

Writing Hypotheses



Write a hypothesis for each of the following using the correct format.

Example:

Independent Variable: length of time spent studying for math tests
Dependent Variable: grades on math tests

Hypothesis: *If* the amount of time spent studying for math tests is increased, *then* the grades on math tests will also increase.

1. Independent Variable: length of time spent at batting practice
Dependent Variable: batting average

Hypothesis: If _____,
then _____.

2. Independent Variable: depth of Jordan Lake
Dependent Variable: water temperature

Hypothesis: If _____,
then _____.

3. Independent Variable: length of string telephone
Dependent Variable: clarity of sound in paper cups

Hypothesis: If _____,
then _____.

4. Independent Variable: temperature of water
Dependent Variable: dissolving time of powdered drink mix (Kool Aid, Crystal Light)

Hypothesis: If _____,
then _____.

5. Independent Variable: temperature outside
Dependent Variable: number cricket chirps

Hypothesis: If _____,
then _____.

Hypothesis Checklist

I. Which of the following are true for a well-written hypothesis?

1. A hypothesis must state the independent and dependent variables. Yes/No
2. A hypothesis attempts to answer the 'problem' that inspired the experiment or research. Yes/No
3. A hypothesis that is proven wrong is meaningless and the experiment will have to be repeated. Yes/No
4. A hypothesis is always written as a question. Yes/No
5. A hypothesis must be written in measurable and testable terms. Yes/No

II. Identify the independent and dependent variables in the following hypotheses.

6. If the amount of fertilizer used on a house plant is increased, then the plant will grow larger than a plant with a constant amount of fertilizer.
independent variable _____
dependent variable _____
7. If the type of exercise is aerobic, then the pulse rate will be the fastest.
independent variable _____
dependent variable _____
8. If the amount of time spent washing hands is increased, then the growth rate of bacteria will decrease.
independent variable _____
dependent variable _____