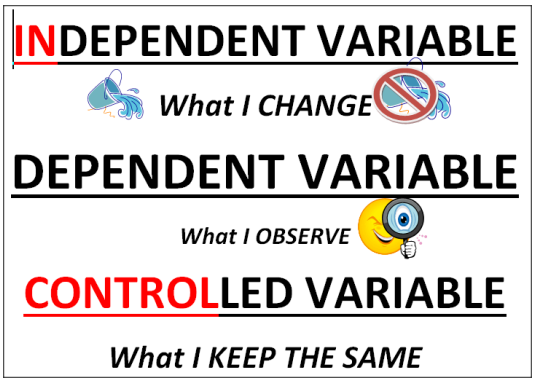
Class Notes - Independent/Dependent Variables

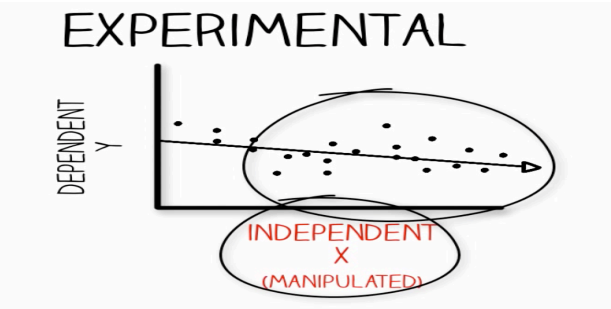
Variable - Something that varies.

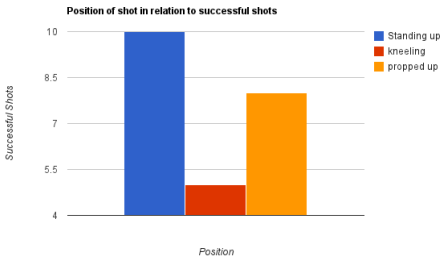
In scientific experiments there are two variables:
- One that YOU change and one that is measured.

Independent Variable - "The Cause" (IV)
- The one thing that is changed in an experiment
- This variable makes one test "independent" of another test
- On a graph it is on the x-axis (along the bottom)

Dependent Variable - "The Effect" (DV)
- The result of the experiment
- What is measured
- This "depends" on what you changed
- On a graph, it is on the y-axis (along the vertical side)







******The independent variable causes the dependent variable to change******

In the following statements, identify the independent and dependent variables:

1. The temperature of the water was measured at different depths of the lake.
- Two things varied in this statement.
A. The first was the depths and
B. the second was the temperature
Plug these into the bolded statement:

The different depths cause the temperature to change.

*This is correct, because we know that the water temperature gets colder the deeper you go.

IV: depths DV: temperature

2. The amount of time you study will make a positive difference on your next test score.
Two things are changed:
A. Time spent studying
B. Score on next test.

The time studying causes the score on the next test to change.

*This is correct, because we know the longer you study for a test, the higher your grade will be

IV: time studying DV: score on next test

3. Lemon trees receiving the most water produce the largest lemons

The _____ causes the _____ to change.

IV:_____ DV:_____ C: _____