

Problem Solving Activity

Problem Solving Activity

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

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

Time requirement: One and a half to two hours. In some cases multiple sessions may need to be done 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 with the following six components: Define problem, Goal, Facts, Hypothesis, Learning Issues, and Action Plan. Have extra paper available.

Start with asking the group to Define Problem. Defining of and agreement upon what the problem is, is the first discussion that should happen. Often different people see the problem in different ways. A thorough defining of 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 in 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 the action items in writing of who does what by when. Hopefully these action items will lead to solution to the problem.

On the following page is a sample.

Sample

Marabou Problem Solving Feb. 28, 2004

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

Goals:

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

Facts:

- There are many vultures at the overlook 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.
- These 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 dropping food due to 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 (from the Marabous).
- Vultures are getting a significant amount of the Marabous' diet.

Hypothesis:

- If the overlook was changed from an open space that is appealing to vultures to a less appealing space, fewer vultures would come there.
- If the Marabous are fed so that the vultures can't be 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:

- 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:

- Partner with research in order to get data on feral vultures at overlook. **Michael**
- Keeper will begin tracking the Marabous' consumption in order for a diet decrease to take place. **Walter, Michael, George, John, Juniper**
- Get the vultures exclusion pens finished within two weeks. **Walter**
- 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**
- Start immediately training marabous to go into catch pens for feedings. **Michael, George, John, Juniper/ Rachel will support efforts**
- Install a feeder to see if it excludes vultures. **Walter and Michael**
- Come up with a "window of opportunity" for feedings. **Walter, Michael, George, John, Juniper**
- 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**

Photo: Marabou Stork, Disney's Animal Kingdom

