## What is a null hypothesis?

The term null, from the Latin term "nullus" meaning "nothing", when used in the phrase "null hypothesis" stands for having no difference (Bennett, Briggs, & Triola, 2009, p. 371). A hypothesis is a theoretical explanation regarding a specific population or population sample to be tested by research or experiments (Bennett, Briggs, & Triola, 2009). A null hypothesis is the starting point of statistically testing a hypothesis and will be tested against an alternative hypothesis (Hagan, 2010). Where the null hypothesis will have no differentiation in population or group comparison, the alternative hypothesis may show a difference (Hagan, 2010). If the null hypothesis is tested to be false, the researcher may then be able to state that the alternative hypothesis is true.

The null hypothesis will be the basis for testing against other hypotheses. The null hypothesis may state that a specific theory regarding a population does not work; thus the researcher must find another, or alternative, hypothesis that does work (Bennett, Briggs, & Triola, 2009). For this type of testing, the researcher may take two identical populations and apply the null hypothesis to one of the populations, and apply the alternative, or multiple other hypotheses to the other population to determine which hypothesis is true. From this, the researcher will achieve a conclusion regarding his or her original theory regarding the general population.

References

Bennett, J. O., Briggs, W. L., & Triola, M.F. (2009). *Statistical reasoning for everyday life* (3rd. ed.). Boston, MA: Pearson/Addison Wesley.

Hagan, F. E. (2010). *Research methods in criminal justice and criminology* (8th ed.). Upper Saddle River, NJ: Prentice Hall.

Response 2

Null hypothesis is the statistical hypothesis that states that there are no differences between observed and expected data or considered has a statement that there is no actual relationship between the variables. It may read, there is no difference between. The HO states the opposite of what the experimenter would expect or predict. The final conclusion of the investigator will either retain a null hypothesis or reject a null hypothesis in a favor of a alternative hypotheses. Ho does not really mean that Ho is true. However there may not be enough evidence against Ho.

Hypothesis is a tentative explanation that accounts for a set of facts and can be tested by further investigation.

An alternative hypothesis is a statement that suggest a potential outcome that the researcher may expect (Sharma, Subhadha)
The null hypothesis is a hypothesis in which the researchwe tries to disaprove , reject or nullify (Experiment-Resources, 2008-2011)

Examples:
Hypotheses: the loss of my purse is due to monsters entering my home
Alternative hypotheses: the loss of my purse is do to monsters coming in my home
Null Hypothesis: the loss of my purse is nothing to do with monsters entering my home

Experiment-Resources.COm. (2008-2011). Null Hypothesos. *Experiment-Resources.Com*, http://www.experiment-resources.com/null-hypothesis.html.