# **RESEARCH PROPOSAL: (3-4 PAGES excluding references)**

**Note:** You must fully address these questions. Please work with your mentor to complete any aspects you are unsure of. <u>Please edit your proposal so that it is no more than 5 pages, excluding references.</u>

# Literature Review/Introduction

Your literature review/introduction should address each of the following questions. You can either answer each question as a "line item" or in a narrative/paragraphs format.

- 1) What is the big picture question of your study? (how would you explain it to someone who is not in your field?)
- 2) What does the existing literature say about this question? Include at least 5 relevant citations.
- 3) What is the gap in knowledge that your study will address?
- 4) What are your specific hypotheses? If you are doing an exploratory study to establish a domain of knowledge (too early to have hypotheses) what knowledge will your study contribute and how might this advance future research?

# **Research Design**

*Participants:* How many, who they will be, how recruited/obtained. If possible, include a power analysis justifying the sample size. If secondary data analysis describe the source of the data.

*Methods:* What tasks, surveys, biological assays (including neuro) or other measures will you be using to collect your data? You don't have to give all the details (# of questions etc.) – just provide a sufficient description to allow someone who is not in your lab to understand how your measures map onto the concepts central to your research (e.g., "To measure proactive control, I will use the AX-Continuous Performance Test (AX-CPT, Braver et al., 2007). This test measures proactive control by...." In addition to describing the data collection tools (tasks, etc.), describe the steps the participants will go/have gone through from start to finish as if you were writing a recipe.

### Statistical Design/Analysis Plan

Note: Many theses include more than one method (e.g., both an experimental manipulation and a correlational analysis within groups; or correlations on quantitative data plus a qualitative analysis of written or verbal responses) In that case give the relevant information for each analysis. <u>The most important thing is that your reader can understand how your data analysis will address the hypotheses/questions you put forth in the last section of your literature review/introduction</u>

*Experimental studies*: What are your independent and dependent variables? What tests will you use to examine relations between them? (t-test, anova, etc) Be sure to indicate how the results will relate to/test your hypotheses. (e.g., "If my hypothesis that time-management strategies reduces stress is correct, an 2 x 2 ANOVA (Group (training, no training) X Time (beginning of semester, end of semester) will show that people who successfully complete the training and implement the strategies will show smaller increase on the College Student Stress Scale (Feldt, 2008) over the course of the semester than will those who do not").

Individual differences studies: What are your predictor and outcome variables? What tests will you use to examine the relations between them? Be sure to indicate how the results will relate to/test your hypotheses (e.g., "If my hypothesis that people who are more stressed are less likely to have the proactive control to successfully implement time-management strategies is correct, then I will first find a

negative correlation between initial scores on the College Student Stress Scale (Feldt, 2008) and the number of times people successfully report using the strategies. In addition, subsequent mediation-moderation tests are hypothesized to show that this relationship is mediated by performance on the proactive control task described in Methods").

*Qualitative studies:* How will your data be summarized, how will themes be drawn out, etc? There are many different types of qualitative research and you should consult with your mentor on how to organize this section. However, in most cases your response should address each item under the "data analytic strategies" from APA <u>https://apastyle.apa.org/jars/qual-table-1.pdf</u>

### **Timeline and Mentorship**

- 1. Who are your mentor(s)? Describe the plan for getting their input and feedback on your progress and writing, including how often and in what format (email, in-person meetings, zoom) such meetings will occur.
- 2. If you do not already have IRB/IACUC approval, describe your plan/timeline for this component.
- 3. The thesis seminar will provide support for writing/revising sections of your thesis roughly on the timeline described below. Using that timeline as a guide, please provide a timeline that includes both the research activities you will complete, as well as any writing deadlines that differ from the timeline below. NOTE THAT A FULL ROUGH DRAFT OF THE THESIS FROM TITLE PAGE THROUGH REFERENCES IS DUE THE FIRST FRIDAY OF MARCH. (November 1<sup>st</sup> for students starting in Winter/graduating in Fall). Be sure to plan the steps of your thesis accordingly!

#### Thesis seminar support/writing activities

End of September: Methods outline/rough draft (do not yet need to have all the details yet)

Early October: Analysis plan outline/draft

End of October/beginning of November: Introduction first paragraph and outline

Nov-Jan: Work on literature review and (if not already completed) data collection and analysis

3<sup>rd</sup> week of January: Final/near-final draft of Methods

2<sup>nd</sup> week of February: Results outline/rough draft - if data collection/analysis is not yet finished, a list of likely tables and figures with "fill in the blank/mad libs" text is acceptable

3<sup>rd</sup> week of February: Discussion outline/rough draft; title and abstract draft

MANDATORY: Full draft due to Canvas and thesis mentor by first Friday of March.

March: Poster draft; receive feedback from mentor and make revisions

MANDATORY: Final draft (i.e., for 2<sup>nd</sup>-reader evaluation and grading) of thesis and APA checklist due first Friday of April. Research Forum/ Poster presentation mid- April.

Alternative deadlines for students completing the program "off-cycle" (starting in Winter semester, graduating in Fall): If you are following this plan please indicate your alternative for the poster session (e.g., conference presentation, lab meeting presentation)

(December Grads) Thesis seminar support/writing activities

End of January: Methods outline/rough draft (do not yet need to have all the details yet)

Early February: Analysis plan outline/draft

End of February/beginning of March: Introduction first paragraph and outline

Feb-April: Work on literature review and (if not already completed) data collection and analysis

3<sup>rd</sup> week of September: Final/near-final draft of Methods

2<sup>nd</sup> week of October: Results outline/rough draft - if data collection/analysis is not yet finished, a list of likely tables and figures with "fill in the blank/mad libs" text is acceptable

3<sup>rd</sup> week of October: Discussion outline/rough draft; title and abstract draft

MANDATORY: Full draft due to Canvas and thesis mentor by November 1<sup>st</sup>.

November: Poster draft; receive feedback from mentor and make revisions

MANDATORY: Final draft (i.e., for 2<sup>nd</sup>-reader evaluation and grading) of thesis and APA checklist due December 1<sup>st</sup>. Poster presentation – coordinate arrangement with your mentor.