

Welcome

Proposal Writing Session
HDR Students: Sem 1 2023
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USP Handbook and Calendar: pp 87-91

Applications for admission into the Master programme must be made to the relevant Academic Unit Research Committee and include details required in the application for Admission to a Postgraduate programme, including a statement of research intent that has been discussed with and formally endorsed by a potential supervisor(s). This statement of intent shall be converted to a full proposal and endorsed by the supervisor.

Master's Students

- Student registration for the degree of Master's shall remain provisional until the formal acceptance of the research proposal. For full time students, the proposal should be submitted by the **end of week 7 of the semester**; for part time students, the proposal should be submitted by the **end of week 14 of the semester**.

PhD Students

- Student registration for the degree of Doctor of Philosophy shall remain provisional until the formal acceptance of the research proposal. For full time students, the proposal should be submitted in the **prescribed format by the end of the first semester**; for **part time students, the proposal should be submitted by the end the second semester**.

What is a PhD as distinct from a MSc ?

The aim of research is to generate **new knowledge** or **further extend our present understanding** of natural phenomena including testing and validating the truth/theory.

Full thesis: One year research

PhD: A substantial and original contribution to knowledge or **apply the knowledge to solve the problem.**”

5 SOURCES TO GET RESEARCH YOUR TOPIC

Professional arena: In the university setting, your supervisor or a conference provides topics and ideas.

Professional Trends: These are captured in technical bulletins, newsletters and magazines. Also, professional societies establish specific short- and long-term research goals and priorities for their professionals.

Social Trends: Social concerns and trends reflected in the policies, legislation and funding priorities of funding agencies provide a second and critical area of research.

Published Research: Research findings in journals and conference proceedings.

Existing Theory: Can be the source of new results (esp. true in formal sciences).

RESEARCH PROCESS-PHASES OF RESEARCH

- Idea generation phase
- Problem definition phase
- Procedures design phase
- Observation / Experimental phase
 - Data analysis phase
 - Interpretation phase
 - Communication phase

DEVELOPMENT STRONG RESEARCH QUESTION

[HTTP://WWW.THERESEARCHASSISTANT.COM/TUTORIAL/2-1.ASP](http://www.theresearchassistant.com/tutorial/2-1.asp)

- Do I know the field and its literature well?
- What areas need further exploration?
- What are the important research questions in my field that has not been answered?
- Has a great deal of research already been conducted in this topic area?
- Could my study fill a gap or answer the questions substantial enhance the understanding?
- Would funding sources be interested?
- Most importantly, will my study have a significant impact on the field.

Research problem

- Research problem is something that will contribute significantly to *present understanding (production of new knowledge)* of the topic and can be solved, but hasn't been yet.
- The problem/solution is **logical, understandable, confirmable**, others see value in doing it, and the results are clear, interesting, and **useful.**

WHERE REQUIRED AND HOW MUCH

For every research, the literature review is required

A reasonable number of references in a literature review would be:

- undergraduate review: 5-20 titles depending on level.
 - Honours dissertation: 20+ titles.
 - Masters thesis: 100+ titles
 - Doctoral thesis: 200+ titles

Scientific Papers: Introduction and Discussion

1. **Review Articles:** are primarily written by highly experienced scholars on their areas of research interest.
1. **Review for Thesis/Grant proposals:** This is often written as part of a postgraduate thesis proposal, or at the commencement of a thesis, and grant proposals.

More than 20 Masters 40 PhD

WHAT IS LITERATURE AND LITERATURE REVIEW?

It covers books, journal articles, newspaper articles, historical records, government reports, dissertations, etc.

- A literature review is an extensive, exhaustive, and systematic examination of publications relevant to the stated research problem, identifying the **strengths and gaps in the knowledge** of the research problem/area
 - It is an analysis of prior academic research so as to identify the **who, what, where, and why's** of the chosen topic area.
 - **Critical literature Review:** is a critical assessment of the relevant literature in your field of research
- A literature review -
- **identifies the gap in the knowledge**
 - identifies areas of controversy in the literature
 - **formulates questions that need further research**

LITERATURE REVIEW

Literature' can include a range of sources:

- Journal articles
- Monographs
- Computerized databases
- Conferences proceedings
- Dissertations
- Empirical studies
- Government reports and reports from other bodies
- Historical records
- Statistical handbooks

○ A literature review is an extensive, exhaustive, and systematic examination of publications relevant to the stated research problem, identifying the strengths and gaps in the knowledge of the research problem/area.

○ It is an analysis of prior academic research so as to identify the **who, what, where, and whys**' of the chosen topic area.

REASONS TO REVIEW THE LITERATURE

- Determine previous research on the topic of interest
- Determine level of theory and knowledge developed
- Identify areas of controversy in the literature
- Determine relevance of current knowledge base to the problem area
- Provide rationale for the selection of research strategy
- Formulate questions that need further research

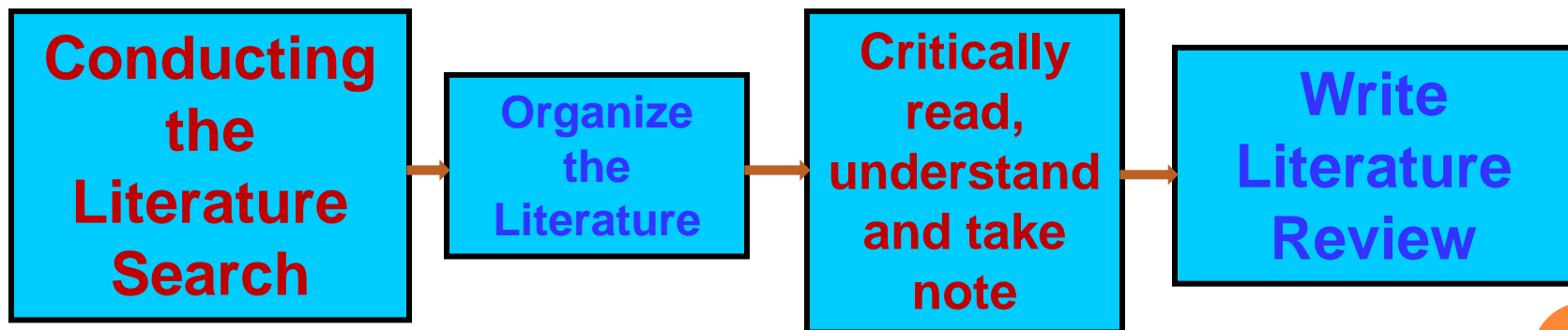
LITERATURE REVIEW

THREE Important Reasons

- Determine previous Research on topic of interest
- Determine level of theory and knowledge developed
- Determine relevance of current knowledge base to the problem

When to start Literature Review?

- Identify the your sources of Literature Review
- List them according to priority



HOW TO WRITE A LITERATURE REVIEW? RESEARCH PROPOSAL: THEMATIC, CONCEPTUAL, METHODOLOGICAL

A *literature review* synthesizes many studies in one paragraph. Each paragraph of the literature review should classify and evaluate the themes of the studies that are relevant to your topic/thesis. Each paragraph or section of your review should deal with a different aspect of the literature.

Academic literature review must have an **introduction**, **body**, and **conclusion**.

Introduction paragraphs:

The nature of the topic under discussion (the topic of your review /thesis), the basis for your selection of the literature



Body paragraphs

Discussion of each related concept, construct, principle, theory and model in current literature; Brief review of related study designs and their results, Critical evaluation or appraisal of current related research and knowledge, Critical summary of current knowledge and gaps in literature, Integration of various works reviewed; Fit of your work with the collective knowledge related to topic under investigation.

Conclusion should include:

A summary on: major agreements and disagreements in the literature, general conclusions where your thesis sits in the literature (Remember! Your topic could become one of the future texts on the subject—how will later research students describe **your thesis in their literature reviews**)

A LITERATURE REVIEW AND AN ANNOTATED BIBLIOGRAPHY: A COMMON MISTAKE

- **An annotated bibliography deals** with each text in turn, describing and evaluating the text, using one paragraph for each text. 
- **A literature review synthesises** many texts in one paragraph. Each paragraph (or section if it is a long thesis) of the literature review should classify and evaluate the themes of the texts that are relevant to your thesis; each paragraph or section of your review should deal with a different aspect/theme of the literature. 

PREPARATIONS BEFORE STARTING WRITING THE PROPOSAL

You have identified your specific problem of research – through **Literature Review and Using** four criteria (**logical, understandable, confirmable and useful**) and seven measurement (**relevance, duplication, urgency, political acceptability, feasibility, accessibility, ethical acceptability**), then you have identified the appropriate data research design/strategies and **appropriate data collection technique**, sampling etc.

**Think about writing the Problem
Research Statement, Aim, Research
Questions and or Hypothesis**

RESEARCH PROPOSAL

Research Proposal is *document* that describes why and how we propose to carry out our research idea.

However, your challenge is to convince members of the scientific community that you

- have identified a scientific problem
- have a theoretical background and a methodical approach to solve the problem
- within a realistic time frame and at reasonable expenses.

With your research you will add a new aspect to the scientific discourse.

Common Elements of a Proposal

Necessary Element	Information Included
Why	Title Introduction/Statement of Problem
What	Aim
What	Specific Objectives/Study Aims Literature Review/Significance
How	Research Methodology/Action Plan Reporting/Dissemination Plan
When	Management of Proposal Timeline
Who	Principle Investigator and Associate Investigators (if any) credentials: experience and publications etc.
Where	Institutional qualifications Resources
Supporting Material	Letters of support, Formal letters of agreement with collaborators, matched funding, ethical approvals
How much	Budget and its justification References

HYPOTHESIS AND RESEARCH QUESTION

Hypothesis : A prediction or explanation about future data based on previously collected data.

Null Hypothesis or Alternate Hypothesis

A Research Question is a statement that identifies the phenomenon to be studied which should be clear and focused.

What is seasonal variation of Wahu Fish in Kiritimati Island ocean area?

Is there any improvement in Tuna fish management of Tonga?

TITLE

- Should capture main research problem in a short phrase.
- **Should be brief** : so that person reading your proposal can easily work out main point of your study (not long or unrelated).
- Follow the specific length requirement if given by agency where you will submit it for funding.

INTRODUCTION

- Provides general overview of project's main idea.
- Addresses the question regarding what your project is all about and why it is important
- Should be brief-1-3 paragraph
- Cite few credible sources of data and information

RESEARCH PROBLEM STATEMENT

A Research Problem is not the same as a business problem **rather is the issue or subject area that you intend to investigate.**

It is a clear, stand-alone statement that makes explicit **what it is you are aiming to discover or establish.**

In general, a problem statement will outline the basic facts of the problem, explain why the problem matters, and pinpoint a solution as quickly and directly as possible.

Research Problem statements to have an outcomes based verbs; **not the verbs such as; understand”, “explore”, “investigate”, “examine” and “discuss” .**

AIM

- Are broad statements of desired outcomes, or **what you want to achieve**, or the general intentions of the research.
- Emphasize what is to be accomplished not how it is to be accomplished.

Generally, a project should have no more than **one-two or three** aims statements.

OBJECTIVES (SPECIFIC AIMS)

- Objectives are sub gaps (gap1, gap 2 gap3---) called “**critical building blocks**” of the entire research problem.
- They **concisely** describe what will be evaluated or tested in your proposal- **normally one sentence for each.**
- **Must be feasible and doable**

WHY EXPERIMENTS NEED TO BE DESIGNED

- For a good Research designs, we need to understand following basic elements:
 - **variables,**
 - **associations,**
 - **sampling,**
 - **random selection,**
 - **random assignment,**
 - **qualitative and quantitative data,**
- **project objectives, project activities, and**
 - **Hypothesis**
 - **Research Questions**

**THANK YOU FOR TODAY:
FURTHER SECTIONS OF THE PROJECT:
METHODOLOGY, WORKPLAN,
BUDGET, GANTT CHART,
REFERENCES, PROJECT
ADMINISTRATION ETC WILL BE
DISCUSSED IN THE NEXT SESSION IN WEEK
5: PART II**

