

Research Methodology

Lesson 2 – Quantitative Research Process

by

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Objectives of this course

- To understand the research processes.
- To develop the theoretical framework.
- To identify and label the variables.
- To state the proper hypothesis statement.

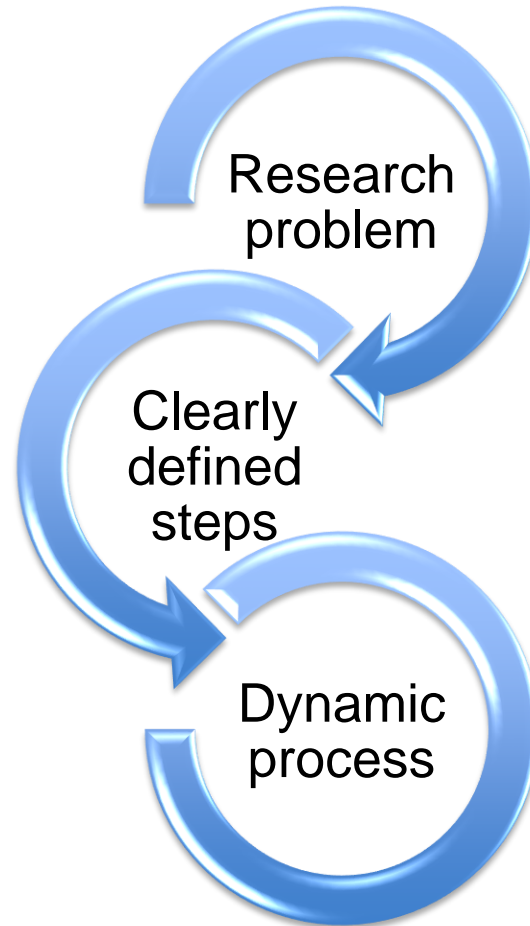
Course Synopsis

This course is discussed the quantitative research processes, variable identification and labeling, theoretical framework design and hypothesis statement.

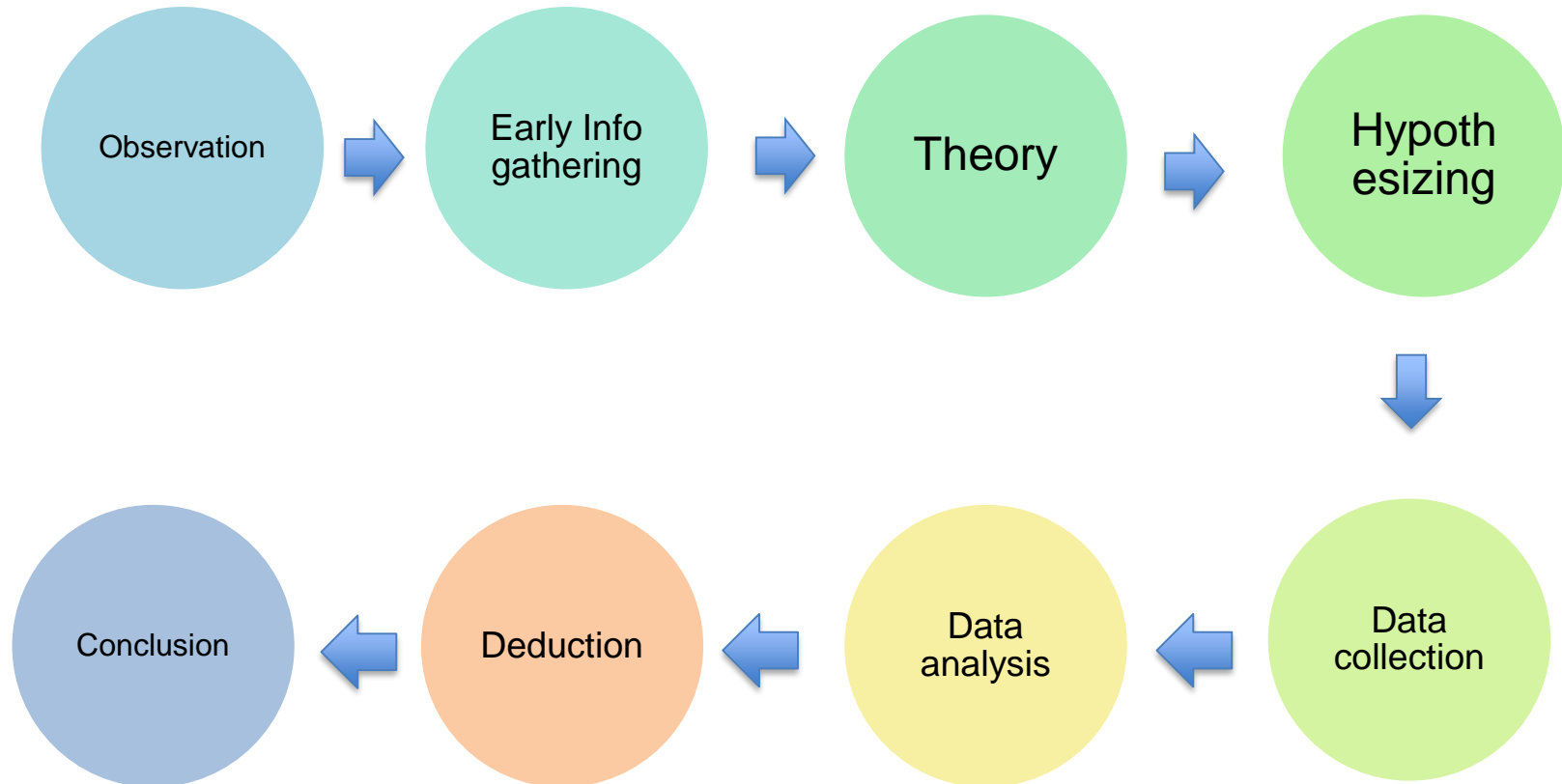
Expected outcomes

- Students are able to understand the quantitative research process.
- The theoretical framework was designed when the students are able to explain the relationship using theory.
- Students are expected to draw the theoretical framework and state the directional hypothesis.

Research process



A deductive approach



Problem definition

Answer the specific research problem using some scientific research questions.

Problem statement

- A real problem.
- Needs further investigation.
- Significant contribution.
- Data needed is collectible.
- Solution for decision making.

Theoretical framework

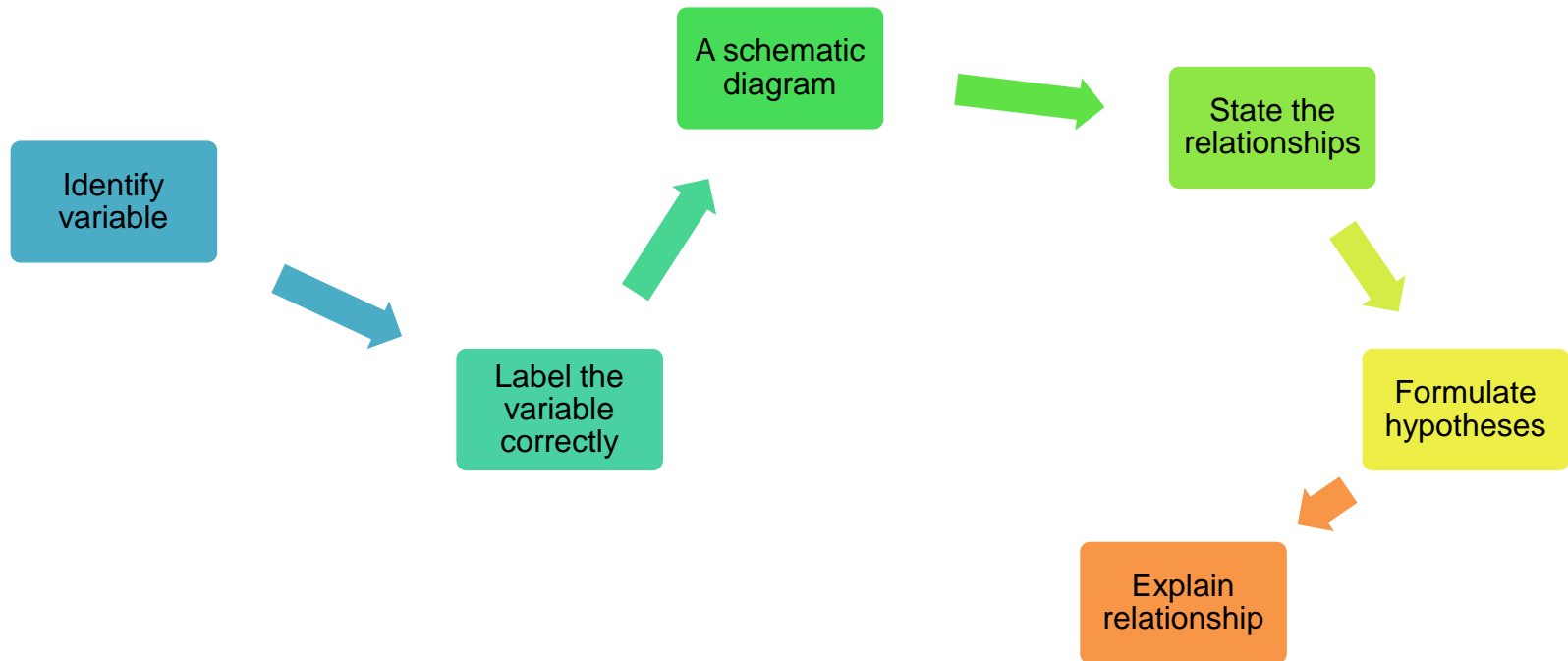
Using a conceptual model with underpinning theory to explain the link from one variable to another variable. It will assist a researcher to solve research problem.



<https://pxhere.com>



Steps to develop theoretical framework



Type of variables

- Dependent - DV
- Independent - IV
- Moderating - MV
- Intervening - IVV
- Extraneous (control)

Dependent Variable

Primary interest/ focus of study

Independent Variable

- Factor influences the dependent variable.
- Either in a positive or a negative way.

Moderating Variable

Contributory effect on the original stated link between predictors – outcomes.

Extraneous (control)

Like predictors but not main interest

Intervening variable

Variable in the middle of predictors and outcomes.

Hypotheses

A testable statement to examine predictors and outcomes

Type of hypotheses

- Descriptive hypotheses – percentage of usage
- Relational hypotheses – testing predictors and outcomes

Summary

- The research process should start from clear problem identification and research gaps.
- Theoretical framework is useful to visualize the relationship among variable.
- The hypothesis stated should be in the testable form.