

How to Write Your PhD Proposal: A Step-By-Step Guide

Dr. Qais Faryadi

Faculty of Science and Technology
Department of Computer Science
Universiti Sains Islam Malaysia (USIM)
Malaysia

Abstract

This appraisal argues that a piece of investigation must pass through a set of rigorous tests such as scientific methodology (quantitative, qualitative, experimental, observation and so on), validity, (logical procedure to answer a question), reliability (Quality of measurement) and unbiased conclusion (accurate measures are taken to make sure that it is free from individual interest). This guideline further examines the procedures for writing a practical and a realistic PhD proposal. Further, this critical evaluation assists PhD students by providing them with a complete roadmap on how to write an internationally recognized PhD proposal. Lastly, in this investigation, the PhD proposal writing process, such as abstract, introduction, problem statement, research questions, literature review, research methodology, research results, conclusion, discussions and implications are illustrated.

Keywords: PhD, Proposal, methodology, research, Proposal writing process

Introduction

Research is defined as a premeditated investigations using **scientific methodology** (quantitative, qualitative, experimental, observation and so on) to solve a **severe problem** (not ordinary problem) thus creating a second (new) **knowledge**. Research is further delineated as an inquiry of reality about something thus testing hypothesis, answering questions, generating new queries, finding solutions and creating new knowledge. The new knowledge must be useable, reusable and challengeable by other researchers. A piece of exploration to qualify as a research must pass through a set of rigorous examination such as validity (logical procedure to answer a question), reliability (Quality of measurement) and unbiased conclusion (accurate measures are taken to make sure that it is free from individual interest). As thus, a PhD proposal must qualify the above conditions of a scientific research procedure.

Proposal is a solid and convincing framework of a PhD thesis that must underline the originality of a research. It also must delineate a significant contribution to the existing intellectual knowledge. The proposal either must challenge or support the existing literature on the proposed problem. Proposal must also explain that why this particular PhD candidate is the right person to do the proposed research. Proposal must elucidate the originality of the problem and must illustrate what critical thinking and skills used to prove or disprove the problem. Proposal must explain how the problem going to be solved and how it going to bridge the gap in the existing knowledge. A well-articulated proposal explains the right methodology used to conduct the study and gives logical reasons why this particular methodology is chosen. Inadequately designed research proposal leads to a scantily finished PhD research.

As evident from the above discussion, a proposal must answer these questions:

What I am going to do?

Who has done similar research?

What he/she found?

How I am going to do this study?

Why this study is so unique?

Finally yet importantly, carefully selected academic papers that converse the same problem must be referenced.

How to Write Your Abstract

An abstract is one of the most intricate and the same time a beautiful part of a thesis writing process. It is the most **critical points** of a thesis that the writer wants his readers to read. The prime objective of an abstract is to enlighten the reader about the fundamentals of a thesis. Although different disciplines entail diverse types of abstract writing process, however, the roadmap for abstract writing is approximately remains the same.

Vital Parts of an Abstract:

- (1) Problem statement formation
- (2) Construction of objectives and scope of the research
- (3) Construction of research methodology (*theories, qualitative, quantitative*) and method (*instruments*) used in the investigation.
- (4) Results and findings without adding any comments of your own
- (5) Conclusion and a concise outline of its significance

An Ideal Example of a Concise Abstract

The problem investigated in this research was that the majority of foreign language classes are taught with little or no regard for the current field-tested paradigm of foreign language acquisition. The prime objective of this experimental research was to compare the effect of two different instructional design interventions in teaching Arabic as a foreign language. A Triangulation method (quantitative, qualitative and descriptive) is employed in the investigation. Instruments used to collect data were Pre-test, Post-test, interviews and questionnaires. Results signified that *BAIK* statistically improved students' performance in the final exam compared to the traditional method. In brief, *BAIK* significantly improved learners' attitude, satisfaction, motivation and perception about learning the Arabic as a foreign language.

How to Write Your Introduction

Introduction is one of the most difficult parts of a PhD proposal. Introduction opens a dialogue with your examiners or readers. Your introduction can make or break you during the presentation. Your introduction must convince your *reader* that you are the right person among thousands of researchers. You must also show to your *reader* that how you going to fulfill his/her needs and what exceptional benefits they get from you. This is how you start your PhD proposal introduction. Now you are face to face with your *reader* and challenging him that you are the best researcher in this field. You should start talking to them gently but without fear and favor.

The following tips are crucial in introduction writing process:

1. Tell the reader about your problem.
2. Tell the reader who is suffering from that problem?
3. How you going to solve that problem?
4. Tell the reader that you are qualified and equipped with the right methods of solving that problem.
5. Tell the reader the benefits you offer by solving that problem?
6. Tell the reader what results you anticipate.
7. Make sure to tell what is the most important to them. No more, no less and stand for your claim.

How to Write Your Problem Statement

A problem statement is a specific condition that needs urgent attention and a possible solution. Problem statement attempts to **fill a gap** in the existing knowledge that requires serious attention. An excellent problem statement is just a line or two. The rest of the paragraph(s) is its elaboration; a possible solution and most importantly, who says that it is a problem (cite scholarly references). **The problem must generate questions for the research to answer.** A PhD proposal problem statement must challenge to answer the following questions:

1. What is the problem? What?
2. Where is the problem? Where?
3. How to solve the problem? How?
4. Why you want to solve the problem? Why?
5. Is the problem current?
6. Will the problem continue in the future if it is not solved?
7. Who is suffering by that problem?
8. Will this problem prove or disprove the existing knowledge?

How to Write Your Research Questions

Your research question must be brief, relevant, focused and arguable. Good research questions create a corridor to your research. Good **research questions are the spine of your proposal** and later, in your thesis. The following few tips may help you to write your research questions:

1. Choose a topic that interests you and your readers.
2. Make an investigation on your topic by going through scholarly journals and see what questions are raised by your peers. Take note of what questions are not raised so that you elevate it.
3. Your research questions should not be answered by simple facts; it must require critical analysis and field tested research. It must be provoking and requires significant examination.
4. Your research questions should be neither very broad nor very narrow. If too narrow, you will have difficulty in finding relevant information.
5. Do not forget to show your research questions to your supervisors before going into details of it.

How to Write Your Literature Review

Review of the literature is the life cycle of every proposal writing process. Literature review connotes a systematic account of documented literature by qualified and accredited scholars and researchers. When writing review of the literature you must show to your examiners and readers that what knowledge has been documented about your problem statement and what knowledge has not been documented yet so that you are about to document it. Your piece of literature must speak loud and clear about your research objectives, questions and your problem statement. As thus, **your literature review should define and strengthen your research**. It should not be a long list of bibliographic references or a summary of rearticulated materials to persuade your readers.

When evaluating literature review in PhD proposal defense, you must ask yourself:

1. Does the literature review discuss about authenticity of his problem statement?
2. Does the literature review significantly support the severity of his problem statement?
3. Does the researcher agree or disagree with existing knowledge, and why?
4. Is his/her final judgment or conclusion is sound, logical and persuasive?
5. Does the researcher find literatures that prove or disprove his problem statement?

How to Write Your Methodology

Methodology refers to the theoretical analysis of your research while method refers to a systematic and orderly arrangement and measuring of your research. The Method of a research designates that how you going to demeanor your research. It also leads you on how to advance with your research. Method is just like a tool utilized by a researcher to measure the activities of the study. Different methodologies are used with different studies. Thus, methodology indicates rational and idealistic postulation of your study while method refers to the **how to do of it**. For example: **Research on human feelings**:

Methodology: Triangulation (Qualitative, Quantitative and Descriptive) mixed.

Method: Research design, population, sample, instrument, validity, reliability and result and so on.

Some useful points when formulating your research methodology:

1. Choose your methodology based on the type of research you are conducting.
2. Institute a clear and concise affiliation between your study and your methodology.
3. Ask yourself whether this methodology answers your research questions?
4. Provide meaningful reason for choosing your methodology such as literature review.
5. Divide your method into research design, population, sample, instrument, validity, reliability, results and implementation phases.
6. Most importantly, are you comfortable with it?

How to Write Your Results

Your PhD proposal does not need elaborative results at this point of time. At this stage of PhD proposal writing you have not proved or disproved your problem statement and research questions yet. At this juncture you only hypothesis or anticipate your results in the future. For example let say your topic is about *magnesium chloride*, you may state hypothetically that *this experimental research will prove that magnesium chloride regulates the activities of insulin the hormone that helps control blood glucose levels in diabetic patients*. Our discussion about result is still relevant when you come to the result chapter in your PhD thesis, hopefully.

Let us presume that you are in result chapter of your thesis:

Congratulations! Now the time has come to reap what you have sown. You have to declare your findings with text as well as with illustrations. You have to illustrate your findings with evidence so that your problem statement and questions are answered clearly. Your results might be negative or positive. Even though it is a negative finding, still is a significant contribution to the existing knowledge. When you are declaring your results never mention the words such as *I*, *We*, or *I found that...*, *we found that...*, because it is **unprofessional** for a scholar to boost. Instead you may state, *this research has investigated....., this study has found that....* and so on.

Consider the following when reporting your results:

1. Make an introduction (*Few lines*) at the beginning and a summary (*Few lines*) at the end of your result chapter. It is nice to inform your readers that what you are about to do and what you have done so far. Make a habit of doing the same to all of your chapters.
2. Analyze your qualitative data (*interviews, survey responses, emails, your own notes, observations, feedback, questionnaires*) and quantitative data (*statistics, percentages and numbers*). Use Statistical Package for Social Sciences (SPSS) to analyze (*means, S-D, Frequencies, percentages*) your data. If you are not expert in SPSS, hire an expert to do the calculation for you.
3. Use deductive (*from general to specific*) and inductive (*from specific to general*) to organize collected data. Organize your data based on your research questions and hypothesis.
4. Display your data based on relationships among the collected data and look for supporting evidence.
5. Cross check your data few times for reliability and validity.
6. So, what did you find from your experimentation? Report without adding any *comments of your own*.
7. What were the differences? If you are making a comparison. Use *T-Test* to compare.
8. Analyze your findings to see if it answers your research questions and finds a solution to your problem statement. Again, avoid making any comments of your own.

Save your energy for the conclusion and discussion chapter. Do not forget to report your results in the present form because it sounds soothing and original. Example: *The interviews indicate that.....result shows that..*

How to Write Your Conclusion and Discussion

Writing a conclusion is as difficult as writing your introduction. One big difference between your introduction and conclusion is that in introduction you pose questions to your audience while in conclusion you answer those questions. However, one must remember that a conclusion is not a summary of your introduction even though a paragraph may be the summary of the whole proposal. In discussion, you interpret your results and bridge the gap that you promised to do when formulating your Hypothesis.

In summarizing your conclusion and discussion, the following may be of help:

1. Explain in plain English what we understand now that we did not understand before. Write for your readers not for yourself. Never mention the words *I*, *We* or *I found that* and so on.
2. Interpret your problem statement and show with evidence from your literature review section that you have indeed bridged a major gap in knowledge.
3. Interpret your hypothesis and problem statement with evidence from your literature review section and give logical reasoning that what you have claimed is in fact true (*Don't worry; if it is negative or positive still significant*). For example, a study claimed that *Magnesium chloride is not the solution for depression*. However, your experimental results show that magnesium chloride is in fact the solution for fighting severe depression. Here you are! Start reasoning and give evidence from scholarly publications that support your hypothesis. Those supportive references should be in your literature review chapter.
4. Discuss and reason about the significant contribution of your experimental research and argue that you have solved a major problem if not it would have continued in the future.
5. Make sure that you reconnect your claims with lots of documented evidence from your literature review to interpret your findings. Lastly do not forget to be concise and to the point, no more no less.

Conclusion

It is evident from the above discussion that a piece of research must pass through a hard tests such as scientific methodology (*quantitative, qualitative, experimental, observation and so on*), validity, (*logical procedure to answer a question*), reliability (*Quality of measurement*) and unbiased conclusion (*accurate measures are taken to make sure that it is free from individual interest*). As thus, **a PhD proposal must describe a significant contribution to the existing academic knowledge.**

The proposal either must confront or sustain the existing literature on the proposed problem. Proposal must also explain that why this particular PhD candidate is the right person to do the proposed research. Proposal must elucidate the originality of the problem and must illustrate what critical thinking and skills used to prove or disprove the problem. Proposal must explain how the problem going to be solved and how it going to bridge the gap in the existing knowledge.

References

- Allan A. Glatthorn, R.L.J,(2005) Writing the Winning Thesis or Dissertation, (2nd ed.) Corwin Press, CA.,
- Bogdan, R. C., & Biklen, S. K. (2003). *Qualitative Research for Education: An introduction to theories and methods* (4th Ed.). PP. 4-7, Boston: Allyn and Bacon.
- Bond, Mark. (2008). How to Write a PhD Dissertation Proposal & a PhD Dissertation: PhD Dissertation Writing Made Easy. <http://knol.google.com/k/how-to-write-a-phd-dissertation-proposal-a-phd-dissertation#> 2012
- Cambridge Dictionaries Online, Cambridge University Press 2012.
- Chamberlain, T.C. "The Method of Multiple Working Hypotheses", reprinted in *Science*, Vol 148, pp754-759. 7 May 1965.
- Chandrasekhar. R. (2002). How to Write a Thesis: A working Guide. Australian Research Center For Medical Engineering. University of Western Australia.
- Creswell, J. W. (2011). *Educational Research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Upper Saddle River: Pearson.
- Eastarbrook. S (2004) How Theses Are Get Written: Some Cool Tips. Department of Computer science, University of Toronto. eLook.org online Dictionary, 2012
- Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The Qualitative Report*, 8(4), 597-606.
- Hanson, W. Creswell, J. Plano; Kelly and Creswell, D. (2005). Mixed Methods Design in Counselin Psychology. *Journal of Counseling Psychology*, 52 (2), 224-235.
- Hoepfi, M.C. (1997). Choosing Qualitative Research: A Primer for Technology Education Researchers. *Journal of Technology Education*, 9(1)
- Holbrook, A.; Bpurke, S.; (2004). Qualities and Characteristics in the Written Reports of Doctoral Thesis Examiners, *Australian Journal of Educational & Developmental Psychology*, v4 p126-145
- Kothari, C.R. (2006). *Research methodology: Methods & techniques*. India: New Age International Publishers
- Krathwohl, David R. 1988. *How to Prepare a Research Proposal: Guidelines for Funding and Dissertations in the Social and Behavioral Sciences* . Syracuse University Press.
- Mortimer J. Adler and Charles Van Doren. 1940 ('67, '72 etc). *How to Read a Book*. Simon and Schuster Publishers. New York City, NY.
- Platt, J. "Strong Inference" in *Science*, Number 3642, pp. 347-353, 16 October 1964. Strunk and White *The Elements of Style*.
- Rocco, T.S., Hatcher, T., & Creswell, J.W. (2011). *The handbook of scholarly writing and publishing*. San Francisco, CA: John Wiley & Sons.
- Schulman , R. Cox. (2010) How to Write a Ph.D. Dissertation. *Annals of Improbable Research*, Vol. 3, No. 5, pg. 8.
- Thompson, P. (2004). Researching Family and Social Mobility with Two Eyes: Some Experiences of the Interaction between Qualitative and Quantitative Data. *International Journal of Social Research Methodology*, 7 (3), 237-257.
- Turabian, Kate. 1955 (or a more recent edition) *A Manual for Writers of Term Papers, Theses and Dissertations*, University of Chicago Press.