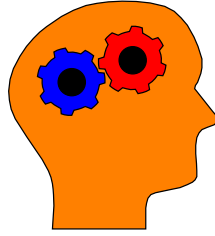


Scientific Method in the Field of Psychology



There's this thing called the scientific method. Many of you learned about it in Biology or Chemistry, but practitioners in the social sciences like to employ this method as well. The work contained in this document should serve as a helpful review of that scientific approach, and it should prepare you for the kind of thinking you'll need to do to prepare for the research project our whole class will embark on soon. Enjoy.

BRAINSTORM: Brainstorm at least five (5) ideas for potential psychology experiments we could conduct "in the field," and summarize each below. State them in terms of the research problem you hope to help answer (e.g. the effect of competition on creativity) plus how you'd test it.

SELECTION: Now pick from the above list the one (1) research option that you believe has the most potential for our research team to tackle. Put an asterisk (*) by your selection, then provide the following for this experiment:

✓ **your hypothesis statement ("If...then..." statement)**

✓ **identify your independent (manipulated) & dependent (measured) variables**

✓ **operationalize your variables** - state exactly what constitutes each variable and how you will know it when you see it. If you assert that soothing music annoys people and disrupts concentration, you need to define *soothing*, *annoying*, and *concentration* as they relate to your experiment

METHOD: Explain how exactly you will put your research into action?

Subjects: Your subjects are the people or animals that you test in your experiment. Added together, your subjects are called your sample. In order for your results to be meaningful, your sample should be fairly large.

List in this section as much of the following information as possible:

- ✓ projected # of subjects
- ✓ approximate ages & gender of subjects
- ✓ how subjects will be chosen (randomly is highly preferred)
- ✓ where subjects will be found (which school, mall, etc.)
- ✓ whether subjects could be alone or in a group
- ✓ how many in experimental/control groups (same total?)
- ✓ any other relevant information

METHOD(continued):

Apparatus: List *everything* that should be used (e.g. equipment, data sheets, surveys, rooms, tv monitor, researchers posing as someone else, etc.). Attach all relevant paperwork to this report.

METHOD(continued):

Procedure: Explain *exactly* how the experiment will be conducted. Be specific and precise. What will the research team do first, next, etc.? When & how will the experimental subjects be exposed to the independent variable? What actions will the research team perform? How will they record data? **THINK DETAILS HERE!**

METHOD(continued):

ANALYSIS & TROUBLE-SHOOTING:

What intervening variables would complicate this research. How will you control for them? What ethical issues must you consider in the treatment of your subjects?