

UNIT II: Measurement

SWK 3300
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Research may be conducted at four main levels of knowledge:

- 1. Exploratory
- 2. Descriptive
- 3. Explanatory
- 4. Developmental (also called Intervention or Evaluative)

These levels form the research knowledge continuum (from low high). It is important to establish what level is being addressed in a project before a research question is designed.

How is a good research question developed?

- focus on what you are trying to accomplish
- “test” the question with intended population
- be sure that the question can be answered

Literature review

searching what has already been done
learning how terms were defined and used

Unit of Analysis

what (or whom) is being studied
individuals, groups, social artifacts

Ecological Fallacy

making assertions about an individual when the unit of analysis was a group

Exception Fallacy

making a conclusion based upon an exceptional case

Reductionism

claiming that one variable was responsible for the observed outcome

Spuriousness

A casual explanation that is inaccurate due to an unmeasured variable

Tautology

Repetition of an idea, statement or word instead of exploration of variable interactions

Teleology

An explanation that can not be tested because the independent variable is an idea or goal

Concepts and the process of conceptualization

- also called a “term”, summary of a set of observations, feelings or ideas
- when a concept is concrete and known in a culture it does not need an explicit definition
- creating an explicit definition is known as conceptualization

Variables

characteristics or properties that may vary

There are two types of variables in research:

1. Independent variable (affect, catalyst)
2. Dependent variable (changes due to interaction)

The way that a variable is conceptualized will impact the level of measurement used in a study. Levels of measurement in research categorize the degree of precision that can be obtained about a given phenomenon.

There are four levels of measurement (continuum from low to high)

- 1. Nominal
- 2. Ordinal
- 3. Interval
- 4. Ratio

Operationalization is:

link between hypothesis and measurement
specifying steps that will be taken in measuring a specific variable

What distinguishes a “good”
research question versus a
“bad” (or even “mediocre”) one:

Feasibility
Social importance
Scientific relevance