

ECAD7004: Researching the Learning: what, how and why am I teaching?

Session 8



Consider your research...



An example:

How can we improve **xxx** through the use of **xxx** in **xxx**?

Operational Definitions

An operational definition, when applied to data collection, is a clear, concise detailed definition of a measure. The need for operational definitions is fundamental when collecting all types of data. It is particularly important when a decision is being made about whether something is correct or incorrect, or when a visual check is being made where there is room for confusion.

- ▶ An operational definition:
 - ▶ Must be valid for and specific to the research - it must be used to gather data to help you address your research question;
 - ▶ Is always context-specific, designed for each research project.

Matthew and Ross, 2010

Operational Definition

An Operational Definition is a detailed description that defines a measure to such a degree that everyone collects data the same way.

**OP
DEF**

of Sandwiches:

The total number of items with something delicious between two slices of bread

1, 2, 3... wait
a second!



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Operational Definitions

TABLE 4.1 Operational Definitions

Conceptual Variable	Operational Definitions
Employee satisfaction	Number of days per month that t Rating of job satisfaction from 1 (
Aggression	Number of presses of a button th Time taken to honk the horn at the car ahead after a stoplight turns green
Attraction	Number of inches that an individual places his or her chair away from another person Number of millimeters of pupil dilation when one person looks at another
Depression	Number of negative words used in a creative story Number of appointments with a psychotherapist
Decision-making	Number of people correctly solving a group performance task Speed at which a task is solved

Variable	Operational definition	Value
Intelligence	Score on the Verbal SAT test (a standardized test)	550
Age	Response to questionnaire (a self-report measure)	21
Intelligence	Speed of repairing engine (a behavioral definition)	2 hrs
Intelligence	Number of hairs on left thumb (a stupid definition)	7

Reflect on...



- ▶ Have you operationalised the concepts in your research question?
- ▶ Do your definitions enable you to get data that will answer your questions?
- ▶ Do your definitions help you to describe the concept in terms you can identify and measure?
- ▶ Will you be collecting data from or about the people and situations you say you are?
- ▶ Are your definitions specific to the context and culture setting of your research?
- ▶ Are you sure that you are able to get the data you think you are getting?

Test your question

Targeted Enough

Read your question to someone outside of your course – do they understand what you are planning to look at and why?

Answerable

Can you actually answer your question?
What evidence do you need to enable you to answer?

Realistic

Can you find everything you need, and can you find it ethically?

Doable

Can you answer this question in the time you have available?

Tick the box if your question meets the criteria:

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