

## **BISOCIATION IN-CLASS ACTIVITY #3**

### ***Using Stimulus While Developing a Company Identity***

#### **Instructor Notes on Lesson**

**Expected Time:** 20 minutes (could be longer)

**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 follow. If the other provided bisociation activities are being used, this should be used as the last activity.

**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 bag of collected “random” items that students will be able to look at and touch
- A student handout has been created and can be distributed to help structure the activity worktime, though scrap paper can also be used.

#### **Learning Outcomes:**

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

- Use stimulus as used in bisociation for broader purposes
- Create a “stimulus list” and utilize it to inspire multiple design ideas
- Develop a company profile that can be used to frame design-related activities

## **INTRODUCTORY DIALOGUE:**

Instructors should explain to students that stimulus can be used in a number of ways, and that here you will practice how stimulus can be used at several different time points in an engineering design activity. While bisociation is generally used specifically for generating design solution ideas, it is also possible to use the concepts associated with bisociation to think more creatively about all aspects of the problem.

### **Part 1. Identifying the Team Stimulus [3 minutes]**

- The instructor should, without giving students any in-depth context or direction, instruct each team to go to the stimulus table and choose one item that is on the table and take it with them back to their team space. It may be helpful to assure the students that what they choose is not something that they will use for building, so the choice of the object does not have to be overly strategic.
- Back at their tables, students should talk for a few minutes about their team's stimulus. What does it remind them of? What materials is it made of? Who might use this product?

### **Part 2. Team Stimulus as Inspiration [3 minutes]**

- Teams should now list as many companies, services, or occupations that this object reminds them of. Try to get them to think out of the box. Giving an example may help such as "For this chip clip I might list: Grocery Store because they stock chips; Advertising Firm because they always market chips before football games; Snack Bar because I buy chips at my local pool; School cafeteria; etc."
- Teams should now look at their list and identify the "persona" that they want to take on for the rest of the activity. They can return the stimulus to the stimulus table at this point.

### **Part 3. Develop a Company Profile [7 minutes]**

- Now that students have identified what "persona" they want to take on, have them develop a company profile. A guided handout to help with this is attached. Specifically each team will determine their: 1. Company Name, 2. Primary products or services, 3. Primary target market(s), 4. Materials that the company likely has readily available, and 5. Skills and techniques that the company likely excels at. You may need to give examples, e.g. "If I were a cardboard company I would likely have access to all sizes of cardboard and I would likely have expertise and tools in precision cutting." Encourage students to think broadly and creatively.
- Have students share their personas with the class. Likely many different companies will emerge.

#### **Part 4. Pose a Design Challenge [15+ minutes]**

- Now tell students that their company is competing for a \$250,000 award, given for a new product that will help busy moms with young children. While this has never been the primary focus of their company, in the last three years their company has seen a surge in the number of employees who have become parents. With this level of expertise in the company, the CEO thinks it would be easy to leverage their experience, and the resources and skills they have available, to change directions a bit as a company and develop a product that is worthy of winning the competition. You will want to remind students that often a company will look for new opportunities and seek to break into new markets, but that this is normally done within the scope of expertise of the company (thus the importance of the company profile they just created).
- Depending on the instructor's preferences, the activity can then become as in-depth as they wish. Ideally, students will spend some time brainstorming first, thinking about and/or observing pains that busy moms with young children might experience. (This is an interesting prompt since most students will not have this experience firsthand, requiring that they really immerse themselves in understanding the problem through other means.) Students should then move on to ideation, ideally using bisociation. Students should return to the "stimulus table" and choose a new stimulus object and use this to motivate their ideation session. (See Bisociation Activity #2 for a guided handout that can be used to form the stimulus list). If time permits, students could mock up or even prototype their favorite design idea.

#### **Part 5. Report Out and Discussion [5 minutes]**

- Have students remind the class what stimulus object they started with, the highlights of their company profile, and the design idea that they have identified as most worthwhile to pursue (or alternatively demonstrate their mock-up or prototype). The instructor can ask questions, especially trying to draw out connections between the random object that the student started with and the ultimate design idea they came up with.

#### **Part 6. (Optional) Individual Wrap-Up**

To wrap up this activity, instructors may wish to use the provided student wrap-up sheet.

**Names:** \_\_\_\_\_

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**TEAM HANDOUT TO ACCOMPANY ACTIVITY**

**Original Stimulus:** \_\_\_\_\_

**1. Company Name**

**2. Primary Products of Services of your Company:**

**3. Primary Target Market(s) of your Company:**

**4. Materials that the Company likely has Readily Available:**

**5. Skills and Techniques that Your Company Likely Excels At:**

## WRAP-UP

1. Reflect on the role and importance of “making connections” when you use stimulus in the engineering design process. Why does this work well (or not well)? Give an example of the connections you made while you went through this in-class activity.

2. List at least one question you have after completing this in-class activity.

3. 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