

ALMUSTAQBAL UNIVERSITY

College of Health and Medical Techniques
Medical Laboratory Techniques Department

Stage : Fourth year students

Subject : Research Methods - Lecture 3

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Designing the Research Plan

What is a research plan?

A research plan is a documented overview of a project. It details the research efforts, participants, and methods needed, along with any anticipated results. It also outlines the project's goals and mission, creating steps to achieve those goals within a specified timeline.

A research plan is a comprehensive documented outline of the entire project, encompassing the research process and the anticipated outcomes. This strategic document aids in defining objectives, summarizing the necessary steps to achieve them, and detailing the requirements for obtaining conclusive results.

A research plan offers a structured framework for researchers to consolidate their strategies and procedures for conducting their study.

Without a research plan, the researchers, wasting time and resources to pursue research without structured guidance.

A research plan is a strategic blueprint(خطہ) that outlines:

- **What** you want to study?
- **Why** it's important?
- **How** you will investigate it?
- **What resources** you'll need?
- **What outcomes** you expect?

It's the foundation of any successful research project, whether in science, social studies, humanities, or applied fields.

Designing a research ensures the research to be purposeful, efficient, and capable of reaching meaningful conclusions.

A well-crafted research plan provides clarity, direction, and structure, helping researchers to avoid common mistakes and stay aligned with their objectives.

What is the purpose of a research plan?

1. It seeks approval from supervisors or departments for project progression.
2. It is a central components of graduate school applications.
3. It suggests the chosen methods and procedures for collecting relevant data
4. The research plan aims to secure funding for the research
5. Mention the analysis methods that are tailored to meet the desired outcomes and must be clearly outlined.

Why do we need a research plan?

Create a research plan before starting any official research is to maximize every effort in collecting the research data. the plan will model the activities needed at each phase of the research project.

Like any roadmap, a research plan serves as a valuable tool providing direction for those involved in the project.

Research plan structure

A research proposal adheres to a clear and logical structure that ensures the project's effectiveness. In the research plan structure, the core components are organized as in the following outline:

1. INTRODUCTION

Often referred to as the 'need for study' or 'abstract,' the introduction serves as the initial platform for the research idea. getting the reader's interest , illuminates the study's necessity for the research topic. This section can be evaluated through questions like:

- What is the existing knowledge about the subject?
- What gaps remain unanswered?
- How will this research enrich understanding, practice, and policy?

Therefore it Clearly define the problem or question aim to address and break it down into specific, measurable objectives.

2. BACKGROUND

This section must mention the research's project necessity and integration with established studies within the field. The work might align with, reinforce, or even challenge existing research. Showing how the work blends with other researchers' attempts, providing an in-depth explanation within the research proposal.

3. LITERATURE REVIEW

This includes effective studies with their associated data, books, and articles. That are related to the subject of the research With a transition from broader studies to focused ones, or historical evolution. It summarize existing research to identify gaps . Inclusive content should feature supporting data, disagreements, and controversies.

4. EXPECTED RESULTS

While the research outcomes can not be determined from the beginning, It can certainly establish the groundwork for the work's potential impact. This section carries immense weight as it elucidates the underlying reasons for the necessity of the research. Express how this research can challenge established theories in this field.

5. METHODOLOGY

It includes Choose between qualitative, quantitative, or mixed methods , Mention the details of data collection techniques (e.g., surveys, interviews, experiments). Explaining the sampling strategy and data analysis plan.

6. ETHICAL CONSIDERATION

Address informed consent, confidentiality, data protection and Seek approval from relevant ethics committees if needed.

7. RESULTS PRESENTATION

A research plan must also describe how you intend to present your results.

Depending on the nature of your project and its goals

8. TIMELINE and MILESTONE

While the project might already have a deadline or a results timeline in place, It is to consider the time needed to execute it effectively. Realistically outline the time needed to properly execute each supporting phase of research. And, include additional time for achieving each milestone in case any changes or unexpected delays arise .Break the project into phases: planning, data collection, analysis, writing and Assign realistic deadlines to each phase.

9. BUDGET (Cost estimates)

A research budget includes expectation and costing every research aspect, supplemented with an allowance for un expected contingencies, طواريء delays, and escalating expenses.

10 . CONCLUSION

The conclusion serves as the final piece of the research proposal . this section encapsulates the proposal's core and reinforces its purpose.

11 .REFERENCES

The references confirm the research's foundation with the comprehensive literature review. Unlike the review, which delves into source relevance and potential challenges, the bibliography فهرس is a straightforward catalog of the chosen sources and their respective authors.