

# CALIFORNIA STATE SCIENCE FAIR 2017 PROJECT SUMMARY

Name(s)

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**Project Number** 

**S0405** 

**Project Title** 

Eye of the Beholder, Mind of the Beheld

## **Abstract**

# **Objectives/Goals**

In this experiment, we will study the difference in the body image perception and self esteem between different ethnic groups and genders. We will also investigate the correlation between body image and self-esteem among all our subjects.

### Methods/Materials

A school official randomly choose forty subjects according to the requirements of the experiment. First, each subject is explained the experimental procedure and asked to sign the consent form. Then, each subject is asked to look in a mirror for 10 seconds measured by a timer. Directly after looking at the mirror, each subject is given the Rosenberg Self-Esteem Scale and Body-Esteem Scale marked with their ethnic group and gender as follows: AAM--African-American Male, AAF--African-American Female, AM--Asian Male, AF--Asian Female, CM--Caucasian Male, CF--Caucasian Female, HM--Hispanic Male, HF--Hispanic Female.

The completed tests of each subject are collected and scored all together after everyone has been tested. The scores were recorded in a data table on our laptops. The data is represented in multiple graphs and is analyzed using a 2 Sample T significance test, Chi Squared Test for Association, and a scatterplot with linear regression.

#### Recults

The results were that there was no significant difference in the body image perception and self-esteem between different ethnic groups. Males had more positive body image perception and self-esteem compared to females. There was a positive correlation between body image perception and self-esteem.

### **Conclusions/Discussion**

Females are more vulnerable, as shown by our results in the gender differences. Therefore, we can provide outreach and education at school and in the community to empower women and girls to accept themselves as they are. From our results concerning differences in the ethnic groups, it was evident that the outside societal influences are greater than the culture at home. We can attribute our results to the assimilation of ethnic groups into the melting pot of America. Since the outer appearance conveys the first impression for an individual, we need to promote normal, healthy standards and expectations through social media and school.

Our experiment focuses on teenagers who are going through the critical phase of identity formation.

## **Summary Statement**

Our experiment studies the difference in body esteem and self esteem between different ethnic groups and genders; we will also study the correlation between self esteem and body image.

## Help Received

Ms. Brown, our Community Specialist at Stockdale High School, helped us collect unbiased subjects. Mr. Cantrell, the AP Statistics teacher, verified the statistics used in the project. Our parents helped get supplies.