

How to do a dissertation

G Santhosh Kumar
Cochin University

What is a dissertation?

Stages in dissertation process

Stages in dissertation process

choosing a **topic**;

Stages in dissertation process

choosing a **topic**;

developing a research **question**;

Stages in dissertation process

choosing a **topic**;

developing a research **question**;

effective **planning** of the research;

Stages in dissertation process

choosing a **topic**;
developing a research **question**;
effective **planning** of the research;
being **organised and methodical** while
conducting your research;

Stages in dissertation process

choosing a **topic**;
developing a research **question**;
effective **planning** of the research;
being **organised and methodical** while
conducting your research;
reporting the research.

Choosing a topic

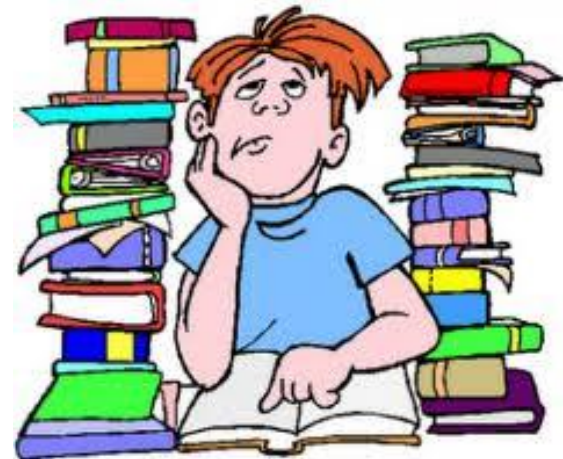
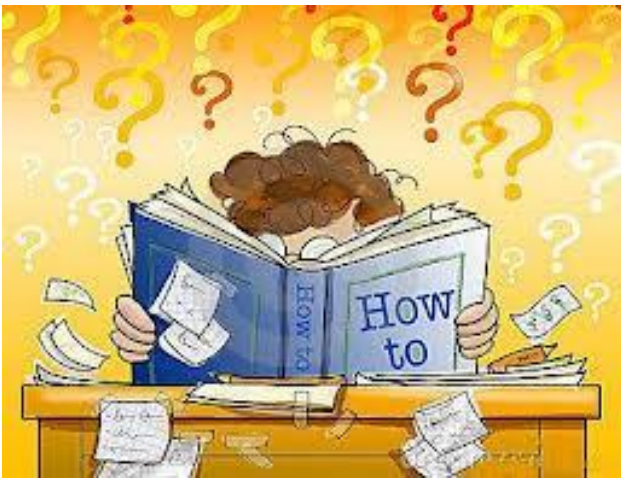


10,000 IDEAS

for term papers,
projects, reports
and speeches 5th edition

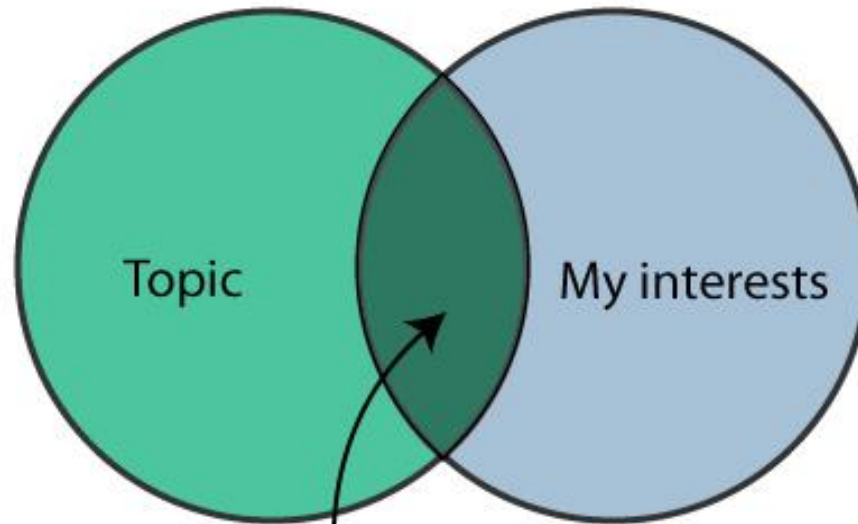
**INTRIGUING, ORIGINAL RESEARCH
TOPICS FOR EVERY STUDENT'S NEED**

too many **ideas**



but with no specific
research question

iimportant



Focus on areas you are interested in within the topic

How to move **forward**?

talk to others

look at other writing

look through the previous dissertations

think about your **own interest**

a research study can

replicate an existing study in a **different setting**;

explore an **under-researched** area;

extend a previous study;

review the knowledge thus far in a specific field;

develop or test out a methodology or method;

address a research question in isolation, or

within a wider programme of work; or

apply a theoretical idea to a real world problem

The Mentor



People who grew up in difficult circumstances and yet are successful have one thing in common; at a crucial juncture in their adolescence, they had a positive relationship with a caring adult
- Bill Clinton, President of the United States



HELP

SUPPORT

ADVICE

GUIDANCE

ASSISTANCE

implications of the choice?

You should think realistically about the practical implications of your choice, in terms of:

the **time** requirement;

necessary travelling;

access to **resources**; and

possible **costs**.

Developing a research **question**

research Question

Try describing it as a research problem that sets out:

- the **issue** that you are going to be investigating;
- your **argument** or thesis (what you want to prove, disprove, or explore); and
- the **limits** of your research (i.e. what you are not going to be investigating).

Research Question



Every task you undertake should begin with you checking your research problem and asking

“will this help me address this problem?”

changes are **inevitable**

You should be **willing** to **revise** your research problem as you find out more about your topic

You should always talk to your mentor before you make any **substantial revision** to your plans, and explain why you think you need to make the **change**

effective **planning** of the research

- **Writing a research proposal**
- **Creating a research plan**
- **Procrastination**
- **Realistic planning**

research **proposal**

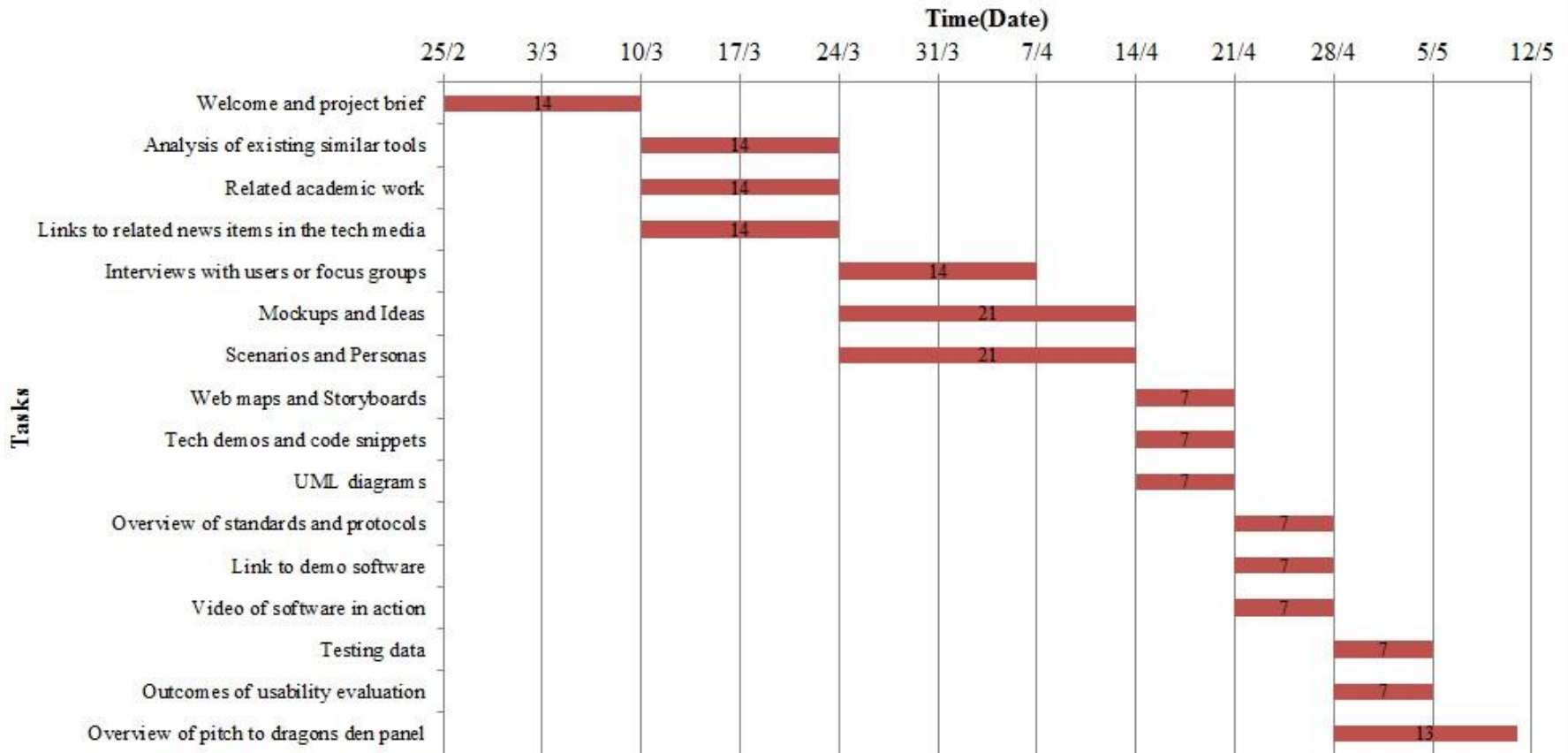
Topic:	this project will study...
Question/problem:	to find out...
Significance:	so that more will be known about...
Primary resources:	the main data will be...
Secondary sources:	additional data comes from...
Methods:	the research will be conducted as follows...
Justification:	the method is most appropriate because...
Limitations:	there are some matters that this methodology may not help me to explain. These might include...

research plan



Project Gantt Chart

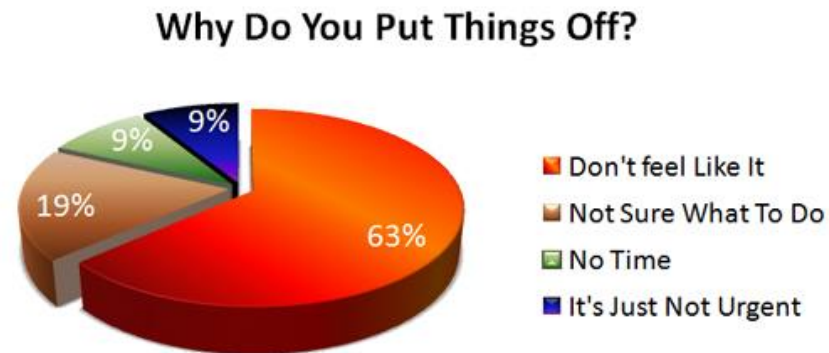
27th, February, 2012



Procrastination

People procrastinate for various reasons for example:

- poor time management
- daunted by the scale of the task
- negative beliefs
- loss of **motivation**
- perfectionism
- difficulty in concentrating
- need to feel under pressure
- personal problems



Realistic planning

To improve the prospect of completing on time, and avoiding procrastination, you need to:

- be realistic about when you can/will start;
- devote time to planning and revising your plan;
- try to work out if any of your research will take a set amount of time to complete;
- allocate appropriate time for any travelling you need to do for your research;
- include other (non-dissertation related) things that you have to do between now and then;

Realistic planning

- have clear and **achievable objectives** for each week;
- focus on **one thing at a time**;
- leave time for editing and correcting;
- **reward yourself** when you complete objectives that you have timetabled; and
- if you fall behind make sure you spend time **reworking your plan**.

Stages in dissertation process

choosing a topic;
developing a research question;
effective planning of the research;
being **organised and methodical** while
conducting your research;
reporting the research.

being organised and methodical

The role of the supervisor

- agree a **timetable of meetings** at the start of your project and stick to it;
- make sure that each meeting **has a focus** e.g. “setting a research problem”, “analysing the data”;
- send something that can form the basis of a discussion about your progress to your supervisor before each meeting. This could include your research plan, early results of your data collection or draft chapters;
- **turn up on time to each meeting** you have arranged. Do not assume that your supervisor is available at all times to see you;
- at the end of each supervision agree some action points for you to focus on before the next time you meet; and
- **keep a record** of what you decide in supervision sessions.

Undertaking **literature survey**

Why?

How?

why literature survey?

Regardless of whether you have been given a dissertation topic or you have developed your own ideas, you will need to be able to demonstrate the **rationale for your research**, and to describe how it fits within the wider research context in your area.

To support you in doing this you will need to undertake a literature review, which is **a review of material that has already been published**, either in hard copy or electronically, that may be relevant for your research project

how literature survey?

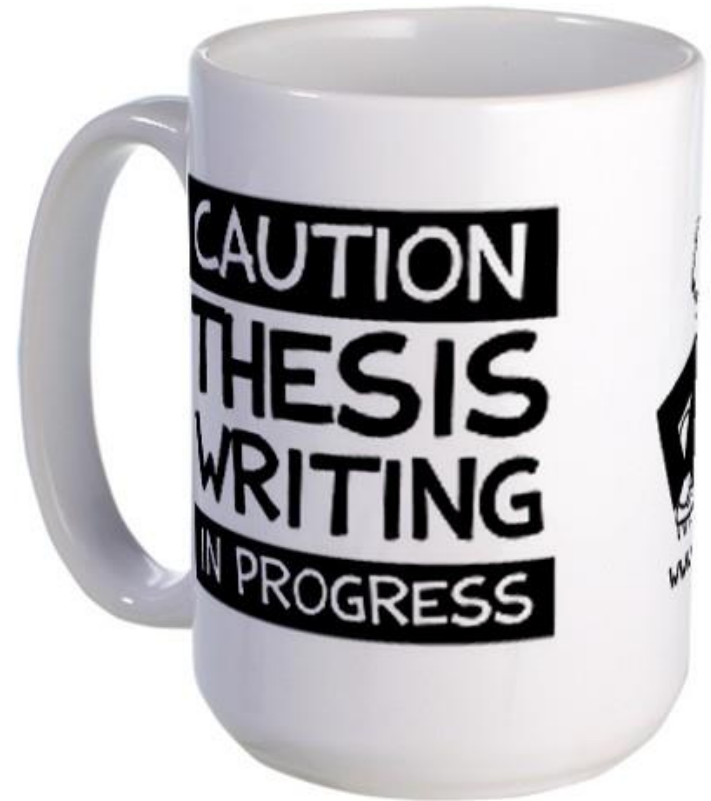
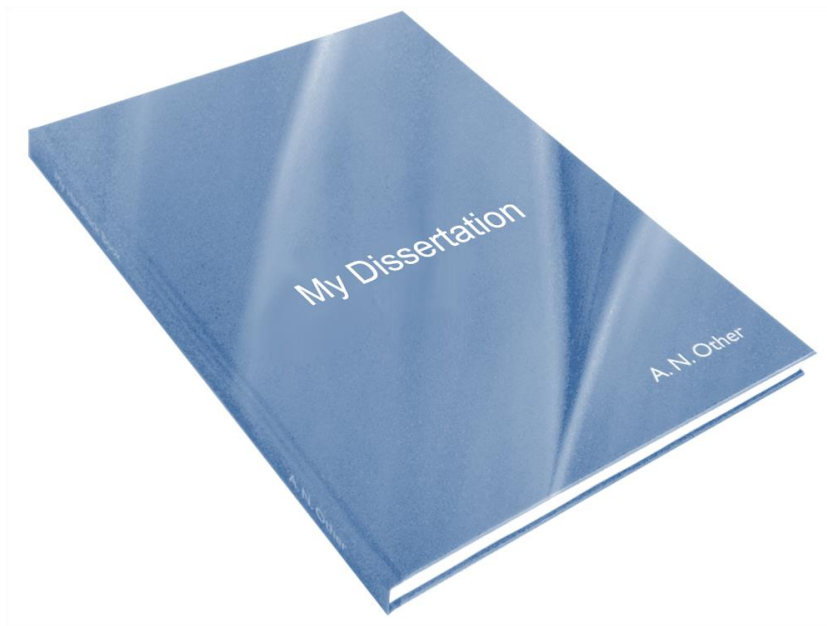
- e-resources
 - digital theses
 - digital repositories
 - e-journals
 - search engine
 - university library
 - bibliographies

useful sites

- dspace.mit.edu
- adt.caul.edu.au
- shodhganga.inflibnet.ac.in
- sciencedirect.com
- dl.acm.org
- ieeexplore.ieee.org
- scholar.google.com
- doaj.org



reporting the research



Transition from research to **writing**

reporting the research

- In your research plan you need to specify a time when you are going to stop researching and start writing
- ask yourself the question: ‘Do I need to do more research?’
- Speak to your supervisor about your progress

skeleton of dissertation

- Title page
- Abstract
- Acknowledgements
- Contents page(s)
- Introduction
- Materials and methods **or** Literature review
- Results **or** Sources and methods
- Discussion **or** Findings
- Conclusions
- References
- Appendices



avoid plagiarism

Research areas in Computer Science

thank you