The Games People Play: Activity-Based Learning to Enhance Behavioral Husbandry Skills

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Staff Training

The significance of staff training cannot be overstated; it is one of the most important components in the growth and development of a successful behavioral husbandry program. As behavioral husbandry programs develop and grow throughout zoological facilities, as they become an integral part of animal welfare and care, the need for appropriate staff training in this evolving field will escalate. It is then our responsibility to meet this new challenge.

Many zoos and aquariums have implemented or begun to implement animal training and/or enrichment into their daily routines. How do these institutions formally train their staff for these additional responsibilities? Often, for those institutions that have made the effort to better educate their staff, employee training consists of a short lecture on animal training and enrichment basics, limited one-on-one coaching, and perhaps the use of a mentor for more consistent guidance. For many institutions, the only behavioral husbandry education provided is through on-the-job learning due to time constraints and lack of expertise available in the areas of animal training and enrichment management. We would like to suggest a few additional supplements to these more traditional staff training methods. When combined, these educational components can create an experience that is both entertaining and informative.

With this in mind, the Behavioral Husbandry Activity Guide was conceived. It is our hope that the activities contained within this guide (attached) will provide an ongoing resource for individuals and institutions to use in a variety of capacities with regard to enhancing their skills in the subjects of animal training and enrichment.

Adult Learners

An important factor we had to consider in creating an educational tool for zoological staff is how adults learn. Educating adults, as compared to children, can be a challenging undertaking. Too often, we take for granted that our subjects want to learn, that they are eager for our assistance, and that they feel comfortable with the changes to their routine that we are asking of or imposing upon them. That is not necessarily the case. It's important to recognize, however, that what looks like resistance might actually be fear or discomfort with learning a new skill.

Sometimes, asking an adult who has been performing well at their job for a number of years, to step outside of their comfort zone to learn to do their job in a new way, can be quite intimidating. It's possible that the person's perception or response to being asked to do their job in a new way may seem dismissive of their current contribution or work ethic. It can lead to anxiety, lack of confidence, and in extreme cases, severe apathy at work. To add to a learner's frustration, much of the terminology and jargon in animal training can seem impossible to grasp and with little practical application to back it up, can be even more challenging to retain.

Behavioral Husbandry Activity Guide

Discussing subjects like animal training is difficult for some people. Egos can get involved and people can become uptight or defensive. The Behavioral Husbandry Activity Guide is a compilation of activities centered on animal training and enrichment with the following goals in mind:

- Encourage better discussions and clearer communication among team members around the subjects of animal training and enrichment,
- Improve retention of learning theories and basic terminology,
- Increase motivation and new ideas for your animal training and enrichment programs,
- Improve employee relations through effective team building, and
- Create an environment where people are open to learn.

The guide is comprised of eighteen activities. These activities are drawn from a variety of resources. They consist of "old standards" such as the basic training game, new and innovative versions of the training game, new renditions of the familiar bingo and trivial pursuit games, as well as some entirely new creations.

At most zoological facilities, time expenditure is an ongoing concern. It is up to each institution to determine the time allotment for staff educational activities. With this variety in mind, the Behavioral Husbandry Activity Guide contains diverse options that can be undertaken by one person, a few people, or an entire team. It also provides options that can be accomplished within a few minutes to options with a time commitment of many weeks.

Following is a complete list of the activities located within the guide. Please see attached Behavioral Husbandry Activity Guide for full descriptions.

- The Dingo Game
- The Training Challenge
- "Don't Know Much About History" Game
- The Training Game (submitted by Karen Pryor)
- The Table Training Game (submitted by Ken Ramirez)
- "Train that Behavior" (submitted by Marty Sevenich MacPhee)
- The Team Training Game
- The Animal Training Competencies
- Force Feed: Giving and Receiving Feedback After a Training Session
- "Trivial Pursuit"
- Enrichment Goal-Setting Tool
- Switching Hats Enrichment Activity
- A Movie and Popcorn
- Problem Solving Activity
- Learning to Learn Activity
- Behavioral Husbandry Awards and Contests
- Sniffy the Virtual Rat
- "You Don't Say!"

Conclusion

Excellence in behavioral husbandry takes effort. It requires educated skill just as every other facet of a keeper's responsibilities demand purposeful learning to accomplish. Imagine trying to physically restrain an oryx before being taught the proper techniques and safety guidelines or being asked to prepare a diet for a raven without knowing anything about that species' nutritional needs. Or, to take it a step further, imagine accomplishing either of those two task after having only read how to accomplish it, but without having any physical practice or guidance. It is the responsibility of the animal care staff, at all levels, to ensure that the needs of the animals are being met at the highest possible level. That being said, education does not have to be boring or time-intensive to be effective.

These activities have been tested in both large and small facilities including Disney's Animal Kingdom and Natural Encounters, Inc. Several of the activities have been conducted in non-US facilities as well. These

activities can be especially beneficial in situations where language barriers are present. For example, playing the training game with staff that is primarily Danish speaking can help to solidify the concepts that were still hazy based solely on explanation.

In our experience, these activities provide an outstanding compliment to the more traditional method of teaching via lecture. Through these activities, adults become more engaged in the process and therefore gain a better understanding of animal training and enrichment. It is our hope that in providing this guide to other zoos and aquariums as a reference, others will be inspired to improve the understanding of behavioral husbandry in their own zoos and aquariums and perhaps be inspired to add their own activity contributions to the list.

The Games People Play
A Behavioral Husbandry Activity Guide

This guide is a compilation of activities centered on animal training and enrichment. These activities are designed to be educational motivational, improve skills and be fun.

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Behavioral Husbandry Activity Guide

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Introduction to the Behavioral Husbandry Activity Guide

This guide is a compilation of activities centered on animal training and enrichment. The activities inside this booklet are meant to motivate, educate, improve skills and promote team communication when it comes to the subjects of training and enrichment. Discussing subjects like animal training are difficult for some people. Egos get involved and people become uptight. Below are just a few of the benefits you may find by doing these activities with your team:

- Better discussions and clearer communication among team members around the subjects of animal training and enrichment
- Improved retention of learning theories and basic terminology
- Increased motivation and new ideas for your training and enrichment programs
- Improved employee relations through effective team building
- Creation of an environment where people are open to learn

We encourage partnering with other teams at your zoo or aquarium. If your facility has a behavioral husbandry staff, they can help facilitate these activities. If you don't have a behavioral husbandry team, other staff members can facilitate.

Photo: Cotton-Top Tamarins, Disney's Animal Kingdom

The Dingo Game

The Dingo Game is just like bingo, only better!

Number of people/players: The Dingo Game is an activity that can be played with an unlimited number of people. The number of players will be dependent on number of playing cards created/available.

Time required: An average round of the game takes approximately 12 minutes.

Number of rounds: Several rounds of the game can be played at one sitting. The number of rounds will also be limited by the number of question sets created/available.

Instructions: Each person gets a dingo card. Each card has 24 different words based around training, enrichment, and welfare. Each card also has one free space. Each player is given 25 tokens numbered 1 through 25. The facilitator reads out a question or statement and a number. For example "Number 8: this person wrote ten laws but is not in government." The player then takes token number eight and places it on the correct answer. In this case, "Karen Pryor." This continues until someone has five tokens in a row, horizontal, vertical or diagonal and calls out "Dingo." The facilitator then checks for the correct answers by matching the number on the tokens with the question and answer sheet. If there is an incorrect answer, the person must remove those tokens and the game continues. If they have the correct answers, they win the round, receive a prize, and that round of the game is over.

On the following pages is a sample playing card and sample question set.

Facilitated by: Keepers, managers, or curators.

Discussion points: This is a good time to discuss the training terms and their definitions. Training jargon and what terms are used in your area.

We have created several rounds of Dingo. Each round has a different question or statement for each word on the card. This way several rounds can be played without repeating. In this book we share one round. Have fun with it, add in humorous questions, information specific to your area or make the rounds get progressively more difficult. The AZA/AAZK Training Terms and Definitions List, located under the Training Committee section at *www.aazk.org* is a great tool for developing questions.

Behavioral Husbandry
Dingo Game
Just like Bingo, only better!

Capturing	SPIDER	Pavlov's Dogs	Shaping	Documentation
Target	Animal Welfare	Second Nature	Operant	Enrichment
Baiting	Habituation	FREE DINGO SPACE!	Karen Pryor	Training
Time Out	Sniffy	Extinction	Classical	Jackpot
Behavioral Husbandry Resource Center	Bridge	Ethics on the Ark	Jargon	B.F. Skinner

Dingo Game Round 1

[1] **This person wrote ten laws but does not work in government (Karen Pryor)**

[2] **This is a method of eliminating a behavior by no longer reinforcing it (Extinction)**

[3] **They learned to associate the sound of a bell with the presentation of food (Pavlov's Dogs)**

[4] **_____ Conditioning is the type of learning made famous by Pavlov's experiments with dogs (Classical)**

[5] **A method of shaping where a trainer uses something to lure an animal (Baiting)**

[6] **Framework for training and enrichment programs taught at AZA course, Managing Animal Enrichment and Training Programs (SPIDER)**

[7] **This person made a famous box for rats (BF Skinner)**

[8] **Has a video library for checking out training and enrichment materials (Shape of Enrichment)**

[9] **Should not be confused with Animal Rights (Animal Welfare)**

[10] **The act of pairing a negative, or aversive event, with positive reinforcement until the event loses its aversive quality (Desensitization)**

[11] **After a training session it is important to complete _____ of the session (Documentation)**

[12] **This will elicit a specific response from an animal (Cue)**

[13] **A sound or an action that communicates to the subject that it has performed correctly and reinforcement is on the way, or you may see a famous one in San Francisco (Bridge)**

[14] **The process of following an action or response with something that the subject wants, thereby causing an increase in the frequency of occurrence of that behavior, this is called _____ reinforcement (Positive)**

[15] **The conditions or parameters under which reinforcement is delivered (Schedules of Reinforcement)**

[16] **In this type of conditioning the animal "operates" on the environment, leading to a desired outcome (Operant)**

[17] **You can get an animal to go to it, but you can also purchase toothpaste, cd's, or candles here (Target)**

[18] An operant conditioning method of taking an action or tendency and shifting it, one approximation, or step, at a time, toward the final behavioral goal (Shaping)

[19] The process of placing a behavior that is initiated by the subject under stimulus control by reinforcing the behavior as it spontaneously occurs (Capturing)

[20] Adding something to an animal's enclosure that will hopefully elicit a species appropriate behavior (Enrichment)

[21] A form of punishment that can work for an animal or a two-year old child (Time out)

[22] It can either mean a lot of food or a lot of money (Jackpot)

[23] The declining or waning of a behavior as a result of repeated presentations of a stimulus that is not followed by a reinforcer (Habituation)

[24] Try not to create new words or _____ in your area (Jargon)

[25] As Ken Ramirez would say, " _____ is teaching" (Training)

The Training Challenge

The challenge can be modified to fit your team's needs. Goals of this activity are to motivate individuals to train the animals in their care and to open the lines of communication between team members, manager's, and the Behavioral Husbandry staff.

Number of people/players: The training challenge is an activity for the entire team.

Time required: The challenge, on average, takes six weeks to complete. Remember the challenge can be modified to fit your team's needs.

Number of rounds: N/A

Instructions: Individuals are asked to come up with a behavior to train, write a training plan for that behavior, train the behavior, and put it on a cue in six weeks. There are several different stages in the challenge. **Stage One:** each individual is asked to come up with a behavior to train for an animal they are currently approved to work with. This behavior can be something they have been working on, a new behavior, a medical behavior, or it may just be a "fun" behavior. The behavior should be achievable in the allotted amount of time. Once the behavior is chosen, it must be approved by the area manager. The next step is to write a training plan. Once the training plan is complete, the facilitator of the challenge must review it and give feedback.

The above process of picking a behavior and writing a training plan has a timeline of two weeks. In **Stage Two**, the individual has four weeks to train the behavior. The area manager and Behavioral Husbandry staff give heavy support during this four-week time period. It is helpful to meet weekly with the team for updates. After the four-week deadline, the individuals are asked to give a report of the status of the behavior being trained. The facilitator then goes to each individual training session to see the completed behaviors. Prizes are awarded to the individuals that have completed the challenge. If the goal of opening the lines of communication has been met, the facilitator may want to throw a team party to celebrate everyone's efforts.

Facilitated by: The area manager or Behavioral Husbandry staff.

Discussion points: The training challenge can be modified to fit any team and any timeline. It creates accountability throughout the entire training process and creates opportunities to discuss each step of the training process. During the behavior selection process, discussion of selecting appropriate behaviors for species and individuals can take place. During the writing a plan phase, coaching and feedback can be given on how to create a plan, the importance of thinking through the approximations before you start, how to make the approximations flow together and the importance of creating a historical document. While the training plan is being implemented and training is taking place, it can create discussions about being flexible to changing your plan when needed, training techniques, and timing. Overall the training challenge is a good way to open the lines of communication with the team.

Added Challenges: 1. Change an existing cue. 2. Train a behavior and then extinguish that behavior.

"Don't Know Much About History" Game

This is a fun game to test the team's knowledge on the natural history of the animals in their care. This game will take some pre-work on the facilitator's part but is well worth it. This game can also include or be done solely with questions about the animal's individual histories!

Number of people/players: The natural history game can be played with an unlimited number of people.

Time required: One and a half hours.

Number of rounds: One round of this game can be played.

Instructions:
Pre-work: Prior to the game being played, the facilitator will need to do pre-work. He or she creates three to five questions about the different species under the team's care and researches the correct answers. The facilitator can get help with this from managers or keepers who will not be participating in the game due to days off or vacation.

Game day: Divide the team into groups of three. Try to balance new and veteran keepers to make the teams even. Designate each team with a color or name and write them on a dry erase board for scoring. Now the game begins. Ask the first group a question and give them a set (reasonable) amount of time to answer. If they answer correctly, they get one point and some candy. If they answer incorrectly the question goes to the next team. If this next team answers correctly they get two points and candy. If they answer incorrectly, the same question gets passed onto the next team. If the third team answers correctly they get three points and candy. If playing with more than three teams, continue passing the question until all teams have had a try. This makes it possible for teams to catch up quickly and avoids a blowout if one team gets way ahead in the beginning. It is also important that the teams discuss their answers discreetly so they do not give the answer to the other team. If the question is true/false or multiple choice it should be limited so that a team does not get to answer a question that only has one choice left. The number of questions asked is up to the facilitator.

After all the questions have been asked, a bonus question is posed. The facilitator writes a list of the common names for all species in the team's collection on the dry erase board. Each team is then asked to write down on a piece of paper the scientific names of all their species. One point is given for the correct genus and species and extra credit points are given for the subspecies and correct spelling. Again, this can be lot of points and allows teams to catch up. The team with the most points wins and gets a prize.

Facilitated by: A keeper or a manager can facilitate this game.

Discussion points: This is an opportunity to stress the importance of knowing the natural history of the species you are working with. This knowledge can have an effect on the behavioral goals set for training, selection of reinforcement, selection of behavioral goals for enrichment and types of enrichment initiatives selected.

"Don't Know Much About History"
Sample Game
Primate Natural History Questions
(answers in red italics)

Below are questions compiled by the Disney's Animal Kingdom primate team. These questions test the primate team's knowledge of both natural history and individual history of DAK's primate collection.

1. Name the genus and species of
    white-cheeked gibbon   *Nomascus leukogenys*
    mandrill   *Mandrillus sphinx*
    gorilla   *Gorilla gorilla*
    colobus   *Colobus guereza*
    siamang   *Hylobates syndactylus*
    yellow-backed duiker   *Cephalophus silvicultor*

2. Name 2 behaviors that when exhibited by colobus monkeys, are considered to be a threat.
    tongue-clicking
    straight leg penis display
    jumping through canopy and roaring

3. Name 2 species of primates in which the sire will actively carry offspring.
    Cottontop tamarins
    siamangs

4. Name 2 species of primates where infants or juveniles change color as they mature.
    white-cheeked gibbons
    colobus

5. What is the English translation for
    Jabari?   *handsome*
    Makena? *smiling girl*

6. T or F: Mandrills and drills are the only Old World monkeys that scent-mark.
    true

7. In which two regions are siamangs indigenous?
    Sumatra and Malay peninsula

8. Name two of the countries to which western lowland gorillas are indigenous.
    Equatorial Guinea, Nigeria, Central African Republic, DRC, Congo, Gabon, Cameroon

9. Name two species of primates where allomothering has been documented.
    colobus and langurs

10. What three colobus in our collection are full siblings?
   Haley, Morgan, Mac

11. Name 4 of the 6 primates in our collection who were hand-reared
for any period of time.
   Spike, Zawadi, Gus, Gino gorillas
   Snow mandrill
   Bahari siamang

12. What genus or group of primate were mandrills considered a part of until about 1989?
   baboons (Papio)

The Training Game

There are literally dozens of version of the Training Game. Slight variations of the original version have resulted in games that focus specifically on bridging, adding cues, chaining behaviors, speed-training, latency in bridging, extinguishing behaviors, table-game versions and much more. No doubt, this list will continue to grow as animal care staff continues to seek new ways of sharpening their skills and expanding their knowledge.

In lieu of compiling every version of the game known to us, we opted instead to ask a few of the pioneers in the field of Behavior Management to supply us with their favorite version. As a result, we have included contributions by Karen Pryor, Ken Ramirez, and Marty MacPhee.

Photo: Giraffe, Ankole Cattle, Thompson Gazelle, Disney's Animal Kingdom Lodge Resort

The Training Game (submitted by Karen Pryor)
www.clickertraining.com

The Rules:

While this game may be played by two people, larger groups are more fun. In a classroom or larger group, divide up into groups of six to eight. In each group, one person is selected as the Animal, and goes out of hearing range. The others choose a Trainer and a behavior for the Trainer to Shape.

The Behavior must be something easy to do physically, which everyone can see. Some favorites are turning in a circle, pouring or drinking water, turning on a light switch, picking up an object, opening or closing a door or window, or marking on a blackboard. Avoid two- or three-step behaviors unless you are deliberately working on behavior chains.

The Behavior must be something socially acceptable; no disrobing, no behavior (like lying on the floor or standing on a table) which is not polite in public. Don't pick a behavior involving touching other people! The behavior may involve a prop.

The Trainer will use a clicker, handclap, or other noise as a conditioned reinforcer. Each time the Animal hears the sound, he or she MUST return to the trainer and get an imaginary treat. (This prevents the Animal from just standing in one spot and trying to think, which gives you nothing to reinforce.)

There should be no talking during the shaping; the point of the game is that Shaping is a non-verbal process. However, cheers, groans, laughter, and applause are not only permitted but encouraged. When the behavior is accomplished, most groups tend to burst into applause. The Animal then becomes the Trainer, and the group chooses another Animal. The new Animal leaves the room; the group chooses a new behavior, and the session starts again. When everyone has been both Trainer and Animal, the game is completed. This usually takes 60-90 minutes. An open discussion after the game can be useful and entertaining.

Helpful Hints:

If you get totally "stuck," and the animal has either stopped working altogether or is uselessly repeating the same action over and over, her are some things you can try.

- Change the environment by taking the group to another part of the room.
- Try a new behavior. Once your animal is working again, you can go back to the target behavior.
- Be generous with reinforcements; its better to reinforce some behavior, even the wrong behavior, than to reinforce nothing at all.
- Try using a prompt: for example, to get someone to bend over, you might drop an object on the floor--a key ring, say-- and reinforce the person for leaning down to pick it up.

- Check to see if you are trying to train two behaviors at once, or if what you want is really a chain; if so, remember that you will have to train the end behavior first.

Variations:

The Built-in Delay

Have three people hold hands. The one at the right hand end of the group is the Trainer. When she wants to reinforce the Animal, she squeezes the middle person's hand; that person squeezes the hand of the third person, who then clicks or says "Good." Watch what goes wrong with the shaping (by Marian Breland Bailey and Robert Bailey.)

The Group Cheer

Instead of picking one trainer, let the whole group cheer and clap when the Animal does something deserving of reinforcement, and fall silent when the behavior is not improving. The group can travel around in a building or outdoors, teaching the Animal to fetch something from a distance, go over an obstacle, etc. Fun for kids, especially (by Janet Lewis.)

Adding a Cue

Divide the group in half. Separate the two groups. Instruct one group that they are the Trainers. They will pick a word to use as a reinforcer, and an action (patting the hair, coughing, pulling the ear) as a conditioned stimulus. Tell the other group that they are the Animals. Each Animal will offer one or more simple behaviors, such as turning, clapping, or waving. Pair up each Trainer with an Animal. The Animal must offer behavior. The Trainer must select a behavior, reinforce it, and then bring it under control of a conditioned stimulus. To do this, the trainer establishes the behavior, on a variable ratio schedule (that is, the subject is able to repeat the behavior two or three times for each click and reinforcer). When this has been accomplished, the Trainer presents the action that is going to be the cue, and reinforces the behavior in the presence of the cue. The Trainer does not reinforce any behavior that occurs in the absence of the cue. By alternating between short periods of cue-present and cue-absent the Trainer can shape the behavior of responding with the correct behavior when the cue has been given, and waiting, without offering other behavior, when the cue is absent.

The task is completed when the Trainer can demonstrate to others in the group that his Animal waits for the cue (a cough, say) and then, when the cue is given, immediately performs the behavior correctly until clicked. At this point it is always worthwhile to ask the human subject these two questions: 1) What is the behavior? (They will usually answer correctly) and 2) What is the cue? They may not have the faintest idea. One can often demonstrate good stimulus control of an operant behavior, in a human subject, without the subject being consciously aware of the nature of the cue. Apparently the part of the brain that learns environmental cues of this sort is not the verbal, "aware" part of the brain. This exercise often serves as a nifty demonstration of that fact. It can be surprising and illuminating to the spectators.

Table Training Game (submitted by Ken Ramirez)

Objects Needed to Play
- 1 clicker
- Set of 12 playing cards
- Toy car
- Pair of dice
- 3-5 hair pins
- 3-5 dominoes
- Rubber bands
- 3-5 checkers
- 3-5 paper clips
- Assorted other small toys or objects

Rules
1. Assumption is made that all players have played the more traditional training game. If not, further instructions might be needed.
2. Place objects on the table, with the exception of the clicker and the playing cards.
3. Select a trainer, an animal, and an official observer.
4. Animal is given the following instructions:
   - When you return you will sit across the table from the trainer.
   - Trainer will attempt to shape behavior using the clicker.
   - You may not leave your seat.
   - You may not talk or ask questions.
   - The official observer will let you know when you have completed your task.
5. Animal leaves the room while behaviors to be trained are chosen.
6. Select three behaviors that do not require the animal to leave his/her seat.
7. Once behaviors are chosen, the trainer is given the clicker and must choose three playing cards that will serve as cues – one for each of the three behaviors to be trained.
8. The trainer is given the following instructions:
   - You must shape all three selected behaviors, in whatever order you choose.
   - You must also have the behavior under stimulus control (using playing cards as cues).
   - The task will be considered complete, when the animal can do all three behaviors whenever the correct cue is given. The animal should be able to do the behaviors in any random order.
   - You may not talk or give the animal any instructions other than with the use of the clicker and the cue (playing card). After the click, verbal praise may be used as reinforcers, but otherwise no talking.
   - You may not remove any objects from the table – everything that was put on the table prior to starting the game must remain on the table.

- No use of targeting is allowed – all shaping must be done with the use of the clicker alone.
- Once a behavior is complete and on cue – it is up to the trainer to determine how to move on to the next behavior – as it is likely that the animal will not know that you are training more than one behavior – and if it is the first time the animal has played the game it will not know why you have playing cards. These two factors should prove to be interesting and important learning lessons in the game.
- The trainer should continue to work with the animal until the observer indicates that the task is complete.

9. The observer's role is as follows:
   - Make sure that both the animal and the trainer follow the rules – (particularly no talking and no special cueing)
   - Make sure other observers do not give away the behavior or interfere with the task.
   - Determine that the animal really knows all three behaviors and sees that the animal will do the behaviors in any order and consistently on cue without fail.
10. The animal is asked to return to the room and play begins.
11. No additional instructions should be given to the animal. It is up to the trainer to try his or her best to train the assigned tasks using just the clicker.
12. Once the observer indicates the task is complete, everyone should discuss what worked and what did not. The discussion is an important part of the game.

Notes
- The beauty of the table game is that you can have simultaneous games going at once.
- It is important to have a game facilitator. To keep the training game positive, somebody needs to look after the integrity of the game. Trainers occasionally have a tendency to try to embarrass each other by asking the animal to do something silly or crass – while this is fun for everyone observing, it quickly causes people to fear playing the game. If you want the training game to be fun and a positive experience for staff – the facilitator serves a very important role.
- It is helpful for those playing not to know which version of the game is being played – this helps keep the animal from guessing or anticipating what is coming.
- Adapt the game to simulate current training challenges facing the trainer or to introduce new training concepts.
- Always keep the game fun!

Table Game Options – There are countless versions of the game, here are a few of my favorites:
- Cueing – Basic game as described above.
- Chaining – Ask trainer to train several individual behaviors then to chain them together and put them on a new cue.
- NRM (No Reward Marker) usage – Have the trainer try to train a "no" signal (should be a neutral sound like knocking on the table or a whistle or clicker – whichever is not being used as the bridge). The trainer's goal is to successfully

get the animal to understand the meaning of the "no" signal while training new behaviors – the trainer must also try to train the "no" without causing the animal frustration.

- Fading – Once the behaviors have been trained, ask the trainer to change cues.
- Adjust criteria (for recently completed behavior) – Once behavior(s) are complete (ask animal to leave briefly – to take a break and get some rest) explain to trainer that the purpose of this exercise is to see what happens when a newly trained behavior is seen for the first time by the supervisor or the veterinarian and it is discovered that you trained it "wrong" or that the criteria has changed. Give the trainer minor or major variations in the behavior that they have already trained. It is up to the trainer to decide if he/she wants to modify what they have done or to start over and re-train the behavior from scratch.
- Multiple trainers (observed and unobserved) – Alternate trainers after every five reinforcers to see how that impacts training.
- There are many other options, use your imagination!

"Train that Behavior" (submitted by Marty MacPhee)

Not that I would be old enough to remember, but in the 50's there was a game show called "Name that Tune!" Contestants would compete to guess a song, gambling that they could do it with only a few notes as a clue. This version of the training game comes from the premise of that game show. This training game started when a team that I worked on had played the training game so many times during our lunch break that we were probably in need of a little something to spice it up. It was also an incredibly competitive team so competitions and betting was something that we gravitated towards easily. Once when playing the traditional training game and the "animal" had left the room, we were coming up with behaviors to train the "animal." Someone suggested a behavior that the person who had volunteered to train the "animal" felt was very difficult. The person with the behavior idea replied that not only was the behavior doable, they could train it with 12 bridges! The person who was supposed to train that round responded with "Train that Behavior." The boasting trainer was successful and a new training game was born! I remember one occasion where the bridging was so stingy, and the "animal" was forced to offer so much, the game carried over to lunch the next day. This version of the training game is more in the category of a team builder. A possible benefit to a person's training skills would be sharpening the timing of delivery of the bridging stimulus. One ill-timed bridge can cause the trainer to sacrifice some bridges to get back on track and possibly lose the game.

Rules
1. Assumption is made that all players have played the more traditional training game multiple times.
2. The person that is selected as "animal" leaves the room. The "animal" needs to be informed of the version of the training game being played.
3. A behavior is selected, and the trainers start betting on the number of bridges they will use to train the behavior. Usually it comes down to two trainers whittling down the number until someone says "Train that Behavior."
4. The animal returns to the room, but is not told the number of bridges that will be used. The "round" begins with normally everyone holding their breaths and counting bridges.

Enjoy!

The Team Training Game

This version of the training game is meant to be a team builder. The goal of this is to open the lines of communication between your team, learn to discuss training techniques, be open to other's ideas, and learn to receive feedback.

Number of people/players: The entire team (unlimited number).

Time required: This game runs a bit longer then the original training game because there are usually multiple behaviors to train. On average, it takes one hour to play one to two rounds.

Number of rounds: One to two rounds of this game are recommended.

Instructions: People are split into teams of two to four. The facilitator chooses several behaviors before the game starts. Each team is given one series of behaviors to train. The rules are: no speaking, no gesturing, and only a clicker and target are available for tools if wanted. Individual teams can decide who is going to train and how they will split the training. An example of a series of behaviors would be: animal walks over to counter, picks up a book, walks to middle of room and drops book on the floor. The teams are separated from each other for privacy and asked to work together on writing a training plan. This will take about 15 to 20 minutes. The facilitator should walk around to the groups and offer assistance and answer any questions. When the groups reconvene, the games can begin. Each team will be able to choose the animal of their choice from the remaining group of people. The animal will exit the room, the entire training team will stand at the front of the room and tell the rest of the people the behavior they are going to train and briefly what their training plan steps are. Next, the game can be played. Just like the original training game, the trainers and animal may seem to get frustrated and impatient but in this game we are looking for the team members to help each other during the game. If the trainer has the desire to call a break in the game, this is a great time to discuss techniques like timing of the bridge and shaping techniques. Once the behavior is trained to completion, the facilitator should ask the animal how the game felt from their perspective. Another question might be if they felt like they received enough information on what to do from the trainer. They may want more bridges or more information. They may feel like they were bridged too often and did not know what they were doing right or wrong. Then the facilitator should ask how the trainer felt. Did they feel like they could have done anything differently? Did the team work together well? Did people have different ideas about how to train the behavior? How was consensus reached?

Facilitated by: Anyone who has played the game before and is comfortable discussing concepts of training theory.

Discussion points include: The benefits to being open to other people's ideas and thoughts. Definition of a bridge, how to establish, how to select a bridge, timing of the bridge, the importance of creating clear communication for the animal.

The Animal Training Competencies

What are animal training competencies? Where did they come from? Who are they for? How do they work?

The animal training competencies are designed as a tool for assessing a person's competency around some aspects of animal training. The format for the competencies was based on a book, For Your Improvement (Lombardo, Eichinger 2000). These documents were written as personal development and coaching guides. Like the *For Your Improvement (FYI)* book, the animal training competencies described here can be useful for individuals or as a coaching tool to enhance their animal training skills.

Where did the competencies and remedies come from?
In 1998 various Disney's Animal Kingdom Zoological Managers formed a Zoological Manager Training Group. Part of their mission was to develop staff learning tools and assessments of animal training abilities. After a variety of approaches, the FYI book was discovered and used as a model. Zoological Managers, Keepers, and the Behavioral Husbandry Team have developed the animal training specific content. Although each competency will continue to evolve, the goal is to provide a resource that is brief and offers quick assistance regarding a particular issue in animal training.

Who are these documents for?
These documents are for anyone motivated to develop better skills in animal training.

The animal training competencies can be utilized in two ways:

The Self- Assessment (This document can be utilized by keepers, managers, or curators)
If a person is in denial, rationalizing or they do not have the ability to perform a self-assessment when it comes to animal training, this document will not help. If a person knows that they have developmental needs in the area of animal training, but are not sure how to assess their current abilities, they may want to review the self-assessment with a peer. These competencies can be a step in the direction of taking personal responsibility for enhancing animal training performance!

The Managers Guide (This document is for managers)
The Disney's Animal Kingdom Behavioral Husbandry Team has formatted the Animal Training Competencies guide as a coaching/diagnostic tool to be used by Zoological Managers. The guide contains a listing of several different animal training competencies. Each competency has two parts, a worksheet and remedies section. A manager can use the worksheet portion of the competency to assess a keeper's skills. The remedies section provides specific coaching tips for the manager to assist a keeper in developing a particular skill. This document can be used as a quick reference guide. It can also be used to make a more thorough assessment of a keeper's skills.

How to use these documents
Like the FYI book, the competencies are divided into unskilled, skilled and overused skills. In order to assess yourself or another person, review the list and check items that apply to you or the person you are assessing. If you check some items in "unskilled" these may be areas that you want to address to improve your or their performance. If you check items under "skilled" you may feel like you or they are proficient in these areas. If you have checked items in the "overused skill" section, these may be items that you or they have as a strength but overuse or overdo to the point that it causes problems.

The Self-Assessment
After you have identified areas that you would like to focus on, you review the list of remedies and decide which remedies will work best for you. You may also discover remedies that are not listed in this document that will help you with your skill development.   After assessing and reviewing the remedies, develop an action plan to use as a guide for your development. The assessment, remedy review and action plan development may be personal or something that you share with someone to help you in your progress. The FYI book or these animal training competencies may also be used as a tool that your managers use to work with you to develop your skills.

The Managers Guide
After you have identified areas that you would like the keeper to focus on, review the list of remedies. Decide which remedies will work best for the given situation. You may also discover remedies that are not listed in this document that will help the keeper in their skill development. After assessing and reviewing the remedies, develop an action plan to use as a guide for the keeper's development. It is up to the manager's discretion if they would like to develop the action plan with the keeper's input. At times, as a manager you may not feel that filling out the whole assessment workbook is needed and you just want to use one or two remedies, this is also a very appropriate use of this guide. Some issues may be more attitude related than training specific. In this case, you may want to refer to the FYI book. This resource may have suggestions that are more appropriate for a given situation.

On the following pages are examples of competencies created by Disney's Animal Kingdom and Natural Encounters, Inc.

Your facility can create your own competencies or more competencies can be found on www.animaltraining.org

Lombardo, Michael M., and Eichinger, Robert W. (1996). *For Your Improvement; A Development and Coaching Guide.* **Minneapolis, MN. Lominger Limited, Inc.**

Sample
Disney's Animal Kingdom

Competency: Successive Approximations/Shaping/Create a Training Plan

Worksheet

To do a self-assessment, review the following statements and check those that apply.

Unskilled
- ❑ Cannot define what the terms 'successive approximation' or 'shaping' mean.
- ❑ Seems unable to plan out how to train a behavior, or break the behavior down into steps.
- ❑ When training an animal, seems unclear about when or what to reinforce.
- ❑ Reinforces variations of a behavior and does not have a progression of steps leading to the desired behavior.
- ❑ Suggests or tries to implement shaping techniques that are unsafe or inappropriate.

Skilled
- ❑ Can define and articulate the terms 'successive approximation' or 'shaping'.
- ❑ Can articulate various techniques that could potentially be used to shape a behavior.
- ❑ Using their knowledge of the animal's natural history and individual history, can articulate which training techniques are most appropriate
- ❑ Can create a good training plan.
- ❑ Knows when it is appropriate to divert from their plan.
- ❑ Can observe a behavior and make reasonable assumptions on how it was trained.

Overused Skill
- ❑ Keeps to one shaping technique, does not recognize when other techniques may be appropriate.
- ❑ Sticks so rigidly to their training plan that opportunities to capture approximations are missed.

Competency: Successive Approximations/Shaping/Create a Training Plan

Worksheet

After completing the personal assessment, identify and note below the priority items you would like to work on within this competency.

Unskilled:*(This is a skill you would like an opportunity to develop)*

_____
_____
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Skilled:*(This is a skill you already have but would like to further develop)*

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Overused Skill:*(This is a skill you have but would like to learn how to better use it)*

_____
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_____
_____
_____

Competency: Successive Approximations/Shaping/Create a Training Plan

Remedies

Given the priorities you identified for this competency, read through the following remedies and suggested readings and identify which will best apply for you.

Remedies
1. **Refresh your memory of the definition of successive approximation/shaping**. You can review the AZA/AAZK terminology list at www.aazk.org and see the suggested reading list at the end of this section.
2. **Observe live or watch videos of other trainers shaping a behavior.** Watching other trainers live and discussing with them what they are looking to reinforce can help you begin to visualize how to approximate behaviors yourself. If you cannot observe the training, watching videos of trainers working can also be an excellent tool.
3. **Review various training plans.** Reading through training plans can help you get an idea of how others are selecting steps in the approximation process.
4. **Practice developing and implementing training plans**. Create training plans and implement them. Testing and trying the techniques are the best ways to learn. Ask your manager if this opportunity is available in your area.
5. **Have someone watch you train**. At first it will be uncomfortable, but it can really help you to have an extra set of eyes watching. Begin the session by telling the observer what you are looking to reinforce and what technique you are using to encourage the behavior. After the session, discuss what they saw. Did they see opportunities you did not? Were you sending clear communications to the animal? Be sure to set up ground rules before the session on what you are comfortable with. Some keepers are comfortable with people talking while they are training, others find this distracting. Make sure they know why you want them to watch the session. If you are looking for them to comment on how you were approximating/shaping the behavior and they were focused on some other aspect, you may not get what you want from the observer. Video taping sessions and then watching them together is also an excellent tool.
6. **Try something new!** If you seem to always be using the same shaping technique, shake things up and try something new! Discuss with your managers what other methods may be appropriate with the animals and what opportunities are available to utilize and explore these techniques in your area.

Competency: Successive Approximations/Shaping/Create a Training Plan

Remedies

Suggested Readings:

Pryor, K. 1999. Don't Shoot the Dog (Revised Edition). New York: Bantam Books.

Chapter 2 – Shaping: Developing Super Performance Without Strain or Pain

Sniffy the Virtual Rat, a software program
Tom Alloway, Greg Wilson, Jeff Graham, Lester Krames

Chapter 3 - Operant Phenomena
Page 23 Exercise 2: Shaping; Teaching Sniffy to Press the Bar

Ramirez, K 1999. Animal Training: Successful Animal Management Through Positive Reinforcement. Chicago: Ken Ramirez and The Shedd Aquarium

Chapter 1 – Introduction
Page 16 Successive approximations

Chapter 4 – Basic Operant Conditioning
Page 71 Shaping
Page 72 – 73 Shaping Techniques
Page 78 – 79 Having a Training Plan

Competency: Successive Approximations/Shaping/Create a Training Plan

Action Plan

Based on your remedy selection (this also may include your own remedies), create an action plan below. In the plan specify what you will do and by when.

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Sample

NATURAL ENCOUNTERS, INC.
STAFF COMPETENCIES

Competency: TAKING RESPONSIBILITY FOR THE ANIMAL'S BEHAVIOR

Why it's important:
-Takes away trainer excuses (it is never the animal's fault)
-Provides personal motivation to change
-Inspires empowering questions
-Motivates trainer to problem-solve
-Discourages blaming the animal
-Encourages trainers to pick the right tool for the job
-Makes trainer put more consideration into environment
-Inspires change in perspective
-Forces you to look at animal's natural history
-Holds trainers accountable

Unskilled:
❑ Blames animals or other trainers for undesirable behaviors
❑ Uses emotions/labels instead of behaviors (describing an animal as "jealous," "mad" or "happy" instead of describing observable behavior such as eye-pinning for a bird or ears lying flat back for a cat)
❑ Refers to animal in derogatory terms or names such as "stupid" or "jerk"
❑ Avoids problem-solving
❑ Tends to justify the use of aversive stimuli
❑ Interprets animal's behavior on emotions alone – "That parrot hates me"
❑ Takes failures personally (thinks failures make them a bad trainer)

Skilled:
❑ Speaks in terms of the behavior the animal is demonstrating, both desirable and undesirable
❑ Asks empowering questions
❑ Interested in alleviating situations focusing on positive methods
❑ Initiates problem-solving when needed
❑ Avoids anthropomorphic interpretation of animal behavior
❑ Openly shares personal mistakes, experiences and/or knowledge
❑ Asks for assistance/help when needed

Overused Skill:
❑ May not be a team-player, becomes too self-focused
❑ Becomes paralyzed by responsibility
❑ May ignore other factors such as: environment, health, natural history
❑ Becomes over-confident
❑ Generalizes too much between individual animals

Possible Remedies/ Resources:
- ❑ Practice taking emotions out of vocabulary and replace with "What I saw was…"
- ❑ Videotape sessions to become more self aware
- ❑ Invite others to watch you train
- ❑ Practice asking for and accepting feedback
- ❑ Work to create a culture that encourages accountability and respect for operationalizing behaviors if labels are used
- ❑ Create a list of empowering questions
  - o What is the observable behavior?
  - o What did I do?
  - o How did the animal respond?
  - o What is going on in/influencing the environment?
  - o How does the behavior apply to the animal's natural history?
  - o What is the motivation for the animal to perform the behavior?
  - o What could I/should I have done?

Photo: Crowned Crane, Natural Encounters, Inc.

Force Feed: Giving and Receiving Feedback After a Training Session

One of the best ways to sharpen your training skills is to have others watch you train and for you to watch others train. The challenge is many times the communication that should be occurring during these sessions can be very difficult, unnatural and sometimes even causes conflict. One activity that can be helpful is for a couple of days to try the "Force Feed" (short for "forced feedback"). If the team is resistant and uncooperative it most likely means they need this activity even more!

Number of people/players: Usually just two: the trainer and the person giving feedback. For individuals in which communication is particularly challenging, a third person to serve as "facilitator" may be necessary.

Time required: On average only 5-10 minutes following the session.

Number of rounds: Enough that everyone has an opportunity to both give and receive feedback.

Instructions: Prior to the session, the trainer tells the observer what they will be working on during this session and what would make them feel that the session was successful. They can also share any concerns they may have about what may occur in the session. After the session has concluded, the observer first allows the trainer to discuss their session then asks the following questions:
- How did you feel the session went overall?
- What did not happen as you would have hoped?
- What went well?
- Would you do anything differently next time?

After having the opportunity to respond then the trainer asks the observer a similar set of questions:
- How do you feel the session went overall?
- What went well?
- Would you have done anything differently in this situation?

There is no expectation that the pair need to come to any conclusion or agreement about the session. They just need to have a communication.

Facilitated by: A third person if necessary.

Discussion points: Discussion takes place with the entire team after each pair has experienced the feedback sessions. It is good to discuss with the team why these feedback sessions can help the team improve communication and training skills. It is interesting to have a discussion before the activity is started then after the team has participated. Team members can share what they liked and dislike about giving or receiving feedback. They can also share if they think the activity was helpful in the ways that were intended.

"Trivial Pursuit"

Creating an environment where people continually are motivated to learn can be a challenge. There is always room to grow! Trivial pursuit is a game that encourages people to study up to both create good questions and be able to answer questions in a variety of categories. This activity is a great way to start off regular team meetings.

Number of people/players: This can be played with any number of people on a team.

Time required: Usually takes about 5-10 minutes.

Number of rounds: Two cards of four questions; each are played at a round. The number of rounds will be determined by the size of the team.

Instructions: Prior to the start of the activity the team discusses the four categories that will be used to generate questions (for example, categories such as natural history of species, training, enrichment, or even some general zoo/ aquarium information). Each person on the team is required to generate the questions and answers to create two cards (eight questions). Questions are written on the front and answers on the back. Ahead of time, each team member is told when his or her questions will be due. A scorecard tallies each team member's scores (this can be posted or not, depending on the comfort level of the team).

Each player reads their questions to the group and the group quickly jots down their answers. The correct answers are read and the scores are tallied for the game. Points are kept until all players have had a chance to present their questions. If there is a tie, then the rest of the team can collaborate on the tiebreaker questions.

The person who wrote the questions gets 8 "free points." There is a catch; the person who wrote the questions only gets a point if at least one person gets the answer correct. This keeps the questions from getting too difficult or obscure. If the person who wrote the questions has an incorrect answer themselves (it happens!), they lose that point and an additional point.

If a player is not prepared and does not bring their questions when due, they lose eight points from their overall score.

If someone is absent for a meeting, they can make up the questions at the next meeting.

Facilitated: Everyone plays so it is self-facilitated.

Discussion points: Depending on the topics, this activity can generate a lot of discussion about information and resources for information.

Enrichment Goal-Setting Tool
www.animalenrichment.org

Goal setting involves using our knowledge of the animal's natural and individual history to generate ideas about behaviors that we might want to encourage in the animal's current enclosure (exhibit and holding). Below is a series of questions meant to help in the development of an enrichment plan for a particular species/particular individual animal in its current exhibit by identifying specific needs of the animal and determining enrichment goals for that animal.

Number of people/players: This activity is for the entire team (unlimited).

Time required: The time it takes to answer the questions may vary. Once the questions are answered, the goal setting tool takes between an hour to two hours.

Number of rounds: One, although if time is an issue the goal setting tool can be done in two parts.

Instructions: The first part of this activity involves answering a series of natural/individual and facility questions. The task of answering these questions should be split amongst the group (for example, each person answers two questions). People should be given plenty of time to do research on the questions, for example one week. The second part of the activity involves everyone getting together and bringing the answers to questions they were assigned. The facilitator will then go through the list of questions starting with one and ask the person assigned that question to read their answer out loud. As they are reading, the facilitator pulls out any behaviors that are in the answer and writes them on a dry erase/large paper or into the goal setting tool. For example, the question is:

What are some self-maintenance/comfort behaviors (e.g., preening, grooming, bathing, dust-bathing, wallowing, sunning)? Is there a seasonal molt/shed?

The answer is for a marabou stork:

Much of their time is spent in preening and general toiletry, which sometimes includes direct head scratching and bathing in water.

The facilitator would write, "preening," "head scratching" and "bathing in water."

After about five questions are read through, a list of behaviors should be generated. The facilitator goes back through the list and asks if the animal currently exhibits this behavior and if this is a behavior we would like to encourage or discourage. If it is one we would like to encourage, the team is asked to describe enrichment techniques that would provide, or is currently providing, the opportunity and motivation for the behavior. The group is then encouraged to brainstorm ideas to encourage the behavior. The facilitator goes through each behavior this way. After all of the behaviors have been discussed, the team goes back and reads the answers to the next five questions, behaviors are written on the board, and each behavior is discussed by the team. This

process is continued until all of the questions have been answered. At the end, prioritize projects for encouraging behaviors and assign action items to staff.

Below is the list of goal-setting questions. These questions can also be found at www.animalenrichment.org.

GOAL SETTING QUESTIONS

Natural History: Use good library references to obtain this information.

1. What is this species' wild habitat (e.g., desert, tropical rainforest, cover, moisture, concealment/camouflage options, temperature ranges, barriers from conspecifics)? If specific information on a particular species is unknown, provide information on closely related species/genus/family.

2. How does the animal in the wild behave in response to changes in temperature and weather? What temperature/humidity range does it experience in the wild?

3. What area some self-maintenance/comfort behaviors (e.g., preening, grooming, bathing, dust-bathing, wallowing, sunning, panting)? Is there a seasonal molt/shed?

4. When is it most active (diurnal, nocturnal, crepuscular)? Why (e.g., predator avoidance)? Does the activity pattern change seasonally?

5. Does the species in the wild inhabit primarily arboreal, terrestrial or aquatic environments or does it switch between them at times?

6. What are the main threats to the animal in the wild? What is it likely to be afraid of (e.g., conspecifics, humans)? What different types of predators does it have to look out for in the wild? Are there any anti-predator behaviors (e.g., broken-wing display)? Where and how does the animal seek refuge in the wild from fearful situations (e.g., loud noises like thunder)? What does fearful behaviors look like?

7. What are its primary sensory modalities (e.g., sight, smell, sound) for communicating with conspecifics, detecting predators and for finding food, mates, or other social partners?

8. What is the social structure of this species (e.g., solitary, dyads, "harem," colonial, leks, polyandry)? What is the average/ typical group size?

9. What is the average distance between social group members and from neighboring conspecifics?

10. Describe the primary social behaviors of this species (e.g., aggression, courtship, affiliative, play).

11. Does the social structure change seasonally or throughout the animal's life (e.g., juvenile versus adult, bachelor groups)?

12. Does this species defend territories? Does it maintain a home range? What is the size of the home range/territory? Does this species migrate seasonally?

13. How does the animal advertise its home range or territory (e.g., scent marking, song)? How does the animal attract a mate (e.g., displays, scent marks)? Who displays?

14. Where does the animal raise young (nest location/type, den)? What materials does it use to build nests/prepare dens? Are both sexes involved in rearing young? Are the young precocial or altricial? How are the young fed?

15. How does the animal locomote through its habitat?

16. What is the animal's diet type (e.g., omnivore, carnivore, herbivore, nectivore) in the wild? Does diet change seasonally? By age?

17. What does the animal feed on in the wild? What variety of food does it need to eat? What behaviors does it use to locate and procure the different types of food it needs? Does it use tools to obtain food? Store/cache food?

18. Where does the animal sleep or rest? Does that change seasonally?

   Any other considerations?

Individual History: Review information in ARKS and related studbooks.

1. Does this animal have any medical problems (e.g., arthritic, obese, diabetic, missing digits, wing damage, pinioned)?

2. Does this animal have any behavioral problems (e.g., fearful/aggressive to humans, stereotypy, feather plucking)?

   Any other considerations (e.g., exhibit at previous institution, hand-raised)?

Current Exhibit: Review information in related husbandry manuals.

1. What is the size of the animal's enclosure (exhibit and holding area)? What are the containment barriers (e.g., chain link, moat)?

2. Can the animal use all components of its exhibit? Can it hide? For example, how many places could this animal be out of view of its cagemate?

3. How functional is the current exhibit? Does the exhibit facilitate/allow the animal to exhibit natural behaviors? How does the animal interact with exhibit elements?

4. Where and how is the animal's food (normal diet, enrichment, browse) provided? Does the animal have a preference for one feeding site over another?

5. Does the physical environment contain elements of novelty (e.g., weather changes, can furniture be changed easily)?

6. What are the animal's opportunities to feed/forage, breed, socialize in species-appropriate ways? Do/can/should animal interact with other species in exhibit?

7. Can the animal exhibit normal patterns of behavior? Are components of the physical environment available for this to occur?

8. Can the animal make choices about where and how it spends its time? Does the animal have control over acquisition of food? Access to hiding places? Protection from the elements?

9. Are there any hazards in this enclosure?

   Any other considerations?

Enrichment Goal Setting Tool   (Blank)

Enrichment Goal Setting Tool (to assist in identifying what enrichment and training should be provided)

Team: **Date:**   **Species:**

Who?	What behaviors do we want to encourage?		How do we want to encourage behaviors?	Prioritize projects to be encouraged	Identify project champion	Documentation
Species	Behavior based on natural history &/or husbandry need	Do they exhibit the behavior now?	Describe enrichment and/or training techniques that would provide, or is currently providing, the opportunity and motivation for behavior.	Prioritize projects based on: Behavioral need* & feasibility** Rank them, e.g., 1=highest priority).	Identify project champion to drive the process.	What questions do you have about this enrichment, and how might you answer them?

* behavioral needs = subjective assessment of how 'important' it is for the animal to be able to exhibit/perform behavior

** feasibility = assessment of current/potential resources or management constraints that may limit ability to implement

Disney's Animal Kingdom
Natural Encounters, Inc.

Version I
2006

Sample

Enrichment Goal Setting Tool (to assist in identifying what enrichment and training should be provided)
Team: West Savannah   Date: class on 11/30/2000   Species: Marabou stork

Species	Behavior based on natural history &/or husbandry need?	Do they exhibit the behavior now?	Describe enrichment and/or training techniques that would provide, or is currently providing, the opportunity and motivation for behavior.	Prioritize projects based on: Behavioral need* & feasibility** Rank them, e.g., 1=highest priority); Identify project coordinator
marabou	Preening, bathing	Yes, yes-limited	Pool: 3 ft. deep x 5 ft. wide x up to 60 ft. long. Gently sloping edges, large enough to allow more than one bird at once, deadfall / perching nearby.	#4 Jeff, John
marabou	Roosting	Yes	Improve by moving existing material to popular area, near food, out in the open. Clear brush around overgrown areas.	#1 Lorie, Chris
marabou	Ability to "flee" danger	Somewhat	Eliminate corners in exhibit through plantings, secondary barriers, increase visual barriers.	
marabou	Social behaviors 1. aggression 2. vocalization 3. breeding behaviors 4. perching	Yes-decrease Yes-increase No-increase Yes-increase	Change social groupings, encourage birds to use whole exhibit. Provide improved breeding areas & nesting material. Improve nest sites: longer sticks, lower platforms, cliffs?, provide Unlimited food source, re-evaluate diet	#5- Joe #1 #1 #6- Chris
marabou	Feeding 1. scavenge / forage 2. groping (catching fish)	Limited No	Design vulture-exclusion feeder, fake carcass feeder, time release, use novel food items (lettuce, big crickets, bones). Build pond, put in fish. Create swampy area or flood exhibit. Short term: more temporary pools.	#2- John, Rick #3- Tracy, Linda #4
marabou	Use of whole exhibit	No	Move feeding area around, increase birds' comfort level in several areas	#3

* behavioral needs = subjective assessment of how 'important' it is for the animal to be able to exhibit/perform behavior

** feasibility = assessment of current/potential resources or management constraints that may limit ability to implement

Switching Hats Enrichment Activity

Prior to starting this set of activities, discuss the various roles that staff members play in your enrichment program. Some of the staff has major roles in the enrichment initiative review process. Describe the specific activity that will be taking place and why the group is participating in this particular activity.

Switching Hats Enrichment Initiative Review

The class will break up into small groups of three to six people. All small groups will be given the same enrichment requests to review. Each group will be assigned a specific role and then asked to review the request wearing that "hat." The roles may include: "Veterinarian," "Nutritionist," "Zoological Manager," "Curator," and "Behavioral Husbandry." Each group will have big paper to record answers to the following:

1. Given the "hat" you are wearing, list the top five issues you consider when reviewing any enrichment initiative.
2. Given your perspective, do you feel the request has adequately answered the questions/issues that you have? In what ways does the proposed enrichment meet your needs? In what ways does it need improvement to meet your needs?
3. Do you approve, not approve or approve with changes? Why?

After the team has had 20 minutes to review and discuss the requests, each team will pick a representative to present the information to the entire class. After the teams report out, they will watch a pre-recorded video of the staff Veterinarian, Nutritionist, Zoological Manager, Curator or Behavioral Husbandry review the same enrichment requests. The small group can have an opportunity to see how well they did at wearing their assigned "hat."

The activity can be done without the videotaping of 'real' vets, nutritionist etc.

Photo: Harpy Eagle, Natural Encounters, Inc.

A Movie and Popcorn Activity
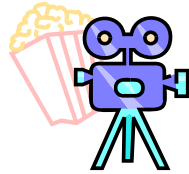
This is an easy way to get the team together to learn a little bit more about animal training. The only preparation on the facilitator's part would be to get a video, locate an available room with a TV and VCR/DVD player and get some popcorn and drinks. There are a wide variety of tapes that focus on different aspects of training and enrichment. Below are just a few of the examples of recommended videos.

Patient like the Chipmunks: This video chronicles Keller and Marion Breland's first lessons training pigeons to guide bombs during WWII, and Bob and Marian Bailey's pioneering work with free-flying birds and free-swimming dolphins more than three decades ago. It is a must see for animal trainers, psychologists, students, historians, and anyone interested in success stories. Marian Breland-Bailey, PhD, psychologist, was B.F. Skinner's 2nd graduate student. *45 minutes*

Shaping-Building Behavior with Positive Reinforcement: This video, based on Karen Pryor's seminars for dog trainers and owners, uses sound and music, mini-dramas, and some dazzling dogs to show you how to shape new behavior without force or correction. You'll see Karen and trainer, Gary Wilkes, developing eager, totally attentive responses in just a few minutes, with subjects ranging from humans to a puppy.
55 minutes

The Positive Approach to Parrots as Pets- Tape 1- Understanding Bird Behavior:
In this videotape, Steve Martin shares his insights and experience in helping you develop a better understanding of your parrot and attain the best possible relationship with your bird. Steve focuses on particularly challenging problems like biting and screaming and gives you a formula for interpreting virtually any behavioral situation with your bird.
65 minutes

Environmental Enrichment – Advancing Animal Care: In this video, the needs of animals are explored and practical suggestions given for improving their lives. A straightforward DIY guide to carrying out an enrichment project is provided. *35 minutes*

Watching these videos as a team can be a great way to start up some conversations around training and enrichment.

The Shape of Enrichment in partnership with the American Association of Zoo Keepers has created a system for borrowing videos, the enrichment/training video library. In formation about Shape's library can be found at www.enrichment.org.

Problem Solving Activity

In animal care we often find ourselves in need of solving problems. Sometimes these problems can be worked through quickly and other times the problems prove to be more complex. At those times, having a systematic process to work through problems can be very helpful.

Number of people/players: The entire team (unlimited)

Time requirement: One and a half to two hours. In some cases, multiple sessions may be needed to "solve" the problem.

Number of rounds: N/A

Instructions: Set a time and meeting space. Ideally the meeting space should have enough wall area to hang large pieces of paper or many large dry erase boards. Invite all team members and other relevant parties. This may include veterinarians, behavioral husbandry staff, researchers, nutritionist and any other staff members that may have past experience that could be helpful.

Hang six pieces of large paper on the walls. Label the paper with the following six categories: Define problem, Goal, Facts, Hypothesis, Learning Issues, and Action Plan. Have extra paper available.

Start with asking the group to Define Problem. The first step is defining of and agreement upon what the problem is. Often different people see the problem in different ways. A thorough discussion about defining the problem often leads to the best solutions. Once everyone is in agreement of what the problem is, write it on the paper labeled "Define Problem."

Next ask the group what the goal is, this is what you want to achieve with your action plan. Once everyone is in agreement of what the goal is, write it on the paper labeled "Goal."

The next section to fill is the Facts. This is information you and your group know to be true (through your general knowledge and experience). Fill in as much information as possible before moving to the next section. You may come back and fill in more information as you work through the process.

The Hypothesis and Learning Issues are the next to sections to be filled in. The Hypothesis is your best guesses about what's going on (the reason for the problem and potential ideas for solving the problem). The Learning Issues are issues that seem important to solving the problem, but that the group does not currently know the answers to. As you are filling in these two sections, facts and action items may come up.

Action Plan is a written list of action items describing who does what by when. Hopefully, these action items will lead to the solution to the problem.

On the following page is sample.

Sample
Marabou Problem Solving Feb. 28, 2004

Define Problem: Native vultures are entering exhibit and stealing the Marabous' diet.

Goal:
- Stop the native vultures from eating the Marabous' diet.

Facts (what we know from experience):
- There are many vultures in the exhibit both night and day.
- The vultures are getting the storks' food.
- Vultures will eat anything.
- In the wild, Marabous are more aggressive and out-compete vultures. They don't know when they'll get their next meal.
- Our Marabous are fed a large amount of food reliably three times a day. They know the food is coming. (issues around motivation – are they really food motivated?)
- The vultures use intimidation in order to get food – Marabous are dropping food due to vulture intimidation; could be a learned behavior.
- Marabous that stand elevated above the vultures (on nest platform) during feedings are not harassed as much by the vultures.
- Vultures are deterred by water.
- The vultures are getting variable reinforcement for harassing the Marabous (obtaining food from the Marabous).
- Vultures are getting a significant amount of the Marabous' diet.

Hypothesis (what we think is happening):
- If the exhibit were changed from an open space that is appealing to vultures, fewer vultures would come there.
- If the Marabous are fed so that the vultures can't get reinforced, then the vultures will leave to find food elsewhere.
- If we get weights on the marabous, we will be able to better monitor health issues and get a better idea of diet consumption.
- If the Marabous were more motivated to consume their diet, they would be less likely to drop food and more likely to eat their diet quicker and more efficiently.
- If we shorten the window of opportunity of Marabou feedings (e.g. They drop 2 meatballs, they're done), they will consume food more efficiently.

Learning Issues (what we still need more information about):
- Are there any vulture deterrents available? (Sticky spray and pigeons)
- Are sick vultures a concern for the Marabous?
- Would vulture-proof feeders work?
- Investigate if changing feeding strategies has any effect on the Marabous' motivation to eat. (ex. Feed only meatballs for a day or week, and then only fish for a day/week and then only rats for a day/week).
- How much should a Marabou eat? How much should we be feeding?

Action Items (who will do what by when):

- Partner with research in order to get data on native vultures at exhibit. Michael, report due in one week
- Keepers will begin tracking the Marabous' consumption in order for a diet decrease to take place. Walter, Michael, George, John, Juniper, begin tomorrow
- Get the vultures exclusion pens finished within two weeks. Walter, complete in two weeks
- Weigh Marabous and change diet accordingly (will involve training each bird to come into the exclusion pen and then station on a scale). Michael, George, John, Juniper, training plan completed within three days
- Start immediately training marabous to go into catch pens for feedings. Michael, George, John, Juniper/ Rachel will support efforts, training plan completed tomorrow
- Install a feeder to see if it excludes vultures. Walter and Michael, within one week
- Come up with a "window of opportunity" for feedings. Walter, Michael, George, John, Juniper, within three days
- Meet again in one month to discuss progress. Rachel to set up meeting
- Follow up on sick vultures to determine if there is any threat to the Marabous. Walter, during weekly meeting with area Vet (Thursday)

Photo: Marabou Stork and Native Vultures, Disney's Animal Kingdom

Learning to Learn Activity

Let's face it, many of us think we love to learn, but most of us like the thought of learning something new or the feeling we have after we have learned something. The learning itself can be difficult and at times, feel impossible! It turns out that most of us have many behaviors that hinder our ability to learn: hiding, asking anyone but the instructor if we don't understand and in many cases, quitting! This is an activity about creating a new learning experience for people. New learning opportunities are an excellent way to create an opportunity for discussing what it feels like to learn, to get more familiar with the feelings surrounding new learning, to try to increase behaviors that facilitate learning, and of course, learn something new! When done as a group, learning something new can also be an excellent team builder. Anything could qualify as a new learning experience: juggling, tying balloon animals, magic tricks, card tricks. In addition to a short group activity, this could also be a longer individual activity.   Individuals can take classes to learn anything new and report back to the group about their experience. The following is an example: the new learning activity is juggling.

Number of people/players: The entire team (limited by the number of sets of juggling balls)

Time required: 1 hour

Number of rounds: One round

Instructions: The facilitator will need to find a space large enough to accommodate the size of the group to juggle, a dry erase board or wall space for large paper to be hung and sets of juggling balls for each participate (small beanbags or squishy plastic balls will do).   A requirement for this activity is to have someone that can juggle proficiently enough to teach people. You will be surprised to find out all of the secret jugglers out there. Before the meeting, meet with your juggler, explain the activity and keep them out of the room until it is time to juggle.   Do not tell the group ahead of time that they will be learning how to juggle. There will be some discussion prior to the activity.

Pre-juggling Discussion:
The following are some questions that can promote discussion. Facilitator can have each participant answer the three questions below and brief answers can be captured on paper or dry erase board:

1. How do you feel about learning new skills? What do you like/not like about it?
2. Describe a great learning experience you have had in your life.
3. Describe the worst learning experience you have had in your life.

Tell the group that you have created a new learning experience for everyone, the art of juggling.   It is important to address that some of the participants may already

know how to juggle, some may have attempted it before, and some never even thought to try. Introduce your juggling instructor and hand out the balls. Have your juggler do a demo. This will include describing how to hold the balls, throw one ball, two, and then three. Inform the group they have thirty minutes. Let the fun begin!

Post Juggling Discussion

After thirty minutes, sit everyone down for a debriefing on the activity. The following questions can be helpful in promoting group discussion:

1. How did you feel when we said we were going to learn to juggle?
2. How did it make you feel that some people already knew how to juggle and you did not have this skill? Or if you know how to juggle, how did that feel?
3. Earlier, we asked about best and worst learning experiences; how would you rate this learning experience? Why?
4. What are some things that we could do in the future to make our team more receptive and comfortable with learning a new skill?

Some responses to the first question might be: nervous, scared, excited or even wanted to leave the room. It is important for the group to know that all those feelings are normal. Learning a new skill can be very frightening and intimidating for people. Juggling can be similar to animal training; it is a skill you need to practice to get better at.   The above questions can hopefully lead to the group discussing their own ways of dealing with discomfort in a learning environment and listing things that can help the whole team with this process.

Photo: Komodo Dragon Being Target Trained In An Off Exhibit Area, Disney's Animal Kingdom

Behavioral Husbandry Awards and Contests

One way to motivate and inspire staff is through awards and contests. Below are a couple examples of activities you can do with your staff. Each can be modified to fit your facility.

Excellence in Behavioral Husbandry Awards

The Excellence in Behavioral Husbandry Award was created as a way for staff to recognize each other in the area of behavioral husbandry. Staff can nominate each other for outstanding training and enrichment initiatives. Winners can be chosen randomly or by a panel. Prizes should be awarded to winners. To announce the contest, signs can be posted and/or e-mails sent out. Below is a sample e-mail:

The Excellence in Behavioral Husbandry Award

The Excellence in Behavioral Husbandry Award has been created as a way for staff members to recognize each other in the area of behavioral husbandry.

Here is how it works:

Staff can recognize each other in the areas of training and enrichment by filling out a card in the Behavioral Husbandry Resource Center and placing the card into a container marked *The Excellence in Behavioral Husbandry Award*. The card needs the nominee's name and why they are being recognized. Winners will be selected randomly in a drawing at the end of the month. There will be 3 winners a month.

For more information please contact ………..

Behavioral Husbandry Photo Contest

Photo contests can have several benefits: they create documentation of training and enrichment going on at your facility, they encourage staff to observe how an animal interacts with enrichment, they encourage staff to watch each other train. Below are examples of flyers for different photo contests and examples of some of the photos submitted.

Behavioral Husbandry Photo Contest!

For the month of February (the month of love) please submit your favorite training and enrichment photos that best represent the month of February.

Photo: Disney's Animal Kingdom

Bird Enrichment Photo Contest!

Please submit your favorite bird enrichment photographs!

There are several categories to win!

- Best Enrichment Initiative at encouraging species appropriate behavior
- Thinking out of the Box
- Best Photo

Please submit photos to XXXXX by September 30th!

Winner: Thinking Out of the Box

Winner: Best Photo

All photos taken in back holding at Disney's Animal Kingdom

Winner: Species Appropriate Behavior

Commercially Available Products

Sniffy the Virtual Rat
An affordable, complete virtual laboratory that makes learning fun!

With this instructive and fun to use software and accompanying lab manual, you'll simulate a wide range of learning phenomena that are typically discussed in psychology of learning courses. With **Sniffy, The Virtual Rat** (Pro Version), you'll explore all facets of operant and classical conditioning by training Sniffy using virtual food as reinforcement. The simple user interface enables you to set up events in Sniffy's operant chamber (Skinner Box) in much the same way research psychologists set up events for real animals.

ISBN# 0-534-35865-9

"You don't say!"
The word-free teaching and training board game

One player becomes the "teacher" and the other becomes the "learner". Open the boxed game and spread the various objects in it across your tabletop. You'll see each set is filled with a curious – but not random – assortment: dice, toy soldiers, toy cars, jacks, dominos, clothespin, hair clips, a yellow foam square, and more. Each set also includes a clicker, playing cards, and a collection of coins – your stash of "rewards."

The learner's job is to earn clicks and rewards. You will find out how to do this by exploring the objects on the table and listening for clicks. The teacher's click will tell you what action of yours is going to be rewarded. Collect your 'reward' coins and try to earn more by repeating the same action or changing it slightly.

This game is available at www.clickertraining.com

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Photo: Tiger, Disney's Animal Kingdom

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