

# Preparing a Research Proposal

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## 1. Introduction

Any researcher who intends to undertake a research study, as in any other project, has to plan his research. Similar to a project plan, a researcher has to focus on developing his plan of action for the research study, the research proposal. Normally the institution or the organization for which the researcher intends to carry out the research would have its own formats for research proposals, which to a large extent, agree on basic components.

Though similar to a project proposal in a number of ways, a research proposal addresses a particular project: academic or scientific research. The forms and procedures for such research are well defined by the field of study, so guidelines for research proposals are generally more exacting than less formal project proposals. Research proposals contain extensive literature reviews and must offer convincing support of need for the research study being proposed.

A research proposal

- gives an opportunity to think through the project carefully, and clarify and define what the researcher wants to research,
- provides the researcher with an outline and to guide through the research process
- lets the researcher's supervisor and department or faculty know what he/she would like to research and how he/she plans to go about it
- helps the department choose an appropriate supervisor

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- gives an opportunity to receive feedback from the supervisor and others in the academic community as well as possible funders
- serves as a contract between the researcher and the supervisor and university
- can be submitted to an ethics committee to gain ethical approval and
- can be submitted to a scholarship committee or other funding agency

In this paper we will focus on what a research proposal is, what the characteristics of a good research proposal are and the essential components that should go into a research proposal.

## **2. What is a research proposal?**

Let us examine the definition of a research proposal.

A research proposal may be defined as a document setting out a tentative plan or design of a research study that is to be conducted by a prospective researcher. Why do we call it a tentative plan? Because a research proposal would be reviewed, refined and revised, more than once, as the researcher carries out the steps in the research process.

## **3. Why a research proposal?**

A research, especially a novice embarking on a research study for the first time, could ask why we need a research proposal. Any postgraduate student who enrolls in a research programme, is aware that universities or research organizations expect a research proposal to be submitted. It is after evaluating the research proposal that a postgraduate student's provisional registration gets confirmed. Those who intend to seek for funds to carry out a study, even for his/her career development, also have to submit research proposal as the decision to sponsor a study by a funding agency is made only after a stringent evaluation, to ensure the quality of the research study.

Research proposals are submitted by researchers when they respond to calls for research proposals on specific topics that research organizations, such as the World Bank, or UNICEF are interested in carrying out. In order to be able to compete and obtain funding for such research, it is essential that the proposal submitted is meticulously prepared. Research scholars who initiate

studies on their own also usually prepare research proposals at the commencement of their research efforts, as it is important to plan the research well ahead, before they embark on the study. Whatever the circumstances under which a proposal is written, invariably it is expected to be a document providing clear direction and guidance to the intended research effort.

#### **4. Characteristics of a Good Research Proposal**

For a researcher who is preparing a research proposal, it is important for him to identify the characteristics that a good research proposal should possess. Let us now look at some of the important characteristics of a good research proposal.

Firstly, he/she has to select an appropriate research problem. How would one determine the appropriateness of a research problem? Among the criteria which are used to evaluate the appropriateness of the research problem are the following:

1. The research problem has to be research worthy. Unless the research carried out makes a new contribution to knowledge, one might not consider it as research worthy.
2. The problem has to be researchable. For example, if the research site or the subjects (people) who are going to be studied are inaccessible, the problem will not be researchable.
3. To carry out a research, one has to dedicate funds, time and effort. If the problem has been sufficiently researched earlier, it may not be worthwhile to select the same problem again, as it is most likely that the same results would emerge.
4. The researcher also needs to consider whether the problem is important in terms of its consequences on theory and practices in his discipline. Will the conduct of a research on a particular problem lead to the development or extension of an existing theory, or lead to useful practices?
5. Most research studies are abandoned by prospective researchers, because the problem selected by them does not interest them. It may be that someone else, a supervisor or a research adviser, may have suggested a research problem that does not interest the student. In such a case it is difficult to sustain the effort to complete the study.

6. The researcher should always select a problem that he has the capacity to investigate. The capacity, here, might mean the ability to carry out a study with a large sample for which funding is not available, or the capacity to use sophisticated statistical analyses which the researcher is not competent to use.

It is always important to remember that unless the problem selected satisfies the above criteria, it should not be selected as the research problem.

Another important characteristic is clarity in presentation. This means that the proposal indicates that the researcher clearly understands the problem, and also understands the methodology that he wishes to utilize to investigate the problem. Use of clear, simple language rather than abstract or complicated language is an expected characteristic of a good proposal. The proposal should be understood by not only the specialists in the field but even researcher's peers.

It is important for the researcher to include only what is relevant and accurate. The research proposal should be comprehensive and include all the essential components of a research. In addition, these different components or elements need to be properly sequenced and integrated and conform to the broad guidelines given by the relevant organization for writing proposals. A good proposal seeks to conform as far as possible to these guidelines.

Preliminary proposals should be short documents providing a gist of the central features of the proposed activity. Ordinarily, they should not exceed 10 pages.

## **5. Essential Components of a Research Proposal**

Now let us consider the components which are usually considered as essential for a research proposal. As mentioned above, institutions – academic or funding organizations, prescribe formats according to which research proposals should be prepared. Even though minor variations may occur, in general, these include the following components in the sequence given here.

### ***5.1. Introduction***

- A. The first section is the Introduction. It normally comprises two parts – the background to the study and the rationale. Its purpose is to establish a framework for the research, so that readers can understand how it is related to other research”

(Wilkinson, 1991, p. 96). In an introduction, the writer should

1. create reader interest in the topic,
2. lay the broad foundation for the problem that leads to the study,
3. place the study within the larger context of the scholarly literature, and
4. reach out to a specific audience. (Creswell, 1994, p. 42)

### 5.1.1 Background to the study

Every research problem has to be considered in relation to its context. Therefore it is customary to briefly describe the societal, political or the economic context in which a problem has emerged.

### 5.1.2 The Purpose of the Study and Rationale

Secondly, it is necessary to explain why a study has to be carried out to investigate the chosen problem. “The purpose statement should provide a specific and an accurate synopsis of the overall purpose of the study”. (Locke, Spirduso, & Silverman, 1987, p. 5). The purpose statement can also incorporate the *rationale* for the study.

The researcher has to justify and give reasons as to what prompted him to choose a particular problem for the study.

Some of the reasons put forward by researchers to justify their studies are given below.

(i) The problem might be causing concern for those who are dealing with the area. For example, the government is spending much money to improve the level of educational achievement of secondary school students. However, the examination performance of students sitting for GCE (O.L) shows that the improvement is not proportionate to the investment. This would stimulate educational authorities, principals, and teachers to undertake a study on why examination performance of students is low.

(ii) There is very little or no research at all carried out before and there is much to be found out about a particular problem. While television viewing is generally supposed to affect children’s behaviour patterns, there may not be sufficient research carried out in Sri Lanka on the effects of television viewing on children’s behaviour.

(iii) There may be an interest to develop our understanding of some of the fundamental principles, concepts, processes etc. For example, you may discern, there is a need to find out why student violence erupts in universities after students compete so keenly to gain admission after demonstrating high academic achievement. You may desire to find out why when many studies have concluded socio-economic status is directly related to educational achievement, some children from high socio-economic backgrounds perform poorly in examinations.

(iv) A researcher might note that in categorizing a society according to socio-economic groups, the prestige attached to different occupations needs to be included. He/She may feel that even the standard occupational prestige scales used internationally may not be acceptable to a country like India or Sri Lanka and that prestige of occupations can vary from community to community. The recognition of this need may lead him/her to develop a reliable and valid occupational prestige scale for the country.

Reasons such as the above can prompt a researcher to select a specific problem for study.

## ***5.2 Review of Literature***

A review should indicate what work has been done before in relation to the present problem by other researchers. Before commencing the study, researcher should satisfy himself that he is familiar with previous and current literature related to the problem. This activity prevents replication of studies in addition to helping the researcher to refine his research questions and methodology.

“The review of the literature provides the background and context for the research problem. It should establish the need for the research and indicate that the writer is knowledgeable about the area” (Wiersma, 1995, p. 406). The literature review accomplishes several important things.

1. It shares with the reader the results of other studies that are closely related to the study being reported (Fraenkel & Wallen, 1990).
2. It relates a study to the larger, ongoing dialogue in the literature about a topic, filling in gaps and extending prior studies (Marshall & Rossman, 1989).
3. It provides a framework for establishing the importance of the study, as well as a benchmark for comparing the results of a study with other findings.

4. It “frames” the problem earlier identified.

The review of literature demonstrates to the reader that the researcher has a comprehensive grasp of the field and is aware of important recent substantive and methodological developments. In a proposal, the literature review is generally brief and to the point.

It is particularly important to identify relevant research done in Sri Lanka. When citing research done elsewhere in the world, it is necessary to be very cautious in assuming that their findings are valid in the Sri Lankan context.

A summary description of relevant findings with a list of references needs to be incorporated in to the proposal.

### ***5.3 Research Questions or Objectives of the Research***

This is a very important section of a research proposal. The purpose of this section is to present the specific research questions that the research is designed to explore. The specific questions are usually expressed in one of the following ways: *Research questions* are most often used in qualitative inquiry, although their use in quantitative inquiry is becoming more prominent. *Hypotheses* are relevant to theoretical research and are typically used only in quantitative inquiry. When a writer states hypotheses, the reader is entitled to have an exposition of the theory that lead to them (and of the assumptions underlying the theory). Just as conclusions must be grounded in the data, hypotheses must be grounded in the theoretical framework.

A *research question* poses a relationship between two or more variables but phrases the relationship as a question; a *hypothesis* represents a declarative statement of the relations between two or more variables (Kerlinger, 1979; Krathwohl, 1988).

Deciding whether to use questions or hypotheses depends on factors such as the purpose of the study, the nature of the design and methodology, and the audience of the research.

The practice of using hypotheses was derived from using the scientific method in social science inquiry. They have philosophical advantages in statistical testing, as researchers should be and tend to be conservative and cautious in their statements of conclusions (Armstrong, 1974).

(a) As objectives –

Example –

The objective of this study is to, ‘find out whether the performance of children from poor families is lower than that of children from rich families.’

(b) As questions –

Example –

Is the performance of children from poor families lower than that of children from rich families?

(c) As hypotheses –

Example –

- Children from poor families are more likely to have lower performance than those from rich families (directional research hypothesis)
- There is a difference in the performance of children from poor families and children from rich families (non- directional research hypothesis)
- There is no difference in the performance of children from poor families and children from rich families.(null hypothesis)

Here it is important to remember that all types of research do not need vigorous testing of hypotheses.

#### ***5.4. Methodology***

As Wiersma (1995, p. 409) explains “The methods or procedures section is really the heart of the research proposal. The activities should be described with as much detail as possible, and the continuity between them should be apparent”.

It is within this section that the prospective researcher has to describe in full the methodology that is to be used in conducting the study. There are at least 5 important questions that need to be answered in explaining the proposed methodology.



What are these questions?

- (a) What general approach and the method (DESIGN) will the researcher adopt and why?

The two main research approaches or traditions; available to a researcher are the quantitative and qualitative approaches. Associated with each tradition there are several general methods (sometimes called designs) within which the study can be conducted. Researcher may even decide on a combination of both approaches and several methods.

The choice depends primarily on the nature of the research questions. For example, if it is about exploration of the existing status of some phenomenon, then the relevant method will be, survey method. If the question is about the causal relationship between 2 or more variables, experimental method will be suitable. If the question is about the efficacy of some innovative practice, one choice will be the action research method. As such, a method most suitable for addressing the particular problem will have to be chosen.

Other factors that affect choice of a method include researcher's own interest and research skills, resources available and practical constraints etc. Having chosen the approaches and the methods, researcher, has to justify his choices.

- b. What specific techniques of gathering data (INSTRUMENTS) will be used and why?

It is necessary to describe the techniques of data collection intended to be employed. Outline the instruments you propose to use (surveys, scales, interview protocols, observation grids). If these instruments have previously been used, identify previous studies and findings related to reliability and validity. If instruments have not previously been used, outline procedures you will follow to develop and test their reliability and validity. In the latter case, a pilot study is nearly essential.

- c. What data collection PROCEDURES will be used and why?

Having chosen and justified the choice of relevant instruments of data collection, it is necessary to describe how they will be administered and how data collectors, if any, will be selected and trained and so on. This may include survey administration procedures, interview or observation procedures. Include an explicit statement covering the field controls to be employed. If appropriate, discuss how you obtained access to the research sites.

- d. What is the SAMPLE from which the data is to be collected? How and why was the sample so selected?

Having stated the population under consideration, you are required to indicate the size of your sample, how it was drawn and why it was done so. The key reason for being concerned with sampling is that of *validity*—the extent to which the interpretations of the results of the study follow from the study itself and the extent to which results may be generalized to other situations with other people (Shavelson, 1988).

Sampling is critical to *external validity*—the extent to which findings of a study can be generalized to people or situations other than those observed in the study. To generalize validly the findings from a sample to some defined population requires that the sample has been drawn from that population according to one of several *probability* sampling plans.

The key word in sampling is *representative*. How representative is the sample of the survey population (the group from which the sample is selected) and how representative is the survey population of the target population (the larger group to which we wish to generalize)? When a sample is drawn out of convenience (a non-probability sample), rationale and limitations must be clearly provided.

- e. How will the DATA ANALYSIS be done once the required data has been collected?

Indicate techniques that will be used to analyze data. If quantitative methods are to be used, indicate what statistical techniques will be applied to which data. If qualitative data are to be analyzed how it will be done.

The procedures you use should be specified, and labeled accurately (e.g., ANOVA, ethnography, case study, grounded theory). If coding procedures are to be used, they should be described in reasonable detail. If triangulation of data analysis is to be used, how you intend to go about it should be carefully explained. Any analytic tools expected to be used (e.g., Ethnograph, Nvivo, SPSS, SYSTAT) should be briefly indicated

## ***5.6 Significance of the Study***

This is the section where you are expected to give an indication of the kind of results expected from the research. How the research will refine, revise, or extend existing knowledge in the area under investigation is explained here. The researcher may also point out the respects in which the research is likely to advance present knowledge and understanding.

When thinking about the significance of the study, the researcher can ask him/herself the following questions (Pajares, 2007).

1. What will results mean to the theoretical framework that framed the study?
2. What suggestions for subsequent research arise from the findings?
3. What will the results mean to the practitioner?
4. Will results influence programs, methods, and/or interventions?
5. Will results contribute to the solution of the problems studied?
6. Will results influence policy decisions?
7. What will be improved or changed as a result of the proposed research?
8. How will results of the study be implemented, and what innovations will come about?

An indication of the audience for the research output may also be made. Most studies have two potential audiences: practitioners and professional peers. Statements relating the research to both groups are in order.

Researcher may also state the methods of disseminating the findings.

## ***5.7 Limitations and Delimitations***

Under *limitations*, the researcher explains about his/her analysis, the nature of self-report, instruments used and the sample. The limitations or the weaknesses on what the research could and could not achieve are noted here.

A *delimitation* addresses how a study will be narrowed in scope, that is, how it is bounded. This is the place to explain the things that the researcher is not doing and why he/she has chosen not

to do them—the population he/she is not studying (and why not), the methodological procedures he/she will not use (and why he/she will not use them). The delimitations can be limited to the things that a reader might reasonably expect a researcher to do but that he/she, for clearly explained reasons, have decided not to do.

### **5.8 Time Schedule**

Time frame of the research constitutes an important element of a research proposal. It is necessary to indicate the different activities and the time periods within which these will be completed. Time schedule induces the researcher to think in terms of deadlines. It also provides a basis for evaluation of the progress of research.

### **5.9 References**

In writing the research proposal you may be invariably referring to various documents, books and reports. It is essential to ensure that these references are accurately given at the end of your proposal. Only references cited in the text are included in the reference list; however, exceptions can be found to this rule. For example, committees may require evidence that you are familiar with a broader spectrum of literature than that immediately relevant to your research. In such instances, the reference list may be called a *bibliography*

Normally, your institution may expect you to follow American Psychological Association (APA, 2001) guidelines regarding use of references in text and in the reference list.

## **6. Other Components of Research Proposals**

The components considered above are commonly regarded as the most important for a research proposal. However the following components are sometimes considered essential for proposals prepared particularly for funding purposes.

### **a. Resource requirements**

The proposal should indicate the resources required, whether the research will be done by the principal researcher alone or by a team of researchers. It should also indicate other personnel and material resources that may be required.

b. Budget

Proposal should include an estimate of the expenditure that would be incurred, under suitable headings such as personnel, equipment travel and subsistence, office overheads etc.

c. Contents of the final report

Headings and details of chapters which will appear in the final report

Peyton Jones and Bundy ( ) list a few major criteria against which your proposal will be judged.

These are,

*Does the proposal address a well-formulated problem?*

*Is it a research problem, or is it just a routine application of known techniques?*

*Is it an important problem, whose solution will have useful effects?*

*Is special funding necessary to solve the problem, or to solve it quickly enough, or could it be solved using the normal resources of a well-found laboratory?*

*Do the proposers have a good idea on which to base their work?* The proposal must explain the idea in sufficient detail to convince the reader that the idea has some substance, and should explain why there is reason to believe that it is indeed a good idea. It is absolutely not enough merely to identify a wish-list of desirable goals (a very common fault). There must be significant technical substance to the proposal.

*Does the proposal explain clearly what work will be done?* Does it explain what results are expected and how they will be evaluated? How would it be possible to judge whether the work was successful?

*Is there evidence that the proposers know about the work that others have done on the problem?*

This evidence may take the form of a short review as well as representative references.

*Do the proposers have a good track record, both of doing good research and of publishing it?* A representative selection of relevant publications by the proposers should be cited. Absence of a track record is clearly not a disqualifying characteristic, especially in the case of young researchers, but a consistent failure to publish raises question marks.

Writing a research proposal can be a demanding, frustrating, challenging and time-consuming process - but it can also be exciting!

It is important to remember that your proposal does not permanently set what you will do. It is a starting point and throughout your research you will probably adjust and change your position. You will be able to trace the development of your ideas and measure the progress you have made by referring back to your proposal.

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