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# Developing an effective research proposal

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## ABSTRACT

Developing an effective research proposal is a challenging task for the researchers. Research proposal is a detailed description of a proposed study, designed to investigate a given problem. Research Proposal writing is an important node in the pursuit of a graduate, Master, M. Phil or PhD degree throughout the world. This article highlight the need, importance and preferred style of research proposal as most researchers do not fully comprehend the mechanics of writing a research proposal and its importance for the subsequent research.

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## Introduction

Research is an application of scientific method to understand of some natural phenomena, with the view to finding a solution to some problem. Research proposal is a detailed description of a proposed study, designed to investigate a given problem. Research Proposal writing is an important node in the pursuit of a graduate, Master, M. Phil or PhD degree throughout the world.

The present paper intends to highlight the need, importance and preferred style of research proposal as most researchers do not fully comprehend the mechanics of writing a research proposal and its importance for the subsequent research.

### Research Questions

1. Why do we need research proposal?
2. What are the criteria for research proposal' evaluation?
3. What are the common mistakes in research proposal writing?
4. What are the major sections of a research proposal?

Answer to Research Questions

### Why do need research Proposal?

Conducting research or thesis writing is a demanding project for which you need to have a plan. Without proper planning, it is very likely that your reading will lack direction; your writing will lack focus. Research proposal may also be called an outline or a conceptualized action plan to complete intended inquiry from the start of problem definition and selection of research instruments to the judicious employment of resources in term of time and material matching to the dictates of the inquiry

It outlines student' thinking about what will be investigating - the focus, and the limits. The logical development of proposed investigation. The better you're planning, the better your research. A research proposal is an important piece of writing for the researchers because it gives an indication whether; researcher has done adequate thinking about the topic and sufficient preparation for the study.

It also gives your research supervisor an indication of your ability to put your ideas into clear and logical writing. A proposal forms the basis of a kind of contract between Student and supervisor - it effectively says what you wish to study. It

gives you and your supervisor a plan of action to follow in order to reach completion of the thesis.

The proposal gives a clear indication of whether you have thought clearly about the topic, whether it is something feasible and worth supporting. The proposal gives a clear indication of whether you have thought clearly about the topic, whether it is something feasible and worth supporting.

Question 2 what are the Criteria of Research Proposal' evaluation?

### Researchers can use following criteria for the evaluation of a research proposal

1. Is the project feasible?
2. Have you evaluated the research purpose?
3. Do you have a realistic idea of how you are going to tackle the investigation?
4. Is it doable within the time constraints?
5. Does the bibliography and referencing confirm to be accepted?
6. Do you have a clear idea of what you plan to research?
7. Does your proposal have focus?
8. Is it a topic worthy of academic study and significance?
9. Do you demonstrate an adequate understanding of the debates?
10. Do you have enough literature on this topic?

Question 3

What are the common mistakes in developing a research Proposal?

1. Failure to provide the proper context to frame the research question.
2. Failure to delimit the boundaries conditions for the research.
3. Failure to accurately present the theoretical and empirical contributions by other researchers.
4. Too much detail on minor issues, but not enough on major issues.
5. Too long or too short.
6. Not following the APA style, sloppy writing.

Question 4: What are the major sections of a research proposal?

Normally

each proposal has two main sections in the following order:

### **Introduction**

### **Methodology**

Introductory part includes, cover page, title, abstract, Introduction, literature review, research problem, objectives, hypotheses, delimitation of study area and operational definition of the major variables of the study, sampling and ethical consideration.

Methodology part includes, research design, instrumentation, data analysis, budget, time-line, significances of research, references and bibliography. The detailed description of each part is given below.

### **The Cover Page**

It is also called title page, which should contain the authors' name, institutional affiliation and date of submission.

### **The Topic**

Topic is also known as the title, it is a window for the proposed project which throws light on what has to come. Care should be taken that the title explains the purpose of the research without being very long and unscientific, it should be between 12 and 15 words and should be concise, specific, informative and should summarize the main idea of proposed research at the same time. Although it is very important to use professional language, but it should also spark interest in the reader.

Topic should include main independent and dependent variables of the proposed research. In the topic researcher must demonstrate the linkages between the major variables of the proposed research. Research should care that topic should avoid phrases like, "A study of....., An Experimental Investigation of....., A historical study on....." or "An empirical investigation of....."

### **Steps to Choose a Topic**

1. Identify a problem
2. Read further on the problem
3. Clearly define the problem
4. Write down the problem statement
5. From here you can now decide on the topic

Personal interest of the researcher is required because researcher personal interest will work as a motivation and without it research work can be frustrating for the researcher. Along with personal interest, availability of literature is also important; researcher may choose the topic on which related literature can be easily available. For literature, researchers can largely consult journal articles and research works of other researcher, Research reports and Books.

### **Abstract**

In no more than 250 words, say what is your central problem, why this problem is important to study. Proposal abstract should be brief, clear and informative, giving a clear indication of what is intended and why. Moreover at the end of abstract research may add few keywords which convey what the proposal is about.

### **Introduction**

This function of this part is to explain the context that gives rise to your research project. What conditions have led you to propose your research project and to define your aims? While writing introduction the writer must be create reader interest in the topic and lay the foundations for the problem that leads to study in fact in this part allows the researchers to place the proposed study within the large context.

### **Literature Review**

Review of related literature is one of the most important aspects of research. In actual fact the review of literature should

be the basis of new studies in most cases. Literature helps in the finding of a research problem, formulation of the statement of purpose and hypotheses. It is the literature that helps the researcher to look for the variables that were defined and confounding variable that might have been missed. This information will be useful to avoid future pitfalls (Sukhia, 1991). This section of the proposal is lengthy as it provides a summary of various previous researches on related topics and issues. This is the place where researcher provide details about what other done in the area and what he/she proposes to do. Avoid details (no comprehensive report) and give a brief review of literature. Always refer to the original source and emphasize the important results and conclusions of other studies, the relevant data and trends from previous research, and particular methods or design that could be duplicated or should be avoided. Moreover also discuss how the literature applies to the study you are proposing; show the weaknesses or faults in the design, discussing how you would avoid similar problems.

In proposal the researcher need to write around three or four pages which cover major issues, gaps in the literature and questions arising from the gaps that can focus. It is important for a researcher to be able to locate the related work and judge the relevance to his/her own research problem.

There are three basic sources for literature which include general sources, primary sources and secondary sources. General sources are indexes or abstracts and guide the searcher to other related sources. Abstracts give summaries of articles and the information about the author and publication dates. Indexes identify the source of the article or book in alphabetically listed titles under the headings of subjects or the authors. Primary sources are journals where authors share their search results with the readers. Secondary sources are usually textbooks where authors share the works of others (Fraenkel, 2000).

This section provides the writer opportunity to give credit to those earlier researchers that make his/ her work possible. It is important that the researcher is capable to integrate the reviewed knowledge with his new research. The researcher needs to convince the reader that his research will make a considerable impact on the existing body of knowledge.

### **The Problem Statement**

It is the origin of the research which provides the logical foundation upon which the rest of the proposal built it needs to be clearly defined. This is the place where researcher needs to paint a picture of his/her proposed research. While stating problem always begins with statement of need and state in in question form, this agitate researcher mind for which he/she want to find solutions to.

### **Generally problem statement begins in a manner similar to one of the following**

The problem of the study was to-----

The study was concerned with-----

The focus of the research was on the -----

The problem was to investigate-----

The problem of the study was to determine if-----

### **Objectives**

Developing objectives for proposed research in the next important part of proposal because it determines the line of action of the proposed research, so objectives should be clear, logical, measurable and related with research problem. A well stated problem helps researcher to build objectives of proposed research. Objectives must be stated as outcomes, not as procedure. Each research objective shall be relevant to the research problem and its realization shall lead to solution of a

part of the problem. In fact objectives are the milestones for the journey of the research inquiry, therefore, each objective shall provide direction to the research, point towards the likely sources of data, and selection/ application of the research instruments.

### **Hypothesis**

Hypothesis is the research question that is to be investigated. The hypothesis is a way of asking the research problem in a concise manner, which helps the reader to understand it. The researcher as a strategy to conduct the research also uses it. Hypothesis is an educated guess or hypothetical solution to a problem or issue. The scientific inquiry is based on the assumptions of hypotheses. The research conducts the study to prove or disconfirm a hypothesis. If a relationship is being investigated, the hypothesis should mention the independent and dependent variables. The hypotheses should be consistent with the known facts and stated in simple terms in a way that they can be tested.

### **Operational Definitions of the variables**

The researcher needs to establish a frame of reference in this section. Here specific terms and phrases to be used in the proposed research define operationally in order to clarify the meanings according to researcher's perspective.

### **Limitation & Delimitation of Study Area**

The proposal should convey the enthusiasm of the researcher but without any exaggeration. It is important to mention researcher potential limitation and weaknesses in the proposal. The conditions that may place restrictions on the results of the study are the limitations. These are beyond the control of the researcher.

The researcher has to define the scope of the study being undertaken. A researcher may want to study the dropout rate of a certain minority or ethnic group. This would be the boundary of the research and is known as delimitation. All research projects must have a starting point and an end point. It necessarily means that you have to set clear boundaries because researcher cannot tackle everything in one project. Delimitation addresses how a study will be narrowed in scope, that is, how it is bounded. In order to provide clear focus, it is important that researcher should clearly set the delimitation or boundaries around the research, this helps immensely in preventing of vague generalizations.

### **Research Population**

Populations are commonly made up of individuals, but can be made up of households, workplaces, or events. Populations are then narrowed through defining characteristics such as geographic range. Additional defining characteristics include age, class, gender, and/ or race – or in the case of an organization, number of employees, years of operation, type of business, etc.

### **Sampling of the Research**

Sampling shall define the population parameters & scope of the study such as, who is the respondents- Sample (n) what should be the sample size and how these respondents will be selected – sampling technique (s) to be employed.

The size of the sample is directly related to the accuracy of the research. More the sample size more the accuracy of the results and vice versa. Appropriate and systematic employment of sampling method would reduce systematic as well as administrative errors both.

### **Ethical Consideration**

If proposed research will involve people and /or animals as research subjects, then researcher has to include an ethics

statement in proposal. Such statement is an indication of researcher awareness of the ethical considerations and an agreement to conduct fieldwork in accordance with ethical procedures.

### **Research Design**

It is heart of research proposal because it describes the steps to be followed in achieving the research objectives. It must be coherent with aims research question/ hypotheses. Research designs vary with the type of research done and there are variations within the designs. The strategy used in conducting the study is in the form of design. The strength of the design depends on control on the threats on internal validity. In experimental research, design examples include 'one-shot case study design', 'the one-Group pretest-posttest designs' etc. The 'Randomized Solomon Four-Group' design is considered to provide best control of threats to internal validity. Study of four groups at the same time has its own difficulties. Examples of research designs for Single-Subject research are; A-B-A design, A-B-A-B design, B-A-B design, and Multiple-Baseline designs. The researcher chooses the type of design based on the type of research to be conducted. The use of the design and its applications in the research are explained in this section of the proposal (Fraenkel, 2000). Here Researchers do not have to describe the methodology to be used in great details, but only justify its uses over other methodologies and could explain the reasons for using of a certain paradigm or theory, qualitative or quantitative research.

### **Instrumentation**

In research proposal specific information should be provided on the assessment of each variable. Instrumentation is the process of collecting data. The investigator or researcher needs to collect relevant data; proper instruments or tools need to be selected. A wide variety is available to choose from but the choice has to be made carefully depending on the type of research. The major tools can be classified into broad categories of inquiry forms, interview, psychological test, observations etc. It is important to consider the validity and reliability of the tools selected.

One way to acquire an instrument is to use an already available and previously tested tool; another is to develop your own according to the specifications of your need.

Most researchers tend to use the tools available for the ease and economic reasons. It is okay to do so if the validity and reliability is checked according to the new research. Sometimes the reliability and validity of available tools do not function as desired due to differences in the conditions or sample. It saves time and efforts of the researcher.

If appropriate tools are not available and new ones have to be designed, then the proper procedures for the production of instruments have to be explained in detail in this section of the proposal. It is recommended that sample of the instrument should be included in the proposal. The relevance of the instruments to the study has to be explained. It is important to explain the method of checking the validity and reliability of the instruments properly.

### **Data Analyses**

The research shall identify most appropriate technique (s) of the data analyses that is intended to be used. Specify the procedures you will use, and label them accurately e.g., ANOVA, MANCOVA, Regression, co-relations, etc. These technique/ formula, model, or statistical instrument shall be explained along with its methodology of application. The

proposal must provide the rationale for decision to use the design, methodology, and analyses selected

### Significance of the Study

This section outlines the importance of the study. In order to communicate significance of research, researcher must think pragmatically about the implications proposed research. In term of how results of the study may effects scholarly research theory, practice educational interventions curricula and policy in the area under investigation.

### Budget

Proposals that are submitted to Government agencies or private funding almost always require a budget projection. This means that budget concerns may even kill a project. Special care should be taken in making budget projections. Budget usually includes cost of computer programs, salaries, materials, travel expense, printing, mailing etc. If external funding is not required, for example students working for a degree, have to bear their own expense.

The planning of budget gives a fair idea of the expenses and prepares the researcher to arrange money matters at the beginning

### Timeline

Just like the budget, time scheduling can be beneficial to all researchers. The settings up of deadlines help budgeting of time properly. Everyone has time limitations therefore making a time schedule helps the researcher to schedule various activities. It is better to keep time for uncertainties also. Sometimes the equipment like computer may break or internet may not be available due to power outages and important work may be delayed.

Outline a work schedule which couples the various research activities you will be involved in with a time-frame. It is important that you present a realistic time-frame which allocates sufficient time for the various activities and also for revising, editing and producing the final text.

The schedule should include major phases of the project, their timetables, and the milestones that signify the completion of a phase. For example, major phase may be I) exploratory interviews, ii) final research proposal, iii) questionnaire revision, IV) field interviews, v) editing and coding, VI) data analysis, and vii) report generation. Each of these phases should have an estimated time schedule.

Researcher may use a 'Gantt chart'. The activities can be listed on the left side of the page and time periods on the top. A bar graph format indicates the beginning and end of all activities. Some tasks can be completed side by side to save time (L.R.Gay, 2009)

### References

The references need not be extensive at this stage but list all the texts that researcher has referred to in proposal, as well as others consulted thus far. It should provide an indication of the texts that are important and relevant to your area. Researcher should Follow APA guidelines while developing the references.

### Bibliography

Bibliography is also a list of references of its own style. The bibliography carries number of differences from citations / work cited etc. However, the main difference between the References (under APA Style) and the Bibliography is that Reference list includes only those sources of information which have been cited inside the text under the parentheses citations. Whereas, Bibliography includes all sources of information which have consulted during the course of research study in hand. Irrespective they were cited or not cited.

### Comparison of the main elements of the research proposal and final Project

Research Proposal	Final Project
1. Introduction	1. Introduction
General area	General area
Specific topic	Specific topic
Gaps	Gaps
Research Questions	Research Questions
Problem Statement	Problem Statement
2. Literature Review	Contribution Delimitations
3. Methodology	2.LiteratureReview
5. Data Analysis Plan	3. Methodology
6. Timetable	4.Data Analysis/Results
7. References	5. Conclusions and Implications
	6. References
	7. Appendices

### Discussion

Present study intends to highlight the importance and procedure of developing a research proposal. As the research proposal is a document that explains about the need, importance, and the procedures of the proposed research. It is a blue print before the start of the project and as such is a vital part of any research project. The proposal includes the information about the target population, the sample, the method of data collection and analysis. The proposal is inclusive of all definitions, delimitations, and a partial review of the related literature.

The need and advantage of writing a proposal is that other people interested in the research project including the evaluators can make valid suggestions for the improvement and point out any deficiencies in the program. It also helps the researcher to focus on the details of the intended study and clarifies the important points and procedural steps.

Future researchers can take benefits from this theoretical article when preparing for the research in the field of social sciences.

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