

Hypothesis Generation Worksheet (Loosely based on McGuire, 1989)

The heart of a research paper is its hypothesis (or hy

Once the variables are defined, the next step is to predict the relationship between these two variables by writing a hypothesis. A hypothesis is a prediction about the relationship between two or more variables. For now, assume that there is a causal relationship between the two variables even if it would be impossible or unethical to test a causal hypothesis. This means that changing a person's score on one of the variables (the independent variable) would cause the person's score on the other variable (the dependent variable) to change. For example, you might say, "Increasing the amount of violent television that a person watches will cause that person to exhibit more aggressive behaviors."

3. State a hypothesis. _____

Hypotheses are not mere guesses. Although there is never 100% certainty that a hypothesis is true, there are usually good reasons why the researcher believes that the hypothesis is true. It is very important to note why a particular relationship is expected.

4. Why does this relationship exist? Give a short theoretical explanation for this hypothesis.

Often other variables are mentioned when explaining why a relationship exists. With many causal relationships, the relationship exists because changing the independent variable causes a change in a middle variable that causes the change in the dependent variable. This middle variable is called a "mediator variable." For example, you may believe that watching violent television causes people to believe that violence is an effective way to achieve one's goals and that this belief causes people to become violent. If this is the case, the extent to which a person believes that violence is an effective way to achieve goals is a mediator variable.

5. Think about a possible mediator variable.

A. Give it a label. _____

B. Give a short explanation of why you believe that this variable is a mediator variable.

It is not interesting to predict something so obvious that there is a certain or near certain chance that the predicted result will occur. More interesting hypotheses have a possibility that the opposite would be true. For example, it is possible that increasing the amount of violent television that a person watches would decrease the number of aggressive behaviors that that person exhibits.

6. State a hypothesis that predicts the opposite relationship of what you predicted in part 3.

7. Why do might this relationship exist? Give a short theoretical explanation of this new hypothesis.

Frequently, researchers find the result they expected in one situation or for one group of people and find no relationship or the opposite of what they expected in a different situation (situational moderators) or for a different group of people (personal moderators). The variable that describes the difference between the two situations or the two groups of people is called a “moderator variable.” For example, the amount of violent television that people watch may affect their level of aggression if they are younger than 14 years old, but not if they are older than 14 years old. In this situation, age would be a moderator variable.

8. Think about a possible moderator variable.

A. Give it a label. _____

B. Briefly explain how you believe the relationship that you stated in part 3 would change depending on the value of the moderator variable. _____

C. Give a short theoretical explanation of why you believe that this variable is a moderator variable.
