

Lecture Notes 1.1: The Scientific Method

The Scientific Method is a research model consisting of the following seven steps:

1. *Define the Problem*
 - choose a topic and make it as clear and specific as possible.
2. *Review Existing Literature*
 - is your question already answered?
3. *Formulate a Hypothesis*
 - state the problem as a testable hypothesis and construct operational definitions of variables.
4. *Choose a Research Design*
 - select one or more ways to test your hypothesis (e.g. experiment, survey, observational study, etc...)
5. *Collect the Data*
 - collect and record information according to your research design.
6. *Analyze the Results*
 - arrange your information and statistically interpret the findings; then confirm, reject, or modify your hypothesis (go back to step 3).
7. *Draw a Conclusion*
 - discuss the significance of your findings. Is there replication in your research?