



The Influence of Environmental Color on Taste Perception and Appetite

OVERVIEW

The project researched the intermodal perception relationship between vision and taste, explored how colors in the environment can change people's perception of taste and appetite, thereby helping those who suffer from eating disorders build a healthy diet.

MY ROLE

Literature Reviews
Experiment
Report

DATE

Jun 2021 - Nov 2021

IDEA

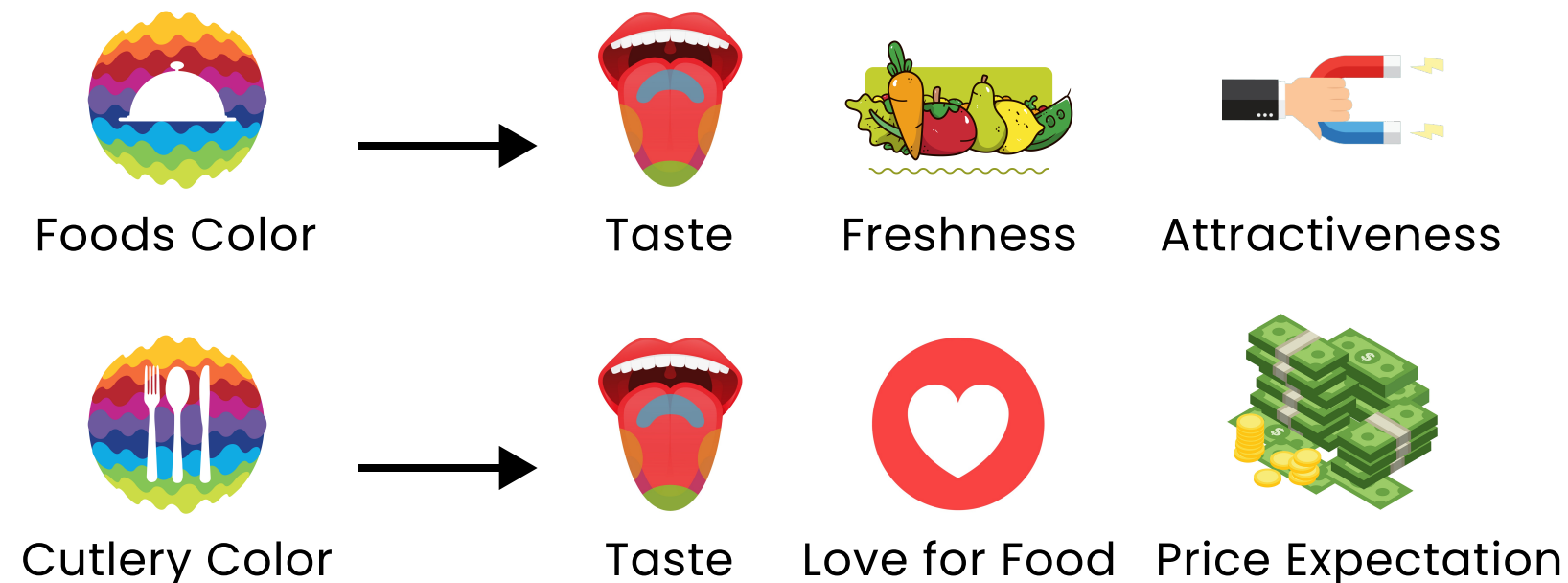
Current Situation of ED

- Eating disorders affect **at least 9% of the population worldwide**.
- **10,200 deaths each year** are the direct result of eating disorders.

Research Background

Intermodal Perception

The perception of unitary objects or events that make information simultaneously available to more than one sense.



What about Color of the Entire Environment?

Sample Persona



- Linda
- 20 years old
- Sophomore College Student

Profile Summary

Being overweight since young, Linda can hardly eat healthy because of her family food habits. She does not have time to prepare separate meals neither.

Motivation

To Avoid the serious health consequences.

Frustration

Feeling all the advice on diet and exercise are not practicable for her busy lifestyle.

Interest / Behavior

Spending a lot of time watching food videos.

Personality

Indecisive, Pessimistic

"I don't think I have the chance to be slim."

EXPERIMENT & RESULT

Purpose

Investigation of the changes in people's taste and appetite for yogurt under different environmental colors.

Method

4 × 2 Within-Subject Design

Independent Variables

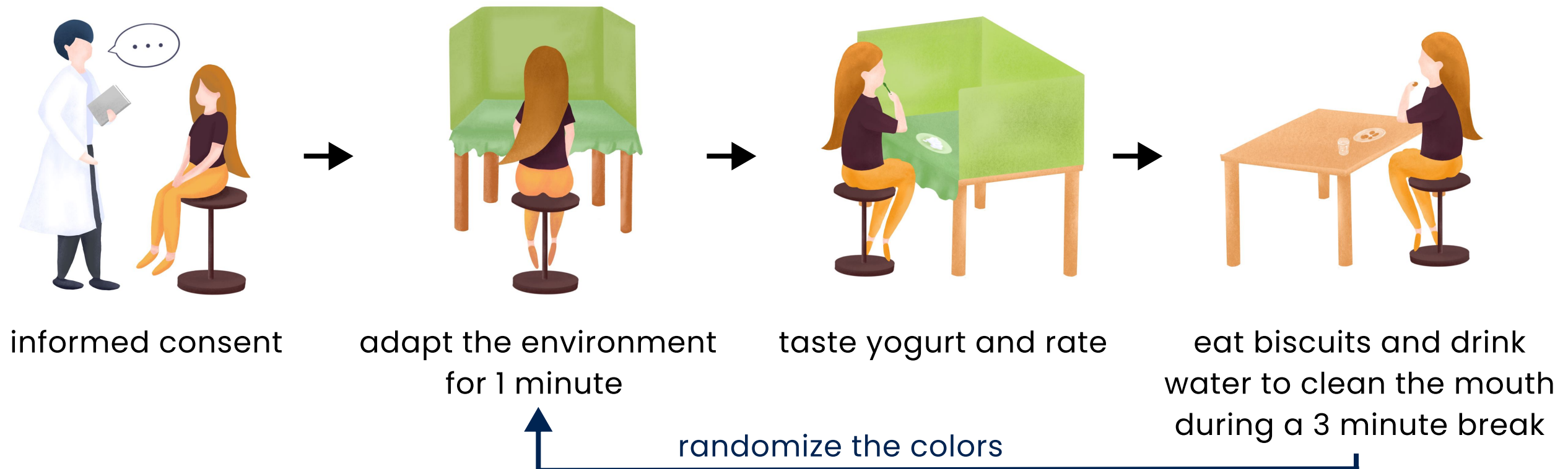
- Environmental color (green vs. blue vs. black vs. white)
- Yogurt type (original vs. low-fat)

Dependent Variables

Ratings of yogurt's taste (sour, sweet, bitter, salty), appetite, love for yogurt, etc.

Procedure

50
minutes



Results

- There is **no correlation** between one's **favorite taste** and their **ratings** of yogurt taste.
- A **black environment** can **reduce** one's **appetite** and **social desire**.
- A **blue environment** can **increase** one's **love for yogurt**.
- A **green environment** can **increase** the **perceived freshness of food**.

