



Mixed Methods Approaches in Early Childhood Education Research

Michelle Howell Smith, PhD

Nebraska Center for Research on Children, Youth, Families and Schools
Nebraska Academy for Methodology, Analytics and Psychometrics



What is Mixed Methods Research?

Mixed Methods Research is the **intentional integration** of *quantitative* and *qualitative* research approaches to **best address a research problem**



Mixed Methods Research Process

- **Conceptualization stage:** Research purpose and questions that will guide the study are developed
- **Methods or experiential stage:** Study is implemented and the data are collected and analyzed
- **Inferential stage:** Inferences from the quantitative and qualitative results or the integrated study conclusions are developed



RATIONALES FOR CONDUCTING MIXED METHODS RESEARCH



Offsetting Strengths/Weaknesses

- An argument for using mixed methods to obtain more rigorous conclusions by using the two methods such that the **strengths of the one method offset the weaknesses of the other.**



Triangulation

- An argument for using mixed methods to obtain more valid conclusions about a phenomenon by **directly comparing the results** obtained from quantitative methods to those obtained from qualitative methods **for convergence and divergence.**



Complementarity

- An argument for using mixed methods to obtain **more complete conclusions** by using quantitative and qualitative methods to get **complementary results about different facets of a phenomenon.**



Development

- An argument for using mixed methods to develop more effective and refined conclusions by **using the results from one method to inform or shape the use of the other method.**



Social Justice

- An argument for using mixed methods to **uncover and challenge oppression in society** by using quantitative and qualitative methods to best conduct research guided by a social justice perspective.



KEY DECISIONS IN MIXED METHODS RESEARCH



Timing

- The temporal relationship between the quantitative and qualitative methods of data collection and analysis
- **Concurrent timing:** collect and analyze both quantitative and qualitative data at the same time or *independent* from each other.
- **Sequential timing:** collect and analyze quantitative and qualitative data in sequence—one following or *dependent* on the other.



Integration

- An explicit interrelating of the quantitative and qualitative methods
- **Combining:** joint interpretation of results at the completion of respective data collection and analysis
 - Indicates concurrent timing
- **Connecting:** results from the first phase are used to inform the design and data collection of the subsequent phase
 - Indicates sequential timing



Priority

- The relative importance of the quantitative and qualitative methods
 - Quantitative priority
 - Qualitative priority
 - Equal priority
- A subjective classification



Inferences

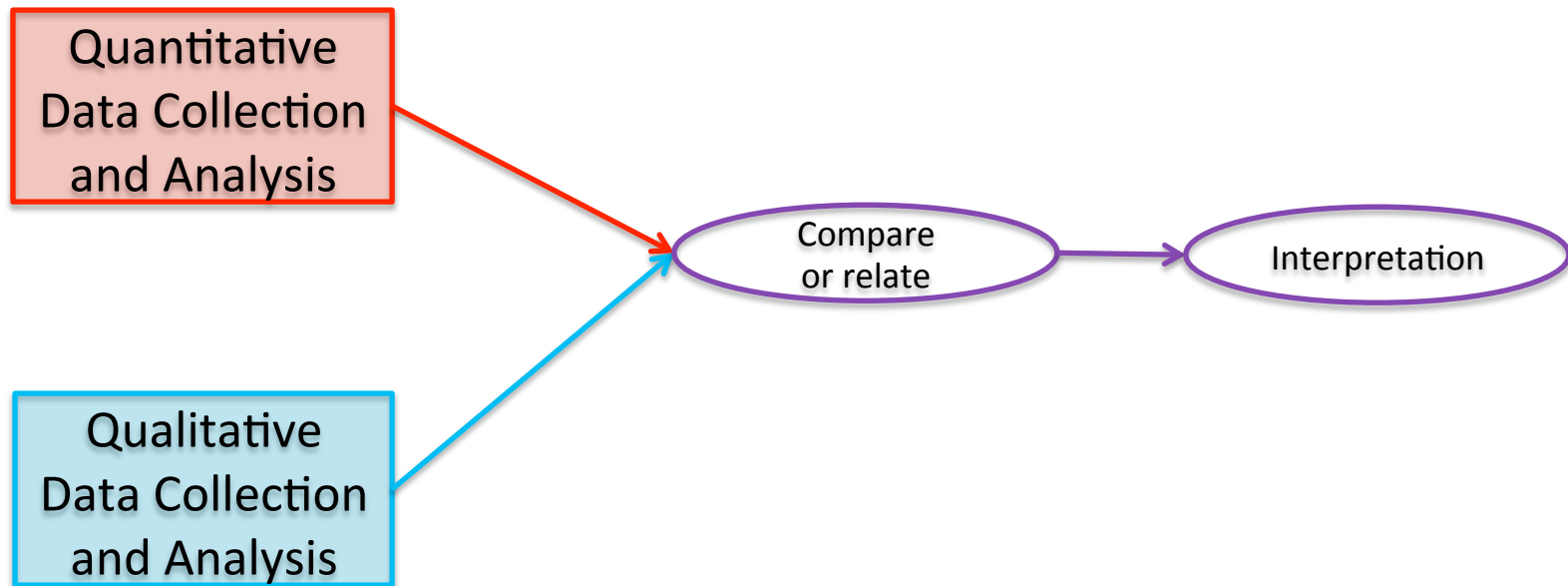
- The integrated study conclusions that are developed based on the interpretation of the quantitative and qualitative results
- Critically review the results from the quantitative and qualitative data analyses in terms of how they jointly provide the answers to the study's research questions
- Examining the relevance and quality of the collected data



BASIC MIXED METHODS DESIGNS



Convergent Designs (triangulation, concurrent)



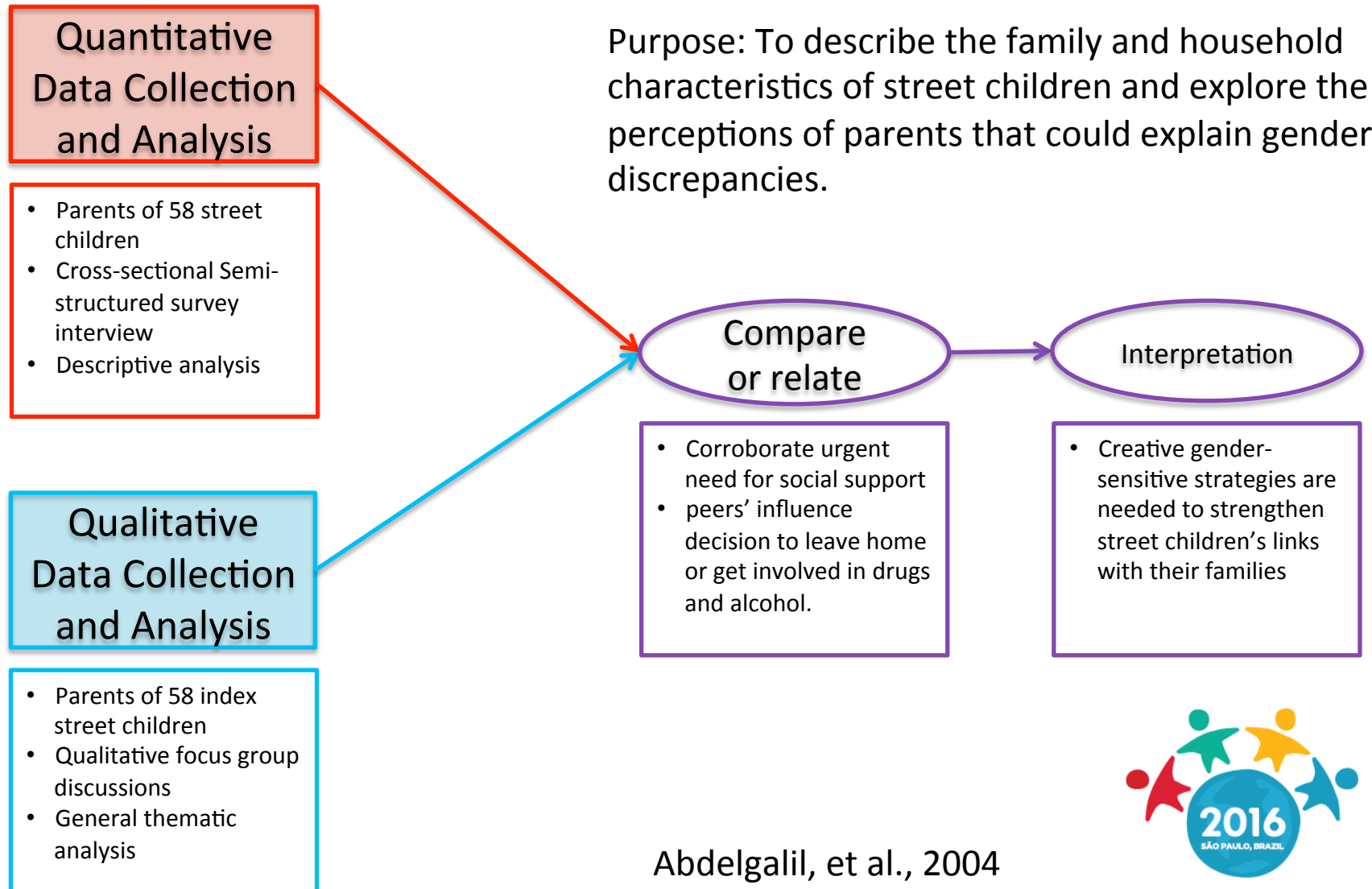
Use when you need...

- a more complete understanding of a topic
- to validate or corroborate quantitative scales
- to illustrate quan results with qual stories

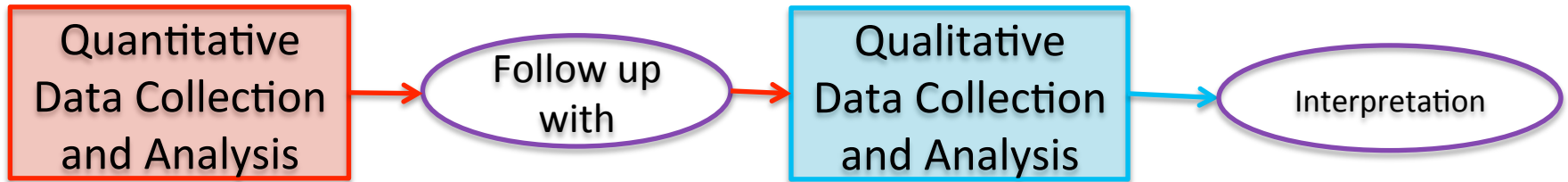
Creswell & Plano Clark, 2011



Household and family characteristics of street children in Aracaju, Brazil



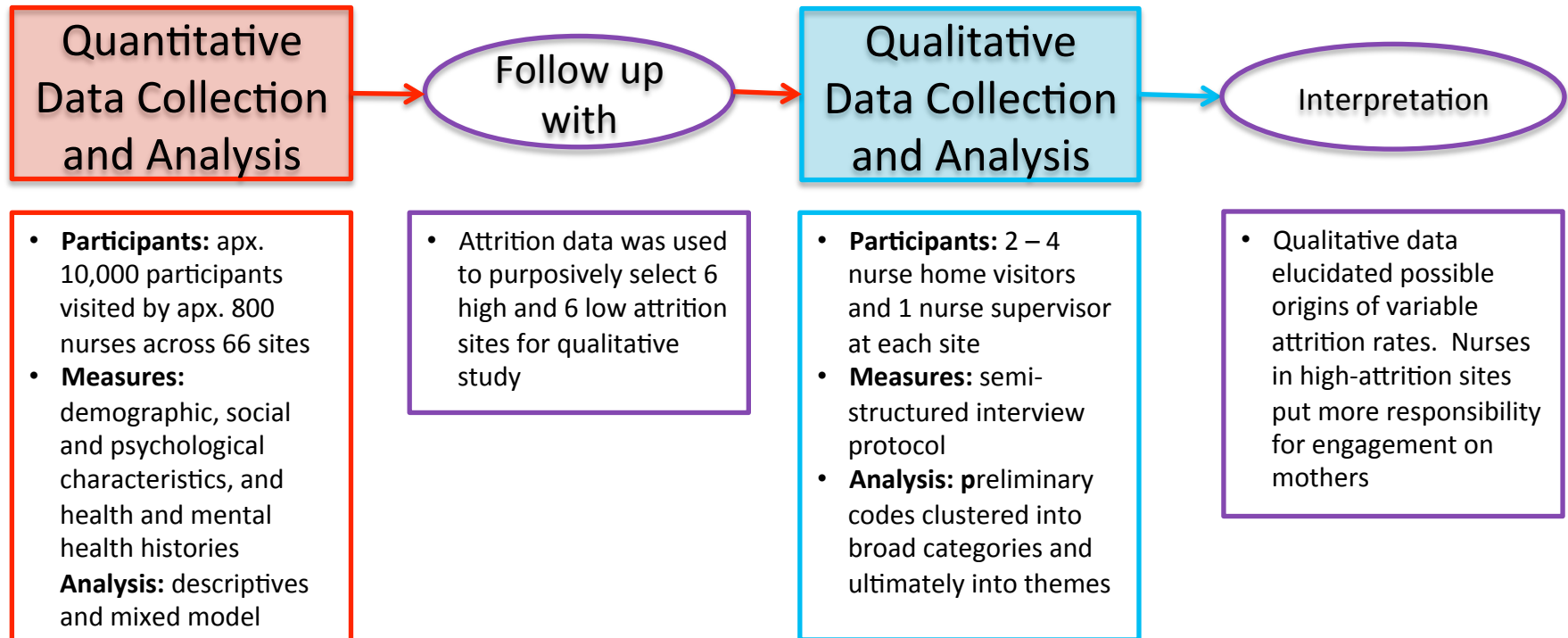
Explanatory Designs



Use when you need...

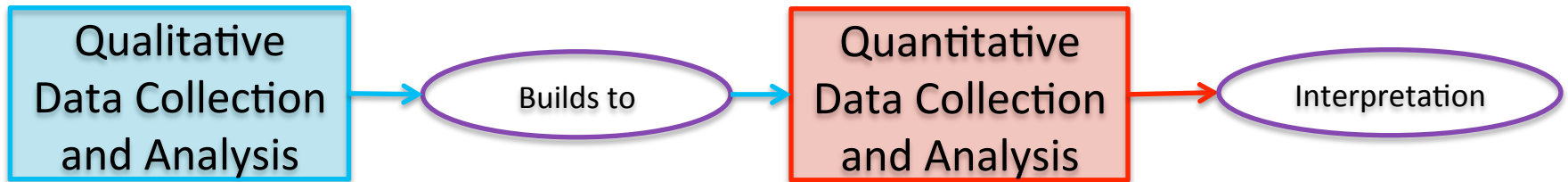
- to explain the quantitative results in more depth with qualitative data
- to identify appropriate participants to study in more depth qualitatively

Mixed Methods Analysis of Participant Attrition in the Nurse-Family Partnership



Purpose: To understand participant attrition in a prenatal and infancy home visitation program for low income pregnant women and parents of young children.

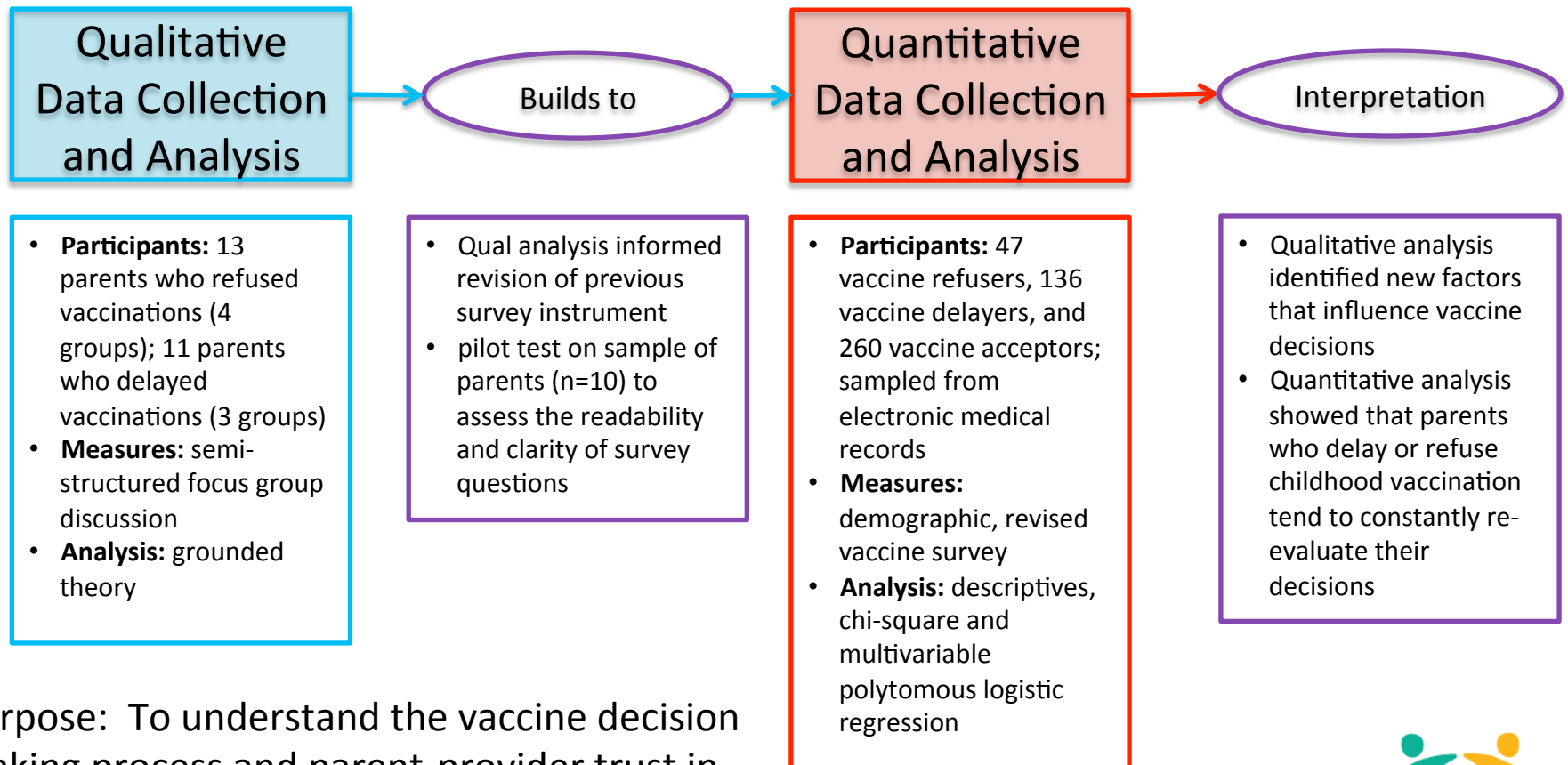
Exploratory Designs



Use when you need...

- qualitative results to develop or inform quantitative methods
- to develop an instrument
- to identify the most important variables to study
- to develop and test a classification or typology

A Mixed Methods Study of Parental Vaccine Decision Making and Parent-Provider Trust



Purpose: To understand the vaccine decision making process and parent-provider trust in order to tailor interventions to address the concerns of parents with a wide range of vaccine beliefs.



How Mixed Methods Can Improve Instrument Validity

- Determine whether ideas that underlie the construct make sense to respondents
- Understand its meaning for individuals
- Understand its complexity as it naturally occurs in people's lives
- Consider the multiple external forces that shape and are shaped by this phenomenon
- Reveal the natural, everyday language that people use to talk about a concept

DeVellis, 2011; Plano Clark & Creswell, 2014



Participatory Culture-Specific Intervention Model

- **To develop acceptable, sustainable, and culturally grounded interventions in partnership with key stakeholders**
 - Existing theory, research, practice, policy
 - Learning the culture
 - Forming partnerships
 - Goal/problem identification
 - Formative research
 - Culture-specific (local) theory
 - Culture-specific program design
 - Context-specific program adaptation
 - Context-specific implementation & evaluation
 - Capacity building & translation



CONDUCTING RIGOROUS MIXED METHODS RESEARCH



Indicators of MM Design Quality

- Design suitability or appropriateness for answering the research questions
- Design fidelity or adequacy of all study procedures
- Within-design consistency of all components and study strands
- Analytic adequacy of data analysis procedures for answering the study's research questions



Indicators of MM Interpretive Rigor

- Interpretive consistency of meta-inferences that are produced as overall study outcomes
- Theoretical consistency with findings, theory, and previous research
- Interpretative agreement with the research purpose
- Interpretative distinctiveness of credible conclusions
- Integrative efficacy with inferences from each study strand
- Interpretive correspondence with other possible interpretations by scholars and study participants





Thank You



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