

BIGSSS Prep Forum

Mixed Methods

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Key points on MM definitions



Not one generally accepted definition

Smallest common denominator:

- MM research involves qualitative and quantitative elements
- During planning (design), data collection, data analysis – at one or several of these stages
- To increase breadth or depth of understanding or for corroboration

Why mix (purpose)?



One data source is insufficient

You want to further explain initial results

You want to generalize exploratory findings

You want to enhance a study by adding a second method

Mixing is suggested by your theoretical stance

The research question necessitates several - qualitative and quantitative research phases

Working definition of Mixed Methods



In mixed methods research, researchers combine and integrate elements from the qualitative and the quantitative tradition for the broad purposes of increasing breadth and depth of understanding or corroboration. The mixing can occur at any stage and at any number of the stages of the research process (design, data collection, data analysis) and must involve integration of the qualitative and the quantitative parts of the research.

(adapted from Burke Johnson et al., 2007, p. 123)

What is triangulation?

(Kelle, 2001)



Triangulation as mutual validation



Triangulation as a means to produce a more complete picture of the investigated phenomenon



Triangulation as nautical metaphor: determining the position of a point C using observations from two points A and B

Uses of triangulation in the context of MM



A purpose underlying MM research

- Convergence – validation
- Complementarity
- Divergence

A type of MM design involving the parallel collection of qualitative and quantitative data

A quality criterion in qualitative research

General approaches towards MM designs



Fixed MM designs:

- Determined before the study begins

Emergent MM designs:

- Evolve as the study proceeds

Criteria for distinguishing between MM designs



- ▶ Number of strands (monostrand, multistrand)
- ▶ Level of interaction (independent, interactive)
- ▶ Priority (equal, qual, quant)
- ▶ Implementation process / timing (*parallel*, *sequential*, conversion, multilevel, combination, multiphase)
- ▶ Interface where mixing takes place (design; sampling; data collection; data analysis; interpretation)
- ▶ Functions / Purposes
- ▶ Transformative perspective (yes, no)
- ▶ ...

The strand concept

(Teddlie & Tashakkori, 2009)



'Strand' conceptualised as
a study phase consisting
of three stages:

- Research question
- Data collection
- Data analysis

The strand concept (2)



MM studies can be







- Monostrand, i.e. consist of one strand only
- Multistrand, i.e. consist of (at least) one qualitative and one quantitative strand

MM studies typically multistrand studies

Six design types according to Creswell and Plano Clark (2011)



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-  *Convergent parallel*
-  *Explanatory sequential*
-  *Exploratory sequential*
-  Embedded
-  Transformative
-  Multiphase

The convergent parallel design



Two strands realised in parallel

Typical purposes: triangulation, complementarity, illustration...

- Database variant: two strands independent from each other, mixing only during interpretation
- Data transformation variant: during data analysis, conversion of qual to quant data and merging of the two datasets
- Data validation variant: using of data from open-ended questions to illustrate quantitative findings

The explanatory sequential design



Two strands realised in sequence; design begins with a quantitative phase; qualitative data then help to explain or build upon the quantitative data

Typical purposes: explanation, development

- Follow-up explanation variant: second qualitative strand used to explain the findings from the first quantitative strand
- Participant selection variant: first quantitative strand used to inform sampling / case selection in the second qualitative strand

The exploratory sequential design



Two strands realised in sequence; design begins with a qualitative phase; quantitative phase to generalise, test, etc. qualitative findings

Typical purposes: development

- Theory development variant: Qualitative phase used to develop a theory; quantitative phase used to test hypotheses derived from the theory on a larger sample
- Instrument development variant: first qualitative strand used to explore the phenomenon, identify relevant dimensions, generate items; quantitative strand used for determining quality of the items, dimensionality of the questionnaire, reliability, validity

More MM designs according to Creswell and Plano Clark (2011)



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Embedded:

- Qualitative data are collected in addition to quantitative data to answer an additional but minor research question

Transformative:

- All decisions are informed by a transformative framework

Multiphase:

- Combination of concurrent and sequential elements