

Qualifying Plan 2

Part 1: Research Project Proposal

The research project provides students the opportunity to demonstrate that they can design and implement an empirical investigation. All projects must have the prior approval of the Graduate Studies Committee (or First Year Project Committee for Systems Neuroscience students) based on its review of a project proposal submitted by the student. This 2 to 5 page proposal outlines the rationale and design of the study. It is evaluated by the Committee in terms of the justification provided for the research questions posed and the integrity and utility of the data collected within the study.

The outline and sections below are typical of traditional psychological experiments. The Committee recognizes that some research (single-subject studies, clinical studies, neuroanatomical studies, etc.) will require modifications to this organization.

I. INTRODUCTION

The introduction describes the overall rationale for the study. The student must demonstrate that the research topic is important and that the specific questions to be studied are logical extensions of previous research. Direct support for the specific hypotheses guiding the study must be provided.

II. METHODOLOGY

A. Design

The design details the overall organization of the project. What factors are serving as independent variables? Are they experimental or correlational in nature? Is the design factorial? Does it include both within and between subjects factors? Are some factors nested within others or are all factors crossed? Will blocking factors be used? What will serve as dependent variables?

B. Subjects

In this section the student identifies those who will serve as the sample for the study. The reviewers will be interested in understanding the characteristics of the population of interest, how the sample is selected from the population, and how subjects are selected to the levels of the independent variables. The strategies used to block subjects on independent variables should be included.

C. Instruments/Apparatus

Provide a description of the nature of the dependent variables and how they are to be operationalized. In the case of indirect measurement such as a personality test, this might include information regarding the reliability and validity of the instruments used and a description of the standardization samples upon which they were developed. With regard to physiological measurement such as response time, the student must include a description of the equipment used to acquire the data and how it is to be operated.

D. Procedures

This section describes all the steps that will be followed in conducting the study, from beginning to end, in the order in which they occur. In other words, how the research design will be operationalized. Depending on the type of research being conducted, this section might include information on the experimentation of control procedures or testing conditions. This section should also include any assumptions made in the design of the study or limitations in the research protocol that might influence the interpretation of the results.

E. Methods of Analysis

This section describes how the data will be analyzed in relationship to the research questions. In some cases, data analysis entails little more than simple tabulation and description of the results. If data are to be analyzed using inferential statistics, the students should discuss the specific statistical techniques and tests that will be employed, how they were chosen, and how they will be judged.

F. Speculative Results

This study outlines several (i.e., 3 or 4) plausible outcomes of the study. For example, the student could present a series of figures showing the possible results that could occur, explaining briefly what each outcome would mean.