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Recommended Citation

Garofalo, Mary, "Writing a Research Proposal: A Guide for Graduate Students and Faculty" (2022). *General Research*. 7.

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Writing a Research Proposal: A Guide for Graduate Students and Faculty Mary A. Garofalo, Ph.D.- Research Lead, NTLC Kean University

First things, first.

If you are planning to conduct research you will be required to take <u>CITI training courses on research and human subjects</u>. Kean University requires all researchers, students and faculty, to complete the training before designing and conducting research. You can sign on with your Kean University student or faculty username and password. You will be required to show certifications of completion based on your discipline areas. Check with your faculty advisor for which modules you need to complete. The certificate of completion will be required before you present your research proposal to your dissertation committee.

You are also required to put together an Institutional Review Board (IRB) application after your proposal has been accepted by your faculty advisors. The IRB application is to be submitted to Kean University's IRB. Resources and checklists for IRB applications can be found on Kean University's website, as well as contact information if you have any questions. To be clear, you cannot conduct research without IRB approval. Therefore, you cannot recruit participants, collect data, or analyze anything before you receive IRB approval.

Purpose of a Proposal

Ultimately, whatever topic you choose, a research proposal is used to show how your study fits into what is already known about the topic, what framework will be used to examine the issues explored, all the while answering specific research questions, establishing the significance of your research and exploring the implications of the results in answering your research question(s) (Nte & Awi, 2006). A proposal should be demonstrative of the "credibility, achievability, practicality and reproducibility (repeatability) of the research design" (Sudheesh et al, 2016; p.1). In essence, a research proposal is to convince others that you have a worthwhile topic and are competent enough to complete the study (Wong & Psych, 2016):

- 1. What do you plan to accomplish?
- 2. Why do you want to complete the research?
- 3. How are you planning to complete it?

Strategies to begin

There are a few strategies that can be helpful for you to begin constructing your proposal. First, it would be important to work on choosing a topic. One of the best ways to do this is to examine any issues or topics that caught your attention in your coursework. If you are planning to

complete a research project, whether it be your dissertation or capstone, it really helps if you are really interested in and/or passionate about the topic.

It would be important for you to examine the "holes" in the research surrounding your topic of interest. If there has been a good deal of research on your topic, you need to think about narrowing it down. Ultimately, you are looking to contribute something new to the literature on this topic.

"Chain of Reasoning" and the PROSANA Approach

Many experts in research have discussed strategies to approach the research proposal, particularly in terms of narrowing down and focusing the topic. Van Ekelenburg (2010), discusses the PROSANA approach to developing the intellectual infrastructure of your proposal. Ultimately, Van Ekelenburg (2010) suggests that in order to meet the criteria of a great research proposal, there needs to be a well developed "chain of reasoning" (p. 432). This chain of reasoning is described as a road map to your research goals. Rather than an outline which answers the questions "what" and "how", the chain of reasoning is meant to answer the question "why?", and meets several ends:

- 1. Proving the methodological approach is feasible beyond a reasonable doubt;
- 2. Demonstrating the results are plausible and tied to existing research;
- 3. Addressing any ethical considerations and economic restraints that might be present.

In order to formulate one's chain of reasoning, the PROSANA approach helps guide the researcher to address several issues before actually writing the proposal (p. 433):

- 1. **Problem-** describe the perceived problem using research and literature as evidence.
- Root Causes- describe the underlying causes of the perceived problem, also citing literature.
- 3. fOcus- narrow the problem down to ONE of its root causes. Think about focusing on this particular root cause as a foundational justification for your rationale.
- 4. **S**olutions- discuss the plausible solutions to the problem in order to demonstrate that you are aware of the different solutions available.
- 5. Approach- narrow down approaches to the problem; use one of the approaches in your proposal.
- 6. **N**ovelty Address how your approach would be new and innovative and how it adds to the literature.
- 7. Arguments-discuss the arguments that address the problem and the logic of the proposed solution.

The PROSANA approach is not an outline, as previously mentioned, rather it is a way to organize your thoughts and to create a road map, before writing your proposal, clearly discussing the "Chain of Reasoning" (Van Ekelenburg, 2010).

Writing it up

One of the biggest challenges to a research proposal (aside from writing it up) is being able to successfully communicate the importance and feasibility of your study. There are many components to a research proposal (see the outline attached).

Title

Beginning at the beginning, your title is a work in progress, however, it should be concise and descriptive, while indicating dependent and independent variables and/ or methodological approaches (qualitative or quantitative). Additionally, your title should attempt to catch a reader's interest (Wong & Psych, 2016). Some tips from Wong & Psych (2016):

- 1. Use results-driven words (i.e. "Tolerance as an Enabling Factor in Alcohol Consumption");
- 2. Use plain language (i.e. "Public Health Preparedness: A Response to BioTerrorism");
- 3. Use active, forward thinking verbs such as predicting, mobilizing, empowering, impacting, effecting.

Abstract

Both the title and the abstract are works in progress. There is no doubt that your abstract will change during and after you have completed your research. That said, it is important to provide an abstract when presenting your proposal. An abstract should be no more than 300 words. It should include the following (Wong & Psych, 2016):

- 1. The research question(s);
- 2. The rationale for your study;
- 3. The hypothesis (if applicable);
- 4. The methodology, and
- 5. The main findings (when the study is complete).
- 6. Think about keywords/terms (3-6) that you would like to be search terms your study can be found under.

Introduction (Chapter 1)

The main purpose of the introduction is to introduce the topic, situate it with in the context of the literature, discuss why it is important and linking your research question(s) to the problem with in the historical, sociological, political, empirical socio-economical, and/or scientific context(s) (Sudheesh et al, 2016; Wong & Psych, 2016).

Some tips:

- 1. State the research problem (Problem Statement).
- 2. Provide context for the problem (Background) and situate your research question within the context of why it is important (Purpose Statement).
- 3. Present the rationale for your research and why it is worth doing (Rationale/ Significance of Study).

- 4. Describe the major and minor issues addressed by your research (Significance of Study).
- 5. Identify and specify the phenomenon that you want to investigate or clearly identify the independent and dependent variables and how these will address your research question(s).
- 6. State the hypothesis you are using and the rationale for said hypothesis. Alternatively, briefly discuss the conceptual/ theoretical framework(s) you are using to examine the problem (Part of Research Design).
- 7. Discuss how you plan to examine the research problem (Methodology).
- 8. Discuss the boundaries of your proposed research in order to provide a clear focus (Limitations and Delimitations).
- 9. Provide definitions of keywords, terms and concepts a reader might need to understand your proposed research.

Literature Review (Chapter 2)

The review of the literature serves several purposes, however many students struggle with this section the most. Not only is it the most labor intensive section of the proposal, but it can become exceedingly overwhelming and difficult to organize. Ultimately, the literature review is meant to present a **critical evaluation** of the research around the research topic. It is **not a synopsis** of the empirical research, nor is it a summary of the findings. So, how do you approach the challenge of literature review? Here are a few tips:

- 1. Review the literature before you write about the literature. There are many strategies to complete this step. One strategy is to use a <u>literature review matrix</u> including the title, author(s), subject, findings, important quotes, and overarching themes. This will help you stay organized and determine which studies are the most relevant to your research and which ones you will not use. It's like keeping an index of all of the research.
- 2. Be sure to look at all of the MOST recent literature. The current findings of the research problem you are examining should be included in the structure of your study. You do not want to "reinvent the wheel" if your study has already been duplicated.
- 3. You will get a sense of the most influential researchers in the field or topic you are examining. It would be a great idea to be sure you know the research "giants" in your field and include that research in your review.
- 4. Once you have completed your literature review matrix, start trying to decide how you want to organize your literature review. You can organize by theme, methodology, chronological order and so forth.

It is important to remember that through this literature review, you are telling a story to the audience. The story is of the research that has been done and why yours is important in the landscape of the literature. The literature review (Wong & Psych, 2016):

- 1. Gives credit to those who have contributed to the field you are conducting research in;
- 2. Demonstrates your knowledge and understanding of the research problem;
- 3. Exemplifies your understanding of theoretical and methodological issues related to your research;

- 4. Shows you know how to integrate and synthesize existing research into your study;
- 5. Informs your theoretical framework or helps you develop a new conceptual framework through which to view your research problem;
- 6. Convinces the readers that your proposed research will make a significant contribution to the research on your topic.

Critical Evaluation and Synthesis

This is a tall order after reading all of the empirical research on your topic. Your job is to provide an overview of the current state of knowledge on your topic. As you read, you are to identify themes in the literature, gaps in knowledge, focus on the argument made in each study and determine what the takeaways are (both positive and negative). You can examine the quality of the methods, the sample size, the results, the implications stated, the research questions, the framework. Once you have evaluated the literature, you are required to synthesize your takeaways of the literature and apply your evaluation to your study, other studies, and where your research fits within the research landscape of the topic.

Methodology (Chapter 3)

A guiding principle for the methodology section is that it should contain enough information so that the readers could *theoretically* complete your study using the steps, tools, sample and analytical strategies and have nearly the identical results (Van Ekelenburg, 2010; Wong & Psych, 2016). Readers should be able to determine that the methodology you have outlined is sound and will be sufficient in answering your research question(s). In the methods section you will:

- 1. Provide rationale for your methodological approach going beyond quantitative or qualitative.
- 2. Provide details of alternative methods to prove your approach is the most appropriate.
- 3. Discuss who, what, when, where, why and who of research methods including discussion of:
 - a. Participants/data set;
 - b. Research site:
 - c. Kind of methods you are using and why/ how will address your research questions (statistical test/ qualitative data analysis);
 - d. Data collection procedure and why?;
 - e. Data analysis procedures and why?;
 - f. Research instruments;
 - g. Possible ethical issues including bias, reliability, and validity;
 - h. Limitations and delimitations.

If this is an action research project, it would be important to include how your role as a researcher/ participant impacts the results of the study through researcher bias, etc.

Conventional Wisdom

Proposal writing is a daunting task. There are so many moving parts and a lot rides on the legitimacy of your argument and presentation of the information surrounding your topic. It would be important to FIRST immerse yourself in the literature around your topic. You need to know about it before you design a study to explore it. That means familiarize yourself with all of the appropriate contexts (legal, historical, socio-political, economic, etc). Additionally, start your literature review early. A recommendation would be to complete your literature review first, before designing your study. You will become very well versed on the background and research around your topic, making your proposal much more valid. Write a bit every day, or have a schedule and stick to it. Maybe you decide that you will write every day from 7pm -8pm. Maybe you go to the library and work from 1pm-3pm on Saturdays and Sundays. Whatever you work out, make sure you stick to your schedule as much as possible and KEEP WRITING!!

You will want to get feedback from your faculty mentor on each section of the proposal before you move onto the next chapter. Your literature review would be a great place to start. Your mentor can help you identify trends and holes in the literature. Ultimately this will help you more clearly articulate your plan and significance of your proposed research.

Additionally, you will want to be very organized in regarding your references and citations. Developing your own process of organization is important. You will need to reference all of the literature over the course of your research, which sometimes can take months or even years. Therefore, having an organized guide of sources (reviewer matrix) will be very helpful as you write up your dissertation after the research proposal has been approved and you have conducted your research plan.

The whole game is *persistence*. You will receive a lot of feedback on your writing, design, and process. Some feedback will be complimentary, but most of it will be critical. Just know this is part of the process. In order to make it to dissertation defense, you need the feedback from your academic mentors to make your study the most relevant and timely design possible. The research process (from writing, to implementing the research, to writing up results (chapters 4-6) will feel endless, overwhelming and sometimes hopeless. It is not. You can do it! Remember: everyone who is critiquing your proposal has gone through the exact same painful process. You are not alone! Keep going!

"Life for none of us has been a crystal stair, but there is something we can learn... that we must keep moving. If you can't fly, run; if you can't run, walk; if you can't walk, crawl; but by all means keep moving." - Dr. Martin Luther King, Jr., from "Keep Moving from This Mountain," Address at Spelman College on 10 April 1960.

Research Proposal Outline *

*Adapted from the Nathan Weiss Graduate College Department of Educational Leadership

Chapters 1-3

1. Introduction

- Introduction (No Heading)
- Background
- Problem Statement
- Purpose Statement
- Research Questions
- Significance of the Study
- Research Design
- Rationale for the Study
- Limitations
- Delimitations
- Definition of Key Terms
- Summary

2. Review of the Literature

- Introduction
- Theoretical Framework
- Empirical Evidence (Headings follow major themes from the literature at least 3)
- Summary

3. Methods

- Introduction (Covers overall approach and rationale for the study)
- Site and sample selection (Table optional)
- Participants (Table optional)
- The researcher's role (Entry to the research site, reciprocity, and ethics)
- Data collection methods
- Data management strategies
- Data analysis strategies
- Trustworthiness features (Validity and Reliability)
- Ethical considerations
- Summary

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