Observations Telephone Game
by Liz LaRosa

How can shared observations and indirect communication affect the quality and accuracy of the information being transmitted?

NGSS SCIENTIFIC AND ENGINEERING PRACTICES (SEP 1, SEP 4, SEP 8)

- Asking Questions and Defining Problems
- Analyzing and Interpreting Data
- Obtaining, Evaluating, and Communicating Information

Materials

- 10 photos of damselflies (see pdf)
- lightly write ID numbers on the back of each photo
- Pencils (1 per group)
- Index Cards (1 per group)
- Index cards numbered 1-8 for each group
- Online Stopwatch

Intro & Class Discussion:

Think of a time when it is really important to convey information exactly. Discuss.

- **Examples of student answers:**
    - parents tell you to tell your babysitter something
    - directions on how to get somewhere
    - telling someone what the homework is for a class
    - helping someone take medication or keep track of it
    - calling 911 to get help
    - being a witness to a crime or accident
        - sketch artists
    - etc…

Scientists also need to communicate information accurately. Good observation and communication skills are essential.

Directions/Description

1. Form teams of 7-8 students
2. Have each team select one volunteer to start the telephone game
    a. they are given the #1 card
    b. good observation and communication skills are a plus for this position
3. Volunteers will be separated from the group and each other.
    a. Materials needed - blank index card, pencil, and one of the 10 photos
    b. Give each volunteer one of the 10 photos, keep track of which photo belongs to which group
    c. Volunteers will write their name and group number on the index card
    d. Volunteers will write **ten** observations (in 3 minutes) for their photographs (online stopwatch on the board)
4. While the rest of the team is waiting for the volunteers to make their observations:
    a. Each group will determine what order they would like to go in from second to last
    b. The last team member will be the one who picks out the picture using the observations they received from their teammates
    c. Once the order has been determined, students will spread their seats out around the room randomly
    d. check seating, have everyone on team 1 raise their hand, team 2, then team 3
5. After the 3 minutes are up, student #1 will go to student #2 whisper the 10 observations from their index card. They will have one minute to discuss the observations. (set the online stopwatch for all groups - all groups are going at the same time)
6. After one minute, take the index cards away, person #1 will sit in person #2's chair and person #2 will walk over to person #3.
7. Start the timer again for 1 minute.
8. Person #2 will whisper the 10 observations (from memory) to person #3. They will also have one minute to discuss the observations.
9. The information is repeated in this fashion until all team members have participated.
10. When everyone is ready, the last person of each group who received the observations will come up to the front of the room.
11. They will write as many observations as they can on the board - the rest of their team cannot discuss the observations in any way.
12. Have the last members of the team look at all 10 pictures and choose the picture they think is the original, based on the information they have been given, take the pictures out and put them aside
13. Read/write/type the observations for the team and why they chose that picture for their team. (volunteer #1 ***cannot*** comment at this point in any way, having them stand off to the side may be a good idea)
14. Add the original 10 observations, what is the same? different?
15. Reveal the answer/original picture & discuss

Possible Debriefing Questions

1. What did the image show? Can you name the insect?
2. Compare the observations for each team, what was similar, what was different?
3. Did any information change along the way?
4. Did the final set of observations differ drastically from the original observations?
    a. If so, why? What happened?
5. Compare the observations between **each** team - what was similar, different?
6. What were some difficulties that you and your team experienced?
7. Should your observations have been longer? shorter? more or less specific?
    a. How would that affect your outcome?
8. Do you think you would get the same results if you had less people on your team? How about more people? What would be the same? What would be different?
9. If you were to do this activity again, what are some strategies you would try?
10. Why is it important to make careful observations?
11. If you make careful and detailed observations, but can't communicate that information effectively to other scientists, how will that affect your outcomes?

Team	**1**	**Team**	**2**
Observations - Last	**Observations - Original**	**Observations - Last**	**Observations - Original**
Picture #	**Picture #**	**Picture #**	**Picture #**
Answer:		**Answer:**	