

GSF6011

RESEARCH METHODOLOGY:

Research Planning &

Management

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GSF6011 - Research Methodology

Research Planning & Management

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Introduction

Why do you need to plan and manage your research?

- graduate on time

M.Sc (full time) – 2 years

Ph.D (full time) – 3 years

Successful Management of Research Project

- depends upon the ability to:

(i) Plan

(ii) Coordinate

(iii) Perform the research

Key Tools to Graduate on Time

- (1) Clear Understanding of What You Want to Achieve
- (2) Developing Timelines
- (3) Managing Risk within the Project

Key Tools to Graduate on Time

(1) Clear Understanding of What You Want to Achieve

- distinguish between outputs and outcomes

Outputs - physical deliverables of the project

Outcomes - what happens as a result of the outputs

Starting point is to define what the desired outcomes are and from this the outputs can be defined.

Key Tools to Graduate on Time

Starting point is to define what the desired outcomes

- “starting with the end in mind”
 - focus on research effort
- important for graduate students
 - relatively short period of time to:
 - develop research skill
 - produce significant piece of work

Key Tools to Graduate on Time

(2) Developing Timelines

Research Context

- project will evolve significantly as the research progresses

Management

- develop a rolling wave plan

Method

- develop an understanding of the overall project without much detail
- then on a rolling basis fill in the details

Key Tools to Graduate on Time

Year 1

- Define research question
- Read literature
- Write literature review
- Develop required research skills
- Pilot studies
- Fieldwork and Experiments
- Organise access to research sources
- Start writing thesis (Introduction, Literature Review & Materials and Methods)

Key Tools to Graduate on Time

Year 2

- Continue to read literature and write up as you go along
- Developing a research network
- Data collection and analyses
- Fieldwork
- Attend conferences
- Publication /Start thinking about publication
- Thesis Writing (Introduction, Literature Review, Materials and Methods, Results & Discussion)

Key Tools to Graduate on Time

Year 3

- Check data for gaps and collect any final information
- Write journals / present at conferences
- Write thesis (Results, Discussion, Summary, & Conclusion)
- Look for a Job

Then fill in detail on a rolling basis.

For e.g., putting together a more detailed plan every 2 - 3 months.

Key Tools to Graduate on Time

Basis for creating the timeline - Work Breakdown Structure (WBS)

WBS

- created by taking the project and splitting it down into some smaller tasks.
- then split smaller tasks into even smaller chunks
- keep doing it until the chunks will require between 8 to 80 hours of work to complete

This level of detail allows you to manage the project without running the risk of micromanagement.

Key Tools to Graduate on Time

(3) Managing Risk Within the Project

Some of the risks are:

- (1) One of the research team leave before the project is completed.
- (2) Obtained poor quality data.
- (3) Key equipment breakdown.
- (4) Others published similar work before you publish yours.

Key Tools to Graduate on Time

(3) Managing Risk Within the Project

Ways to manage risk:

- (1) thought through what could go wrong
- (2) develop strategies to manage key risks

Key Tools to Graduate on Time

(3) Managing Risk Within the Project

Ways to Identify Key Risks

(1) Brainstorming session

- identify all the risks that you can think of.

(2) Impact these risks may have on your project.

- reputation, costs, schedule impacts, etc.

(3) Likelihood of the risk to happen

Questions and Answers

Research Planning & Management

All the Best in Your Graduate Studies

Plan you research work

Manage your research work

Come each day with a target