
FINAL RESEARCH PROJECT

Method and Statistical Analysis Proposal



Research is 25% inventiveness and critical thinking, 25% academic knowledge, and 50% organization, planning, and design rigor. You bring your intellectual creativity to your research projects independent of me, you will bolster your research knowledge with a thorough literature review on your research topic; however, to support you in the final necessity for a sound research question and project, organization, planning and design rigor, you must submit a projected research outline. All sound research is founded on a single, testable question (or series of testable questions). This requires supreme organization and preparation, you need to anticipate the confounds, learn to self-manage, and establish professional empirical conduct in this endeavor. My role as your research methods professor is not simply to help you learn to think critically about research, but to also help you develop good empirical habits, professional behavior, and to learn to ‘think like a researcher,’ or evidence-based thinking.

Projected Study Title:

Principal Investigator: *[note this person will be first author on your poster/presentation, they are like a project manager]*

Co-Investigators:

Data Type (circle one): *Parametric* *Nonparametric* *Both*

Projected Research Design:

Anticipated Confounds:

Materials List:

1. **What is the purpose of this study?**
2. **What is the justification for this study (i.e., why should we care about the topic)?**
3. **Provide a list of the empirical questions you hope to answer (these are your predictions/hypotheses)?**

Note: Each prediction should coincide with the number of dependent variables you have, also be mindful that you do not make multiple predictions for one hypothesis. For example,

Incorrect: *HR₁: It is predicted that high scores on the Iowa Gambling Test will be predictive of poor grades, smoking behavior, arrest history, and high scores on the measure of peer conflict.*

Correct:

HR₁: It is predicted that high scores on the Iowa Gambling Test will be predictive of poor grades.

HR2: It is predicted that high scores on the Iowa Gambling Test will be predictive of smoking behavior.

HR3: It is predicted that high scores on the Iowa Gambling Test will positively correlated with arrest history.

HR4: It is predicted that high scores on the Iowa Gambling Test will be predictive of high scores on the measure of peer conflict.

4. Please list the independent variables (the variables you manipulate)/ predictor variables and their levels (i.e., groups, treatments, etc).

For example,

IV1: Budget condition (using the Iowa Gambling Task)

- 1. High (\$100 to start - surplus)*
- 2. Neutral (zero balance to start)*
- 3. Negative (-\$100 to start ---debt)*

5. Please list the dependent variables (the variables you measure)/ criterion variables.

DV1: IGT total score

DV2: Self-reported grade point average

DV3: Self-reported smoking behavior

DV4: Self-reported arrest history

DV5: Total score on the measure of peer conflict

6. Consider your dependent variables, what statistics do you anticipate using to interpret your measured variables? [If you have not already had statistics, at least take a stab at this, if you have already had statistics, this is not a request. I will of course, help you with these during our project consultation].