

## Reading Educational Research

Dr. Katrina A. Korb  
University of Jos

## Outline

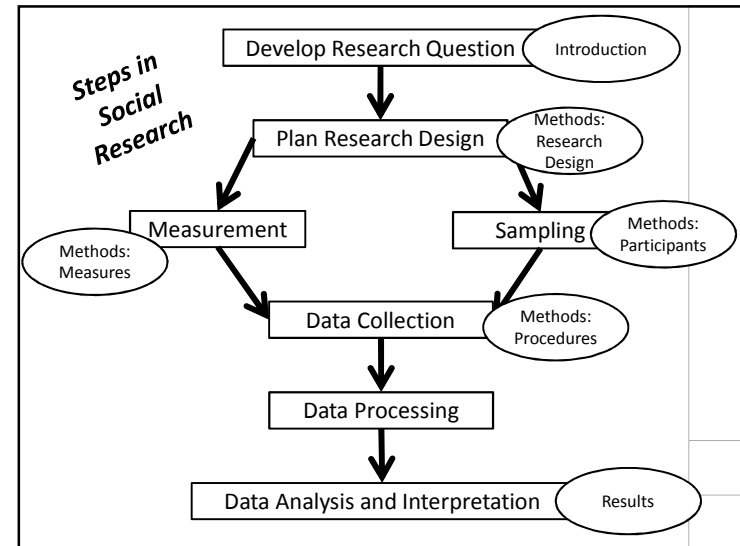
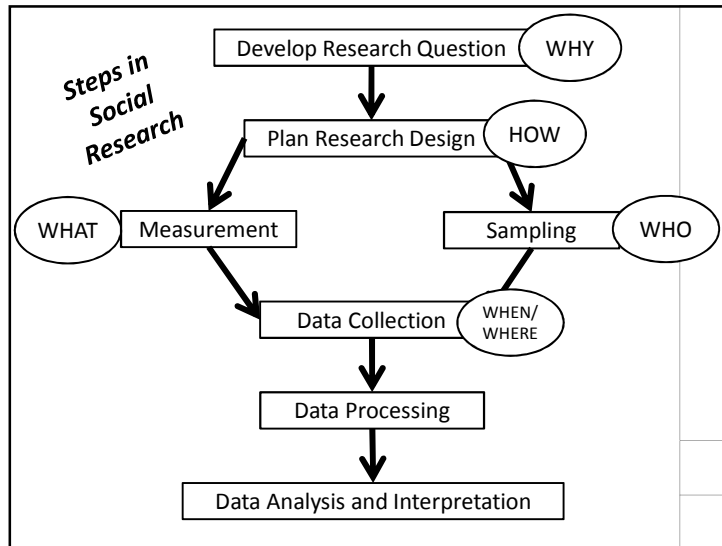
- Introduction to Empirical Articles
- Summarizing an Empirical Article
- Critiquing an Empirical Article

## The Language of Research

- Highly formal language that combines technical vocabulary and conventions of scientific writing
  - Advantage: Parsimony and precision
  - Disadvantage: Limits access to highly educated people
- Some language will be drawn from author's area of scholarship
  - It is easier to read articles in familiar domains

## Characteristics of Empirical Research

- Typically published in refereed research journals
  - **Refereed:** Peer reviewed by established scholars to ensure quality of the research methods, analysis, and report
- May also be published in books, monographs, conference proceedings, original research reports (typically written for a government agency), or other periodicals



## Sections of a Research Report

- **Title:** Variables, Target Population, Research Design
- **Abstract:** Statement of the Purpose, Methods, Results, and Conclusion in 150 words
- **Keywords**
- **Introduction**
  - Definitions of major concepts
  - Summary/critique of previous studies
  - Justification the importance of the study
  - Purpose statement and hypotheses

## Sections of a Research Report

- **Method**
  - **Research Design:** What it is and why it was chosen
  - **Participants:** Recruitment/sampling; sample characteristics and size
  - **Measures (Instrument/Materials):** What the instruments are and reliability/validity information for the instruments
  - **Procedures for Data Collection:** Logistics for administering instruments; Logistics of Treatment/Control if Experimental design
  - **Method of Data Analysis:** Explain and justify tools of analysis

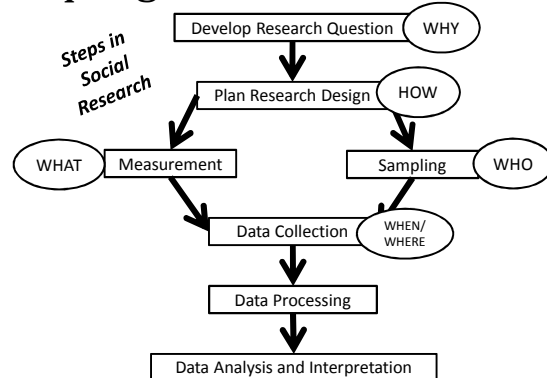
## Sections of a Research Report

- **Results**
  - Preliminary data preparation
  - Description of statistical results
  - Tables and figures
- **Discussion**
  - Meaning of the results
  - Relevance to existing literature
  - Limitations of research
  - Future directions
  - Conclusions (that are consistent with results)

## Summarizing Empirical Research

- What was the purpose of the research study?
- What key variables were studied?
- How were the key variables measured or manipulated (experimental designs)?
- What research design was used (optional)?
- Who were the participants and how were they selected?
- What statistical tools were used to analyse the data?
- What were the key results?
- What conclusions were drawn?

## Critiquing Educational Research



## Critiquing Educational Research

- Do NOT focus your critique on the following:
  - Grammatical, formatting, or typographical errors
  - Sections for writing research using UniJos guidelines
- DO focus your critique on substantial issues with the methods and results

## WHY: INTRODUCTION

- **Evaluation Questions**

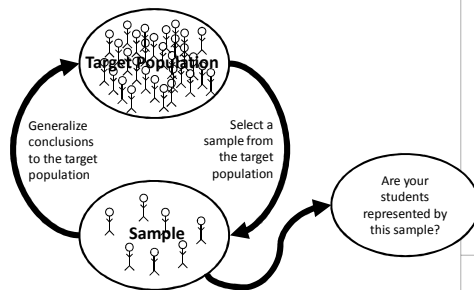
- Is the purpose of the study relevant based on current trends in education?
- Is the purpose of study substantial, making a meaningful contribution to educational practice?
- Are the research questions/hypotheses in line with the purpose of the study?

## HOW: Research Design

- **Evaluation Questions**

- Is the research design appropriate for the purpose of the study?
- Does the researcher clearly justify the choice of research design?

## WHO: Participants



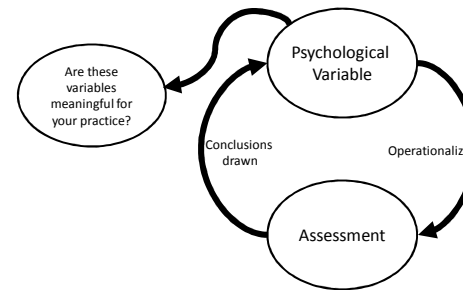
## WHO: Participants

- **Target population:** Group of people that the researcher wants to generalize conclusions to
- **Sample:** Subset of cases selected from a population who actually participate in the study
- Sampling procedures have been developed to select a sample that is **representative** of the population

## WHO: Participants

- **Evaluation Questions**
  - How representative is the sample of the target population in the research study?
  - How representative is the sample of your personal population of interest?

## WHAT: Measures



## WHAT: Measures

- **Measurement:** Assigning numbers or labels to accurately represent a participant's position on the variable(s) of interest
  - In quantitative research, key variables must be translated into numbers so the data can be analysed using statistics.

## WHAT: Measures

- **Evaluation Questions**
  - To what degree is the instrument an accurate measure of the variable for the participants under study?
    - Reliability and Validity evidence
  - To what degree is the variable of interest to you for your students?

## WHEN/WHERE: Procedures

- **Evaluation Questions**
  - Are there any ways that the research procedures may have inadvertently impacted the results of the study?
  - Are there any extraneous variables that may impact the results of the study?
  - Are there any major threats to the internal validity of the study?
  - To what degree do the study procedures apply to your own context?

## Results

- Do the results provide a meaningful answer to the research questions/hypotheses?
- Does the discussion clearly explain the results?

## Article Critique Conclusion

- Based on your critique, is the study's conclusion warranted? Why or why not?
- Does the conclusion of the study need to be qualified?
  - Does the author need to qualify who the results can be generalized to?
  - Does the author need to qualify the context to which the results apply?
- How can the conclusion be applied to your educational practice?

## Article Critique Requirements

1. Write the APA reference for the article.
2. Summarize the article
  1. Describe the overall purpose of the research study.
  2. Briefly describe the research design.
  3. Describe the participants.
  4. Explain the key variables and how were they measured or manipulated.
  5. Describe the major results of the study.
3. Critique the study, giving answers to the evaluation questions that are most relevant to this study