**Taste Test Lab: Do Reese's Shapes Affect Taste Preference?**

**Objective:**

To determine whether there is a significant difference in taste preference among different-shaped Reese’s Peanut Butter Cups — specifically, round (standard), mini, and holiday-themed (e.g., trees, eggs, hearts).

**Background:**

Reese’s fans often claim that the shape of a Reese’s Cup changes the taste experience. While the ingredients remain the same, the peanut butter-to-chocolate ratio, texture, and even perceived flavor can vary by shape. This lab investigates whether these claims hold up in a blind taste test.

**Hypothesis:**

**If** participants taste different-shaped Reese’s Cups without knowing which shape they are eating, **then** they will show a preference for a particular shape, indicating that shape does affect perceived taste.

**Materials:**

* Standard round Reese’s Cups (regular size)
* Reese’s Minis (unwrapped)
* Reese’s holiday-themed shapes (e.g., trees, eggs, or hearts)
* Napkins or paper plates
* Water (to cleanse palate between samples)
* Blindfolds or labeled sample cups
* Taste Test Survey sheets
* Pen/pencil
* Gloves (for sanitary handling)

**Variables:**

* **Independent Variable:** Shape of the Reese’s Cup
* **Dependent Variable:** Taste preference rating by participants
* **Controlled Variables:** Brand (Reese’s), storage temperature, serving size (use equal weight if possible), participant group

**Procedure:**

1. **Preparation:**
   * Cut each Reese’s shape into equal-sized pieces (to keep quantity consistent).
   * Label each sample as A, B, or C (randomized to hide shape identity from tasters).
   * Prepare a data sheet for each participant to record their ratings without knowing which shape they’re tasting.
2. **Conduct the Blind Taste Test:**
   * Provide each participant with samples A, B, and C in random order.
   * Ask them to cleanse their palate with water between samples.
   * Participants will rate each sample on a scale of 1 to 5 based on:
     + Taste
     + Texture
     + Overall preference
3. **Survey:**
   * After tasting all three, ask participants to rank their favorites.
   * Optionally, ask for qualitative feedback (“Describe the taste difference you noticed”).
4. **Reveal the Shapes:**
   * After surveys are completed, reveal which sample was which shape.
   * Record which shape received the highest ratings.

**Data Collection Sheet:**

Each student will use the individual data sheet below to record their findings. Then each student will enter their data in the large data set on REDCap. Click the link to enter individual data <https://redcap.link/reesecuplab>

Rating System: 1 being the lowest rating and 5 being the highest rating.

Student Code: (Last Name Initial, Birth date (01-31), Middle Name Initial)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Write down the shape for Reese Cup #1 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |
| --- | --- | --- |
| Taste (1-5) | Texture (1-5) | Overall Preference (1-5) |
|  |  |  |

Write down the shape for Reese Cup #2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |
| --- | --- | --- |
| Taste (1-5) | Texture (1-5) | Overall Preference (1-5) |
|  |  |  |

Write down the shape for Reese Cup #3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |
| --- | --- | --- |
| Taste (1-5) | Texture (1-5) | Overall Preference (1-5) |
|  |  |  |

Which shape do you prefer overall?

**Analysis:**

* Calculate the average rating for each sample in each category.
* Determine which shape had the highest overall preference.
* Later on, the data will be used to graph and look for patterns and statistically significant preferences.

**Conclusion:**

* Summarize the results.
* State whether your hypothesis was supported.
* Reflect on possible reasons for the preferences (e.g., more peanut butter, softer texture, nostalgia).

Finish the lab by teaching about sources of error (i.e. personal bias) and how to expand the project and/or what other research questions could be asked.