

## HUGK12 Activity

Title: *Bias, Independent and Dependent Variables*

Author: Lauren Denkins- Taffe

DCPS Standards:

8.3.1 Determine the bias, independent and independent variables in an experiment.

Goals:

1. Define Bias.
2. Define Dependent variable.
3. Define independent variable.

Objectives:

1. For students to read an article about a scientific experiment and to be able to identify the bias, independent variable and the independent variable.

Prerequisite Knowledge

Background: The goal in scientific experiments is to remove the bias when testing a hypothesis. This being said, it is important to design an experiment tests that remove the bias in results. This could be by adding a placebo group or control group. There are also independent and dependent variable. Independent variables associated with an experiment. The independent variable is varied or manipulated by the experimenter. The dependent variable is in response that is measured from the independent variable.

Essential Questions:

1. What are the independent variables in the article?
2. What are the dependent variables in the articles?

Laboratory Materials:

- Article

Differentiating Instruction :

English Language Limited (ESL) students should have no problems with this activity.

**Rationale:**

This activity is designed to have students become familiar with experiment setup.

**Research Activity:**

Students will be asked to read the article and define vocabulary words within the article. They will be asked to identify the independent and dependent variables. For example:

- What is the bias in the article. How did the researchers remove the bias.
- In addition, name the independent and dependent variables and how they changed with each version of the experiment.

**EVALUATION AND ASSESSMENT:**

Scholars will be asked to go home and do the above for homework and return it the next day.