

re-search (ri-sûrch', ré'sûrch')

Mixed Methods Research

Yodi Mahendradhata

2ND EDITION

DESIGNING AND CONDUCTING
**MIXED METHODS
RESEARCH**

Key Reference

JOHN W. CRESWELL ■ VICKI L. PLANO CLARK

Mixed Methods*

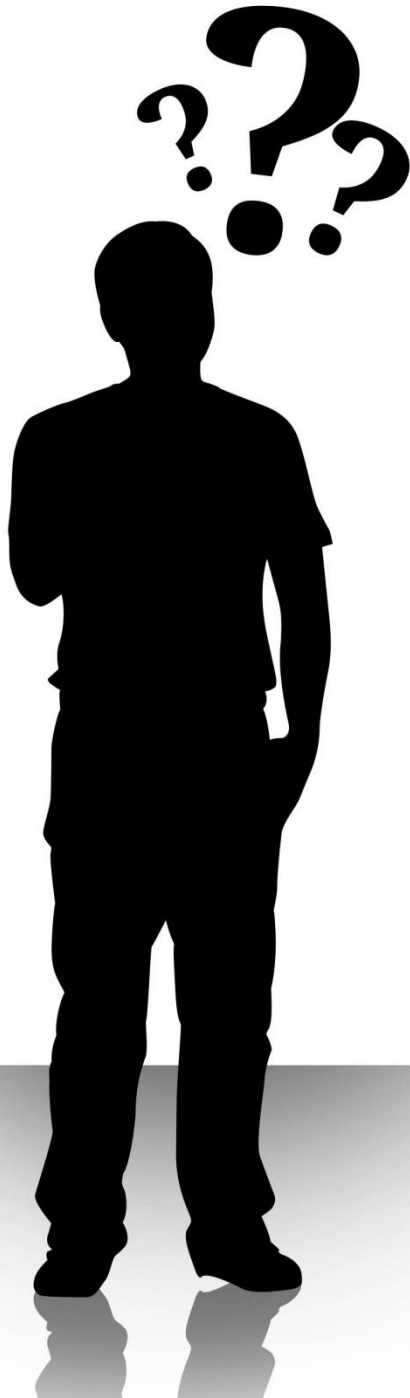
- Research design with philosophical assumptions as well as methods of inquiry
 - Philosophical assumptions direct data collection and analysis and mixture of qualitative and quantitative approaches
 - Methods focus on collecting, analyzing and mixing quantitative and qualitative data in a study/series of studies

*Ref: Creswell & Clark (2007)

The Central Premise*

The use of quantitative and qualitative approaches in a combination provides a better understanding of research problem that either approach alone

*Ref: Creswell & Clark (2007)



Quantitative
vs
Qualitative?

Quantitative vs Qualitative?

Research process	Qualitative	Quantitative
Intent	Understanding meaning individuals given to a phenomenon inductively	Test a theory deductively to support or refute it
Literature use	Minor role; justifies the problem	Major role; justifies problem; Identifies questions/hypothesis
Intent focus	Ask open ended questions; understand the complexity of a single phenomenon	Ask close ended questions; Test specific variables that form hypothesis/questions
Data collection	Words & images; from a few participants	Numbers; from many participants

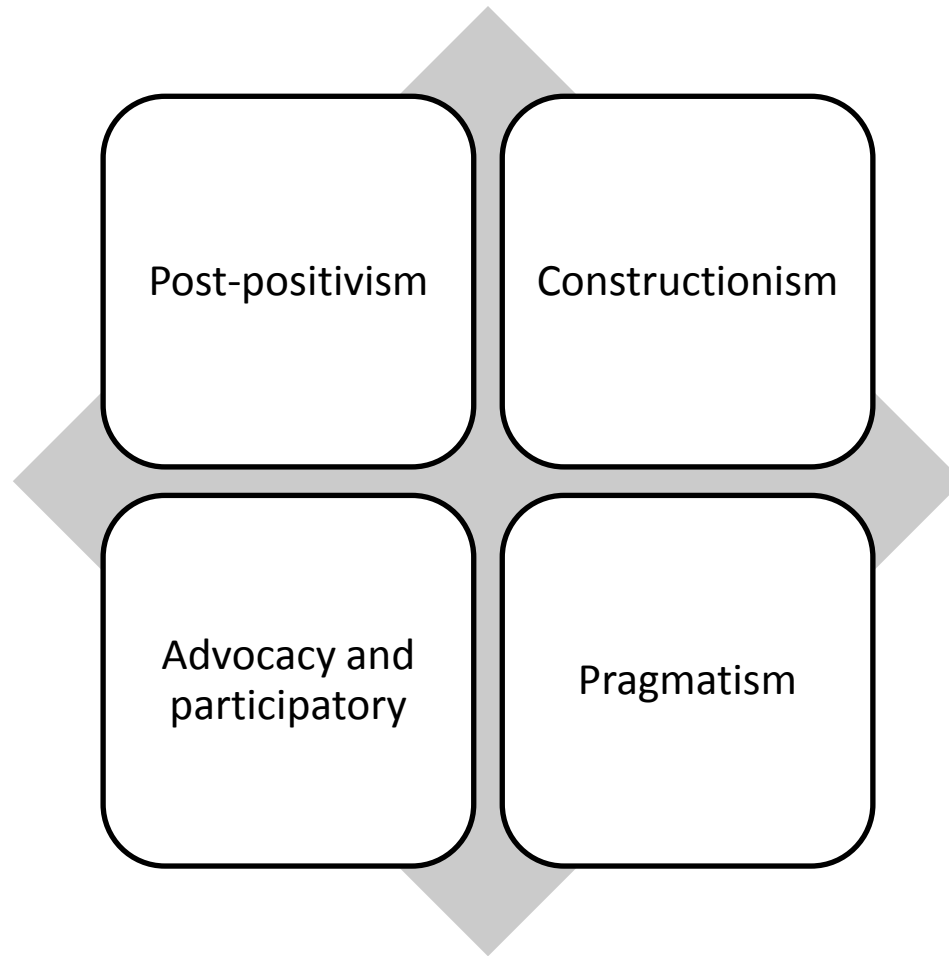
*Ref: Creswell & Clark (2007)

Quantitative vs Qualitative?

Research process	Qualitative	Quantitative
Data analysis	Text/image analysis; themes; larger pattern of generalizations	Numerical statistical analysis; rejecting hypothesis or determining effect sizes
Role of researcher	Identifies personal stances; report bias	Remains in background; Take steps to remove bias
Data validation	Rely on participants, researcher, reader	Rely on external standards, e.g. Judges, past research, statistics

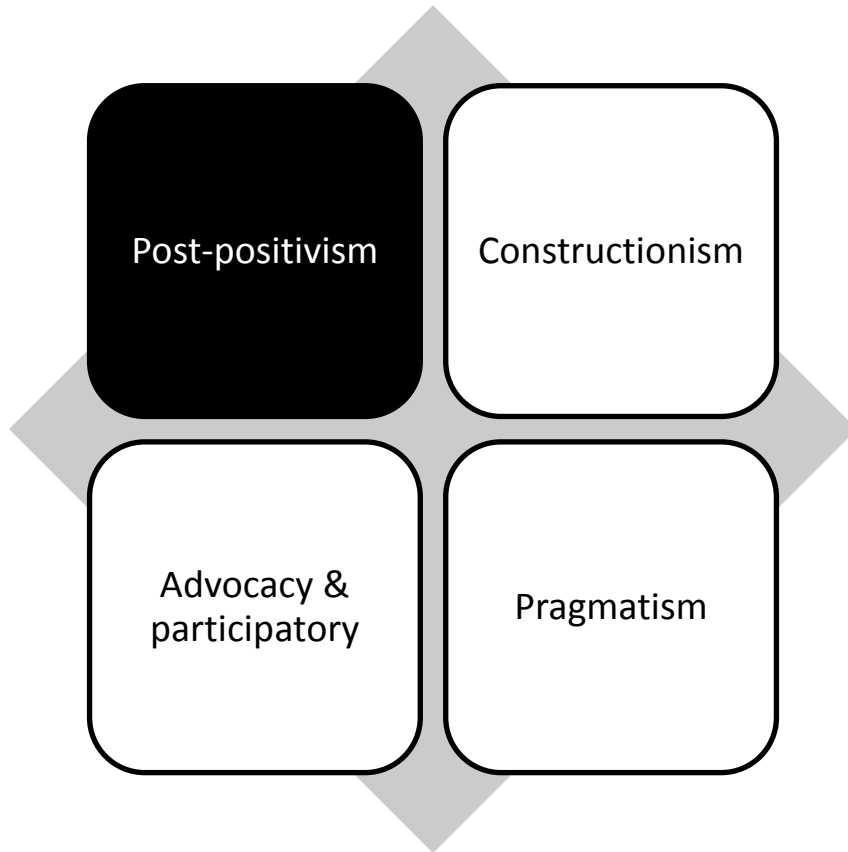
*Ref: Creswell & Clark (2007)

Research paradigms



*Ref: Creswell & Clark (2007)

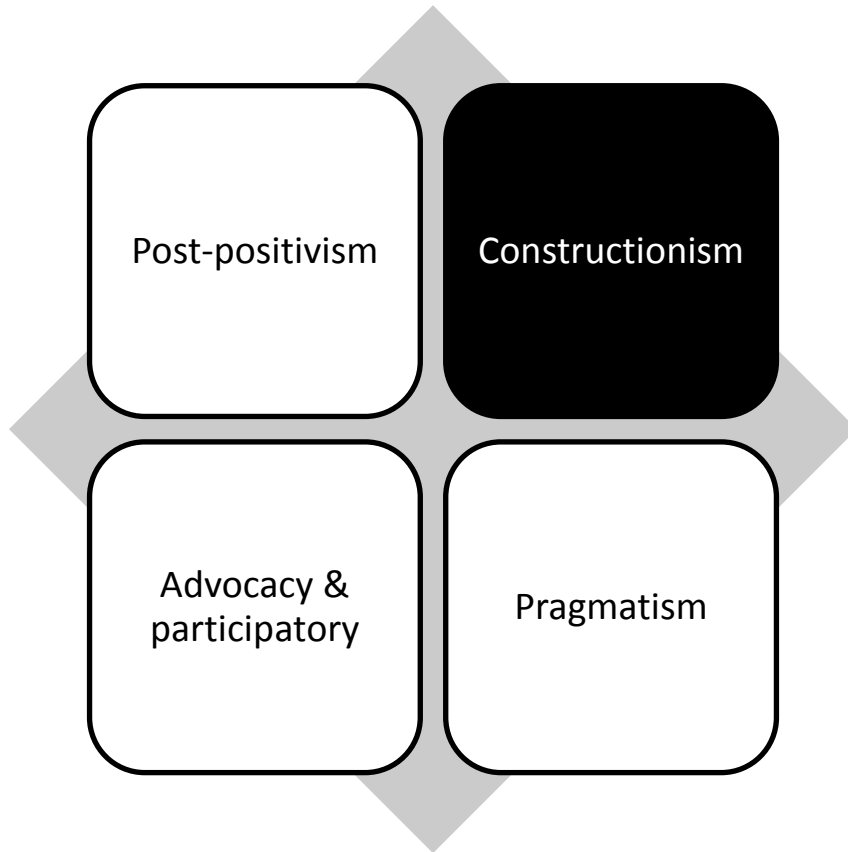
Research paradigms



- Determination
- Reductionism
- Empirical observation and measurements
- Theory verification

*Ref: Creswell & Clark (2007)

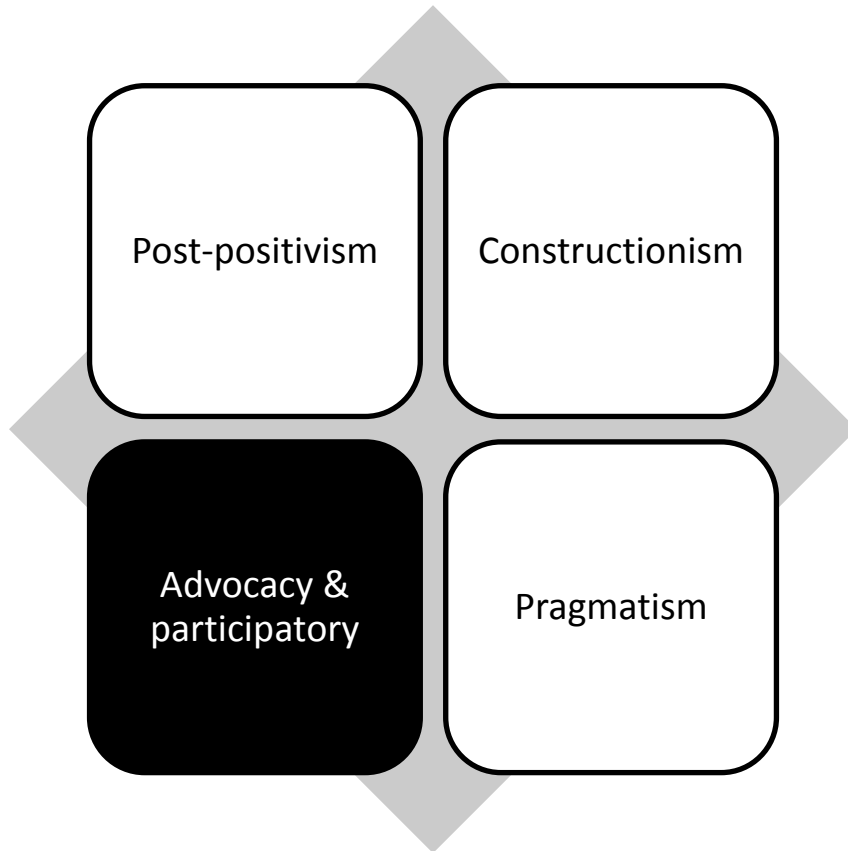
Research paradigms



- Understanding
- Multiple participant meanings
- Social and historical construction
- Theory generation

*Ref: Creswell & Clark (2007)

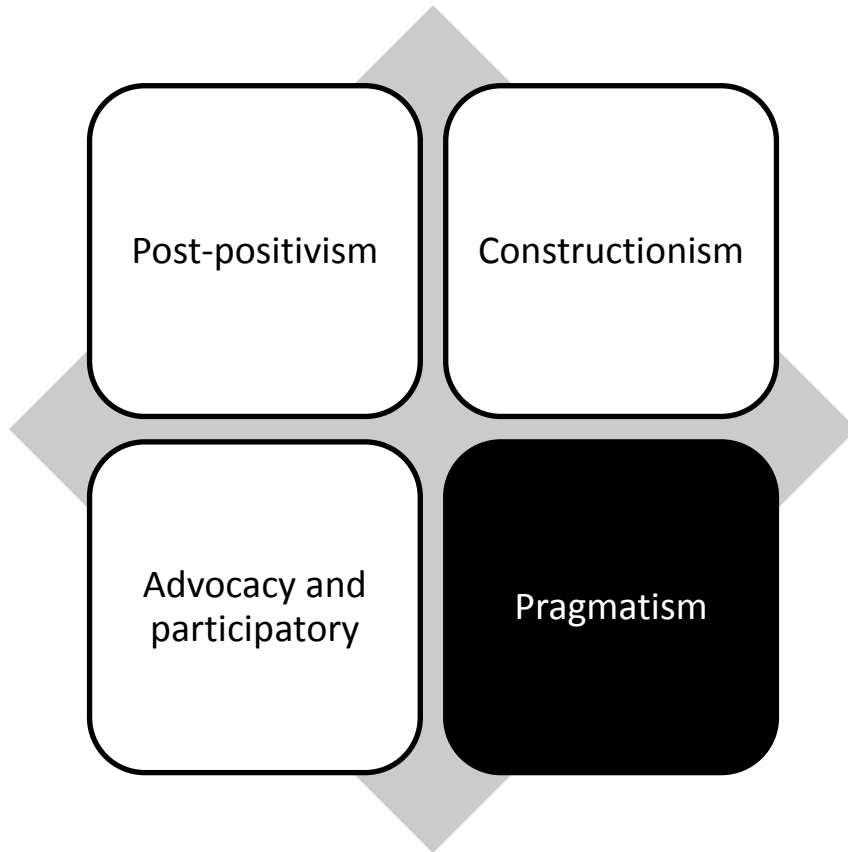
Research paradigms



- Political
- Empowerment and issue oriented
- Collaborative
- Change oriented

*Ref: Creswell & Clark (2007)

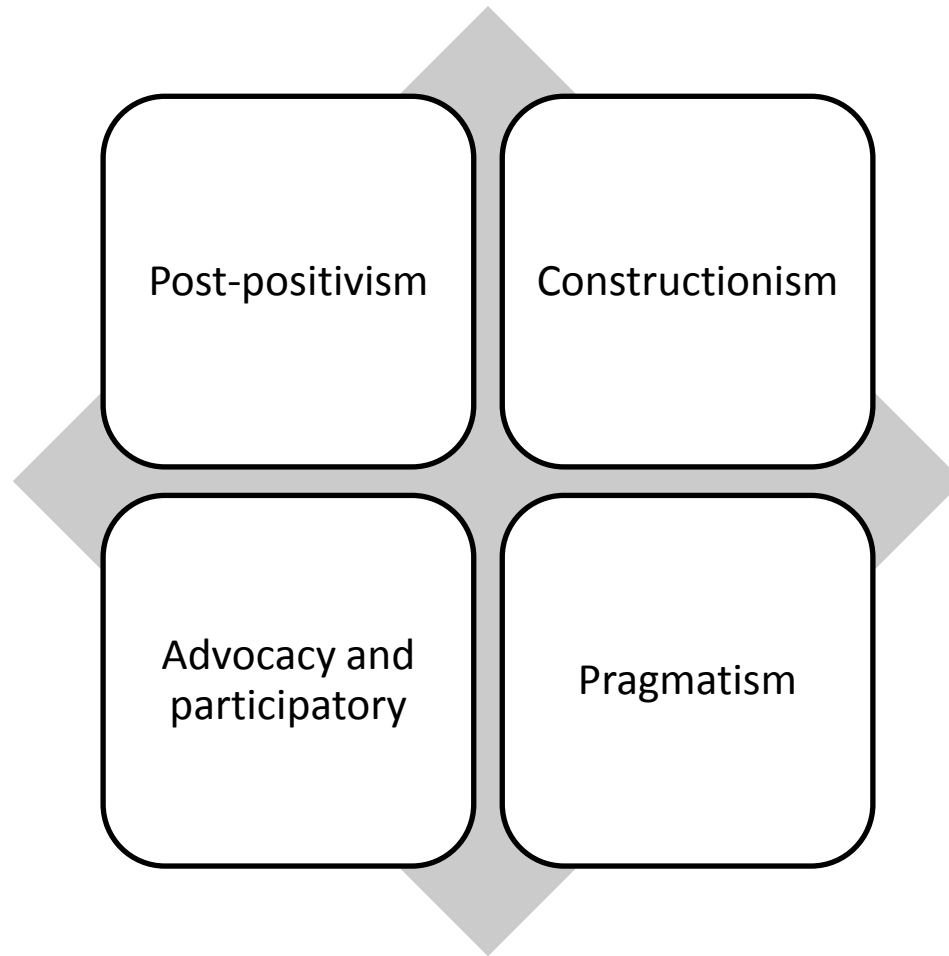
Research paradigms



- Consequences of action
- Problem centred
- Pluralistic
- Real-world practice oriented

*Ref: Creswell & Clark (2007)

Research paradigms



*Ref: Creswell & Clark (2007)

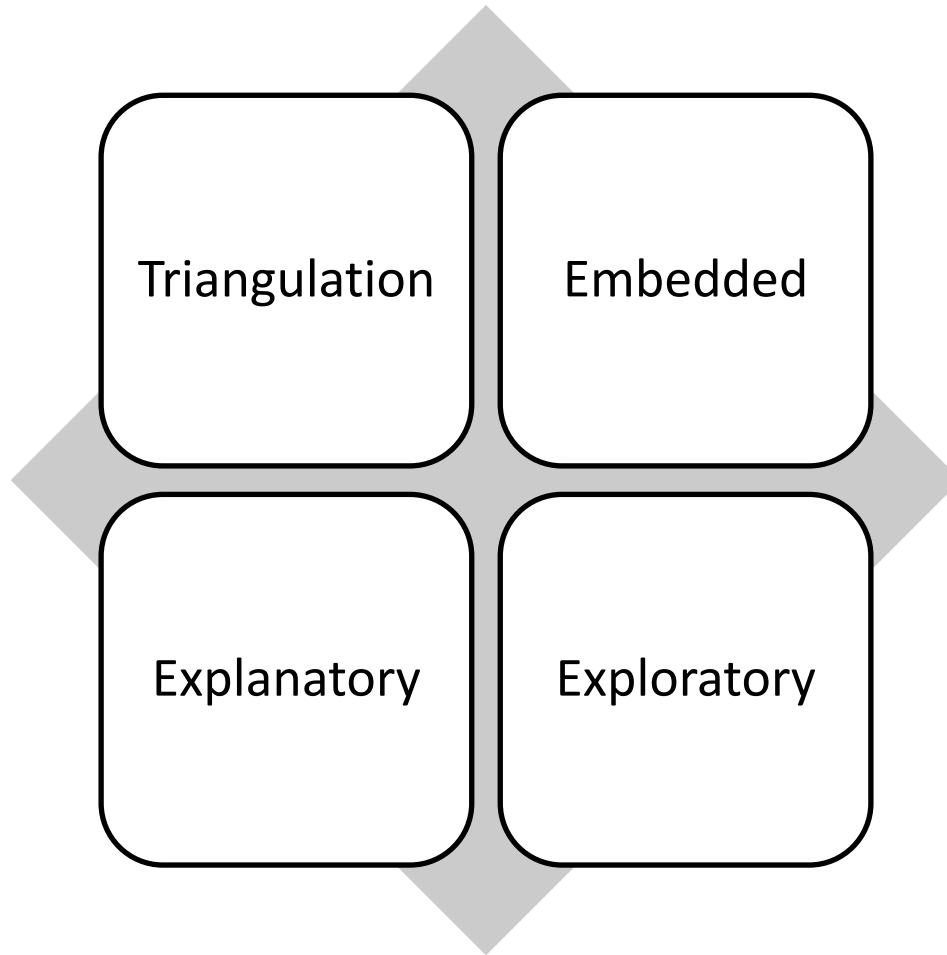
Which paradigm for mixed-methods?

- Stance 1: There is one paradigm that best fit
- Stance 2: Researchers can use multiple paradigms
- Stance 3: Paradigm relate to the type of mixed methods design

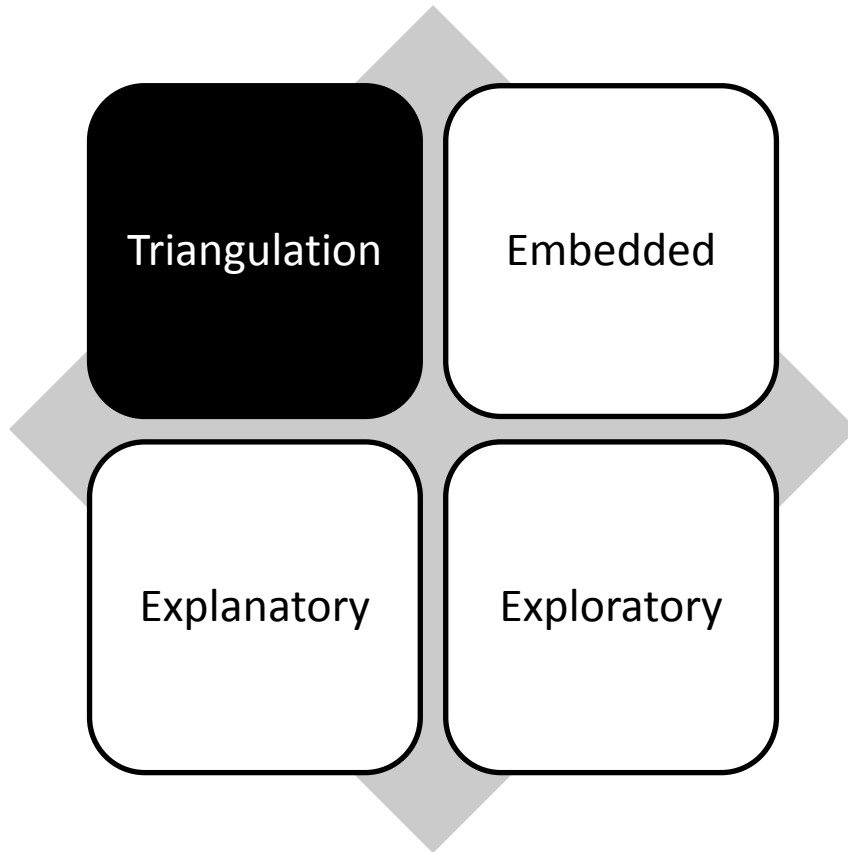
When to do a mixed methods?

- A need exists for both quantitative and qualitative approaches
- A need to exists to enhance the study with a second source of data
- A need exists to explain the quantitative results
- A need exists to first explore qualitatively

Mixed-Method Designs

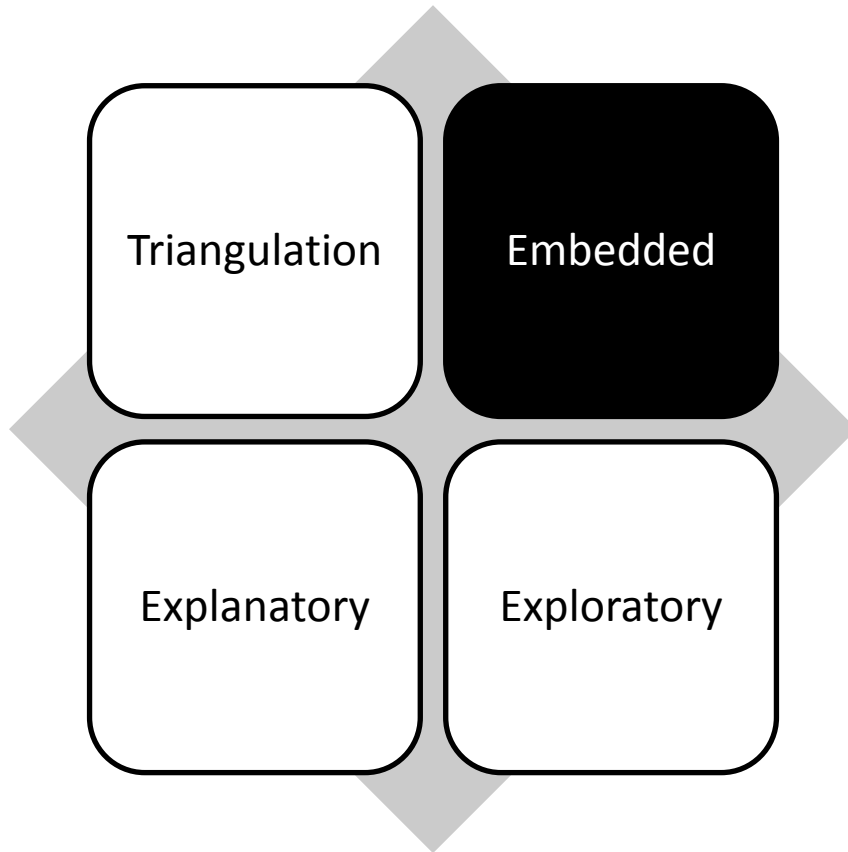


Mixed methods designs



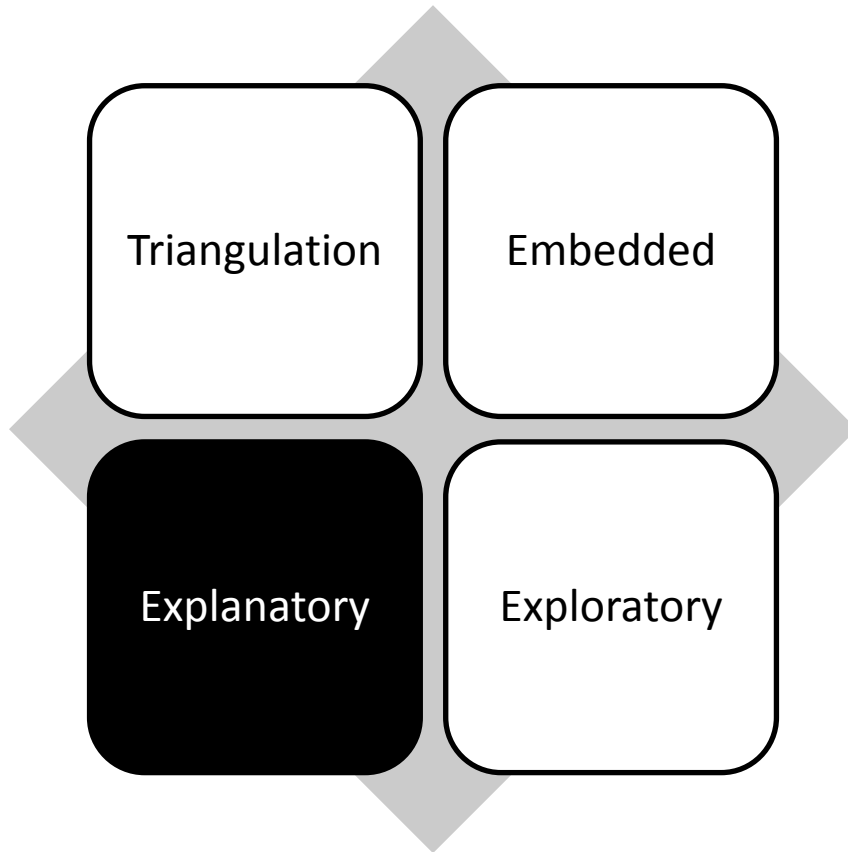
- To obtain different but complementary data on the same topic to best understand the problem
 - Directly compare and contrast
 - Validate
 - Expand

Mixed methods designs



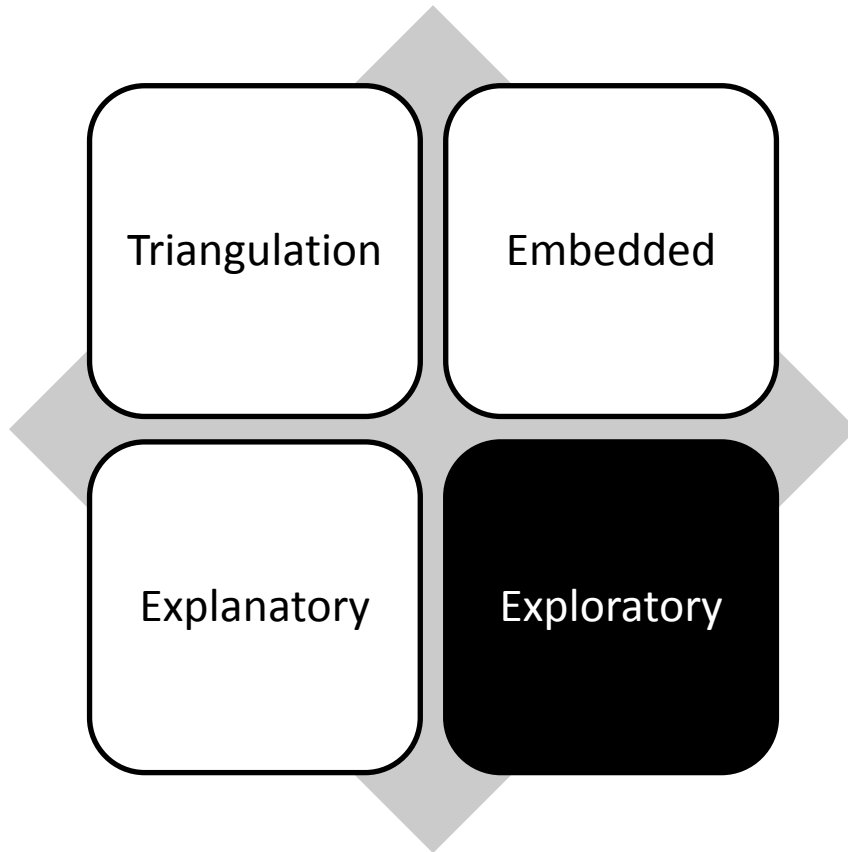
- One data set provides a secondary, supportive role in a study based primarily on the other data type
- Not to converge two data sets to answer the same question

Mixed methods designs



- Two-phase design
- Qualitative data helps explain or build upon quantitative results
 - Quan -> Qual

Mixed methods designs



- Two-phase design
- Qualitative method inform quantitative method
 - Qual -> Quan

Choosing Mixed-methods design

Decisions	Triangulation	Embedded	Explanatory	Exploratory
Timing	Concurrent	Concurrent or sequential	Sequential: Quan -> Qual	Sequential: Qual -> Quan
Weighting	Equal	Unequal	Quan	Qual
Mixing	Merge data during interpretation & analysis	Embed one data type within a larger design using other data type	Connect data between two phases	Connect data between two phases

Introducing design into problem statement

Deficiencies	Design	Reason
One form of data is insufficient by itself	Triangulation	To bring together the strengths of quan & qual research; to compare results; to validate, confirm or corroborate results
A second form of data is needed to enhance the study	Embedded	There are different questions requiring different data
Quantitative results are inadequate	Explanatory	Qualitative data needed to help explain/build on quantitative data
Qualitative results are inadequate	Exploratory	Qualitative data is only an initial exploration to identify variables. Constructs, taxonomies or instruments

Mixed method purpose statement

- Include overall content aim in the first sentence
- Identify and briefly define the mixed method design
- Designate the forms of data collection
- Mention the research site
- State the reasons for collecting both data type

Mixed methods research questions?

Design	Examples of research questions
Triangulation	To what extent do the quantitative and qualitative data converge? How and why?
Embedded	What additional information is obtained during the study from the qualitative data?
Explanatory	In what ways do the qualitative data help to explain the quantitative results?
Exploratory	What items and scales represents the qualitative results?

Mixed-methods analysis

Concurrent	Sequential
Stage 1: separate initial data analysis	Stage 1: analyze first dataset
Stage 2: merging data sets <ul data-bbox="117 582 620 753" style="list-style-type: none">• Data transformation• Matrix• Discussion	Stage 2: decide which information is most useful for stage 3 <ul data-bbox="981 646 1711 946" style="list-style-type: none">• Quan: outliers; extreme cases; significant-nonsignificant; comparisons; demographics• Qual: codes and themes; significant statements; models
	Stage 3: Collection and analysis of second dataset

Validity in mixed-methods

- Report and discuss validity within the context of both quantitative and qualitative
- Discuss validity from the standpoint of the mixed-methods design
- Discuss potential threats to validity that arise during data collection and analysis