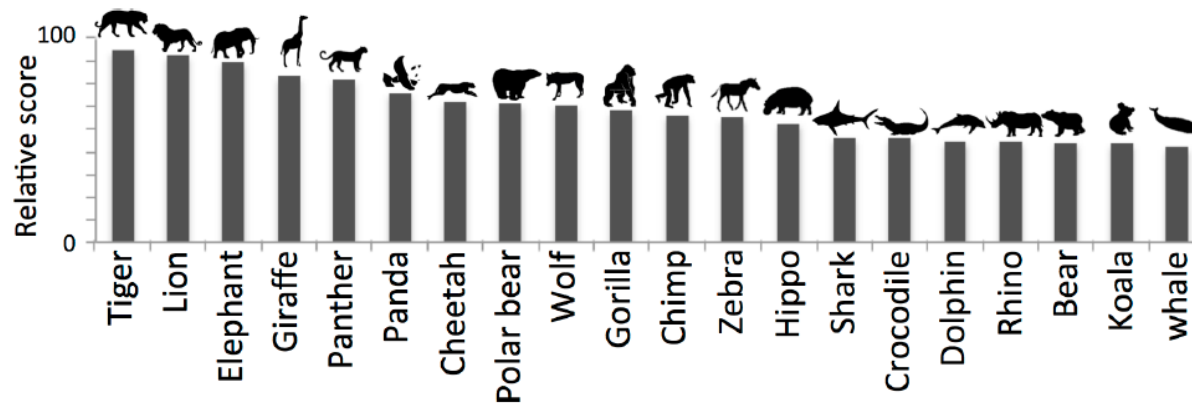
Like any relationship, these collaborations will be most successful with mutual respect, good communication, and attempts to understand each other's expectations and worldviews.

OUTREACH PROGRAMS

Include a variety of ambassador animals

Ambassador animal outreach programs often have the goal of increasing conservation interest and behavior. If so, it's important to include several different animal species to promote biodiversity and the protection and care of all species, not just charismatic ones.

- Research has found that zoo visitors invest more time, effort, and money to see a rarer animal species compared to a more common one.¹⁷
- Other scholars have identified the 20 most charismatic species, most of which are large mammals (see below).¹⁸
- Yet a study found that participants were similarly engaged (number of questions and comments) regardless of the animal type.¹⁹
- Outreach programs should consider focusing on expanding ambassador animals that are less charismatic and more common, to help promote broader conservation outcomes.



Case study: The Eight-Legged Encounters program and interactive activities²⁰ was created by biologist Eileen Hebets to increase interest and scientific knowledge about arachnids in zoos and science museums. Research has found that despite focusing on creatures that are often feared or unpopular, the program successfully increased engagement and knowledge as hoped.²¹

Integrate best practices of zoo educational programs

Research supports a variety of effective practices in zoo educational programs in general that can be applied to outreach programs.²² Some examples are:

- When possible, understand participants' values and tailor programs toward these for increased engagement, learning, and conservation outcomes²³
- Inquiry-based programs that allow for more audience interactivity (e.g. asking them questions) lead to deeper engagement and curiosity.²⁴
- Adding an animal training component to a program increases visitor engagement with programs above and beyond traditional interpretation.²⁵
- Give ambassador animals choice and control over their behaviors, and highlight animal well-being: these both lead to more empathic audience reactions toward animals.²⁶

Think creatively for broader access

- Design outreach programs that bring diverse groups into the zoo, or bring the zoo to diverse groups
- Adapt educational core curriculum in a variety of formats and locations for broader access (e.g. in zoo, online, in diverse community organizations, at community fairs, in schools, for use at home without zoo staff, etc)

Case study: Art box deliveries. During the pandemic, two artists worked with museums to create home art kits that were delivered weekly to people with dementia and their caregivers for 11 months. The artists regularly listened to participants and made improvements based on their suggestions. This project demonstrates that remote art workshops are possible, but they should be paired with personal communication.²⁷ The project was funded by local organizations and a small grant, and could easily be adapted by zoos for outreach programs. For example, a “zoo box,” could be sent to caregivers that include animal pictures, videos, and figures, along with a guided activity.

Use technology to broaden outreach even further

Consider using a variety of technology offerings to help broaden outreach access.

- When doing so, remember the digital divide in technology access and brainstorm ways to be more inclusive. For example, zoos should share information about free or reduced cost internet access (through libraries or government programs) along with their flyers and other advertisements.
- Research finds that offering online or hybrid versions of ambassador animal programs can greatly expand the audience reach. For example, one study found that online programs attracted people who had never previously attended the zoo and people who were further away than those who attended the on-site events.²⁸
- Remember that the zoo's main website and social media presence are important ways to communicate messages of inclusion to underserved groups. Be mindful to be welcoming to people from those groups and sharing outreach programs and options.

- Outreach program information could be listed on the zoo's accessibility webpage. People seeking specialized on-site zoo services (such as accommodations for disabilities or other special needs) would likely check these pages for more information, so this is another good way to share ambassador animal outreach programs.
- A simple way to broaden access is to digitize and post existing content online (e.g. animal factsheets and activities)²⁹ and to create new digital content (e.g. record and post ambassador animal program videos online).
- Live virtual animal ambassador programs and zoo tours can be offered to groups who face challenges attending the zoo in person because of cost, distance, or other circumstances (e.g. covid-19 pandemic).³⁰
- Consider adding audio description and captioning for video recorded content online.
- Interactive games or apps can facilitate learning about animals in a fun and engaging way.
- Virtual reality animal encounters are emerging ways for people to engage with animals safely (e.g. Alzheimer's disease).³¹
- Other new technologies that may become part of future ambassador animal outreach programs include 3D printing, artificial intelligence text and image tools, and robotics.

Case study: Minnesota Zoo's animal ambassador outreach programs include a TV program recorded for a children's wing of a hospital, live zoo webcams of their gray wolves and river otters,³² and a variety of virtual tours and programs offered via Zoom.³³

EVALUATION & DISSEMINATION

Adapt evaluation data collection to participants' needs

In order to ensure that the programs are meeting their goals, it's important to collect data throughout the process, so you can make changes as needed. Some audiences that can't easily make it to the zoo may also have challenges with verbal communication, vision, hearing, and physical mobility.

Case study: Minnesota Zoo recently developed and piloted an observation coding manual to examine the effectiveness of our Zoomobile programs.

- We collected pilot data from 7 sessions: 5 for memory care facilities, and 2 for seniors' facilities.
- There were about 20.7 (range: 4-44) participants and 4.4 caregivers (range: 2-9) in the room during the sessions.
- Naturalists spent 10.7 minutes with the animals on average.
- Because there was a range of abilities in these groups, we could not assess empathic engagement with the animals using traditional self-report survey methods.
- Instead, we used a behavioral observation coding checklist to evaluate participants' engagement with our programs.
- During each of the 7 sessions, a coder carefully observed 3 different individual participants to assess their responses to the program.
- There were a total of 21 behavioral observations of participants, across 3 animal types (SI skink, millipede, hognose or python snake).

	Lower empathic engagement	Higher empathic engagement
Facial expressions	e.g. anxiety, fear, or disgust	e.g. happy, caring / concerned
Body language / gestures	e.g. hand pushing away from self	e.g. pointing, reaching
Interpersonal distance	e.g. moving away, unwilling to touch	e.g. leaning in, willing to touch
Vocal characteristics	e.g. negative vocal sounds ("yikes!")	e.g. positive vocal sounds ("aw!")
Gaze direction	e.g. avoid looking at animal or naturalist	e.g. looking at animal or naturalist
Attention	e.g. fidgeting, yawning	e.g. deep attention
Synchrony	e.g. low body synchrony with animal or naturalist	e.g. high body synchrony with animal or naturalist
Average score	0.95 (range: 0 to 4) 62% of participants showed no low empathy signals	3.67 (range: 0 to 6) 95% showed one or more high empathy signals
Group Type		

Seniors	0.83	3.83
Memory Care	1.00	3.60
Animal Type		
Millipede	0.75	3.75
Snake	1.56	3.11
SI skink	0.00	4.75

**Full coding manual is available upon request. There were similar results for Seniors vs. Memory Care participants. Participants showed the most low empathy engagement signals for snakes, along with the least high empathy signals. SI skinks elicited no low empathy signals, and also the most high empathy signals.*

Unsolicited positive feedback about programs

Email sent Aug 22, 2023: *“I’m a producer for the children’s programming at the hospital. We are so pleased with the team that has been coming out to do the shows, they are just terrific!”* This was followed by a request for more frequent programming in the future.

Email sent Oct 24, 2023: *“[Organization] was very impressed and happy we are doing programming for this audience. They really enjoyed the program and the programs we do at their ... facility. I asked her for feedback on how to make the programs an even better experience for her residents or how we can improve programming to meet their needs and what they are looking for.”*

Donation received Nov 9, 2023: *One senior center program director voluntarily made a donation to the Zoo after experiencing the ambassador animal outreach program designed for their community members.*

Widely disseminate programs and knowledge gained

After designing, testing, and evaluating effective outreach programs, share these results with:

- Zoo leadership and administration
- Other zoos, especially education staff
- Zoo supporters, including members and donors
- Members of the community and broader general public

Use a variety of formats including website updates, press releases, short videos, infographic handouts / downloads, and conference presentations to share the good news about your outreach work!

Sources

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