

DOLPHIN RESEARCH CENTER

The Whistle Game

Grade Level: 3rd-5th

Objectives: Students will be able to enhance their communication skills using body movements and gestures to portray an idea.

Florida Sunshine State Standards:

Language arts

LA.C.3.2.4: The student uses eye contact and gestures that engage an audience.

LA.C.1.2.4: The student listens attentively to the speaker, including making eye contact and facing the speaker.

LA.C.2.2.1: The student determines the main idea in a non-print media message.

National Science Education Standards:

Content Standard C (K-4) - Organisms and Their Environment: An organism's patterns of behavior are related to the nature of that organism's environment, including the kinds and numbers of other organisms present, the availability of food and resources, and the physical characteristics of the environment.

Content Standard C (5-8) - Regulation and Behavior: Behavior is one kind of response an organism can make to an internal or environmental stimulus. A behavioral response requires coordination and communication at many levels, including cells, organ systems, and whole organisms. Behavioral response is a set of actions determined in part by heredity and in part from experience.

Background: Training dolphins is the career of many people's dreams! Almost everyone has either read about dolphins or seen them on television. A few people may have been fortunate enough to observe them in their wild habitat. Many people visit aquariums or marine mammal facilities to see dolphins and other marine mammals. The intelligence and creativity of dolphins make working with them both challenging and a lot of fun. As you watch trained dolphins gracefully perform various behaviors on cue, the trainer's job may look easy. It seems as though the trainer "directs" and the dolphin "performs." What you don't see is all the time, planning, and expertise that go into this unique kind of dolphin-human relationship.

In the training situation, the dolphin is an "operator," an active participant who exhibits a behavior to which the trainer then responds. The consequences, which follow a behavior directly, influence the frequency with which the behavior will be repeated. Training is very much a two-way communication process. The trainer's response to the dolphin will either increase or decrease the likelihood that a given behavior will reoccur. If a behavior is followed by something that the dolphin likes, the probability that the behavior will occur again is increased. If the trainer's response is not agreeable, the dolphin eventually will tend to avoid that particular behavior. If your mother wants to "train" you to take out the trash,



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she may use a variety of methods. She may remove privileges or get upset if you don't take out the trash, or reward you with praise about how nice it is when you do take out the trash. Either punishment or praise may influence how often you do this task. However, using a method that incorporates positive reinforcement is most likely to encourage you to repeat the behavior on a regular basis.

Positive reinforcement has proven to be the most effective means of influencing behavior. If, after you take out the trash, your mother rewards you with a warm smile, or a piece of cake. (depending on your preferences), you will be more likely to take out the trash again without being asked. Your behavior has been modified through operant conditioning. At DRC, primary reinforcement for our dolphins is most often FISH, of course!

Bridge: In order for operant conditioning to be successful, you must somehow inform the dolphin that they are doing the appropriate thing, while they are doing it. If a dolphin jumps twenty feet away from the trainer, it is almost impossible to offer a fish or some other reinforcement at the exact moment the dolphin correctly does the behavior. Instead, in early training, the sound of a whistle is associated with rewards of fish and praise. The dolphins quickly learn that when they hear the whistle, they have correctly done the behavior and they can return to the dock for their reward. Therefore, the sound of the whistle becomes a conditioned reinforcer that serves to BRIDGE the gap in time between the instant the dolphin does the correct behavior and when the dolphin receives its reward. That is why we call the sound of the whistle a "bridge."

Learning to bridge correctly with a whistle may be one of the biggest challenges for a new trainer. The whistle must be blown at the precise instant the behavior is correct in order for it to be effective in letting the dolphin know, "YES! That's great! That's exactly what I'm looking for!"

The whistle game is a fun activity for students to understand how difficult it can be to be both a trainer and an animal being trained. One person is the trainer and one person is the dolphin. Pick a behavior to teach. Without using words, try to get your dolphin to learn the new behavior. As the dolphin begins to try new things, bridge if they come close to the behavior. At this point the dolphin should try the behavior again. Again bridge if it is close. Now the dolphin should try it one last time. The third time is the "charm." If they are close but do not have the behavior yet, do not bridge. If they do have the behavior correct bridge the third time. This will let them know they are correct!

For further information on training at Dolphin Research Center, see **Training at DRC** information file.

Key Terms

Reward: Anything that somebody or animal wants or needs.

Bridge: A sound that connects an action to a reward.

Positive reinforcement: Cause and effect: The use of a reward causes the activity you want to happen more often.



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Materials:

- Whistle
- Paper towels
- Rubbing alcohol

Teacher Prep Notes:

Read **Training at DRC** information file and write keywords on the board to discuss as an introduction to the game.

Procedure:

1. What is a bridge? (Most likely, students will discuss a bridge in terms of the London Bridge or the Golden Gate) Tell students that they will be learning a different type of bridge today. But first...
2. Ask students to raise their hands if they have ever been to an aquarium or marine mammal facility like Sea World, Dolphin Research Center, etc. Find out and discuss what they most enjoy about going. Ask if they have ever seen an animal trainer. Do you think it is easy to be a trainer? How about to be the dolphin? Who trains whom? The trainer or the dolphin? Discuss.
3. Introduce the keywords.
4. Have students sit in a circle
5. Show the whistle and explain directions: The whistle game will help us understand how difficult it can be to be both a trainer and an animal being trained.
6. The teacher is the trainer and one student volunteers to be the dolphin. Whoever is the dolphin first will leave the circle or the room so as not to hear the chosen behavior.
7. Pick a behavior to teach. When the trainer and the rest of the group select a behavior, the “dolphin” may return and get in the middle of the circle. The trainer holds the whistle and may sit or stand on the inside edge of the circle.
8. NOTE: When your “dolphin” comes to the center of the circle, give him/her positive reinforcement by either clapping or cheering. Remember that we want the dolphin to want to learn the behavior.
9. Without using words, try to get your dolphin to learn the new behavior. As the dolphin begins to try new things, use your whistle to bridge if they come close to the behavior. (Blow once.)
10. At this point the dolphin should try the behavior again. Again bridge if it is close. (Blow again.)
11. Now the dolphin should try it one last time. The third time is the “charm.” . If they do have the behavior correct bridge the third time. (Blow once.) This will let them know they are correct!
12. If they do not have the behavior yet, do not bridge. The “dolphin” will need to continue trying to guess the desired behavior.



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13. If the teacher or trainer feels that the students understand enough to pass off the trainer position, switch roles. The trainer and the dolphin switch with each other or two other people in the circle. Use the alcohol and paper towels to clean the whistle in between each use.
14. As a challenge, try pairs of “dolphins” or small groups of 3 or 4!

Wrap Up: Discuss whether it was more difficult to be the trainer or the dolphin. Why? What would be so difficult? Emphasize the importance of communication and how amazing it is when that light bulb goes off or the break through occurs in terms of understanding an idea without using words. Training is like a language of its own. Even though trainers are like teachers, we have to ask ourselves the question, “Who are the students? The dolphins or the trainers?” Learning and training go hand in hand or flipper in flipper! You can’t have one without the other.

Taking it Further:

- After reading the ***Training at DRC*** info file, have students try writing a behavior chain of their own!
- If students have a dog or cat at home, even a brother or sister perhaps would work, try training a behavior at home. Be sure to approve the desired behavior first. Students can use a hand clap or a vocal, “Good,” as a bridge if they don’t have a whistle at home. Or, they could take turns taking the whistle home and training a behavior and sharing their experience with the rest of the class before passing off the whistle.

