

Writing A Good Research Proposal

¹Alaa Edein Moustafa Qoussini and ²Shaima' Mohammad Al-Tabib²

¹Scientific College of Design, Muscat, Oman

²National College of Automotive Technology, Muscat, Oman

Abstract—In research, preparing a proposal is a fundamental first step, as it outlines your project's purpose, scope, and methodology, serving as a basis for review by supervisors, advisors, or professors. Securing approval is essential because a rejected proposal may lead to a lack of funding or prevent you from advancing in graduate studies. Therefore, presenting your proposal in a clear, persuasive manner increases your likelihood of acceptance. Although the specific requirements for proposals differ depending on the funding body, program, or academic level, it's always important to check your work against the guidelines provided. Most proposals, however, include essential components such as an introduction, literature review, methodology, and anticipated impact. This research aims to examine the most commonly required elements across research proposals, providing insights to help create well-structured and compelling submissions that enhance the chances of moving forward in academic and professional research projects.

Keywords—research proposal,

Introduction

Research process starts with intention and preparation to conduct the research. To prepare for your research you need to have a robust and well-organized plan, which is called the "Research Proposal". Whether you are applying for a research grant "financial support" for your research or applying for a higher educational degree, a good and well-prepared research proposal play a critical and significant role in increasing the acceptance possibilities, because research proposal is prepared to prove that you have a good and worthy researchable problem and to show that you have all the necessary skills and competences to plan and conduct your research (Bouchrika, 2024).

Generally, a good research proposal should include key and main elements involved in the research project, it also should provide sufficient and enough information to the readers for the evaluation of the proposed research.

The Need for a good research proposal preparation

It is very important and influential to have a good and well organized and prepared research proposal, due to:

- It is vital in the competitive founding grant process.

- It will support the researcher and support him in formulating, planning and conducting the actual research.

- Poorly prepared proposal could result in a rejection of the whole research project.

How long a research proposal should be?

The length of your research proposal varies according to the objective of the proposal, also it depends on your research problem. While master and bachelor thesis proposal can be just a few pages, Ph.D. proposals should be comprehensive and detailed. So, depends on the institution requirements they may require certain number of pages, chapters or words, that's why you should check the requirement and specification before start writing. On the other hand, research grant proposal should be short and summarized concentrating on the research problem and its importance, time frame and budget (McCombes & George, 2023).

General recommendation for writing a research proposal:

- Choose a writing style that suits your discipline.

- Format your document.
- Cite your sources.
- Avoid plagiarism.
- Proofread and edit your proposal.

Main Components (Sections) of a research proposal

Regardless of the research field, a research proposal should address the following questions: what is your research problem? Does it worth to be researched? What are you planning to accomplish? And finally, how are you going to do that? That's why research proposal could have the following components (Sidik, 2005):

- Research Title
- Abstract
- Keywords
- Introduction
- Literature Review
- Methodology
- Expected Results
- Time Plan

- Budget
- References
- Appendices

Research Title

Good research title should be clear, concise and descriptive, when writing your research title try to use simple and direct wording “words that do not lead to any confusion or misunderstanding for the readers”. Also, research title should be original and of interest for both you and the supervisor or grants authorities. Moreover, a good research title should be specific and distinct, not too broad. In addition to that it should incorporate the main goal or purpose of your research.

Abstract

Abstract is a brief /outline summary of the whole research project, it must provide enough and sufficient information for the reader (reviewers) to judge the significance and nature of the research topic, the research methodology and its suitability, the nature of the results and conclusions (Bouchrika, 2024). The abstract is normally between 150-250 word well developed paragraph with an introduction, body and conclusion, highlighting the major points of the research and express the importance of the research, research purpose, main (expected) results of the research, how you are going to reach or obtain these results “Methodology” and what you can conclude from these results.

A well written abstract will allow readers to:

- Decide if they want to continue reading the full report or not.
- Help them to remember key findings on the research topic.
- Understand and outline the key points prior to reading the full report.
- Index the article for fast and quick recovery and cross referencing.

Keywords

Selecting the right and suitable keywords plays a critical role in a research paper, since they are directly and effectively related to the quality of online or databases search results. Well chosen keywords will promote and enhance the discovery of your research, leading to more readers, that’s why keywords should be closely and directly related to the research topic and research problem. Many organizations require 3-5 keywords, while some of them go beyond that to have 7 keywords. You can use single word or 2-4 words concepts as a keyword (McCombes & George, 2023).

Introduction

Introduction section in the research proposal is where you are supposed to setup the research topic and approach to the readers. It has many key

objectives and goals, you can present your topic and grab readers attention and interest, it provides the readers with a brief and summarized background about the topic too. Also, you can present details about the research problem and research statement. It is worth mentioning here that framing your research problem “statement” is one of the most challenging activities in the proposal writing process.

Introduction section classically starts with a general statement describing the research problem field “area”, focusing on a precise research problem, followed by a rigor and strong justification and rationale of the main purpose of the research study. In the introduction generally you need to cover the following elements:

- State clearly the research problem, which is often referred to as the study purpose.
- Provide the rational of the proposed study and explain why does it worth to be researched.
- Research objectives could be introduced, and they should specify what you are intending to find out exactly and clearly, also research objectives must be feasible and measurable.

Literature Review

In this section you need to demonstrate awareness of past and current researches and studies related to your research, which represent the theoretical and historical background for your study (Tran, 2022). Emphasizing that your results will make a significant and unique contribution to the field of study. Depending on the purpose of the research proposal, it could be brief or detailed (Qoussini et al,2014), here you need to be aware of the organization or proposal review panel requirements. The literature review has several functions and benefits in the research proposal:

- It will demonstrate your familiarity and knowledge of the research process activities.
- Shows your understanding of the theoretical and practical research issues related to your research.
- Reflect your ability to integrate and synthesize related existing literature and researches.
- Help you in developing the conceptual framework for your research.
- Convince readers that your research will make a unique and significant contribution to the knowledge in the research field.
- Introduce you to questions, methods, models and many items related to your research.
- Credit those who had laid the groundwork for the proposed study

Organization of the literature review

There are different ways (frameworks) to organize the literature review section, selection of the

appropriate way or frameworks may depend on the objectives or aims of the literature review, chronological, thematic, methodological, broad-to-specific and contrasting schools of thought are some of the options (McCombes & George, 2023). The first three ways (Chronological, thematic and methodological) are the most commonly used, it is advised to check with the targeted organization for their preferences.

- **Chronological:** in this framework literature is organized according to the publication date, it is suitable for research topics that have been researched and studied for long time and changed over their history. Literature review could be organized in stages of how the topic has changed, the early definitions of the topic, major changes over time, then how it is thought about today. You can conclude the review with some contemporary literature which might show historical perspective on the topic.

- **Thematic:** in this framework, you are trying to figure the common themes or trends in a group of literature and organize the literature review section according to those themes or trends. At the meanwhile you can consider the chronological development of the topic or issue, but the emphasis will be on the theme or issue,

- **Methodological:** using this framework you can categorize literature review according to the method or design applied in the literature, the focus here is on how did the author(s) administrated the study.

After selecting the organizational structure of the literature review, it will be easier for you to write, by now you should have a well-established and clear view of the sub-sections that need to be included in the literature review section. Some cases literature does not fit the way you have chosen exactly, in such cases you should decide where to place the literature.

Methodology

Methodology section is a core section of any research proposal, it composes information about the methods and approaches you deployed/ going to deploy in your research, this section will help the readers to judge the validity and reliability of your research. This section should include and justify, research type (Qualitative/Quantitative, exploratory, descriptive or explanatory, .), what types of data will be collected? Where? When? What data collection tools will be used? And how data will be analyzed? Combined with a rigor and valid justification of the adequacy and suitability of the selected method or methodology. It is advised to have subsections here such as Research Design, Instrumentation, Analysis Methods and so on, it is worth to mention that you could offer/discuss other alternatives to underline the higher effectiveness of your approach (SHU, 2020).

Expected Results

Reporting about the expected outcomes "results" of your research in the research proposal could be a

good idea, as it may help in establishing the importance and significance of your research. Based on your proposed research problem you identified earlier and the proposed methodology, at this stage you can describe what are the results that can be expected from the research, you can also include pilot studies results (if any) here (SHU, 2020). Sure, it is not possible to predict 100% accurate and exact results or outcomes at its early stage of the research, yet you can define the general and overall outcomes expected from the study.

Time Plan

Time plan of the research proposal should include activities schedule and timeframe of each activity, timeframe should include purchasing and preparing relevant facilities and consumables required to conduct the study, time needed to conduct the study, data collection and analysis, time needed for reporting and writing the research report.

Activity schedule here will be essential for following up and monitoring of the research project, it should list timeframes for at least the major activities, and milestones. One of the most commonly used ways is Gantt Chart (Bouchrika, 2024) (Sidik, 2005).

Budget

Financial issues are one of the highest risks that may cause research failure or non-completion reasons, that is why it is very essential to have enough and adequate budget for your study, whether self-financed or looking for a research grant. In this section you need to:

- Follow guidelines and instructions provided by sponsor or tentative sponsors.
- Provide detailed budget (total amount, yearly, monthly expenses if possible).
- Try to give appropriate and suitable estimates of expenses (travel, transportation, consumables, salaries, services, tools.), including justification for those expenses, especially the expensive and costly one.

References

Proposal should include related and relevant references used during the research proposal writing, a list of the most relevant and up to date resources are advised to be included, also a standardized referencing style should be followed – better to check with the targeted organization or panel about their preferences towards using specific style (APA, Harvard, Chicago, IEEE, .).

Automated references generation software use will make the writing of your research proposal much easier, wither when dealing with in-text citation or in the references list creation and formatting and will help on making sure that all in-text citations are listed in the references list and versa visa.

Appendices

This section includes all appropriate appendixes used in the proposal, such as data collection tools (drafts if any), informed consent, permission obtained to conduct the research, written approvals for previous data usage . etc.

Conclusions

Keeping in mind that all the stated recommendations represent only suggestions for enhancing and improving the research proposal but they do not guarantee the acceptance of the research application. They may however, help and support in a preparation of a carefully comprehensive and conceptualized research proposal. Which is may not only important to the members of the review panel who have to decide on the research application, but also to the researcher, by giving him a clear structure of his own work, a rough road map of where he is going and a time table in which to accomplish his research successfully.

Works Cited

S. M. Sidik, "HOW TO WRITE A RESEARCH PROPOSAL,"
1] *The Family Physician*, vol. 13, no. 3, pp. 30-32, 2005.

S. McCombes and T. George, "How to Write a Research
2] Proposal | Examples & Templates," 21 11 2023. [Online].
Available: <https://www.scribbr.com/research-process/research-proposal/>. [Accessed 7 5 2024].

K. Tran, "Research Proposals [pdf]," 2022. [Online].
3] Available:
<https://www.sjsu.edu/writingcenter/docs/handouts/Research%20Proposals.pdf>. [Accessed 8 May 2024].

I. Bouchrika, "How to Write a Research Proposal in 2024:
4] Structure, Examples & Common Mistakes," 17 4 2024. [Online].
Available: <https://research.com/research/how-to-write-a-research-proposal>. [Accessed 15 May 2024].

SHU, "Organizing Academic Research Papers: Purpose of
5] Guide," 2020. [Online]. Available:
<https://library.sacredheart.edu/c.php?g=29803&p=185956>.
[Accessed 6 5 2024].

A. E. M. Quossini and Y. Y. B. Jusoh, "A Review on
6] Personalization and Agents Technology in Mobile Learning," in
2014 International Conference on Intelligent Environments,
Shanghai, China, 2014.