**Gustation (Taste) Lab**

**Purpose:**

In this lab you will determine whether gender, smell, and/or vision play a part in your ability to identify food. Also, you will be correlating the concentration of papillae on your tongue with your relative taste identification ability, and classifying yourself as a non-taster, taster, or supertaster.

**Materials:**

toothpicks, baby food (at least 8 flavors), paper towels, water bottle, magnifying glass

**Part 1 Taste Identification**

**Method:**

Choose which partner will taste first. Blindfold that individual. Dip a **new, unused** toothpick into one of the baby food containers, taking note of the number. Hand your partner the toothpick in one hand while they hold their nose with the other. Have the subject taste one time and tell the type of food. Then release the nose, allowing your partner to smell the food as they taste it, and make a second identification. Finally, allow the person to see and smell the baby food by removing the blindfold and taking a third try at identification.

Repeat this process for all flavors then switch roles. It is recommended that you drink water between flavor changes.

**Individual Data/Results:**

Have your partner enter your data below. On the back, write the data that we collect as an entire class.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Number | 1st ID taste only | 2nd ID + smell | 3rd ID + vision/smell | Actual food |  |
|  |  |  |  |  |  |
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Total correct l l l l

**Collected Class Data/Results:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| # | 1st ID | | 2nd ID | | 3rd ID | |
| correct | Male | Female | Male | Female | Male | Female |
| 0 |  |  |  |  |  |  |
| 1 |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |
| 6 |  |  |  |  |  |  |
| 7 |  |  |  |  |  |  |
| 8 |  |  |  |  |  |  |

**Part 2** **Papillae ranking**

Look at several students’ tongues for concentration of papillae. You may use a magnifying glass. Line up in order from least to most, separating into thirds. Are you in the bottom third, middle third or top third in the concentration of papillae on your tongue?

**Analysis/Discussion:**

What type of research is this (naturalistic observation, case study, correlational, experiment)? What are the variables and their operational definitions?

Are there any ethical considerations in this study?

Individual pattern: Do you think your papillae concentration correlates with your baby food identification results? Do you think you are a non-taster, taster, or super-taster? What other anecdotal evidence do you have to support this categorization?

Group patterns: What patterns did you note in the class data? What were the relationships between **all** the variables? How do you explain this?

What confounding variables/other factors could have impacted your and/or the class’ results? Explain at least five.

How could you improve this research to reduce these issues? Are there better ways to measure gustation and/or sensory interaction?