

Definition of Research Terms

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- Scientific research is systematic, controlled, empirical, and critical investigation of natural phenomena guided by theory and hypotheses about presumed relations among such phenomena
(Kerlinger, 1986, p9) phenomena

Definitions of Research

Research is diligent ,
systematic inquiry or
investigation to validate
and refine existing
knowledge and generate
new knowledge

**Research Definition, Burns and
Grove, 1997, p34**

- Nursing research involves systematic search for and validation of knowledge about issues of importance to the nursing profession



**Research Definition-Polit and
Hungler, 1999, p3**

- Educational research can be viewed as an endeavour to expand understanding of teaching and learning situations covering the cognitive affective and psychomotor domains



Research definition, Black, 1003. p1

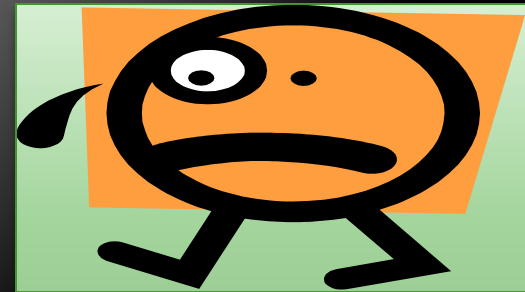
- An operational definition assigns meaning to a construct or a variable by specifying the activities or operation necessary to measure it (Kerlinger, 1992, p28-29)
- An operational definition is developed so that the variable can be measured or manipulated in study (Burns and Grove, 1997, p48)

Operational Definition

- Operational definition specifies how the concepts will be measured in terms of the research protocol or measuring instrument to be used . The definition should be so specific that another researcher replicating the study could reconstruct the measurement technique in the exact same way, based on an operational definition of the earlier study.

**Operational definition-
Talbot,1995, pp48-49**

- Operationalization is the process of translating a scientific hypothesis into operational terms. Operational definitions are needed since it is impossible to search a construct unless it is measurable



Treece and Treece, 1982. 110-111

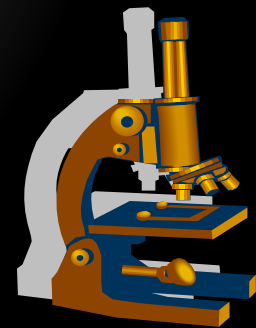
- There are two kinds of operational definitions:
- A) Measured : defines how a variable will be measured
- B) Experimental: Spells out the details (operations) of the investigator's manipulation of a variable



Types of operational definitions

- Assumptions refer to basic principles that are accepted on faith, or assumed to be true without proof or verification (Polit and Hungler, 1995, p22)
- Assumptions are statements taken for granted or considered true, even though these statements have not been scientifically tested (Burns and Grove, 1997, p48)

Assumptions



- According to Talbot there are 4 types of assumptions:
- 1. Universal assumptions
- 2. Theoretically based assumptions
- 3. Empirically based assumptions
- 4. Research based assumptions



Types of assumptions

- Universal assumptions are beliefs accepted as universal truth by a majority of population. These help us to explain the world around us.
- e.g.. Man is a bio-psychosocial, cultural, spiritual being. Many theories are built on this universal assumption yet this phenomenon is not measureable



Universal Assumptions

- Theoretically based assumptions are beliefs associated with specific theory, one must accept the underlying assumptions associated with that theory , e.g. Assumptions given by Roger's theory, Calista Roy's adaptation theory

Theoretically based assumptions

- Empirically based assumptions are those derived from previous research studies. These are considered to be most reliable
- E.g. Study of Lindsay et al focused on using programmed instructions for cardiac rehabilitation in patients following a myocardial infarction



Empirical assumptions

- Research assumptions are beliefs about the research design itself. For research studies assumptions are embedded in the theoretical framework, the research methodology, the statistical analyses and interpretation of the findings. One assumption related to research methodology is that the researcher assumes that all the participants are going to respond truthfully whether in an interview or on a questionnaire

Research Assumptions



- The assumptions may simply be implied or explicitly stated in the text of the study.
- In research journal articles assumptions are frequently unstated because of space constraints yet are implied through out the article . In theses assumptions are stated explicitly

Explicit and Implicit assumptions

- 1. People want to assume control over their own health problem
- Stress should be avoided
- People are aware of the experiences that most affect their life choices
- Health is a priority for most people
- Most measurable attitudes are held strongly enough to direct behavior
- Health professionals view health care in different manner than lay persons
- Continued next frame

Sources of assumptions

- 8. Human biological and chemical factors show less variation than do cultural and social factors.
- 9. The Nursing process is the best way of conceptualizing
- 10. Statistical significant differences relate to the variable(s)
 - Continued next frame

Common assumptions in nursing

- 11. People operate on the basis of cognitive information
- !2. Increased knowledge about an event lowers anxiety about the event
- 13. Receipt of health care at home is preferable to receipt of care in an institution

Williams, 1980, p48 ; Burns 1998, p53



Thank you