

EXPRESSIONS OF EMPATHY AND EMPATHY PRACTICES OBSERVATIONAL FRAMEWORK

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INTRODUCTION

Purpose: Observations are a multisensory way of noticing and learning about a phenomenon like empathy and can be a primary source of information in scientific inquiries. Conducting systematic observations is different than simply noticing things. Systematic observations practices observing intentionally and allows learners to observe the landscape of a phenomena, or to see measurable change over time and place.

This Observational Framework and complimentary tools were designed to observe, record and measure participants' verbal and non-verbal behavioral indicators of empathy towards animals that may occur during facilitated programs or casual exhibit experiences. Additionally, they were created to measure the use of empathy practices in program facilitation and in exhibit signage. There are four observation instruments included in this Framework, as well as an example of a completed instrument. The observational instruments are:

- AUDIENCE Observational Instrument
- VISITOR Observational Instrument
- PRESENTER Observational Instrument
- SIGNAGE Observational Instrument

What are some **evaluation questions/research objectives** these instruments might help you answer?

- Does program/exhibit participation elicit audience expression of empathic behaviors?
- Do program presenters and exhibit signage use empathy practices and with what frequency?
- Does program/exhibit participation elicit expressions of related positive emotions (e.g., respect, appreciation, curiosity, etc.)?
- To what extent, if any, does presence of empathy practices used by a program presenter or on exhibit signage correlate with audience expression of empathic behaviors?

Limitations Of These Instruments: These instruments record outward expressions of empathy towards animals, but do not capture non-behavioral indicators or the full complexity of an individual's emotional experience. Pairing this framework with additional evaluation methods, such as a self-report survey, can provide a more comprehensive understanding of your guests' empathy experiences and increase the validity of your findings

Materials Needed:

- Observation instrument
- Writing implement
- Timing device
- Recommended: Clipboard

People Resources Needed:

- An individual, such as a staff member or volunteer, trained to conduct the observation(s).
- If possible, at programs where there is a presenter and audience, multiple presenters or multiple audiences, multiple observers can be present, each conducting a different, relevant observation.

PREPARING TO USE THE OBSERVATIONAL PROTOCOLS

Learning any new observational protocol takes time and practice, so don't feel overwhelmed or put undue pressure on yourself to learn the observational protocols on your first try. The more you use a tool, the more comfortable and confident you will become. Below are some suggestions for you to prepare to use the observational protocols before starting official data collection.

- 1) See the example completed instrument at the end of this packet and familiarize yourself with the observation items and what some examples of those items might be. It may help you to fill in some additional examples you have from your specific institution, programs, exhibits etc.
- 2) Then practice and pilot test the instruments. Carve out some practice time for yourself before you start any official observations. This will allow you to familiarize yourself further with the layout of the observational frameworks, learn the items more thoroughly, practice selecting your participants, and practice timing.
- 3) It is often very helpful to have more than one person learn the observational protocols, as capacity allows. To make sure that all observers are trained, all should have a chance to pilot test the observational frameworks. To ensure there is a high level of inter-observer reliability, or consistency between observers when observing the same thing, it is helpful to observe the same program, exhibit, or presenter as part of your practice. After the observation, compare your recorded observations and determine your level of agreement, or, how often you observed the same items. It's unlikely for two observers to have 100% of agreement on one observation, but you should aim for the highest level of agreement possible. If you are finding that observers are struggling to have reliability between each other, re-orient yourself with the sheet, openly talk through an observation together, ask questions of others that have used the tools, or bring in another person to help you test the framework.
- 4) If you have any questions about how to use this Observational Framework, please reach out to kirinne.slaughter@zoo.org or any other network members that have used or adapted this instrument.

OVERALL CONSIDERATIONS FOR ALL INSTRUMENTS

- 1) Observations can be conducted live or be video recorded for later analysis.
- 2) Observation of non-verbal indicators can be acquired through visual observation. Keep in mind noise can be an issue when observing but comments and conversations.
- 3) Consideration must be given to the influence an observer or camera may have on participants' behavior.
- 4) Before beginning any observations, fill in all contextual information on the observational form.

- 5) As you hear the various observational items in the presentation, mark the corresponding item. Write down any examples/notes you have that correspond to the specific observational items. Examples for each observed items are not needed but are helpful especially for some of the more nuanced observational items.
- 6) **Modifications:** Before beginning observations, feel free to alter the observational forms to fit your research needs. Are there any items that aren't needed for your research needs? Is there anything that your programs or exhibits are intentionally trying to target that aren't represented on the observational forms? For example, does one of your exhibits target a specific theme you'd liked highlighted? Does one of your summer camps aim to teach campers how to take the perspectives of animals in different ways? Are there certain items that aren't necessary to observe for your research needs?
 - a. **Exclusions:** Before beginning observations, decide with your team if you have any exclusions, or audiences that you don't want to include in your observation for one reason or another. Examples of exclusions might be school, camp or tour groups, people under or over a certain age, staff or volunteers, or groups you have already observed that day.

SELECTING YOUR PARTICIPANTS: Sampling techniques are a way of selecting individuals or a subset of people, so that you can make deductions about the larger population. There are different sampling strategies you can use to depending on what it is you are trying to learn and the contextual factors of your program.

I. Systematic Random Sampling: a method in which sample members from a larger population are selected according to a random starting point (e.g., an exhibit entrance) but with a fixed, periodic interval (e.g., every third group). This method allows for the most reduction in bias and subjectivity.

- a. For example, with these observational protocols, you might use systematic random sampling in this way. If you were doing an exhibit observation,

you would determine a line (either imaginary or literal) somewhere near the entrance of the exhibit area. This will be the starting point from which you will start to identify participants. Every X group that passes your line becomes your observational group. If your group is only one or two people, conduct your observations on both. If your group is 3 or larger, then focus your observation on one focal person. Your focal person is the second person that passed over your line.





2. **Purposeful sampling:** Purposeful sampling is a non-random sampling technique that utilizes a specific criteria or purpose to select your sample. For example, if you are observing a school group or presenter, then your participants are already chosen for you.

DATA COLLECTION AND RECORDING OPTIONS:

Decide what data collection and recording options are most useful for your research questions and data needs, one note to consider is that if you do tally during a program, then you can always use presence/absence data if you'd like to (because anything with a tally indicates something was present) but you cannot move from presence/absence data to tallies.

- 1) **Presence/Absence:** Indicate with a presence/absence mark (e.g., X, P, +) whether your audience exhibits one or more of the observational items.
- 2) **Tallying:** tallying the number of instances that each behavioral indicator appears during an observation
- 3) **Percentages:** To understand what proportion of your audience exhibits any of the behavioral indicators, you can estimate these percentage in three categories ($\leq 25\%$, $25\%-75\%$, $75\% \leq$). You could indicate these percentages for each behavior indicator for the audience overall, throughout the whole program.
 - a. You can also indicate a different percentage for each instance of a particular behavioral indicator. So, instead of tally marks, you might have a list of percentages indicating different instances.

TIPS FOR CONDUCTING OBSERVATIONS:

- 1) **What to say when someone asks you a question:** As observers, we want to remove any influence we may have over folks we might be observing. If someone asks you a question, consider some replies you can have on hand that would minimize any impact your interaction might have on people. Some examples might be:
 - a. "We are watching to see how people experience this exhibit"
 - b. "I'm making observations of the animals"
 - c. "We are making observations so we can improve this space"

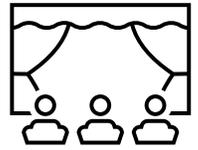
Of course, if someone simply asks you where the bathroom is, feel free to help them out.

- 2) You can look "unapproachable" by wearing sunglasses outside, not making eye contact, not greeting people when they enter the exhibit etc.
- 3) **Tame Your Educator Instinct:** Some of us may come from an education background, and we have an instinct to chat with our visitors and program audience members and share with them all the information we know about our institutions, our animals, and our offerings etc.

During our observations, we want to avoid interacting with those we are observing. Avoid jumping in and correcting misinformation or attempting to engage folks.

- 4) **Language:** If someone you are observing is speaking a language that is unknown by the observer there are a few ways to precede. Feel free to continue with the observation and focus on the non-verbal indicators that are occurring, or you can use what you do understand.
- 5) No matter what kind of observation you are doing, you'll need to position yourself near enough so that you can fully hear what is going on but are not influencing anything around you. Don't be afraid to "follow" people, or, for example, move with them as they move through an exhibit, as needed.
- 6) As you observe, **stick to what is obvious**, if you are very unsure about something you overheard and whether it fits into a category or not, you may always record that on a separate notes sheet.

AUDIENCE OBSERVATIONAL INSTRUMENT



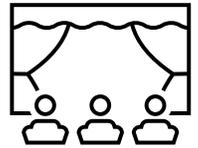
WHEN TO USE THIS INSTRUMENT: This form would be used to understand how an audience, as a collective, might be expressing empathy and related emotions. Each observation form should be used to observe one audience, or a large group of participants.

EXAMPLES: Wildlife Theatre Program, summer camp, school field trip groups, behind the scenes tours, zoo/aquarium overnights, etc.

PROTOCOL:

1. Determine program, audience, and participant sampling method.
 - a. Purposeful Sampling: Because you will be observing a program, your audience is there for a specific reason.
 - b. Suggestion: As people capacity allows, to make observations more manageable, you can purposely select a subset of a larger audience. This technique might work well if, for example, you have multiple school groups (e.g., 2nd and 4th grade) or classes attending a program.
2. Determine Data Collection and Recording Methods.
 - a. Suggestion: Presence/Absence or Percentages
 - b. Reminder: There is a column to indicate whether a particular observational item was prompted by staff or not. If only indicating presence/absence, you can list this once. If listing several percentages throughout the program, you can also list Y or N corresponding to each percentage.
 - c. Determine priority supporting evidence/example items.
 - i. Suggestion: Items that deal specifically with emotions stated or actions demonstrated.
 - d. Make any modifications necessary for your specific evaluation needs. For example, is there something in particular you are looking to observe? Are there any items on the instruments that aren't relevant to the experience you are offering?
3. Gather materials: One observation sheet and one observer for each audience you are observing.
4. Find an observation location, where you can clearly observe the audience, and be as unobtrusive as possible to their experience.
5. Fill in all contextual information on the observation form. Fill in the bottom right corner sheet 1 of #.
6. Begin your observations!

AUDIENCE Observational Instrument



Observed Activity:		Number and Type of Animal(s) present:	
Observer:	Date:		
	Start Time:		
	End Time:		
Presenter(s):		Audience(s):	
Observable Behavior or Engagement		Prompted by staff (Y/N)	
1) UNDERSTANDS NEEDS of an animal		Supporting evidence/notes (*=Priority for supporting evidence)	
a) Talks about animal's basic needs (e.g., food, water, habitat)			
b) Talks about additional animal needs (e.g., comfort, toys)			
c) Compares (+) or contrasts (-) self to animal			
d) Compares (+) or contrasts (-) others to animal (e.g., animal to animal; caregiver to child)			
2) Able to TAKE PERSPECTIVE of animals			
a) Predicts or speaks to animal's state or emotion			* What emotion?
b) Provides reasonable explanation for prediction of emotion			*
c) Mimics the behavior of an animal			
d) Describes emotion/implies emotion, but doesn't state emotion outright			*
e) Speaks on behalf of the animal			

3) Has <u>INTEREST OR CURIOSITY TOWARDS</u> animal			
a) Observes animal closely			
b) Verbalizes observations of animal			
c) Verbalizes observation of animal habitat/exhibit elements (+) (e.g., nice waterfall) or (-) (e.g., dirty water)			
d) Seeks information about animal			
e) Wants to observe longer or for second time			
4) Has <u>APPRECIATION/RESPECT</u> for animal			
a) Verbalizes appreciation, gratitude, or love for animal (+); verbalizes fear, or dislike for animal (-)			
b) Shows non-verbal appreciation/love towards animal			
c) Verbalizes positive feelings about animal's characteristics			
5) Recognizes animal as <u>INDIVIDUAL WITH OWN AGENCY</u>			
a) Comments on animal's independent movements			
b) Uses pronouns/personal name of animal (+); calls by it (-)			
c) Greets or says goodbye to animal verbally (V); physically (P) (e.g., "Hi", waves)			
d) Speaks to animal (beyond greeting)			
e) Nonverbally soliciting animal to come closer			
6) Engages in <u>DIRECT ACTION</u> to help animal			
a) Provides care for an animal directly			

AUDIENCE Observational Instrument

b) Protects or reduces danger to animal			
7) CAREGIVERS SUPPORT positive behavior and attitudes (Use if observing child or someone with caregiver)			
a) Caregiver uses pronoun/animal's name (+); call by it (-)			
b) Caregiver models gentle touch			
c) Caregiver reinforces positive behavior around animal			
d) Caregiver talks about animal's emotional state			*
e) Caregiver bringing awareness of animals' agency.			
8) Makes CONNECTION BETWEEN the animals on exhibits and OWN LIVED EXPERIENCES/PERSONAL LIVES			
a) Connecting animal to own domestic pets/ favorite animals			
b) Describes and relates to animals in terms of family roles			
e) Comparing animals and/or animals' habitat to own home/experiences			
9) Has COMPASSIONATE CONCERN for animals			
a) Shows concern for the direct well-being of an animal			
b) Expresses way to contribute to animal's direct well-being			
10) SHOWS POSITIVE BEHAVIOR towards animals			
a) Touches animal gently on their own			
b) Touches animal gently with help from caregiver			
c) Self-regulates behavior to support the comfort of the animal			
d) Adjusts or corrects own behavior to support the comfort of the animal			

AUDIENCE Observational Instrument

e) Corrects behavior of others to support the comfort of the animal			
II) Has <u>DESIRE/WANTS TO HELP</u> animal(s)			
a) Wants to take action to directly help an animal			*
b) Wants to take action to help animals in general			*
c) Mentions way they can help animal			*
d) Shares with others actions they can help animal			*

VISITOR OBSERVATIONAL INSTRUMENT



WHEN TO USE THIS INSTRUMENT: The visitor instrument can be used when you want to understand how individual visitors or visitor group are expressing empathy and related emotions at programs and/or exhibits. In terms of programs, in contrast to the audience form, this instrument might be used for more “informal” programs where visitors aren’t grouped collectively, can come, and go throughout the program, or are regulated in their entry to participate in the program. This instrument can be used at programs and exhibits that both offer touch experiences or don’t. The instrument can be modified to reflect your specific evaluation needs and specific program/exhibit offerings.

EXAMPLES: Think keeper talks, training demonstrations, activity carts, tables games/programs, etc. **Non-touch:** Think most zoo/aquarium exhibits like tigers, octopus, bears, etc. **Touch:** Think goat/barnyard petting/feeding, touch tanks, giraffe feeding, etc.

PROTOCOL:

1. Determine program/exhibit, observation duration, and participant sampling method.
 - a. A duration can be an amount of time or a predetermined number of observations you want to make.
 - i. Suggestion: One hour or 6-8 observations.
 - b. Suggestion: Systematic Random Sampling
 - i. Work with your team to identify your random systematic interval number.
 - a. Suggestion: 3
2. Determine Data Collection and Recording Methods.
 - a. Suggestion: Presence/Absence or Tallies
 - i. Reminder: There is a column to indicate whether a particular observational item was prompted by staff or not. If only indicating presence/absence, you can list this once. If listing several percentages throughout the program, you can also list Y or N corresponding to each percentage.
 - b. Determine priority supporting evidence/example items.
 - i. Suggestion: Items that deal specifically with emotions stated or actions demonstrated.
 - c. Make any modifications necessary for your specific evaluation needs. For example, is there something in particular you are looking to observe? Are there any items on the instruments that aren’t relevant to the experience you are observing?

VISITOR OBSERVATIONAL INSTRUMENT

i. Suggestion: Touch vs. Non-touch Programs/Exhibits

- a. For those exhibits and programs where visitors will not be expected to touch or care for animals, consider removing those items on the instrument that have to do with touching/caring directly for animals. For example,

6) Engages in <u>DIRECT ACTION</u> to help animal
a) Provides care for an animal directly
b) Protects or reduces danger to animal
10) <u>SHOWS POSITIVE BEHAVIOR</u> towards animals
a) Touches animal gently on their own
b) Touches animal gently with help from caregiver

3. Gather materials: One observation sheet and one observer for each program/exhibit you are observing. Timing device, several observation sheets on hand (as you might not know how many observations you might be making during your observational time frame)
4. Fill in all contextual information on the observation form. Fill in the bottom right corner sheet 1 of #.
5. Determine the random sampling starting point by:
 - a. Find an observation location, where you can clearly observe the audience, and be as unobtrusive as possible to their experience.
 - b. Determine an imaginary line in your mind somewhere near the entrance of the program/exhibit area, see figure above. This will be the line you use to identify your participant(s). If a program/exhibit space has a clear entrance/exit, then you may use an existing line/entrance point as well. At each new place where you observe, it might take some time to figure out the optimal observation spot. Start with one spot, and adjust as needed, marking any change in location in the notes section at the top of the observational sheet.
 - ii. Considerations: If the exhibit you are observing has had no visitors within 15 minutes of starting your observation, you may switch to observing every group that that crosses your imaginary line. You will still use the same rules above for selecting the focal person you will observe.

VISITOR OBSERVATIONAL INSTRUMENT

6. Begin your observations!
 - a. **Observation Implementation:** Once you have your observational group/person identified, start your timer. Indicate what type of group it is that you are observing. A mixed-aged group (M) is a group that contains adults and children under 18 years), and adult group (A) is a group of just adults, and a solo (S) group is an individual by themselves. If you have a mixed group present, estimate, to the best of your ability, the age of the children that are present. Then indicate with a Y or N if there are animals present during that specific observation.

VISITOR Observational Instrument



Observed Program/Exhibit:			Number and Type of Animal(s) Present:	Special Circumstances/Notes: (e.g., keeper feeding)
Observer:	Sampling Method:	Date: Start Time: End Time:		

Interpretive Staff Present: Y/ N
(If yes, use column below. If no, ignore.)
Type of Staff Present: (e.g., volunteer, zookeeper, unknown)

Observable Behavior or Engagement	Obs. Number	1	2	3	4	Who is being observed code: M: Mixed-Aged Group (groups that contains adults and children est. under aged 18) A: Adult Group S: Visiting Solo
Who is being observed	M					
Est. kids ages, if applicable						
Time Spent						
Animal(s) visible Y/N:						

1) UNDERSTANDS NEEDS of an animal					Prompted by staff (Y/N)	Supporting evidence/notes
a) Talks about animal's basic needs (e.g., food, water, habitat)						
b) Talks about additional animal needs (e.g., comfort, toys)						
c) Compares (+) or contrasts (-) self to animal						
d) Compares (+) or contrasts (-) others to animal (e.g., animal to animal; caregiver to child)						
2) ABLE TO TAKE PERSPECTIVE of animals						
a) Predicts or speaks to animal's state or emotion						* What emotion?
b) Provides reasonable explanation for prediction of emotion						*

VISITOR Observational Instrument

1	2	3	4	Prompted?	Supporting Evidence
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c) Mimics the behavior of an animal						
d) Describes emotion/implies emotion, but doesn't state emotion outright						*
e) Speaks on behalf of the animal						
3) Has <u>INTEREST OR CURIOSITY TOWARDS</u> animal						
a) Observes animal closely						
b) Verbalizes observations of animal						
c) Verbalizes observation of animal habitat/exhibit elements (+) (e.g., nice waterfall) or (-) (e.g., dirty water)						
d) Seeks information about animal						
e) Wants to observe longer or for second time						
4) Has <u>APPRECIATION/RESPECT</u> for animal						
a) Verbalizes appreciation, gratitude, or love for animal (+); verbalizes fear, or dislike for animal (-)						
b) Shows non-verbal appreciation/love towards animal						
c) Verbalizes positive feelings about animal's characteristics						
5) Recognizes animal as <u>INDIVIDUAL WITH OWN AGENCY</u>						
a) Comments on animal's independent movements						
b) Uses pronouns/personal name of animal (+); calls by it (-)						
c) Greets or says goodbye to animal verbally (V); physically (P) (e.g., "Hi", waves)						

VISITOR Observational Instrument

1	2	3	4	Prompted?	Supporting Evidence
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6) Engages in DIRECT ACTION to help animal

a) Provides care for an animal directly						
b) Protects or reduces danger to animal						

7) CAREGIVERS SUPPORT positive behavior and attitudes (Use if observing child or someone with caregiver)

a) Caregiver uses pronoun/animal's name (+); call by it (-)						
b) Caregiver models gentle touch						
b) Caregiver reinforces positive behavior around animal						
c) Caregiver talks about animal's emotional state						*
d) Caregiver bringing awareness of animals' agency						

8) Makes CONNECTION BETWEEN the animals on exhibits and OWN LIVED EXPERIENCES/PERSONAL LIVES

a) Connecting animal to own domestic pets/ favorite animals						
b) Describes and relates to animals in terms of family roles						
c) Comparing animals and/or animals' habitat to own home/experiences						

9) Has COMPASSIONATE CONCERN for animals

a) Shows concern for the direct well-being of an animal						
b) Expresses way to contribute to animal's direct well-being						

10) SHOWS POSITIVE BEHAVIOR towards animals

a) Touches animal gently on their own						
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VISITOR Observational Instrument

1	2	3	4	Prompted?	Supporting Evidence
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b) Touches animal gently with help from caregiver						
c) Self-regulates behavior to make animal feel safe or calm						
d) Adjusts or corrects own behavior to support the comfort of the animal						
e) Corrects behavior of others to support the comfort of the animal						
II) Has <u>DESIRE/WANTS TO HELP</u> animal(s)						
a) Wants to take action to directly help an animal						*
b) Wants to take action to help animals in general						*
c) Mentions way they can help animal						*
d) Shares with others actions they can help animal						*

PRESENTER OBSERVATIONAL INSTRUMENT



WHEN TO USE THIS INSTRUMENT: The program presenter form can be used in many different situations whenever there is a 'presenter' at any point. This can be done at both formal and informal programs. Presenters can be zoo/aquarium staff, volunteers, interns, external staff (e.g., puppeteers) etc. If more than one presenter is present, focus your observation on one presenter. If other observers are available, they can observe additional presenters.

EXAMPLES: Theatre programs, keeper talks, activity tables, behind the scenes tours, field trip groups, etc.

PROTOCOL:

1. Determine program, number of presenters, and sampling method.
 - a. Purposeful Sampling: Because you will be observing a presenter, your participant has already been selected for you.
2. For smaller programs, or programs where you'd need to preplan to attend, ensure that you are clear about your purpose, expectations, and ask permission of the presenter before beginning. Allow space for presenters to ask questions and/or request clarification before you observe.
3. Determine Data Collection and Recording Methods.
 - a. Suggestion: Presence/Absence or Tallying
 - b. Determine priority supporting evidence/example items.
 - i. Suggestion: Items that deal specifically with emotions stated or actions demonstrated.
4. Gather materials: One observation sheet and one observer for each presenter you are observing.
5. Find a good place to observe where you can clearly hear the presenter but aren't influencing the presenter or the audience.
6. Fill in all contextual information on the observation form. Fill in the bottom right corner sheet 1 of #.
7. Begin your observations! As you hear/observe the various observational items in the presentation, mark (tally or x) the corresponding item

PRESENTER Observational Instrument



Observed Program:		Other notes: (e.g., lots of school groups present, props, special circumstances)
Observer:	Date: Start Time: End Time:	
Presenter(s): Audience(s):	Number and Type of Animal(s) Present:	
What to look for:		Specific Examples/Notes
1) Did the program include expectations for audience behavior around animals?		
a) Draws connection of audience behavior to animal's comfort/safety		
b) Reinforces good audience behavior		
2) Did the program reinforce that animals are individuals?		
a) Always uses animal's name and/or pronouns		
b) Highlights unique personality trait or individual story for each individual animal		
3) Did the program inform about the animals' needs?		
a) Informs about animals' basic (survival) needs (e.g., food, water, habitat)		
b) Informs about secondary needs of individual (to thrive at the zoo) (e.g., enrichment, veterinary care)		
c) Informs about secondary needs of species (to thrive in natural habitat) (e.g., social groupings, optimal range)		
4) Did the program highlight similarities and differences between animal and people?		
a) Compares (+) or contrasts (-) animal to other animal's or people's basic needs		
b) Compares (+) or contrasts (-) animals to other animals' or people's physical characteristics, age, etc.		
c) Compares (+) and contrasts (-) animal to other animal's or people's secondary needs		

PRESENTER Observational Instrument

5) Did the program encourage focused observation of the animal?		
a) Prompts focused observation of animal's physical characteristics		
b) Prompted focused observation of animal's behavior/movement		
c) Draws connection between animal's behavior and interpretation of animal's emotional experience		
d) Asks open-ended questions about audience's observations		
6) Did the program invite perspective-taking of animal?		
a) Uses role playing/mimicry/physical movement		
b) Draws attention to the animal's perspective		
c) Asks open-ended questions about animal's behavior		
d) Prompts audience to take animal's perspective		
7) Did the program include an appropriate conservation or caring action?		
a) Includes specific way for audience to help/care for animals		
b) Includes vague mention of how to help animals		
c) Includes mention/picture of human-wildlife conflict		
d) Includes vague mention/picture of human-wildlife conflict		
e) Asks open-ended question about ways people can help animals		
f) Audience practices caring behavior		
8) Did the program reinforce that animals have their own agency?		
a) Animal movements are not physically controlled		
b) Animals make own decisions and act by choice		

PRESENTER Observational Instrument

c) Draws attention to animal making choices		
9) Did the program reinforce that animals can have relationships?		
a) Interactions with other animal/person is observed		
b) Relationship between animals or animal/handler is highlighted		
10) Recommendation for an additional opportunity to include empathy		

SIGNAGE OBSERVATIONAL INSTRUMENT



WHEN TO USE THIS INSTRUMENT: The signage form can be used on any exhibit signage. If necessary, similar types of signs can be grouped together. For example, if a touch tank has 15 signs identifying all of the species in the touch tank and all of them contain the same information (an image of the species, the species' name, the species' range) these can be grouped together as something like "ID Signs" instead of observing them as 15 different signs.

EXAMPLES: This could be permanent signage (e.g., natural history signs about animals in exhibit, identification signs for individual animals) or temporary signage (e.g., signage explaining new enrichment, mentioning bird flu or similar, a vet procedure etc.).

PROTOCOL:

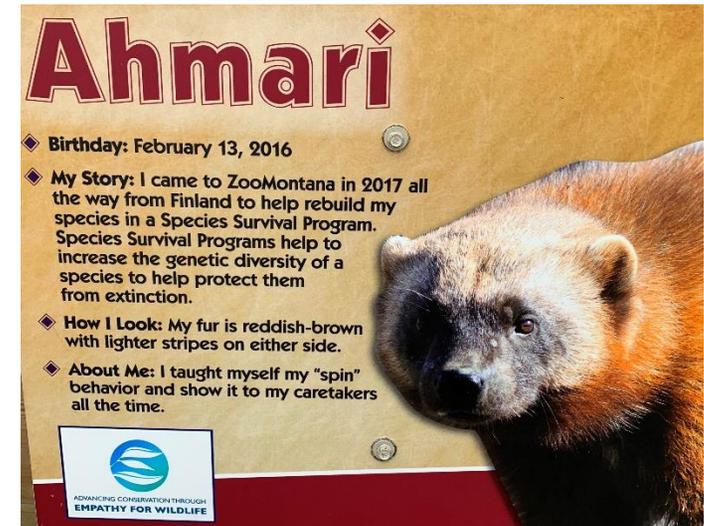
Materials: Enough observation sheets on hand to complete an observation of every sign at an exhibit, a photo taking device.

Regulatory signs present Y/N: Look around at the exhibit and note the presence or absence of any signs that are meant to regulate the behavior of guests. So, for example a "no tapping on glass sign" or a "no flash photography" sign. If there is one present, you can indicate that on the top of the observation sheet. then There is no need to include regulatory signs as one of the official sign observations. If possible, indicate what the sign says.

Observation Implementation: Start with the first sign and write down the sign type/identifier with enough detail that someone else would be able to identify which sign you are observing if they revisited the exhibit or looked at a picture.

For example, you might title the signs below "Wolverine: natural history", "Ahmari" ID sign.

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Then, read through each sign and mark (tally or x, or + and –, or V or P, as indicated) any instances you see of any of the observational items. So, for example, for each instance when a sign “informs about animals’ basic (survival) needs”, you can put a tally in the box corresponding to that sign. Once that sign is completed, move on, and complete all signs at the exhibit.

Pictures: For signage observations, it is helpful to take pictures of the signs that you observed, to act as a reference point and a means to double check your observations if needed. They can also be great visual aids when displaying the data you collected. If you are observing at your own institution and feel that you don’t need signage pictures (because you can always go back and visit them), feel free to skip the pictures taken section of the form.

1. Determine program, number of presenters, and sampling method.
 - a. Purposeful Sampling: Because you will be observing a presenter, your participant has already been selected for you.
2. For smaller programs, or programs where you’d need to preplan to attend, ensure that you are clear about your purpose, expectations, and ask permission of the presenter before beginning. Allow space for presenters to ask questions and/or request clarification before you observe.
3. Determine Data Collection and Recording Methods.
 - a. Suggestion: Presence/Absence or Tallying

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- b. Determine priority supporting evidence/example items.
 - i. Suggestion: Items that deal specifically with emotions stated or actions demonstrated.
4. Gather materials: One observation sheet and one observer for each presenter you are observing.
5. Find a good place to observe where you can clearly hear the presenter but aren't influencing the presenter or the audience.
6. Fill in all contextual information on the observation form. Fill in the bottom right corner sheet 1 of #.
7. Begin your observations! As you hear/observe the various observational items in the presentation, mark (tally or x) the corresponding item

SIGNAGE Observational Instrument



Observed Exhibit:		Animal(s) in exhibit:				
Observer:	Date:					
Pictures Taken of all Exhibit Signs (circle when complete): ✓						
Regulatory Sign Present: Y/N (e.g., “No tapping on glass”, “No flash photography”, “Quiet Please”)						
Type Regulatory Sign:						
	Sign 1	Sign 2	Sign 3	Sign 4	Specific Examples/Notes	
Sign type (e.g., ID sign, sign by overlook)						
1) Did the signage include expectations for visitor behavior around animals?						
a) Draws connection of visitor behavior to animal’s comfort/safety						
b) Reinforces good visitor behavior						
2) Does the signage reinforce that animals are individuals?						
a) Always uses animal’s name and/or pronouns						
b) Highlights unique personality trait or individual story for each individual animal						
3) Does the signage inform about the animals’ needs?						
a) Informs about animals’ basic (survival) needs (e.g., food, water, habitat)						
b) Informs about secondary needs of individual (to thrive at the zoo) (e.g., enrichment, veterinary care)						
c) Informs about secondary needs of species (to thrive in natural habitat) (e.g., social groupings, optimal range)						
4) Does the signage highlight similarities and differences between animal and people?						

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a) Compares (+) or contrasts (-) animal to other animal's or people's basic needs					
b) Compares (+) or contrasts (-) animals to other animals' or people's physical characteristics, age, etc.					
c) Compares (+) and contrasts (-) animal to other animal's or people's secondary needs					
5) Does the signage encourage focused observation of the animal?					
a) Prompts focused observation of animal's physical characteristics					
b) Prompted focused observation of animal's behavior/movement					
c) Draws connection between animal's behavior and interpretation of animal's emotional experience					
d) Asks open-ended questions about visitors' observations					
6) Does the signage invite perspective-taking of animal?					
a) Uses role playing/mimicry/physical movement					
b) Draws attention to the animal's perspective					
c) Asks open-ended questions about animal's behavior					
d) Prompts visitors to take animal's perspective					
7) Does the signage include an appropriate conservation or caring action?					
a) Includes specific way for visitors to help/care for animals					
b) Includes vague mention of how to help animals					
c) Includes specific mention/picture of human-wildlife conflict					

SIGNAGE Observational Instrument

d) Includes vague mention/picture of human-wildlife conflict					
e) Asks open-ended question about ways people can help animals					
f) Visitors practice caring behavior					
8) Does the signage reinforce that animals have their own agency?					
a) Draws attention to animal movements not being physically controlled					
b) Draws attention to animal making choices and own decisions					
9) Does the signage reinforce that animals can have relationships?					
a) Interactions with other animal/person is observed					
b) Relationship between animals or animal/handler is highlighted					
10) Recommendation for an additional opportunity to include empathy					

AUDIENCE AND VISITOR OBSERVATIONAL INSTRUMENT EXAMPLES

Observed Program/Exhibit:		Animal(s) present:	
Observer:	Date:		
Staff Present: Y/ N			
Type of Staff Present: (e.g., volunteer, zookeeper, unknown)			

Observable Behavior or Engagement	obs. 1	obs. 2	obs. 3	obs. 4	obs. 5	Who is being observed code: M: Mixed-Aged Group (Groups that contains adults and children est. under aged 18) A: Adult Group S: Visiting Solo
Who is being observed	M	A	A	M		
Est. kids ages, if applicable	3, 6	N/A	N/A	9		
Time Spent	10 min	45 sec	8 min	2 min		
1) UNDERSTANDS NEEDS of an animal						Description of what to look for (Example Quotes)
a) Talks about animal's basic needs of food and water	X					Recognizes our common needs of food and water <i>"He needs his breakfast"</i>
b) Talks about additional animal needs (e.g., comfort, toys)						Recognizes additional animal needs, such as social, environmental, reproductive, or activity. <i>"He needs to get exercise and go for a walk every day."</i>
c) Compares (+) or contrasts (-) self to animal	+, -, +					(+) <i>"She likes to swim too!"</i> (-) <i>"The lizard likes bugs for breakfast, but I like waffles."</i>
d) Compares (+) or contrasts (-) others to animal (e.g., caregiver to child)	-					(+) <i>"Both you and the tortoise eat apples"</i> (-) <i>"The bats like to sleep in the day, but you like to sleep at night."</i>
2) Able to TAKE PERSPECTIVE of animals						
a) Predicts or speaks to animal's state or emotion (+) or (-)						<i>"I think he's mad"</i> <i>"Maybe it's hungry"</i>
b) Provides reasonable explanation for prediction of emotion						<i>"It's so hot outside. I think that tiger is happy to be swimming right now."</i> <i>"That octopus seems really relaxed. They're a paler color when they're relaxed."</i>

c) Mimics the behavior of an animal						<p>Cued or prompted by presenter to pretend to act like an animal or make animal vocalizations.</p> <p>Pretends to act like an animal or makes animal vocalizations spontaneously, without being cued.</p> <p>“Benjamin, you wanna be a turtle?”</p>
d) Describes emotion/implies emotion, but doesn't state emotion outright						“Yeah, it blends in because it doesn't want all the attention.”
e) Speaks on behalf of the animal						“She's [Yola] like, 'Mom look what I got!'”
3) Has <u>COMPASSIONATE CONCERN</u> for animals						
a) Shows concern for the direct well-being of an animal						<p>Comments on well-being of the animal they are observing.</p> <p>“I think I'm scaring the snake.”</p> <p>“Is it safe for the smaller fish to share a tank with the sharks?”</p>
b) Expresses way to contribute to animal's direct well-being						<p>“If we use slow movement the animal won't freak out”.</p> <p>“Be sure to put the rock back after you flip it over so the crab feels safe.”</p>
4) <u>SHOWS POSITIVE BEHAVIOR</u> towards animals						
a) Touches animal gently on their own						Is gentle; Pets in better direction; uses one or two fingers, etc.
b) Touches animal gently with help from caregiver						Caregiver directs child to touch animal gently
c) Self-regulates behavior to make animal feel safe or calm						Sits still; Stays quiet; Acts to make animal comfortable
d) Adjusts or corrects own behavior to be more positive around animal						Touches again, but more gently; Reduces speaking volume or movement
e) Corrects behavior of others to be more positive around animal						<p>Models or corrects other's behavior.</p> <p>“No, just use two fingers to touch him. Like this.”</p>
5) Has <u>DESIRE/WANTS TO HELP</u> animal(s)						
a) Wants to take action to directly help an animal						<p>Expresses desire to help individual animal they are observing.</p> <p>“I want to turn that turtle back over. Do you think he can do it on his own?”</p>

b) Wants to take action to help animals in general						Wanting to help animals in general, such as populations or species. "I want to help otters"
c) Mentions way they can help animal						"Next time I'm at the beach we have to be more careful where we're stepping so we don't hurt the animals"
e) Shares with others actions they can help animal						Shares information to staff/volunteers/group members. "Recycling is one thing you can do to help animals"

Related Observable Emotions	obs. 1	obs. 2	obs. 3	obs. 4	obs. 5	
6) Has <u>INTEREST OR CURIOSITY TOWARDS</u> animal						Supporting evidence/notes
a) Observes animal closely						Watches animal with expressed interest; focused attention.
b) Verbalizes observations of animal						Comments on their own observations. "I can see him breathing."
c) Seeks information about animal						Asks question to staff/volunteer/group member about the animal. Looks for information on sign.
d) Wants to observe longer or for second time						Comes back for a second look at an animal. Asks for animal to stay out longer.
7) Has <u>APPRECIATION/RESPECT</u> for animal						
a) Verbalizes appreciation, gratitude, or love for animal (+): verbalizes fear, or dislike for animal (-)						(+) "I love wolf eels. They're like old men" "Awwww" (-) "Ewwww" "Snakes give me the creeps."
b) Shows non-verbal appreciation/love towards animal						Laughs, smiles at animal
c) Verbalizes positive feelings about animal's characteristics.						"That tiger is so beautiful". "I can't believe how smart octopus are."
8) Recognizes animal as <u>INDIVIDUAL WITH OWN AGENCY</u>						
a) Comments on animal's independent movements						"Woah, look at the sea urchin moving."
b) Uses pronouns/personal name of animal						Refers to animal as a "he" or "she" or by name, such as Barney (harbor seal)

c) Greets or says goodbye to animal						Waves to animal or says "Hi Barney"
d) Speaks to animal (beyond greeting)						"Barney, you sure do love to eat fish, don't you?"
e) Nonverbally soliciting animal to come closer						For instance, patting their lap to encourage an animal to come closer, or sit on their lap.
9) Engages in <u>DIRECT ACTION</u> to help animal						
a) Provides care for an animal directly						Grooms, feeds, provides enrichment
b) Protects or reduces danger to animal						Takes action to make safer situation for an animal, such as moving animal off a path, places rock back after lifting.
10) <u>CAREGIVERS SUPPORT</u> positive behavior and attitudes (Use if observing child or someone with caregiver)						
a) Caregiver uses pronoun/animal's name (+); call by it (-)						Uses "he/she" or animal name when talking about animal
b) Caregiver models gentle touch						Demonstrates how to touch animal gently
c) Caregiver reinforces positive behavior around animal						"Great job being gentle"
d) Caregiver talks about animal's emotional state						"He's happy to see you."
e) Caregiver bringing awareness of animals' agency.						"They can go in the water if they want, but it's their choice."
11) Makes <u>CONNECTION BETWEEN</u> the animals on exhibits and <u>OWN LIVED EXPERIENCES/PERSONAL LIVES</u>						
a) Connecting animal to own domestic pets						"Our cat likes playing with socks the same way she's playing with those trees!"
b) Describes and relates to animals in terms of family roles						"Look, there's the momma, there's the papa. Do you think that's the auntie?"
c) Comparing animals and/or animals' habitat to own home/experiences						Visitor described a toy he had as a child with suction cups like the octopus that would climb up the window just like the octopus stuck on the wall.

PRESENTER AND SIGNAGE OBSERVATIONAL INSTRUMENT EXAMPLES

Observed Activity:		Animal(s) in program:
Observer:	Date:	

What to look for	(Check all that apply):	Specific Examples/Notes
1) Did the program/signage include expectations for audience behavior around animals?		
a) Draws connection of audience behavior to animal's comfort/safety	<input type="checkbox"/>	<i>"Before bringing out our animal let's get some of our wiggles out so we can be nice and calm to make the animal feel safe."</i> <i>"Please don't tap on the glass, it startles the animals."</i>
b) Reinforces good audience behavior	<input type="checkbox"/>	<i>"Thank you so much touching his tail so gently."</i>
2) Did the program/signage reinforce that animals are individuals?		
a) Always uses animal's name and/or pronouns	<input type="checkbox"/>	<i>"Taj is one of our rhinos. He is often found over by the pool."</i>
b) Highlights unique personality trait or individual story for each individual animal	<input type="checkbox"/>	<i>"Glenn really enjoys taking baths!"</i>
3) Did the program/signage inform about the animals' needs?		
a) Informs about animals' basic (survival) needs	<input type="checkbox"/>	<i>"They get most of the fresh water they need from their fish!"</i>
b) Informs about secondary needs of individual (to thrive at the zoo)	<input type="checkbox"/>	<i>"Do you see that blue ball floating in the otter exhibit, that is her favorite toy! All the otters are given special toys, called enrichment, every day to keep them active and engaged."</i>
c) Informs about secondary needs of species (to thrive in natural habitat)	<input type="checkbox"/>	<i>"Sea turtles need a clean beach and sight of the moon to return to the ocean after they lay their eggs."</i>
4) Did the program/signage highlight similarities and differences between animal and people?		
a) Compares (+) or contrasts (-) animal to other animal's or people's basic needs	<input type="checkbox"/>	<i>"While human babies need to drink milk when they are born,</i>
b) Compares (+) or contrasts (-) animals to other animals' or people's physical characteristics, age, etc.	<input type="checkbox"/>	<i>"A 10-year-old lobster is only this big. That is tiny in comparison to a 10-year-old human!"</i>

c) Compares (+) and contrasts (-) animal to other animal's or people's secondary needs		<i>"An elephants gestation period is 22 months, while a human's is only 9 months."</i>
5) Did the program/signage encourage focused observation of the animal?		
a) Prompts focused observation of animal's physical characteristics		<i>"This finger is so much longer on her hand because she uses it as a tool to get bugs."</i>
b) Prompted focused observation of animal's behavior/movement		<i>"See how she is moving her tongue around, that is how she investigates her surroundings."</i>
c) Draws connection between animal's behavior and interpretation of animal's emotional experience		<i>"When he is feeling excited, he always goes directly to the tree perch!"</i>
d) Asks open-ended questions about audience's observations		<i>"What more do you see him doing?" "What do you see that is making you say that?"</i>
6) Did the program/signage invite perspective-taking of animal?		
a) Uses role playing/mimicry/physical movement		<i>"Walruses use their vibrissae (whiskers) to feel around on the dark ocean floor for their food. You can be like them by closing your eyes and feeling around on the floor in front of you!"</i>
b) Draws attention to the animal's perspective		<i>"This is Frank the turtles first time visiting this classroom, what do you think he might be feeling right now?"</i>
c) Asks open-ended questions about animal's behavior		<i>"What do you think he is doing now?" "Why do you think she is pawing at the tree that way?"</i>
d) Prompts audience to take animal's perspective		<i>"Jaguar are solitary animals. If you were Kali, what do you think you would be feeling right now?"</i>
7) Did the program/signage include an appropriate conservation or caring action?		
a) Includes specific way for audience to help/care for animals		<i>"To help sea lions thrive in the ocean, you can use reusable bags at the store instead of plastic bags."</i>
b) Includes vague mention of how to help animals		<i>"Protecting gorilla habitat is one of the best ways we can help."</i>
c) Includes mention/description/picture of human-wildlife conflict		<i>"The largest threat to gorillas is habitat destruction by human development."</i>
d) Asks open-ended question about ways people can help animals		<i>"Raccoons can be found in your own backyard! What are some ways you think you can help keep raccoons safe?"</i>
e) Audience practices caring behavior		<i>"As you exit the theatre, please recycle your zoo maps in designated receptacle."</i> Making an enrichment item in a program. Early childhood "vet program", taking care of a plush animal

8) Did the program/signage reinforce that animals have their own agency?

a) Animal movements are not physically controlled		Presenter opens carrier, allows animal to enter and exit on their own,
b) Animals make own decisions and act by choice		Animal gets to decide whether they do a behavior, go to designated area, use available enrichment, etc.
c) Draws attention to animal making choices		<i>"Lucy loves this ball, so instead of climbing the tree she has decided it is play time!"</i>

9) Did the program/signage reinforce that animals can have relationships?

a) Interactions with other animal/person is observed		Raptor flies from one presenter to another; guinea pigs interact with each other during presentation.
b) Relationship between animals or animal/handler is highlighted		<i>"I've been working with her for 4 years. The first behavior we learned together was to present her paw for fingernail trim, and now she asks to get her nails trimmed all the time."</i>

10) Recommendation for an additional opportunity to include empathy

Ex: Instead of describing how the owls neck moves when searching for prey, you could have participants act this out as well.