

# RESEARCH METHODOLOGY (SQG2613 )

## Research proposal

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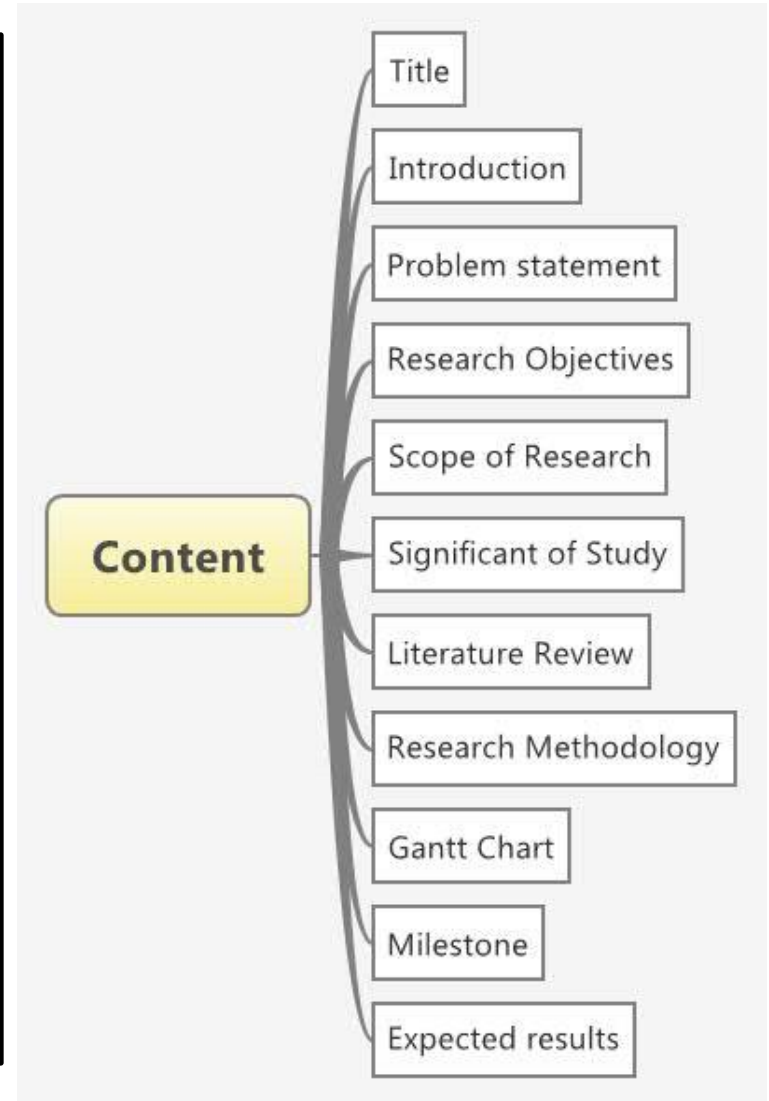
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# Research Proposal

## Definition:

- A research proposal is a document written by a scientist that describes in details the program for a proposed scientific investigation.
- A detailed outline of the proposed research that must be submitted before research can begin.
- This describes the design, schedule and budget for conducting a research project.
- A detailed description of a proposed study designed to investigate a given problem.
- A document that outlines what a research project is about, how it will be undertaken, why it is worthwhile, how long it will take, and why it should be funded.



# What is research proposal?

well planned

ideas

written

A written workable well planned ideas within a specific scope to achieve targeted objective

specific scope

targeted objective

# Why a must for a researcher?

- To tell people
  - What you are going to do.....
  - How you are going to do...
  - Where you are going to do....
  - What are the benefits....

# BSc Research proposal

- To learn the methodology
  - Title
  - Objective
  - Scope
    - Literature review
    - Methodology
    - Results and interpretation
    - Conclusion

# MSc/PhD Research proposal

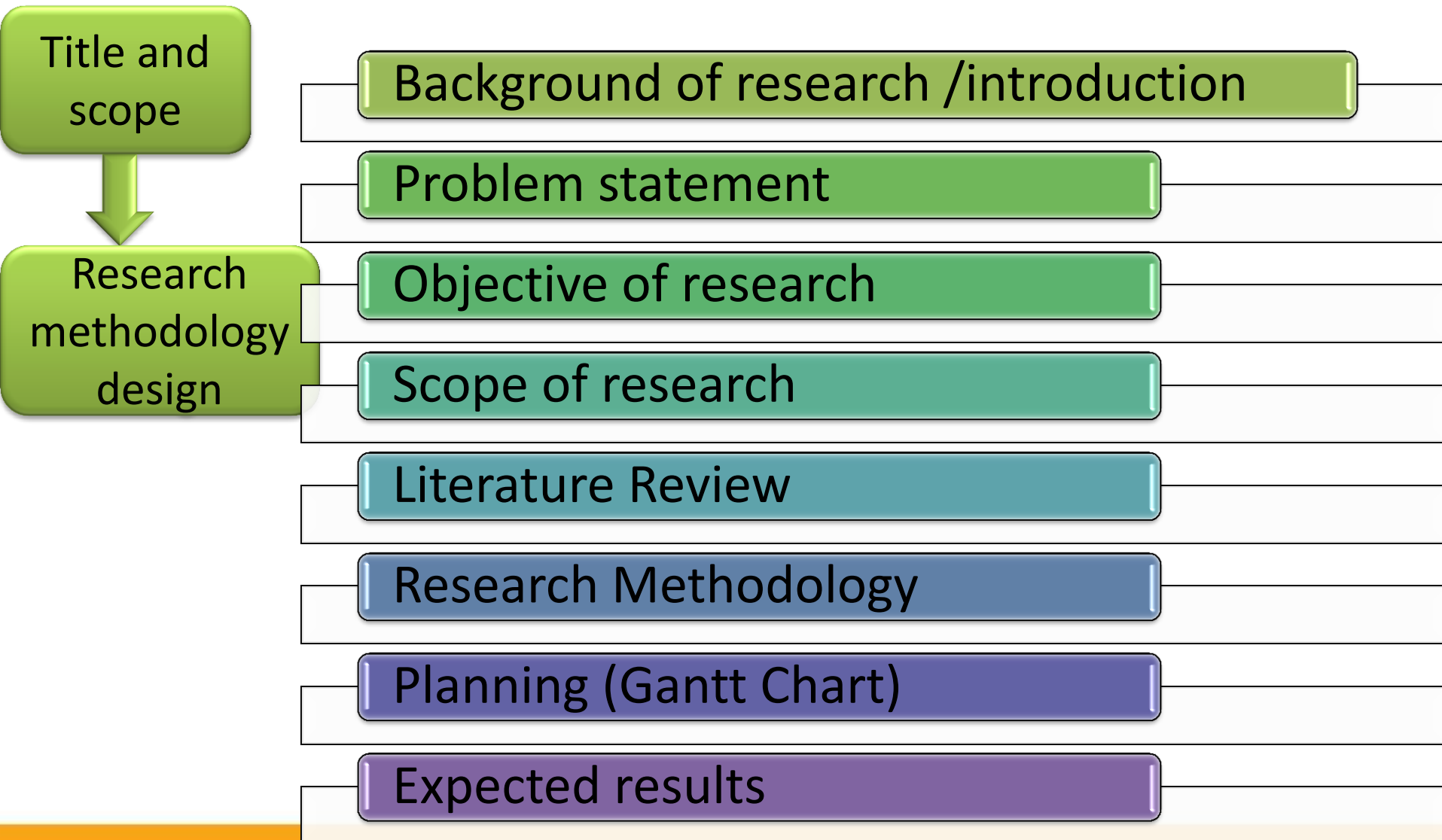
To solve problems & produce something new

- To tell people:
  - What problem you are going to solve?
    - How relevant?
  - How are you going to solve?
    - Methods of solving?
    - Is it feasible & researchable?
  - Where are you going to do?
    - Place?
  - What are the benefits?
    - Worthwhile solving?
    - Something new?

# PhD Proposal

- Must Be New
  - Product/method/equipment/theory/formula/conditions etc → novel
- Contribution to Knowledge
  - A must.

# Typical contents in a research proposal





# Title

- Concise and informative
- Titles are often used in information-retrieval systems.
- Avoid abbreviations and formulae where possible
- Broad or narrow titles depending on the research scope.

# Introduction

- Explanation about research title.
- First impression of a reader.
  - Explain about title, what do you want reader to understand about your title, what problem do you want to solve.
  - How to solve the problem, mention that your research will solve the problem.
  - What do you hope in this study.

# Problem Statement

“a problem statement should be specific, manageable, and written to stimulate reader interest”



ELSEVIER

Available online at [www.sciencedirect.com](http://www.sciencedirect.com)

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Library &amp; Information Science Research 29 (2007) 307–309

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Editorial

What is a problem statement?


In reviewing numerous manuscripts for possible publication in this peer-reviewed journal, as well as reading numerous studies published in other journals, we repeatedly find that problem statements are absent or incomplete, and there seems to be continuing confusion as to what comprises a problem statement. Are purpose and problem statement synonymous? Does a study objective, hypothesis, or summary of the content of the report comprise a problem statement? To add to the confusion, research methods textbooks in the social sciences do not clarify the matter, although they may note that research examines problems or that it engages in problem solving.

# Problem Statement

- Must identify problems that are possible to be solve when you do your research.
- After finish this research, you hope that it can solve the problems that you stated here.
- Each paragraph: write about each problem, reference and how it can be solved.

# Problem statement: In one paragraph

Introduction/explanation about the problem



References/literatures that support this problem

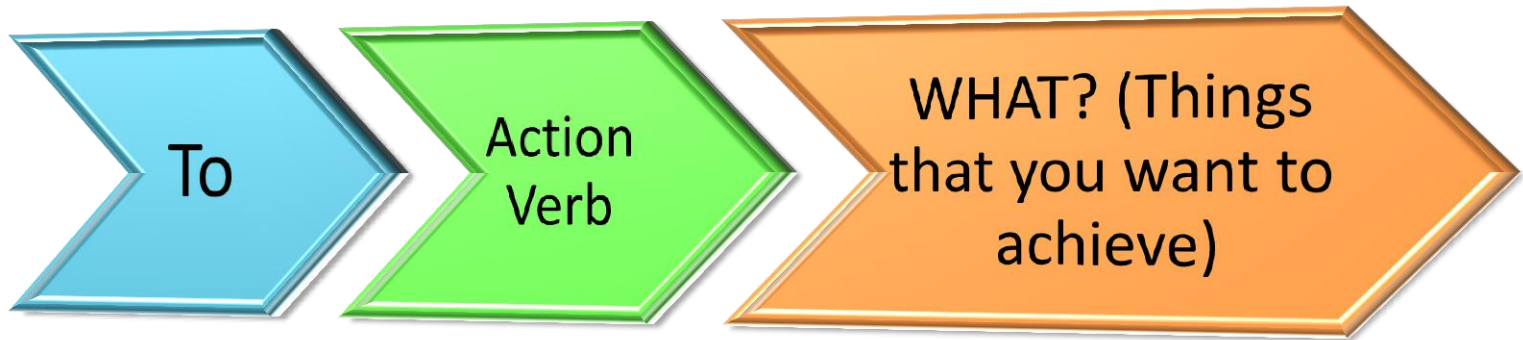


How to solve the problem.

# Research Objectives

- Make in a point form.
  1. Objective 1
  2. Objective 2
  3. Objective 3
- Refer to your research methodology design
- Starting with “to” and verb.

# Research Objectives



## Action Verb

Determine,  
find out,  
verify,  
perform,  
carry out,  
compare *etc.*

Prepare,  
synthesize,  
produce,  
manufacture,  
screen,  
monitor *etc.*

Investigate,  
examine,  
explore,  
study,  
identify *etc.*

# Research Objectives

- What do you want to achieve at the end of research?
- List of specific goals in your research.
- research questions rewritten in statement form.
- At the end of research, conclusion will answer the question from research objectives.



# Scope of Research

- Elaboration of research methodology design – but, in general perspective.
- Tell to reader about the limitation of your research.
- One paragraph that tells everything about your plan of research concisely.

# Significant of Study

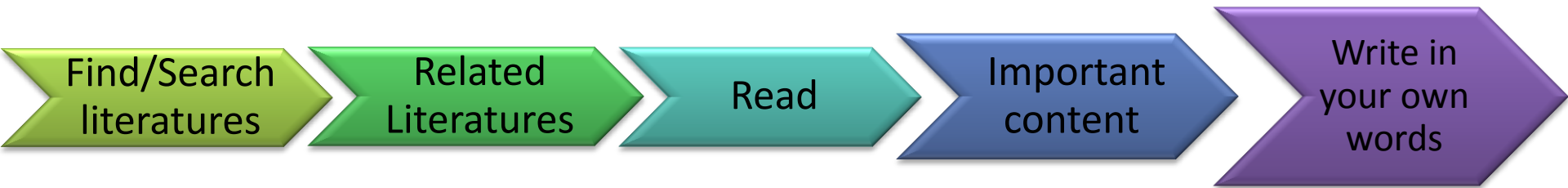
- Answer the question of:
  - What is the benefit of your research to
    - Community
    - Area
    - Academic point of view
    - Global issues
    - What happen if the research that you conducted is successful.

# Significant of Study

- The significance/importance of your research to the world/community/environment etc.
- What do you hope from this research after you finish this research → solve the problem that you stated in problem statement.
- Each research has its own significance.
- We are not doing research if the outcome is not importance.

# Literature review

- What is literature review?
  - You review from other literature.
  - Write essay about what has been done previously in the area of your research.



# Research Methodology Design

1. Understand Title
2. Understand scope of research that supervisor gave to you.
3. Using **SMART** Criteria
4. Flow chart of research planning
5. Remember – Methodology not Method.

# Gantt Chart

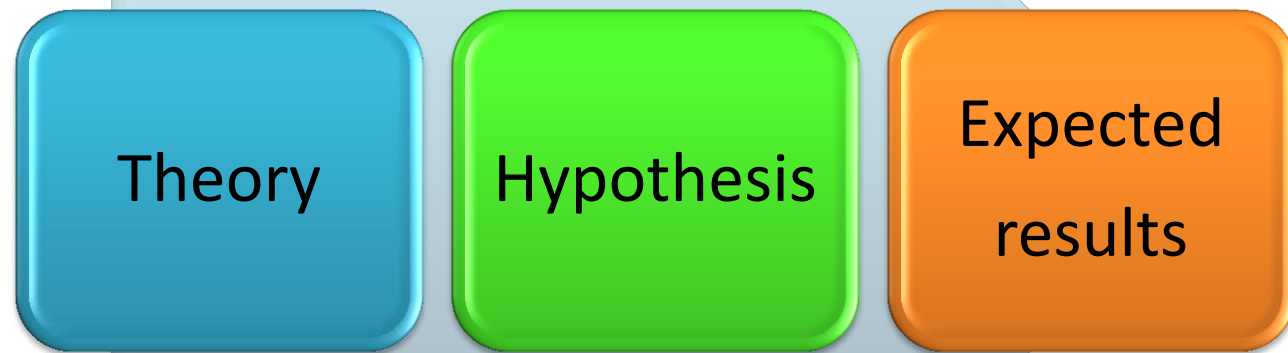
- A Gantt chart is a graphical representation of the duration of tasks against the progression of time.
- A Gantt chart is a useful tool for planning and scheduling projects.
- A Gantt chart is helpful when monitoring a project's progress.
- A Gantt chart is a type of bar chart that illustrates a project schedule.
- Gantt charts illustrate the start and finish dates of the terminal elements and summary elements of a project.
- Terminal elements and summary elements comprise the work breakdown structure of the project.
- Some Gantt charts also show the dependency relationships between activities.
- Use a Gantt chart to plan how long a project should take.
- A Gantt chart lays out the order in which the tasks need to be carried out.
- A Gantt chart lets you see immediately what should have been achieved at any point in time.

<http://www.ganttchart.com/index.html>



# EXPECTED RESULTS

- What do you expect in your research.
- Your hypothesis



- “It is expected in this study that.....”



# TENSES

- Introduction and problem statement: **Present, Future** and **Past** tenses
- Research Objectives: **Present** tense
- Scope of research: **Future** tense
- Significance of study: **Future** tense
- Literature Review: **Present, Future** and **Past** tenses
- Research Methodology Design: **Future** tense
- Gantt Chart and Milestones: **Future** tense
- Expected results: **Future** tense

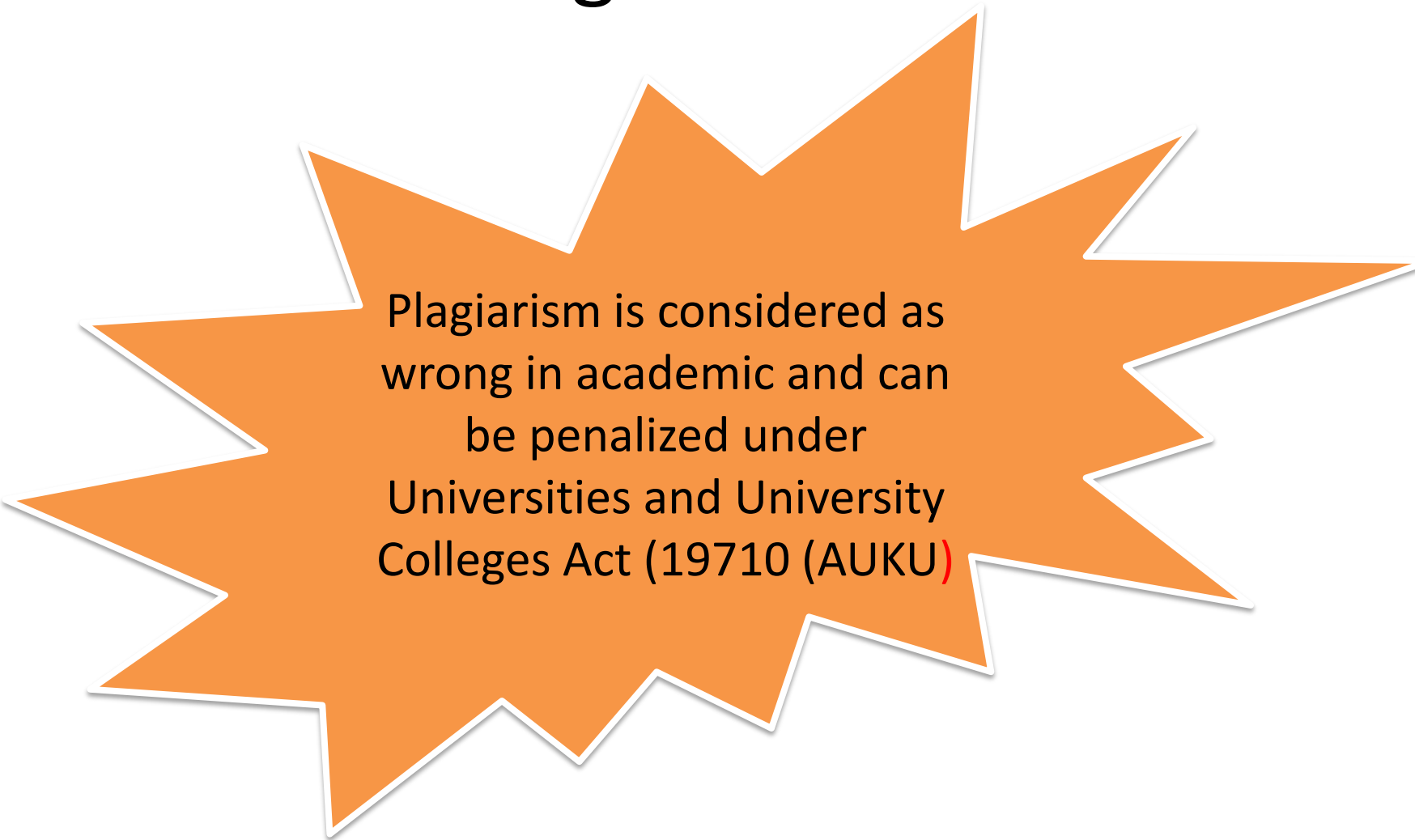
# Plagiarism

- “Use the ideas or words of another as one’s own without crediting the source”.
- Ideas and writing obtained from a source without mention the original/existing source can be considered as plagiarize

# Plagiarism

- Issues/conditions that can be considered as plagiarize:
  - A passage is being copied directly from a text and makes it as their own word.
    - The passage should be write using their own words and mention the source.
  - Idea taken directly from a references without mention the source.
    - Student should put the idea in form of passage and mention the source.

# Plagiarism



Plagiarism is considered as wrong in academic and can be penalized under Universities and University Colleges Act (19710 (AUKU))

# MY PROFILE



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