

# *INFORMATION SYSTEM PROJECT*

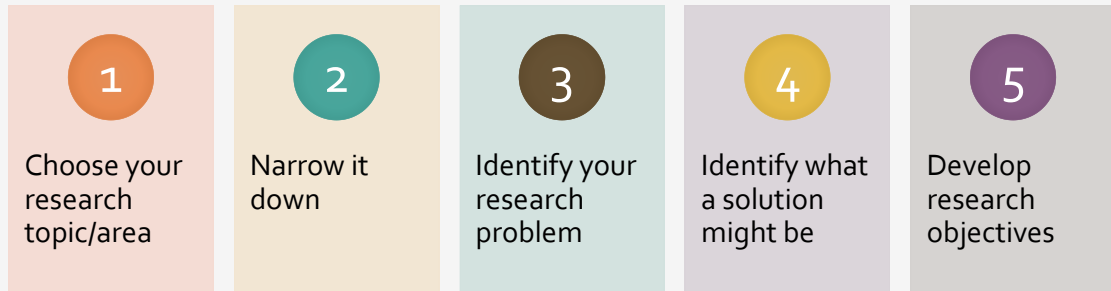
*Research Topic, Research Problem and Objectives*



- The PowerPoint presentation provided gives an outline of steps to follow when coming up with:
  - Research topic
  - Problem statement
  - Research objectives.

*Developed by Victoria Mukami*

## Steps Include



*Developed by Victoria Mukami*

## Step 1 and 2: Research topic/ Area



Come up with some ideas of which field/sector you are interested in.



If possible choose a topic you are familiar with



Try to read more about the area or interact with individuals within the area and:

- Identify problems
- Identify questions
- Identify contradictions
- Identify gaps



Narrow down from a broad area to something you truly understand

*Developed by Victoria Mukami*

# Example

Topic area: University security checks

Specific problems include:

- Students masquerading as others
- Lengthy process of security check
- Forgotten student registration
- Lengthy process of laptop sign in/out

Narrow down

- Focus on the lengthy process it takes to sign in and out laptops especially during rush/peak hours

*Developed by Victoria Mukami*

## Step 3 & 4: Identify the research problem and solution

After the topic and narrowing down the topic then:

- Exactly what will you investigate?
- Why does it matter?

The problem should be a practical problem

- Who does the problem affect?
- Why does it affect them?

Formulate a problem statement with:

- Three or four lines stating the problem and why it is a problem
- Three lines stating what you propose to do about it

*Developed by Victoria Mukami*

- The problem is with the lengthy laptop sign in and registration problem. It is a problem because students are late for class and the security personnel become exhausted. We will design a system that will automate the process by .....

## *Example*

*Developed by Victoria Mukami*

## *Step 5: Formulate objectives*

Objectives are statements, not questions

Objectives are numbered in a list

Objectives need to be SMART. Specific, Measurable, Achievable, Realistic and Time Bound

**S** – What do you want to do?

**M** – How will you know when you have reached it?

**A** – Is it in your power or the system's power to accomplish it?

**R** – Can you realistically achieve it?

**T** – What exactly do you want to accomplish?

*Developed by Victoria Mukami*

## Step 5

- Your objectives are structured using action-words like:
  - assess or reassess
  - develop
  - examine
  - interpret
  - elucidate
  - establish
  - construct

*Developed by Victoria Mukami*

## Step 5

There should be a logical sequence to your objectives

A list of stages: the order in which you'll be finding things out—for example:

- To identify a problem
- To develop a solution
- To design and implement the solution
- To assess its impact

Within CS and IT the logical order revolves around things that the **system** can actually do.

*Developed by Victoria Mukami*

# Examples

To develop a Laptop registration system

- The system should be able to allow scanning of laptop registration and student registration
- The system should allow for signing in and out of laptops by students
- The system will allow security personnel to create reports to show number of laptops signed in.....

Remember you need 5 objectives.

The last objective should be on reports

*Developed by Victoria Mukami*