BISOCIATION IN-CLASS ACTIVITY #1

A Chance to Practice

Instructor Notes on Lesson

Expected Time: 20 minutes

When to Implement: Bisociation, being an ideation methodology, should be introduced as a way to come up with possible design solutions (after painstorming is covered, if it is). The Bisociation video should be shown first and this would be an appropriate in-class activity to immediately follow.

Class Set-Up: Teams of approximately 4 where individuals will be able to work individually, with a partner, and as a team throughout the activity.

Materials Needed:

- A classroom projector to project the stimulus photo presented later in this packet
- Scrap paper for students
- White board or chart paper for tracking class ideas

Learning Outcomes:

At the completion of this activity, students will be able to:

- Create and apply a “stimulus list” to a design problem
- Describe the connections that occurred from stimulus to ultimate idea presented

Instructor Guide:

After watching the Bisociation video, put the class in teams of 4 asking students to get out their own note sheet:

INTRODUCTORY DIALOGUE:

Explain to the class that you are going to practice what you saw in the video by bisociating using a random, unrelated stimulus. Remind them of the example shown in the video where the shark photo led to the design of special sterile medical instruments and algae-resistant coating on boats. You never know where a photo will lead!

Part 1. Pose the Problem to be Solved [1 minute]

- The instructor can choose any problem definition that they would like. An example of one that can be used is: "We want to think of a game-changing new product or service related to enjoying an outdoor swimming pool."

Part 2. Reveal the Stimulus and Create the Stimulus List [5+ minutes]

- Project the Powerpoint slide onto the screen that shows the random, unrelated stimulus. The included image is a lifesize Bigfoot statue, but can be modified to the instructor's preferences. The "odder" the stimulus, often the more fun and interesting the ultimate design ideas.

- Allow students a minute or two to list independently the things that they observe, notice, feel, and think about when they look at the stimulus. Then share these (either teams can compile their own list, or a class discussion can occur where all ideas are written on the whiteboard).

Part 3. Ideate and Share [5+ minutes]

- The instructor can determine how much emphasis they want to place on the actual ideation process. For a quick activity, teams can be given 3 minutes to think up as many ideas as they can about solving the original problem (relating to the swimming pool) while looking at/thinking about the stimulus list (things that were noticed and thought of when looking at Bigfoot). These ideas can then be reported out to the class, with the instructor asking additional questions about what led to that idea (helping all students see the connections between the original problem and the stimulus list in reaching the ultimate design idea. The instructor may also wish to spend more time than this, using post-it note brainstorming or other more in-depth ideation techniques.

  As a fun ending, the class could vote on the most interesting idea of all of the ones generated.

Part 4. Assignment and Discussion

To wrap up this activity, instructors may wish to do one of the following:

- Have students individually, in pairs, or in teams complete the short in-class wrap-up handout. [5 minutes] follow this up with brief discussion relating to the questions on the handout. From the instructor's perspective try to get the class to see the value of each approach and when (within the class context and in future engineering contexts) they might use each one. [5 minutes]

OR

- Have students individually complete the accompanying Bisociation Homework 1 assignment packet. After the assignment is complete, debrief the assignment with the class at the start of a future class session.

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STIMULUS TO ACCOMPANY ACTIVITY

"Life-size Yeti (Big Foot) Statue"

Image from: https://www.thegreenhead.com/imgs/xl/lifesize-abominable-snowman-yeti-statue-xl.jpg

Created by: Kim Bigelow, PhD; University of Dayton for KEEN Topical Grant

Name: _____

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WRAP-UP

1. Describe, in your own words, what bisociation is and how it is used.

2. List at least one question you have about bisociation that you would like answered by the instructor. If you have more than one questions, list all of those here.

3. When in the engineering design process is bisociation an appropriate method to use?

4. If in our next class you were told that you were tasked with coming up with a new product, service, or process that would make family car travel more enjoyable:

a. How likely would you be to (without receiving any additional instruction or practice) use bisociation?

1. Extremely unlikely
2. Unlikely
3. Neutral
4. Likely
5. Extremely likely

b. If you were told you had to use bisociation, how confident would you be that you could do so effectively (without receiving any additional instruction or practice) use bisociation?

1. Not at all confident
2. Not very confident
3. Somewhat confident
4. Confident
5. Extremely confident