

Medical Laboratory Sciences
Introduction to research
MLS RESH 326
Batch 9 – 3rd year (sem. 6)
Quality in Research” L 20,21”

DR. FATIMA ELSHAIKH

0916583988

**Quality, Trustworthiness and
Validity of Qualitative Data**

The Lecture will discuss

- ▶ Trustworthiness and Validity of Qualitative Research
- ▶ Elements of a good Research Quality

Trustworthiness and Validity of Qualitative Data

“Creativity must be preserved within qualitative research, but not at the expense of the quality of the science” (Maxwell, 1990)

Trustworthiness and Validity of Qualitative Data

- **Because of the subjective nature of qualitative methods, researchers have looked to develop ways in which **trustworthiness** can be applied to this type of research**
- **This is quite different from the conventional experimental (quantitative) precedent of attempting to show validity, soundness, and significance.**

Trustworthiness in Qualitative Research

In any qualitative research project, **four criteria for trustworthiness** (standards of Qualitative Research) demand attention:

- **credibility** (in preference to internal validity);
- **transferability** (in preference to external validity/generalizability);
- **dependability** (in preference to reliability);
- **confirmability** (in preference to objectivity/neutrality).

Standards of Quantitative Research

Credibility *(internal validity*)*

- Defined as adequate representation of group or situation studied
- Quality of the data
- Demonstrated by prolonged engagement, persistent observation, triangulation, external checks, negative case analysis, member checking

*(*Standards of Quantitative Research)*

Credibility

I'm your friendly computer.
Trust me.



Triangulation is the single most important method that ensures credibility in qualitative research.



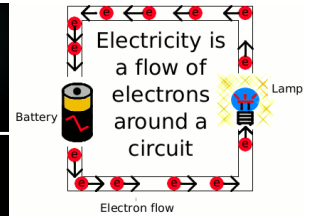
Transferability (*external validity**)



- Defined as the degree of similarity between research site/participants and others
- Demonstrated by thick description, reporting of information for judgments about transferability
- Joint responsibility of researcher and consumer

(*Standards of Quantitative Research)

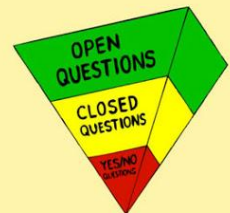
Dependability (*reliability**)



- Defined as differentiating real perspective/behavior of respondents from reactive effects of research.
- Demonstrated by audit of data collection processes
 - Quality of interaction with subjects
 - External review of data

(*Standards of Quantitative Research)

Confirmability (*objectivity**)



- Defined as the adequacy of the results, interpretations, and recommendations
- Demonstrated by audit of analytic procedures
 - Data processing and reduction
 - Data review and interpretation
 - External auditor

(*Standards of Quantitative Research)

• “Incorporating the notion of ethics, the authors develop a cluster of terms around which they argue that qualitative research can meaningfully speak about rigor: **attentiveness, empathy, carefulness, sensitivity, respect, reflection, conscientiousness, engagement, awareness and openness**” (Davies & Dodd, 2002, p. 279)

**Trustworthiness and Validity of
Qualitative Data...Good
Qualitative Research**

Good Qualitative Research based on.....

- Importance of the research
- Use of appropriate methods
- Coherence of the research
- Clarity of the presentation
- Ethical conduct of research

Good Qualitative Research based on.....

• Importance of the research

- Use of appropriate methods
- Coherence of the research
- Clarity of the presentation
- Ethical conduct of research

- ▶ General statement of purpose, research questions
- ▶ Review of relevant literature
- ▶ Evidence of building on prior research; addressing an important gap
- ▶ Pragmatically or theoretically useful
- ▶ Focus on the research problem, not the method

Good Qualitative Research based on.....

- Importance of the research

- Use of appropriate methods**

- Coherence of the research

- Clarity of the presentation

- Ethical conduct of research

- ▶ Use of Appropriate Study Design

- ▶ Varied approaches

- ▶ Rationale for selection of approach; fit with study purpose

- ▶ Use of Appropriate Theory

- ▶ Variation in the source, function, and temporal placement of theory

- ▶ Different qualitative traditions specify different roles of theory

Good Qualitative Research based on.....

- Importance of the research

- Use of appropriate methods

- Coherence of the research**

- Clarity of the presentation

- Ethical conduct of research

- ▶ Sample Size and Selection

- ▶ Purposive approach; non-probability sample

- ▶ Specification of unit of interest (individual, group, setting)

- ▶ Rationale for sample size

- ▶ Data collection

- ▶ Setting for data collection

- ▶ Duration of data collection

- ▶ Identification of data collectors

- ▶ Description of observational or interview guides

- ▶ Method for recording data

Good Qualitative Research based on.....

- Importance of the research
- Use of appropriate methods
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- Clarity of the presentation
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▶ Data Processing and Analysis

- ▶ Overview of the steps the researcher took to break the data into smaller units for the purpose of analysis
- ▶ Methodological citations that support the approach
- ▶ Variability in use of software programs to support analysis

▶ Analytic process is consistent with the qualitative approach

- ▶ Line by line coding for grounded theory
- ▶ Extraction of significant statements for phenomenology
- ▶ Evidence of thoroughness and checks on quality
- ▶ Explicitness

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▶ Presentation of the Results

- ▶ Variation in organizing structure for presenting results (Process, Essential structure, Thematic description, Typology)
- ▶ Use of illustrative quotes or vignettes
- ▶ Coherence - Integration of the data; more than a description of codes and themes
- ▶ Convincingly addresses all study aims

▶ Discussion of the Results

- ▶ Linkages to the body of knowledge in the field
- ▶ Statement of applied and/or theoretical implications of the findings
- ▶ Limitations (non-probability sample not a limitation) and next steps
- ▶ Explicit consideration of transferability

Good Quality Research based on.....

- Importance of the research
 - Use of appropriate methods
 - Coherence of the research
 - Clarity of the presentation
 - Ethical conduct of research**
- ▶ Statement that IRB approval has been obtained
 - ▶ Evidence of sensitivity to human, social, and cultural contexts
 - ▶ Recognition of ongoing ethical issues and decisions
 - ▶ Balancing Rigor and Creativity

Quality Criteria for Quantitative Research

- ▶ 1. Validity (Trustworthiness, credibility, authenticity, etc) Research Validity: The whole research process is valid. It can cover internal validity (the fact that the research itself has successfully proven/disproven the hypothesis) and external validity or generalizability (the fact that the result of the research can be generalized to results beyond the research sample)

- ▶ 2. Measurement Validity: The interpretation of the result of the research is meaningful and appropriate.
- 3. Reliability: The fact that the measurement instruments of the research produce consistent results in a given population in different circumstances.

Main Threats to Research Validity

- Participant Mortality
- The Hawthorne Effect
- Practice Effect
- Maturation
- Social Desirability Bias
- History