Research Proposal Instructions

Undergraduate Research Methods in Psychology

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1 Preamble & Purpose

This research proposal is the definitive take-home assignment for the course and will require that you use many of the skills you have built through the semester. It will also fulfill the Supplementary Writing Skills (SWS) designation of this course. This assignment allows me to best assess your mastery of literature review, scientific writing, and sound research design in a format which will prepare you well for future courses. Whereas the exams and quizzes will test your knowledge, this assignment will require a strong command of applying the concepts you've learned. Please write in a manner that would allow this plan to be followed by someone actually attempting to conduct this research.

In class, we will have workshops, tutorials, and guided writing time to support you in this project. I will also assign homework that also assists in building skills for this project. We will begin working on this project in-class and through take-home assignments early in the semester, and our work on it will continue all the way to the last week of class. Robust research projects in the "real world" are often planned over the course of weeks or months - and we will follow that same strategy! Given the immense amount of time we dedicate to this project, it is my expectation that the final product is sophisticated and well-written. Take your time, meet the preliminary deadlines, and use all the resources available to you, and you will do well on this assessment.

This project will put emphasis on your own ability to explain and rationalize certain design decisions. I want your final project to reflect your own interests and ideas, meshed with the content of the course. You will have the agency to determine the topic of the proposal, as well as many other components, but your project must still demonstrate connection to the course content.

2 Assignment Instructions

2.1 Proposal Structure

The final paper should contain these 4 sections:

2.1.1 Introduction

A thorough literature review establishing context for your planned study. You should use vetted, peer-reviewed sources that add support to the topic you choose as a valuable and meaningful area of investigation. Scaffold naturally from foundation concepts in the research area to address the "gap" that you are trying to fill with the proposal. Effectively, you are making an argument for why this research is needed and providing the necessary information for a reader to understand your starting point. This introduction should give me enough knowledge to understand the constructs in the methods and discussion. You will

also need to write a clear hypothesis that articulates the goal of the study and expected outcome.

2.1.2 Methods

Layout a complete plan for sampling, measures, procedures, and planned analyses for your study. Your plan should balance ethics, power, and practicality in such a way that the study could feasibly be completed with adequate time and resources. You should also reasonably address each area of validity we have discussed in class and the impact of design decisions on the strength and generalizability of claims. Where necessary, consider citing previous work in the area with similar methodology that buttresses your approach, and also establishes the validity of the measures you choose. Give detail on the scale of measurement for variables, and rationale your use of particular statistical tests that are appropriate for these tests.

2.1.3 Discussion

A hypothetical discussion of what the implications are for significant results. Make sure to clearly connect your "results" back to the literature and "gap" you provide in your introduction. Explain what your findings would mean in the context of existing research and that "gap", and provide appropriate and rational discussion of limitations and future directions for research.

2.1.4 References

An APA 7th Edition-style bibliography that contains the full information for all citations used in the project. If you use tools such as Citation Machine or Zotero/EndNote, make sure to double-check that citations are correct, as sometimes automated tools can cause unexpected issues. I find problems all the time when I use automatic tools - that does not mean they are bad, they just require double-checking.

2.2 Timeline of Project Steps and Due Dates

We will be working through the individual components of the project throughout the semester. Please make sure that you stay on track to earn all of your points and so that you do not risk having an overwhelming amount of work at the end of the semester. Effectively, 30% of the points are graded based on the steps prior to the final draft. Additionally, you will have much of the paper prepared in advance to the final draft, because of all these initial steps.

Each step, as listed in the below schedule, is due at 11:59pm EST (Midnight) on the listed date.

Week Number	Due Date	Step Due
2	Jan 19	Research Proposal Topic
4	Feb 2	Research Proposal References I
6	Feb 16	Research Proposal References II
8	Mar 2	Research Proposal Introduction Outline
10	Mar 23	Research Proposal Measures and Sampling
12	Apr 6	Research Proposal Design & Analysis Plan
14	Apr 20	Research Proposal Final Drafts

2.3 Explanation of Project Steps

There are numerous parts to the research proposal that we will work on piece-wise as time goes on. Though these are formalized homework assignments, I would strongly encourage you to be regular revisiting and revising your work outside of the instructions of these assignments. These steps should be done in order, and only after you have feedback from me - it will help you stay on track for the goals of this assignment.

2.3.1 Topic Submission

Near the start of the semester, I will ask that you provide me with an explanation of what topic you would like to write on for your proposal. At this stage, you do *not* need to tell me what design or analysis you plan to use - only what phenomenon you are interested in. I invite creativity, and you should choose something genuinely interesting to you. In the past, I have had students write proposals in social, clinical, cultural, developmental, and forensic (criminal) psychology.

I do not have many requirements for this part, but have a few requests:

- Provide at least 5 sentences explaining your interest. This does not have to be particularly format, but I just want to see your train of thought on your topic.
- Your topic should be psychological in nature. This is fairly broad, but I would encourage staying away from biomedical/pharmaceutical research and/or animal research.
- The question should be something that is practical and reasonable to investigate. Some ideas simply aren’t feasible to carry out in any sort of study.

I will either approve your topic as-is, request some changes, or request that you choose a different topic if I have major concerns.

2.3.2 References I

After finding a topic, you must investigate what sort of knowledge already exists in that research area. We might find that our question has already been addressed, or we might see that it is still a very limited area. This process starts with simply identifying past papers that may be relevant to our interest. Some of these papers may be relevant, others not, but we need to at least look at them before we decide to keep them or choose others.

You must:

- Find at least 15 peer-reviewed, scientific articles, published in scholarly journals, which are relevant to your topic. At least 8 of these must be from 2015 or later.
- For each article, provide the full APA 7 reference, with correct formatting and all information. E.g., ensure it has hanging indent, journal name, issue number, page number, authors etc.
- For each article, provide the full-text PDF.

2.3.3 References II

After gathering papers, it is time to read and take notes on those articles! This is, admittedly, a slog, but serves a valuable purpose in helping you understand what research you are attempting to do. It's hard to ask a question or propose a hypothesis if you don't know what you are talking about! Practically, this part will be creating an annotated bibliography, or basically a reference section with additional notes attached to each. You can learn more about annotated bibliographies with this link. You will primarily be looking through the discussion and abstract sections of your articles to gleam the main points, but you should fully read each paper before summarizing. Do not remove any papers from References I unless I specifically ask you to substitute a new one.

For this step, you must:

- Use a *corrected* version of your References I submission, making changes based on the feedback I provide to that submission.
- For each of the 15 references, please provide at least 3 sentences of summary as an annotation below each reference. Then, in at least 1 additional sentence, tell me how you could use this in your paper or how it connects to another of your references. **Do not use direct quotes - paraphrase!**
- Start to think about what articles may a good or bad fit for the research question - but you do not need to do anything for this yet.

2.3.4 Introduction Outline

After References II, you should now feel pretty familiar with this research area, and also see how references are starting to connect to one another. You also should be critically thinking about what hypothesis you are going to propose, i.e., the specific question you will address with your methods and analysis. This hypothesis should be filling a "gap" in the research, i.e., what are you "adding" to the existing research. Now, using the references and annotations from References II, you will make an outline of your introduction section, in order to create context for your proposal. This is also a good step to remove or add additional citations if a certain area is feeling weak.

You must:

- Outline at least 3 sub-headers for addressing the different parts of the research area you are looking at. Almost all topics will have more than 3 distinct components. More sub-headers are welcome if you need additional space and detail.
- Within each sub-header and using bullet points, in-text cite (e.g., Quagliano et al., 2025) at least 3 citations from References II that can add detail to this area. Each bullet should contain at least one summary sentence of why it is under that header, and the in-text citation relevant to it. If you cannot get at least 3 for a header, either reconsider your header organization or find additional citations. **Do not use direct quotes - paraphrase!**
- Write a potential hypothesis, i.e., what do you think your results will show based on the above evidence. State whether this is an association, causal, or frequency claim.
- Decide if certain citations need to be added or removed - but you must remain above 15 total.
- Include any cited sources in an APA 7 references section at the bottom (no annotations necessary). Each in-text citation should have a reference, and each reference should appear in-text somewhere.

2.3.5 Measures & Sampling

With your introduction largely outlined, you should have a modest understanding of your research area and have an idea of what you are exploring specifically i.e., the hypothesis. However, the hypothesis is still largely constructs, now we need to pivot towards operationalizing our plan. We also need to consider who we are studying and how we are going to get them in the sample.

You must:

- List all of your construct variables, as stated in your hypothesis. Think carefully about which ones you have - this list should account for all measured and manipulated variables in the study.

- For each construct listed, propose an operational measure or manipulation of it. This may be…
  - An established measure found in one of your citations (requires citation)
  - An established measure found by yourself in an independent search (requires citation)
  - A new measure or manipulation that you propose
- For each operational variable, describe in at least two sentences, one component of measurement validity or reliability - hint: you may need additional citations for this.
- Clearly identify your population of interest, and propose a sampling method for obtaining a sample. Tell me how many individuals you would plan on sampling.
- Include any cited sources in an APA 7 references section at the bottom (no annotations necessary). Each in-text citation should have a reference, and each reference should appear in-text somewhere. If no sources are cited, you do not need a references section.

2.3.6 Design & Analysis Plan

With your hypothesis and operational variable(s) in hand, you likely have a good sense of what measurements and manipulations you are making. Now, it is time to formally refine and describe how you will gather this information, the procedures you will perform, and also how you will analyze your results.

You must:

- Recall whether you were intending on making an association, causal, or frequency claim. With your work now, do you think that is still appropriate - or is another type a better description?
- Of the designs that we described in class, choose 1 that you believe is appropriate. In at least 3 sentences, tell me why this is appropriate to your measures and claim type. In an additional at least 3 sentences, describe how you would implement this in your study (i.e., how would this look to put into practice as the researcher).
- For each operational variable (measured and/or manipulated), identify what scale of measurement they are (i.e., interval, categorical, etc.)
- Propose a statistical test/method for analyzing your data. In at least 3 sentences, explain why the test is appropriate to your measures AND hypothesis.

2.3.7 Final Draft

Please use the Proposal Template provided on Blackboard and replace bracketed and highlighted text with relevant information

In many ways, your final draft will be mostly linking together the components you have been planning during the other steps. Of course, most of the work so far has been bullet points, and should now be formalized into sentence and paragraph writing. You should take care to account for any and all citations and references and make sure that the reference section includes all information necessary. Your final paper should contain all the sections listed under Proposal Structure, including the discussion section.

If you have been diligently working on all the prior steps and have listened to my feedback for each part, you already have the majority of the work for this part done!

Notably, your final draft should not be just a copy-paste job of the prior steps. You need to take time to refine and create strong links between each section and idea. As a final step, review the research proposal Final Checklist and ensure you have met each criteria. Review the Requirements and Grading Standards prior to submitting as well.

3 Requirements & Grading Standards

As I grade these papers, my central focus will be on “why”. I will ask myself:

- Why did you cite this paper?
- Why did you make your hypothesis the way you did?
- Why did you choose these measures/manipulations?
- Why did you sample like this?
- Why did you analyze like this?
- Etc.

A well-written paper should adequately address “why” questions like these naturally. You should show me how your decisions support the validity of this proposal.

3.1 Format

The proposal should be written in the APA 7 style, following all conventions such as header formats, text spacing and fonts, in-text citations, reference styles, etc. As a general rule, students should follow the APA student paper guidelines here.

A template with default sections and headers will be provided for students to conform their paper to. At many points in the semester, we will discuss the nuances, pitfalls, and implementations of APA 7 style - my expectation is that students have a reasonable control over writing in this format by the end of the class.

At a minimum:

- Use 1-in. margins on all sides of the page (top, bottom, left, and right)
- Use one of the following fonts: 11-point Calibri, 11-point Arial, 12- point Times New Roman

- Use double-spacing for the entire paper (including block quotations and the reference list). Do not add blank lines before or after headings. Do not add extra spacing between paragraphs
- Align paragraphs of text to the left margin. Leave the right margin ragged. Do not use full justification. Indent the first line of every paragraph of text 0.5 in

3.2 Length

The final proposal must be at least 3000 words (not including references) - use that space to make sure to include enough content to do justice to the topic and each section. Practically, this translates to around 10 - 15 pages of double-spaced text with universal 1-inch page margins. For example, this document is around 5000 words, without, double spacing. If you have concerns about your ability to make that length, please reach out to me - you are likely missing a section or have not included enough detail in a particular area.

3.3 Use of Scientific References

This paper must cite at least 20 peer-reviewed scientific articles, published in respected journals. At least 10 of these sources must have been published on or later than 2015. These citations should be recognized with in-text citations where appropriate, and also referenced in the bibliography. These will primarily be used in the introduction, but may also appear in methods and discussion, if necessary.

While this may seem like a lot, it is absolutely necessary in order for you to have context for your paper. For example, most professional research has well over 30 or 40 references. An added benefit of citing this research is that it will also likely give you inspiration for how to plan your own work.

3.4 Rubric

Component	Points	Percentage
Topic Submission	10	5%
References I	10	5%
References II	10	5%
Introduction Outline	10	5%
Measures and Sampling	10	5%
Design and Analysis Plan	10	5%
Final Draft - Introduction	30	15%

(continued)

Component	Points	Percentage
Final Draft - Methods	50	25%
Final Draft - Discussion	20	10%
Final Draft - References	20	10%
Final Draft - Writing Style	20	10%
Total	200	100%

4 Tips for Success

4.1 Start Early & Stay on Track

While I have structured the course around encouraging steady work on this project, it is your responsibility as the student to see this project to completion. I myself have been guilty of procrastinating my writing, and I know how much a pain it is to have to make it up quickly. Make sure you spread your writing out and revisit your work to re-edit and add content where needed. Make sure that you do submit each step on time, as falling behind will have a negative snowballing effect on your paper.

4.2 DO NOT USE AI

While this is against my course policy in general (see the syllabus), I can't emphasize enough that you MUST use your own words and work to perform well. AI is notorious for making up citations that do not exist and mis-citing information. In such a case, you would not just be guilty of using a prohibited tool, you would also be plagiarizing. I want each of you to succeed and grow on your own merits - and using compensatory strategies will take away from your learning. If you feel you must use it to aid your writing, please triple-check your work and citations.

4.3 Read More Articles

This seems intuitive, but reading well written scientific articles will help give you an idea of what the flow of scientific writing sounds like. The APA 7 Manual also has many helpful suggestions for how to approach writing in this style. Research oftentimes reads very different from other form of literature, so it is critical to understand how it tends to read and provide information.

4.4 Use ALL of Your Resources

Come talk to me. Go to the librarians. Go to the knowledge market. Read up on research guides from the library and college. Have the Writing Center help you edit your early work. You have many opportunities to craft a stellar piece of work - make sure you use them readily! There is no shame in asking for help, but you must do so early when there is still time to correct things.

5 Final Checklist

This checklist should *only be used once you are at or near the final draft stage.* Early on, it will be too overwhelming, and you will be better served by following the relevant step instructions. You may wish to briefly review it, but don't use it to guide your work early on. You should look through each of the criteria here and ensure you have successfully addressed each, with stellar detail, in your final paper. If you ensure that all of these are met, you are well on your way to a solid grade.

5.1 Introduction Checklist

☐ Each sentence requiring citation has at least one in-text cite.

☐ In general, citations are used readily and often.

☐ Citations are paraphrased, rather than directly quoted from (i.e., not using quotation marks)

☐ Each component of the overarching theory surrounding the hypothesis has been addressed

☐ The introduction naturally builds from one topic to another

☐ There is a clear "gap" identified, i.e., something that is missing from the current literature

☐ There is a clear hypothesis made (usually near the end) that fills the "gap" and is congruent with the methods and design that is used.

5.2 Methods Checklist

☐ Population of interest is clearly identified

☐ A sampling method and anticipated number of participants is described. Enough detail on sampling methods is given that it could be reasonably performed.

☐ Relative limitations and strengths of sampling method and size are discussed

☐ For each construct variable, there is a clear description of how it is operationalized

☐ Established measures have citations, and all measures and manipulations are described in detail

☐ All measures and manipulations have citations and/or supporting their measurement validity and reliability, e.g., content validity, convergent validity, test-retest reliability, etc.

☐ All procedural details for data collection and/or experimentation are given so that they could be reasonably performed by someone reading this paper. A design type (e.g., Posttest-only, Bivariate Correlational) should be clearly stated.

☐ Scale of measurement for each operational variable are clearly described

☐ A statistical methodology is proposed for analyzing this data, with clear rationale for why it works with this data

☐ There is a clear explanation of what standard will be used to assess significance and effect size of the findings. E.g., what is the α (alpha) value, what p-value are we looking for, how will we assess effect size and precision?

5.3 Discussion Checklist

☐ (Hypothetical) results from analysis, and their relevance to the original hypothesis, are stated.

☐ There is a clear connection made to how this result fills the gap and progress the prior literature

☐ Limitations of this present study design are *thoroughly discussed*. There should be a clear focus on establish just how valid this proposed study is/would be.

☐ Possible future directions for research are proposed.

5.4 References Checklist

☐ There is at least 20 separate, peer-reviewed scientific articles cited in-text throughout the paper

☐ At least 10 of the citations were published in 2015 or later

☐ All references have a matching in-text citation, and all in-text citations have a matching reference

☐ All references contain: authors, year of publication, title of paper, journal name, volume number, issue number, page numbers

☐ References are all in APA 7 format, including double-spaced and hanging indent

☐ References are arranged alphabetically according the first author's last name

5.5 General Writing Checklist

☐ You used the Proposal Template provided on Blackboard and replaced bracketed and highlighted text with relevant information

☐ Paper has been proofread for grammar and spelling

☐ Transition words are used between ideas and paragraphs

☐ All sections from Proposal Structure are present and clearly labeled with headers

☐ Appropriate sub-headers are used to break up the Introduction and Methods, as needed

☐ Paper formatting guidelines in Format are followed

☐ The paper is at least 3000 words, not including references (see Length for more detail)

☐ Writing naturally answers "why" questions about the proposal