

Logbook

Title:

- Do the color of foods and drinks affect their flavor?

Statement of problem:

- What is the problem in this experiment? The purpose of this experiment is to see if the color of foods affect their flavor. I wanted to do this experiment to see if people are getting tricked by food brands and to find out if some candies are all actually the same flavor. I think the information gained from this experiment will help people is for them to know that what they are eating is probably the same flavor.

Objective:

- In this experiment I'm going to find out if different colors of foods or drinks affect whether or not people think they are different flavors. I will buy three buckets of yogurt then use three different colors of food dye and I will see if people think they are different flavors of yogurt but they will all be vanilla.

Hypothesis:

- I hypothesize that different colors of foods and drinks do affect whether or not people think they are different flavors. I think this because research states/shows from [https://faculty.washington.edu](https://faculty.washington.edu/chudler) › chudler › coltaste that "Color did affect flavor intensity, especially in the older group. Subjects reported that drinks with more red color tasted stronger.

- <https://flavourjournal.biomedcentral.com>
- Neuroscience for Kids - Color/Taste
[https://faculty.washington.edu](https://faculty.washington.edu/chudler) › chudler › coltaste

- Tricky Taste Test: Do You Taste with Your Eyes?
<https://www.scientificamerican.com › article › tricky-tas...>

Materials:

- 1- 16 oz vanilla yogurt (Chobani)
- Food dye
 - Red
 - green
- 27- survey forms for a seventh grade classroom
- 27- Test Subjects
- 81-plastic cups (2oz) and lids to store them all
- 1- Logbook
- 27- spoons

Dependent and Independent Variable:

- Dependent-Taste
- Independent-Color

Procedure:

1. Get your materials (yogurt/cups/dye/survey sheets/spoons)
2. Put the food dye (3 drops) in the yogurt and stir in the dye until completely mixed.
3. Disperse the yogurt in 27 of the 2oz plastic cups and put the lid on it.
4. Repeat this step for both green and red food dye. The white is plain vanilla yogurt and will be put in the plastic container with no food dye.
5. Give 3 cups to each participant- one of each flavor.
6. Give each participant a survey sheet to record their findings.
7. Analyze the data and record findings in my logbook.

Results:

- The results of this experiment shows that after my 26 trials I found out that an average number of 0.80 people could taste the white as vanilla while only 0.0384 of people got green and red correct. This data shows that the color of the yogurt did affect the taste.

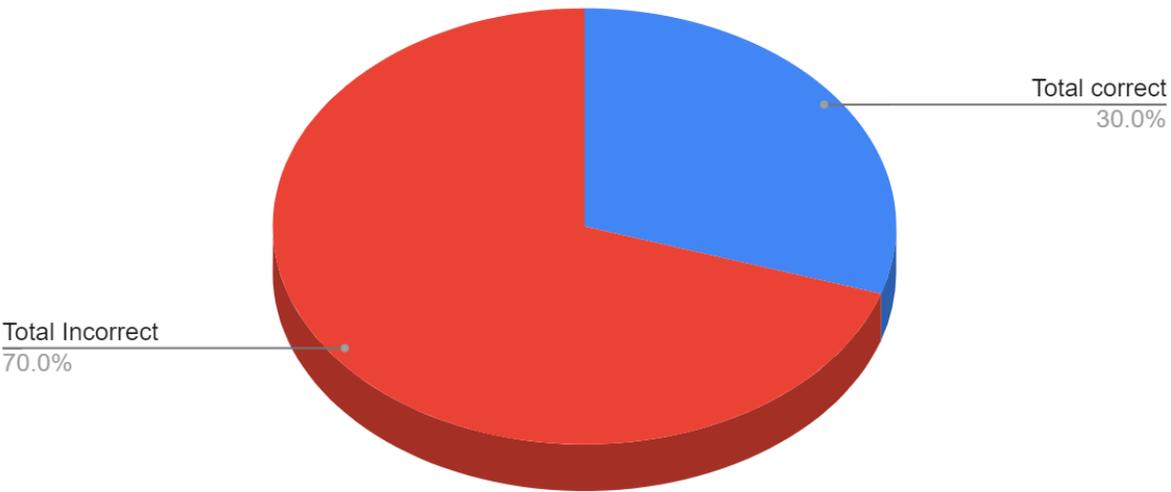
COLOR RED YOGURT'S FLAVORS	COLOR GREEN YOGURT'S FLAVORS	COLOR WHITE YOGURT'S FLAVORS
KIND OF SOUR YOGURT	NASTY LIME	WEIRD SOUR STUFF
STRAWBERRY	LIME	VANILLA
CHEESE	CUCUMBERS	PICKLES
ROTTEN CHEESE	BLUE BERRY	BANANA
BERRY	CREAM CHEESE	GREEK YOGURT
METAL	VANILLA	RASPBERRY
SALTY CONDENSED MILK	APPLE	COCONUT
CREAM CHEESE	SOUR GRAPE	SOUR MILK
BLUE BERRY	SOUR MILK	SOUR VANILLA
SOUR MILK	NASTY LIME	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
VANILLA	SOUR CREAM	XXXXXXXXXXXXXXXXXXXXXXXXXXXX

PARTICIPANTS	COLOR RED YOGURT'S FLAVORS	COLOR GREEN YOGURT'S FLAVORS	COLOR WHITE YOGURT'S FLAVORS	Total correct	Total Incorrect
Trial 1	no	no	yes	1	2
Trial 2	no	no	yes	1	2
Trial 3	no	no	yes	1	2

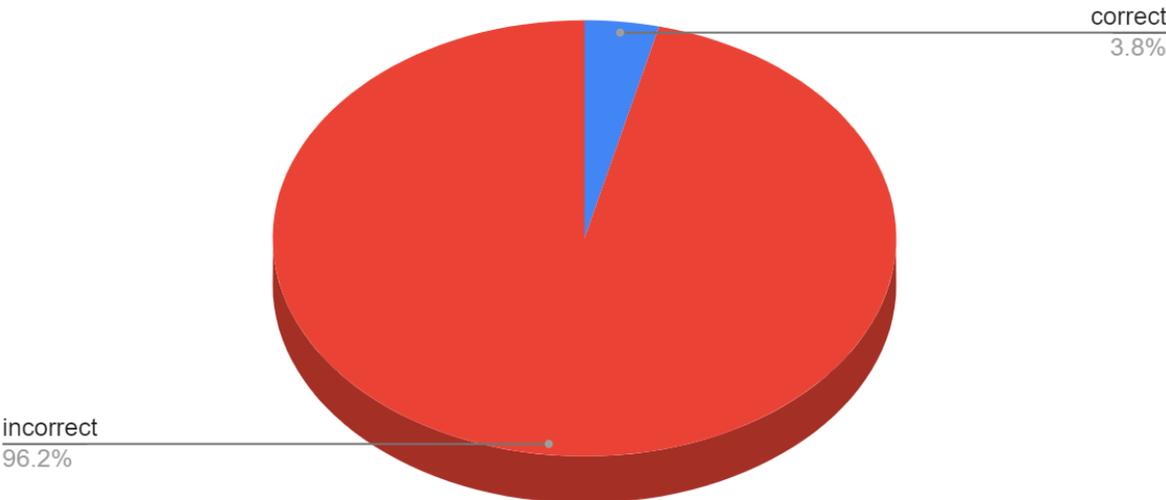
Trial 4	no	no	yes	1	2
Trial 5	no	no	no	0	3
Trial 6	no	no	yes	1	2
Trial 7	no	no	yes	1	2
Trial 8	yes	no	no	1	2
Trial 9	no	no	yes	1	2
Trial 10	no	no	yes	1	2
Trial 11	no	no	yes	1	2
Trial 12	no	no	yes	1	2
Trial 13	no	no	yes	1	2
Trial 14	no	no	no	0	3
Trial 15	no	no	no	0	3
Trial 16	no	no	no	0	3
Trial 18	no	no	yes	1	2
Trial 19	no	no	yes	1	2
Trial 20	no	no	yes	1	2
Trial 21	no	yes	yes	2	1
Trial 22	no	no	yes	1	2

Trial 23	no	no	yes	1	2
Trial 24	no	no	no	0	3
Trial 25	no	no	yes	1	2
Trial 26	no	no	yes	1	2
Average correct percent.	0.0384	0.0384	0.80	0.269	0.6923

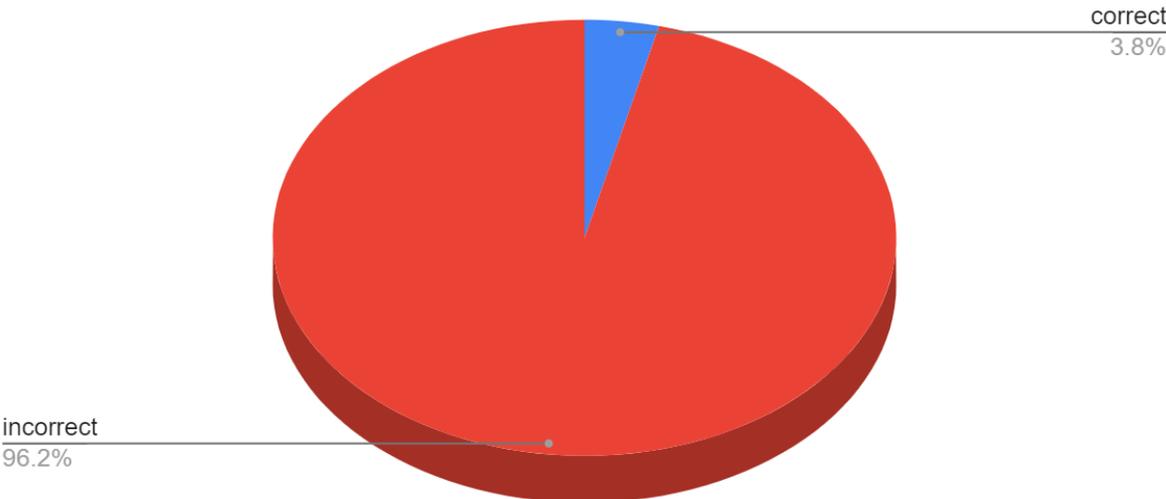
Do the color of foods affect their flavor?

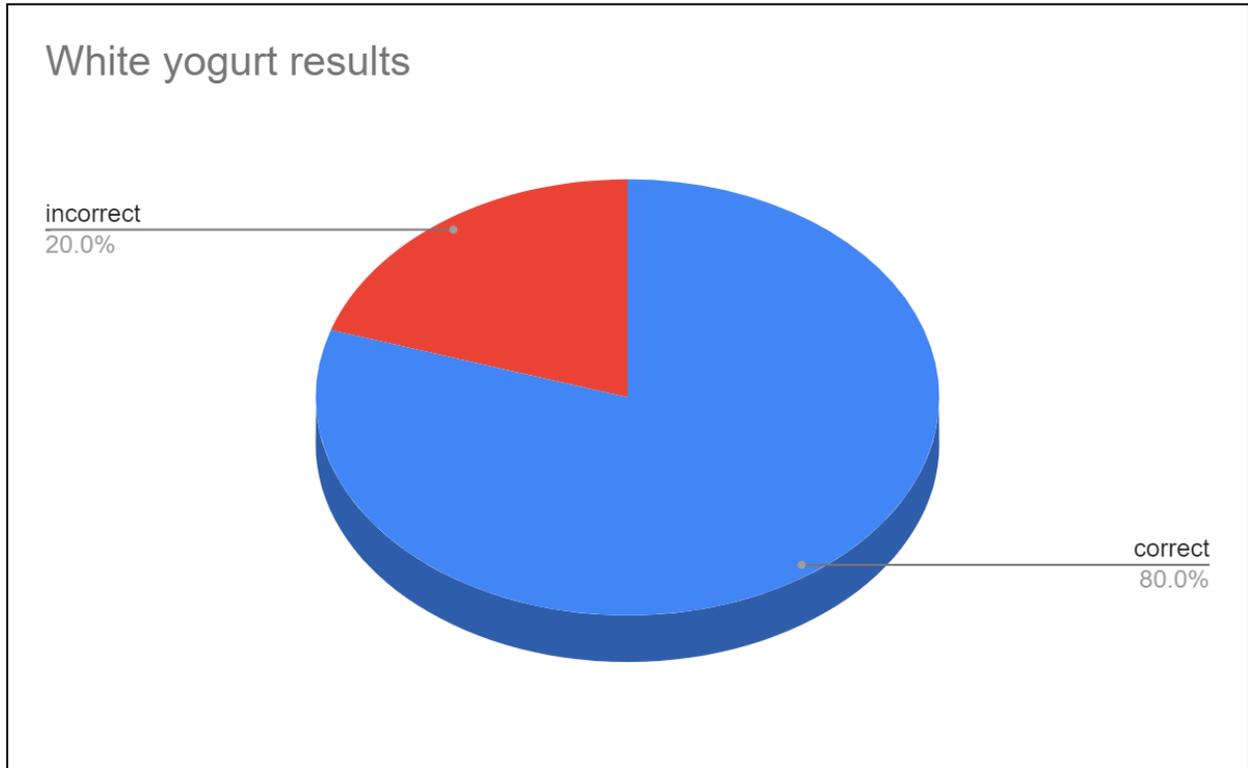


Red yogurt results



Green yogurt results





Conclusion:

1. In this experiment my objective was to find out if different colors of foods or drinks affect whether or not people think they are different flavors. I will buy three buckets of yogurt then use three different colors of food dye and I will see if people think they are different flavors of yogurt but they will all be vanilla.
2. I hypothesize that different colors of foods and drinks do affect whether or not people think they are different flavors. I think this because research states/shows from <https://faculty.washington.edu/chudler> coltaste that "Color did affect flavor intensity, especially in the older group. Subjects reported that drinks with more red color tasted stronger. My hypothesis was supported because it showed that most people thought pink was strawberry, white was vanilla, and green was lime.
3. The results of this experiment shows that after my 26 trials I found out that an average number of 0.80 people could taste the white as vanilla. They also show that an average of only 0.0384 of people got green and red correct. That means only 1 person for each green and red got it correct.
4. As a curious kid, I wanted to know if colors affect the flavors of foods. One thing I learned is that food dye might add flavor. Another thing I learned is that the color of food might actually affect flavor and that people's minds can play tricks on them

when it sees a specific color of food depending on what most foods with that color's flavor are.

5. In the future, if I did this project again, one thing I would do differently is get fifty people. I would then use five cups with red, white, blue, green, and yellow for everyone to find out what percent of people can tell that they are all vanilla.



Figure 1: The yogurt I bought.



Figure 2 : The food coloring I bought for the yogurt.



Figure 3 : What I did to the yogurt with the food coloring. (And two more colors.)