Mental Health Research Proposal Writeshop

MODULE 1
Formulating and Describing Research Problem

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Objectives

Knowledge

   1. Describe the process involved in the problem
      identification phase of the research process

Skill

   2. State the research problem and the research objectives in
      clear and specific terms

   3. Write the following sections of the research proposal:

      3.1 Statement of the Research Problem

      3.2 Research Objectives

Knowledge

   4. Understand the importance of analyzing and clarifying   the
      research problem before planning/designing the research

Outline

1. Research Problem

- Problem identification and clarification process

- Elements of a research problem statement

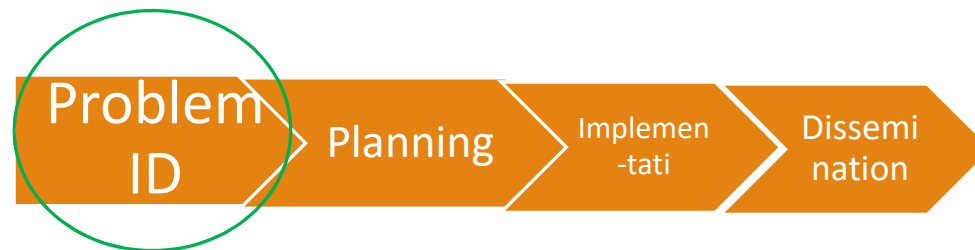## 2. Research Objectives
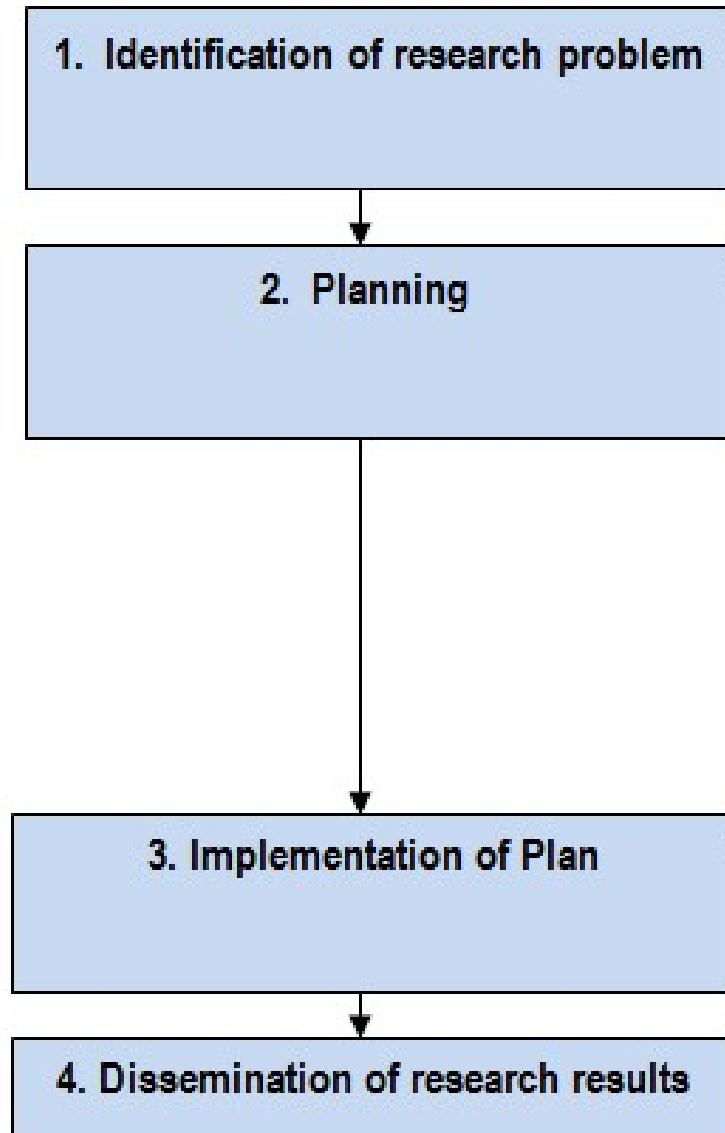
- Qualities of a research objective

REVIEW OF CONCEPTS

❖ **Research**

> scientific inquiry > generate new knowledge

Problem ID

Planning

Implemen -tati

Dissemi nation

Phases

Steps

1. Identification of research problem

- Stating the problem
- Analyzing the problem
- Stating the research question/hypothesis clearly

Research Problem Statement

2. Planning

- Setting the research objectives
- Literature review
- Designing the research
  - Research design
  - Sampling design and sample size
  - Plan for data collection
  - Plan for data processing
  - Plan for data analysis
  - Plan for dissemination of results

Research proposal

3. Implementation of Plan

- Data collection
- Data processing, analysis.interpretation.
- Writing the research report

Research manuscript

4. Dissemination of research results

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Tolabing, 2020

❖ **Health research**

> applied type (vs basic type)

= to address a health concern/problem

Selecting a health problem

↓

Identifying the research problem

❖ Characteristics of Health Research [a]

1. Demands a <u>clear statement </u>of the research problem

2. Requires <u>clear objectives</u>

3. <u>Builds on existing </u>data/work of others (literature)

4. Requires a <u>plan</u>

5. <u>Generalizable</u> (Quantitative research)
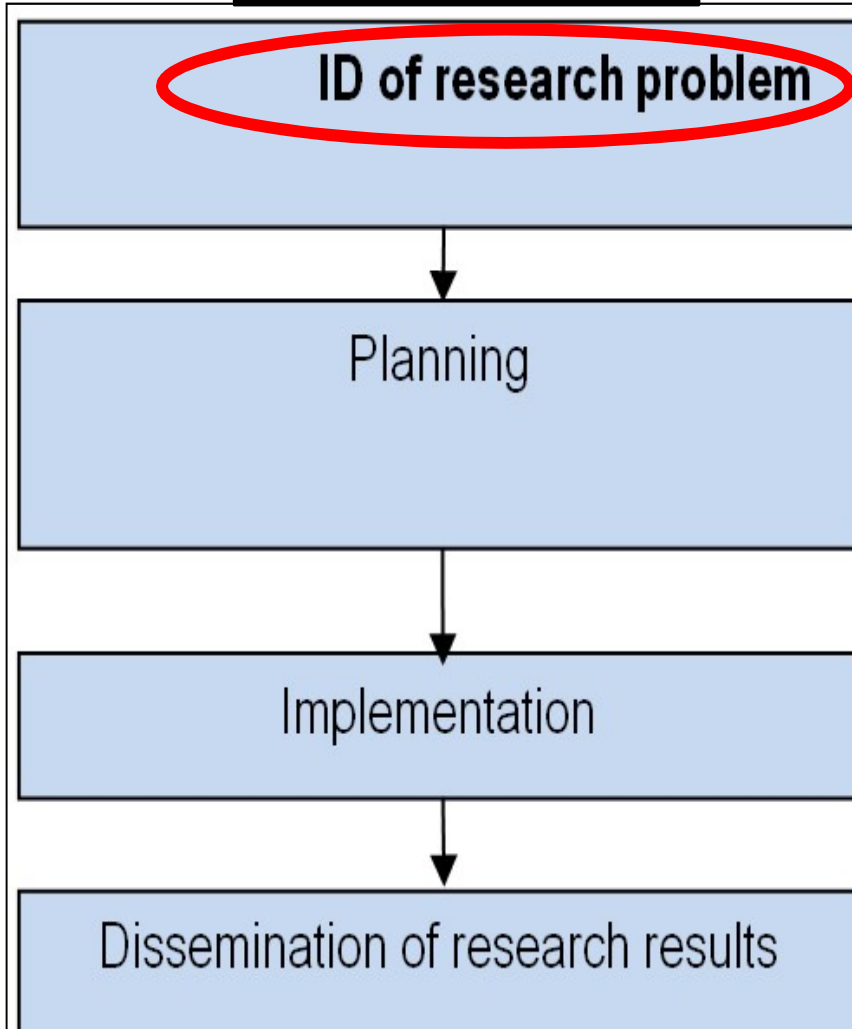
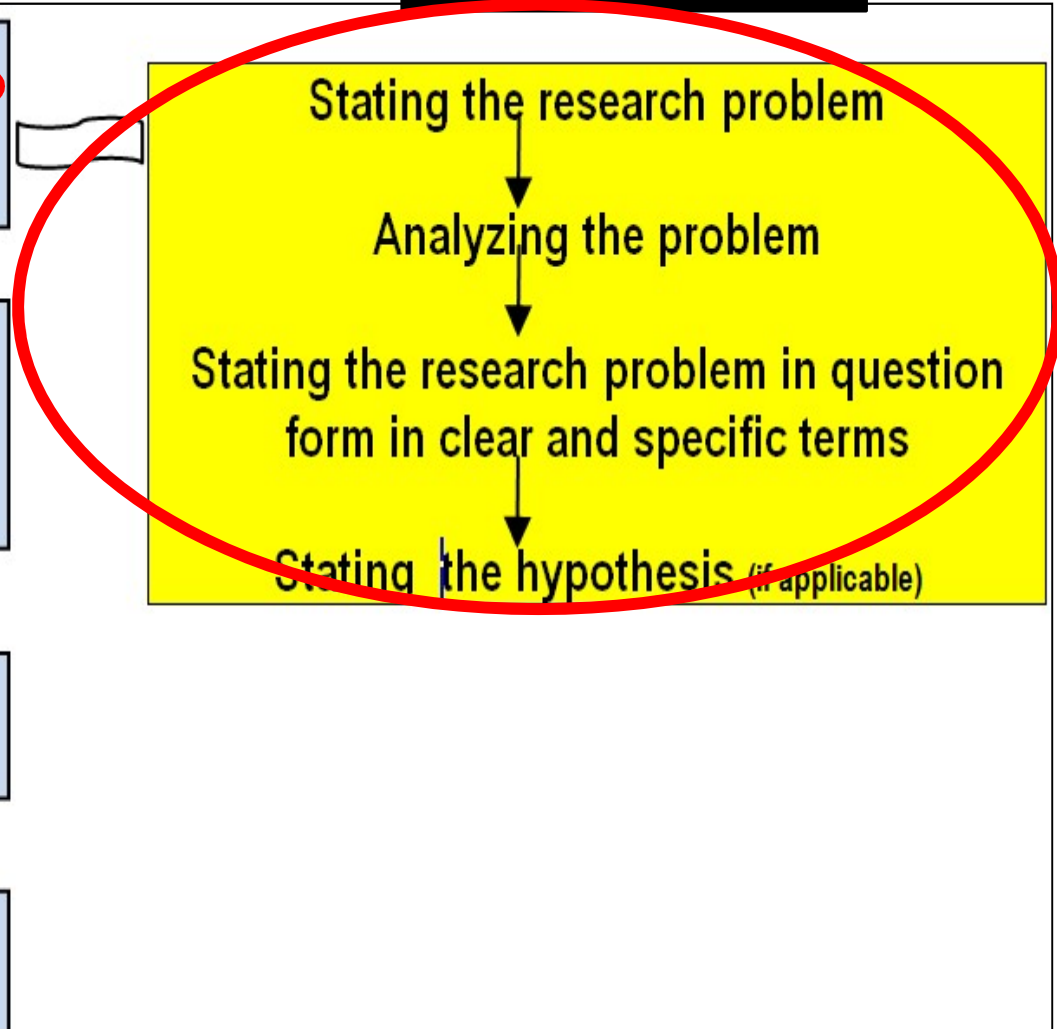6. <u>Empirically</u> verifiable

[a]Sachez, F and Baltazar, J, 1989

PROBLEM IDENTIFICATION
and
CLARIFICATION

PHASES

STEPS

ID of research problem

Planning

Implementation

Dissemination of research results

Stating the research problem

Analyzing the problem

Stating the research problem in question form in clear and specific terms

Stating the hypothesis (if applicable)

1. Stating the research problem

Characteristics of research problem

1. **Addresses a gap in knowledge**

    - to contribute to the evolving body of knowledge

2. **Renders itself to investigation** through data collection

    - Narrow down the problem in researchable terms

    <u>FOCUSED</u> on a certain characteristic/s (**study variable***) that can be measured from the **study unit**

3. Problem solving process: **significant** and **ethical**

*for quantitative research

Research Problem IS

Health problem/concern where there is gap in knowledge

> **requires research for its solution**
>
> **based on knowledge generated**

Types of research questions [a, b]

1. Quantify to estimate

2. Characteristic to describe

3. Association to establish

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[a]Sachez, F and Baltazar, J, 1989; [b] for quantitative research

Research Problem IS NOT

1. NOT a research topic

Research problem ≠ Research topic

- to solve/address - to be answered	- to read up about

Research Problem IS NOT

2. NOT about absence of something

a. **"There is no database of MH services and interventions in the Philippines"**
   - Is a health concern
   - Not a research problem

b. **"There are no locally developed/tested mobile apps for MH screening"**
   - Is a health concern
   - Not a research problem

RESEARCH PROBLEM?

1. **Is traditional medicine use for mental health widely used in Region 7?** Research problem

2. **Philhealth members unable to avail of Philhealth benefits during hospitalization** Health concern, not research problem

3. **There is no MH service facility in Province X"**

   Health concern, not a research problem

4 **. What is the attitude of teenagers towards suicide?**

   Research problem

5. Philhealth members are unable to avail of Philhealth benefits for hospitalization Health concern, not research problem

X Researchable	✓ Researchable
Philhealth members unable to avail of Philhealth benefits during hospitalization	**1. How common is the problem of inability of Philhealth members to avail of benefits?** - Quantity to estimate **2. Why are Philhealth members unable to avail of benefits for hospitalization?** - Characteristic to describe **3. Is non-availment of benefits for hospitalization the problem attributable to the health facility or the Philhealth member or both?** - Association to establish

1. Stating the research problem

2. Analyzing the research problem

Analyze the problem

1. Determine if the research problem is

- ✓Feasible

- ✓Significant

- ✓Ethical

Feasible?

practicality of undertaking research

Is there enough time and money to undertake research?

Are there enough study participants and are the target participants willing to participate?

Is the method of collecting data or measuring the study variables feasible to implement?

Is there available facility/equipment for measuring the variables of interest?

Are there ethical issues?

Significance?

- **Fill gap in knowledge**
- Lead to practical application in health care or
   service delivery
- Improve delivery of health care services
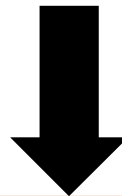- improve the practice of profession

⟹ So what if you have the answer to the
research question?

Analyze the problem

2. Dissect and clarify the problem

Identify related components of the problem

1. Help define the scope of the problem
2. Clarify the focus of the problem

"What is the epidemiologic profile of completed suicide among residents of Western Visayas" (Narte, F. 2020)

Components?

Person	Place	Time
• Age • Social class • Reported reason for committing suicide • Reported method of suicide • Unemployment and financial crisis	Urban-rural	• **Month of occurrence** • **Time of occurrence**

What is the KAP on HIV among Seafarers ?

Components?

Knowledge	Attitude	Practice
• Cause • Transmission • Prevention • Treatment	• Towards PLHIV • Towards use of condom	Condom use

Analyze the problem

1. Determine if the research problem is feasible, significant, ethical

2. Dissect the research problem

1. Stating the research problem

2. Analyzing the research problem

3. ==Stating the problem in clear and specific terms== (and hypothesis, if applicable)

Research <u>demands</u> a clear statement of the research problem/Q

- Specifies the following (elements)

1. **Study variable/s**

2. **Study unit** (Ex. person, household, bgry, document, time)

3. **Setting and time, if applicable**

Three types of research questions

1) Quantity
Suggested format/elements: [What is the (quantity) of (study variable) among (study unit)] in (study setting/time, if applicable) **Examples**: 1. What is the prevalence of completed suicide among women in NCR? 2. What is the mean age of school children who have suicide ideation? 3. What is the accuracy of Covid-19 Antibody-based test kits in detecting Covid-19 among asymptomatics?

Three types of research questions

2) Characteristic to describe
Format/element: What is/are (study variable/s) of (characteristic to describe) among (study unit) in (study setting, if applicable) **Examples:** 1. "What is the epidemiologic profile of completed suicide among residents of Western Visayas" (Narte, F. 2020) 2. What is the attitude of teenagers towards suicide?

Three types of research questions

Format/elements:

Is (variable X -intervention vs. control) associated with (variable Y - effect) among (study unit) in (study setting, if applicable)

Examples:

1. Is MH service use associated with suicidal ideation and attempts among children with a mental health disorder?

2. "Is ECMO compared with mechanical ventilation, **effective in improving** survival among **critically ill COVID-19 patients with acute respiratory distress syndrome,**

For intervention studies, the PICO format is useful in stating the research question

Elements of the problem (Hanes, 2006)	
P – patients/pop	Study participants
I - Intervention	The condition that is being tested
C – comparator	One to which the intervention will be compared (Control)
O - outcomes	Characteristic hypothesized to be affected by the intervention effect outcome and safety outcome

PICO format

Population	Intervention	Comparator	Outcome
Patient group Non-patient group	Clinical = Medical/surgical Public health = preventive, promotive, etc	Standard of care Placebo (if ethical)	**Effect of interest** - Clinical parameters - Morbidity - Mortality - Satisfaction level - Efficiency level **Safety outcome**

Research Question (PICO)

Clinical efficacy/effectiveness

Among critically ill COVID-19 patients with acute respiratory distress syndrome, is ECMO alone or combined with mechanical Ventilation, compared to mechanical ventilation alone, is safe and effective in improving survival? (hta.doh.gov.ph)

P – critically ill Covid-19 pt with ARDS
I – ECMO ; ECMO + mechanical vent
C – Mechanical vent
O – effect= survival; safety outcome

Analyze the problem

1. Determine if the research problem is feasible, significant, ethical

2. Dissect the research problem

3. **State the problem and the subproblems in <u>clear</u> and <u>specific</u> terms**

Main Problem

"What is the epidemiologic profile of completed suicide among residents of Western Visayas" (Narte, F. 2020)

Sub-problems

1. What is the distribution of completed suicide according to:
    1.1. Age
    1.2. Social class
    1.3. Reported reason for committing suicide
    1.4. Reported method of suicide

2. What is the geographic distribution of suicide cases according to place of residence

3. What is the time distribution of completed suicide according to:
    3.1 month of occurrence
    3.2 time of occurrence

Main problem

What is the prevalence of depression among students during the Covid-19 pandemic?

Sub-problems

1.What is the distribution of depression according to

   1.1 sociodemographic characteristics (specify)

   1.2 health literacy level

   1.3 perceived level of risk of acquiring the Covid-19

2. Is there a significant difference in the prevalence of depression across

   2.1 selected sociodemographic characteristics

   2.2 health literacy level

   2.3.perceived degree of risk of acquiring Covid-19

Main problem

What is the KAP on HIV among male seafarers ?

Sub-problems

1. **What is the level of knowledge … on HIV?**

    1.1 cause
    1.2 transmission
    1.3 prevention
    1.4 treatment

2. **What is the attitude of … towards**
    2.1 PLHIV?
    2.2 use of condom?

3. **What proportion of seafarers practice HIV preventive measures**
    3.1 use condom with commercial sex workers?
    3.2 ...

Analyze the problem

1. Determine if the research problem is

2. Dissect the research problem

3. State the problem and the subproblems in clear and specific terms

4. **Formulate a hypothesis, if applicable**

4. Formulating a hypothesis, if applicable

> applicable for research questions that are of the association type

> Statement of the expected relationship between variables (cause-effect relationship)

IDENTIFICATION AND CLARIFICATION OF THE RESEARCH PROBLEM

Identifying the Research Problem

↓

Analyzing Research Problem

↓

Formulating the Research
and hypothesis, if applicable

Describing the Research Problem

DESCRIBING THE RESEARCH PROBLEM (Statement of the Research Problem)

DESCRIBING THE RESEARCH PROBLEM

➢ **concise explanation of what is to be researched about and its context (1-2 paragraphs)**

➢ **Purpose is to:**
◦ Introduce the reader to the problem/issue to be addressed
◦ Place the problem/issue in the context of what is known and what is unknown
◦ Specify the research questions and research hypothesis
◦ Provide the framework for reporting the result

https://library.sacredheart.edu/c.php?g=29803&p=185918

DESCRIBING THE RESEARCH PROBLEM

Description is part of the research proposal

- ➤ Introduction section
- ➤ Stand alone section

[Statement of the Research Problem]

PROBLEM STATEMENT FORMAT

Part 1. Describe the ideal/desired situation about the health concern (or what is known about the health concern)

Part 2. Explain the current situation and how it falls short of the ideal/desired situation (or what should be known about the health concern)

Part 3. Explain how the research will contribute to moving the current situation to the ideal/desired situation
> convincing enough

Part 4. State the research question and hypothesis, if applicable

Factors influencing choice of skilled birth attendance at antenatal care (Nyongesa, C. et. al 2018)

According to the World Health Organization (WHO), 80% of maternal deaths are preventable, even in low income countries. Skilled attendance at delivery has been shown to be a surrogate marker for maternal mortality as approximately 16–33% of maternal deaths can be averted if supervised by a skilled professional. The proportion of births attended by skilled health personnel is thus a benchmark used to monitor progress towards the achievement of MDG five and maternal health in the post-2015 era. Since service utilization is greatly determined by the perceived quality of care, it is crucial to comprehend the women's perception of antenatal care (ANC) as an entry point into the continuum of maternal care and their level of satisfaction with the services provided. Several studies have examined factors that promote or hinder use of maternal health services. However, these studies assessed factors within specific age groups, in specific regions, quality of health care and mainly within public health institutions. Little is known of the demand for skilled birth attendance and which factors influence the choice of place of delivery. The choice of place of delivery affects if one receives skilled attendance at delivery, which in turn impacts maternal mortality. This study will examine factors that influence the choice of skilled attendance at ANC

Identifying the Research Problem

Analyzing Research Problem

1) Determine significance, feasibility, ethical considerations

2) Dissect and identify related components

3). State the problem clearly specifying the variable and study unit

(setting and time, if applicable); 4) hypothesis, if applicable

Describing the Research Problem

Describe the ideal/desired situation about the area of concern   (or what is known about the area of concern)

Explain the current situation and how it falls short of the ideal/desired situation (or what should be known)

Explain how the research will contribute to moving the current situation to the ideal/desired situation

State the research question clearly(variable and study unit) and hypothesis, if applicable

Importance of Research Problem

basis and guide in

formulating the

research objectives

1. Identification of research problem

- Stating the problem
- Analyzing the problem
- Stating the research question/hypothesis clearly

Research Question

2. Planning

- Setting the research objectives
- Literature review
- Designing the research

  Research design

  Sampling design and sample size

  Plan for data collection

  Plan for data processing

  Plan for data analysis

  Plan for dissemination of results

Research proposal

3. Implementation of Plan

- Data collection
- Data processing, analysis,interpretation
- Writing the research report

Research manuscript

4. Dissemination of research results

Objective Setting

Research Objective

Declarative statement that defines the expectations of the study: **GOAL OF THE STUDY**

Research Objective

Research objective IS	*Research objective IS NOT*
➢ **What you want to FIND OUT**	➢ **IS NOT A PROJECT OR PROGRAM OBJECTIVE**
➢ **What knowledge will be generated**	• To decrease the prevalence of depression…by 20% in 2 years
	• To increase utilization of MH services…
• **To determine the prevalence of depression among students during the Covid -19 pandemic**	➢ **IS NOT AN ACTIVITY OBJECTIVE**
	• To design
• **To determine the effectiveness of a mobile application for early diagnosis of mental health problems**	• To conduct systematic review …
	• To gather information about
	• To collate data…
	• To generate…
	• To recommend a policy on …

Types of objectives

General - overall goal

> *derived from the statement of the research question*

Specific - specific purpose

> *derived from the components of the problem (subproblems)*

> *should be **relevant to the general objective***

   - will contribute to the overall goal

Setting the research objective

Transform research question *from interrogative to declarative* sentence starting with the phrase

- To determine …

- To describe...

Qualities of research objective - SMART

Specific

Measurable

Attainable

Realistic

Time-bound

To determine the prevalence of depression among students during the Covid-19 pandemic	
Specific	1) **study variable** = depression (main); age and residence 2) **study unit** from whom data will be collected = students
Measurable	1) **empirically verifiable measurement of the variable** Where appropriate, summary measure is indicated incidence, proportion, average, etc. can add to the variable being measurable = prevalence

	To determine the prevalence of use of household herbal preparation for cough and colds among adult residents of Region 2.
Attainable	**Research problem can be answered by the data that will be collected** = prevalence of use can be obtained by getting the proportion of users = # users / #users + #non-users
Realistic	**A practical method of collecting data is available** = query method
Time-bound	**Time element specified**, if applicable = not applicable for the problem since this is not a longitudinal type of study. It is a descriptive type and the measure of interest is prevalence which refers to the existing cases at the time of the study or The research can be accomplished within the study period

= SMART

Research Question ➡️ Research Objective

> not difficult if **Research Question** is clear and specific (required elements are indicated)

To determine the effect of waste in Province X in 2013? SMART or NOT?

S	Study variable in specific terms? Study unit/population indicated?	
M	Empirical evidence of variable?	
A	Variable information will answer to the research question	
R	Practical method for measuring the variable is available, accessible and affordable	
T	Relevant time is indicated, if applicable	

To determine the effect of waste in Province X in 2013? SMART or NOT?

S	Study variable in specific terms?	**X**
	Study unit/population indicated?	**X**
M	Empirical evidence of variable?	**–**
A	Variable information will answer to the research question	**–**
R	Practical method for measuring the variable is available, accessible and affordable	**–**
T	Relevant time is indicated, if applicable	**–**

SUMMARY

Problem Identification process

Problem analysis

- clarify the statement

- analyze the problem

(feasibility, significance, <u>related components</u>)

focus/scope, basis for stating   subproblems.

> clear and specific statement of the research problem

Setting of research objectives

> clear and specific statement of the research objectives
(SMART)

References

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Thank you