

Hypothesis Testing

Assignment: Heiman Chapter 10

Terms you should know.

Inferential Statistics

Prediction

Research (Experimental) Hypothesis

Statistical Hypothesis

Postdiction

A priori

Post hoc

Hypothesis testing

Significance Level

* One tailed test

* Two-tailed test

Logical Hypotheses

Psy 331 Inferential Statistics
Hypothesis Testing

- * Null Hypothesis
.....
.....

- * Alternative Hypothesis
.....
.....

- * Alpha Level
.....
.....

- * Statistically Significant
.....
.....

- * Type I Error
.....
.....

- * Type II Error
.....
.....

- * Power
.....
.....

Formulas and Symbols You Should Know

* H_o
.....
.....

* H_A
.....
.....

* α
.....
.....

β
.....
.....

Concepts You Should Master

1. What is the relationship between the Alpha level in an experiment and the probability of a Type I error?

2. An experimenter sets the Alpha level for an experiment at .20.
 - a. What impact would this have on the probability of a Type I error? Why?

 - b. What impact would this have on the probability of a Type II error? Why?

3. Why is it more difficult to get statistically significant results with a two-tailed test than with a one-tailed test?

Homework #8: Concepts You Should Master

Name: _____ (This is my work, and my work alone.)

1. Vee Gann had the notion that eating broccoli would make a person stronger. Gann decided to set up an experiment to evaluate this notion. Help Vee by answering the following questions.
 - a. What is an appropriate research hypothesis?
 - b. What should H_0 be?
 - c. What should H_A be?
 - d. What kind of test should be used? One or two-tailed?

2. Sy Kologist believed that listening to rap music would influence a person's tendency to suffer from road rage. Sy did not know specifically what would happen though. Help Sy by answering the following questions.
 - a. What is an appropriate research hypothesis?
 - b. What should H_0 be?
 - c. What should H_A be?
 - d. What kind of test should be used? One or two-tailed?