ICE SCULPTURE LESSON PLAN

Overview:

This lesson plan will challenge participants to practice communicating clearly, as well as understanding the value of different perspectives. In this activity, they will complete a simulation that involves inhabitants of three cities with three very different perspectives.

Objectives:

As a result of this activity, participants will be able to:

1. Realize the value of different perspectives.
2. Learn how to reconcile different perspectives to solve challenging dilemmas by practicing intercultural openness.
3. Practice clear communication skills.

Background Information:

This activity is revised from the “Meteorite” activity (see citation below) by Dr. Daniel Jones and Dr. Michael Linnes. After using the Meteorite activity with Mechanical Engineering students it became obvious that they would need to revise the activity to accommodate for their acute awareness of what is scientifically/phenomenally possible. For example, resistant comments such as, "that would never happen," or "that's not physically possible," impeded the facilitation of the activity. Therefore, they revised the activity into this Ice Sculpture version. The additional context and more scientifically plausible scenario mitigated the problems found in the original and allowed the ME students to focus on completing the challenge.

CILMAR’s partner in Mechanical Engineering actually made a 3D model of the "ice sculpture" out of modeling foam and built a PVC stand/box with curtains for a dramatic reveal. This is not necessary but certainly a 3D model makes it easier to explain the actual shape.

Time:

30 minutes

Group Size:

Small group

Materials:

A PowerPoint or similar way to present images, handouts (see Downloads), and either paper & pens for the students or play dough/modeling clay

Intercultural Development Continuum Stages:

- Denial
- Polarization
- Minimization
- Acceptance

Revised from the original by Dr. Daniel Jones and Dr. Michael Linnes:

AFS Interkulturelle Begegnungen. (2012). Meteorite. In K. Berardo and D.K. Deardorff (eds.), *Building cultural competence: Innovative activities and models* (pp. 331-338). Stylus.

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AAC&U Intercultural Knowledge and Competence Goals:

Openness:

- To initiate and develop interactions with culturally different others.
- To suspend judgment in valuing interactions with culturally different others.

Other Skills:

Teamwork

Activity instructions:

Preparation:

1. Set up three groups of chairs in the room, one for each village.
2. Put an empty sheet of paper and a pen on each chair.
3. Keep the illustration of the ice sculpture (Handout S8.7) or the 3D model hidden.

Activity Setup:

1. Separate participants into three groups and have them take their seats.
2. Give each group a town name: Johnsonville, Pittsburgh, and Lexington (see Handout S8.8).
3. Introduce the participants to the story as follows:
    - In the dead of winter, an artist travelling through the area stopped in a large field near the towns of Lexington, Pittsburgh, and Johnsonville to create a gigantic ice sculpture.
    - The inhabitants of Lexington discovered that the ice sculpture had a distinct shape.
    - The inhabitants of Pittsburgh could see that the ice sculpture was an unusual shape.
    - The snowed-in inhabitants of Johnsonville couldn't see the ice sculpture. By summer time, when they got to the location of the sculpture, the ice had already completely melted. They could only see that the ice sculpture left a specific indentation in the mud.
4. Distribute the handouts to the relevant villages with the appropriate description of the ice sculpture/location.
5. The activity continues in the following stages:
    - Stage I: Village Visits. Tell participants they will now have the chance to talk with people from neighboring villages to determine the shape of the ice sculpture before it melted. They need to choose one or more village representatives to travel to other villages to discuss the shape of the ice sculpture before it melted. Village representatives are allowed to share and add their own perspectives on the shape of the ice sculpture and ask at least one inhabitant of
        - Pittsburgh and Lexington to discuss the shape of the ice sculpture before it melted,

  - one inhabitant of Pittsburgh and Johnsonville to discuss the shape of the ice sculpture before it melted, and
  - one inhabitant of Lexington Johnsonville to discuss the shape of the ice sculpture before it melted.

- Point out to the group that the specific location of the towns is unimportant. Each of the three groups received different information about what the ice sculpture looked like, and you need to talk to other villages to determine the correct shape of the ice sculpture. Have the groups decide who will be staying in their town and who will be visiting the other towns to find out more about the ice sculpture.
- Tell each group separately (secretly) that they should not divulge the form of the sculpture using the word for its shape. For each town the word that describes the shape does not exist in their language. (i.e. the words 'circle' or 'circular' do not exist for Johnsonville, the words 'triangle' or 'triangular' do not exist for Pittsburgh, and the word 'square' does not exist for Lexington.
- Stage 2: Ice sculpture Re-creations. After a few minutes of discussion, have participants return to their village and explain to the rest of the group what they learned from their visits. The group then should re-create the ice sculpture either by drawing a picture or by forming a model with Play-Doh.
- Stage 3: Presentations. After about 10 minutes, have one representative of each town present its results to the whole group.

Debriefing the Activity:

Show the illustration in Handout S8.7 or the 3D model to the whole group, pass it around, and compare it with what the groups came up with. Tell them the shape of the ice sculpture appears different to each group, and the exact shape of the ice sculpture can only be reconstructed by combining what the other groups know about it. Tell the group the essence of the task: the ice sculpture can be described precisely only with the knowledge of all three parties.

Ask the following debriefing questions:

- What happened in this exercise?
- How did you feel during the exercise?
- Which strategies did you use to solve the problem?
- What was the value of different perspectives in this exercise?
- What did you learn as a result of this exercise, and why does what you learned matter?
- How can this be compared to similar situations that you have experienced before?

Key Insights and Learnings:

- The knowledge of the individual sometimes isn't enough to comprehend a complex circumstance. Extensive insight can be gained with the help of other views, even if at first they seem wrong, improbable, or implausible.

- Only a change of perspective enables us to see the whole picture.

Variations:

If you work with children, you can use a shape that is simpler (e.g., a cone) that has only two different perspectives (the view from the side, which will be a triangle; and the view from the indentation it will leave on the ground, which will be a circle).

Facilitation Tips and Suggestions:

- Using a model of the ice sculpture and drawing helps participants who have different ways of perceiving or interpreting a two- or three-dimensional object.
- A model can also easily be carved out of a large candle.

Related Tools:

Similar tools:

- Meteorite