

Mixed Methods Research:

Possibilities
and challenges using a mix of
qualitative and quantitative methods
in the same research project

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Agenda

- Origins and meaning of mixed methods research
- What is method in mixed methods research?
- What is design in mixed methods research?
- What are the purposes of mixed methods research?
- What is the integration task(s) pivotal to mixed methods research?

Is mixed methods a new scientific approach?

Using different types of data and data gathering techniques?

M. Weber, 1892, *Die Lage der Landarbeiter im Ostelbischen Deutschland*

E. Durkheim, 1897, *Le Suicide*

W. I. Thomas and F. Znaniecki, 1918, *The Polish Peasant in Europe and America*

B. Malinowski, 1922, *Argonauts of the Western Pacific*

Marienthal: The sociography of an unemployed community. Jahoda et al. 1933

Object:

Austria community in 1930's depression

Purpose:

Understand unemployment by moving beyond statistics.

Communication:

Convey a psychological and sociological understanding of unemployment

Methodology:

Combine numerical description with intersubjective understanding

Marienthal: The sociography of an unemployed community.

'It was the aim of the study to draw an image of the psychological situation of a community suffering from unemployment, using cutting edge methods of research. From the outset we focused our attention on two objectives. One with regard to substance: contributing material concerning the problem of unemployment – and a methodological one: trying to give a comprehensive and objective account of the socio-psychological facts' (p.V)

Marienthal: The sociography of an unemployed community.

- a. For any phenomenon one should have objective observations as well as introspective reports.
 - b. Case studies should be properly combined with statistical information.
 - c. Contemporary information should be supplemented by information on earlier phases of whatever is being studied.
 - d. “Natural and experimental data” should be combined. By experimental, I meant mainly questionnaires and solicited reports, while by natural I meant what is now called “unobtrusive measures”—data derived from daily life without interference from the investigator.
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Table 1
Methods Used in Marienthal and Their Present-Day Counterparts

	Present day classification		Original notation
<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Unobtrusive data collection</div> <div style="margin: 0 10px;">↑</div> </div>	Quantitative data	Official existing statistics	* Election results * Population statistics * Housekeeping Statistics * <i>Reports and complaints made to the Industrial Commission</i>
		Content analysis	* Account books * Library records (loans) * Subscriptions to newspapers * Membership figures of clubs * Family Diaries
	Qualitative data	Structured observation	Measurement of walking speed
	Quantitative data	Participant observation	* <i>Visits to families</i>
	Qualitative data	Action research	Clothing project Medical consultation Pattern design course Girls' gymnastics course Political activities
		Expert reports	* Parent Guidance * Reports from teachers, parish priest, town mayor, doctors, business people, officials from political clubs and other organizations
		Projective material	* School essays, prize essay competition
		Psychological tests	* Psychological tests
		Written records	Family files, with separate files for each member
	Quantitative data		* Meal records
<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Intrusive data collection</div> <div style="margin: 0 10px;">↓</div> </div>	Quantitative data		Time sheets
	Quantitative data		
	Qualitative data	Personal interviews	* Life Histories

Note: Asterisks in the right column indicate previous use in social science research projects.

Results

Quantitative and qualitative integration of results on:

Time, leisure, food, parenting, civil society etc.

Main results:

Typology:

Unbroken (23%)

Resigned (70%)

Broken (7%)

In Dispair (2%)

Apathetic (5%)

Mixed methods as a new methodological problem?

Are there specific conditions that must be fulfilled in order to combine data and methods?

- 1980's 'Quant-Qual Wars' in American education and evaluation science

Paradigm war about criteria of validity and quality:

- Explaining / Understanding
 - Positivist / Interpretivist criteria of validity
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Quant/Qual wars: the issue of triangulation

Which triangle?

- Agency – Structure
 - Micro – Macro – (Meso)
 - Grand Theory – Middle-Range Theory – Phenomenology
 - Objective - Subjective
 - Understanding - Explaining
 - Ideographic - Nomothetic
-
- Participant - Observer

Incompatibility thesis

Smith and Heshusius:

Even though some elements may be combined across the quan/qual divide, the two paradigms are fundamentally incompatible since they represent objectivism and relativism, respectively

Hammersley:

The quan/qual divide cannot be represented as:
numbers/words, natural/artificial, meaning/behaviour,
science/non-science, deductive/inductive, cultural
patterns/scientific laws, idealism/realism.

From paradigms to style (Brewer and Hunter 1989/2006)

Methodological position

Research methods as paradigmatically detached instruments

Complementary strengths

Validation and/or enhancement

Mixed methods as new research *style*:

*A way of thinking: orientations, perspectives,
strategies associated with methods*

*An aesthetic style – defining to some degree what
'good' research looks like.*

Style	Data Collection	Validity Strength	Validity Weakness	Empirical strength	Empirical weakness
Survey	Representative population	External validity	Ecological validity	Generalizability and control	Instrumentation, causality
Experiment	Scheduled data production	Internal validity	External and ecological validity	Testing alternative causal hypothesis	Sample limit, instrumentation
Field Work	Natural site	Interpretative/ ecological validity	External validity	Developing theories and causal hypotheses	Site limit, instrumentation, control
Unobtrusive measure	Unobtrusive/ indirect measuring	Measurement validity	Construct validity	Naturally occurring data	Unobserved bias

Quant-Qual revisited

Survey

Experiment

Unobtrusive

Fieldwork

Scale

Scale

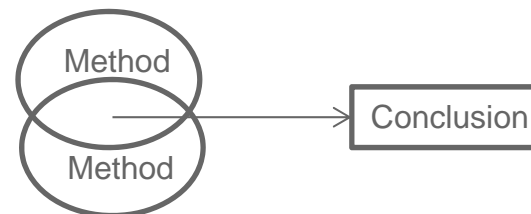
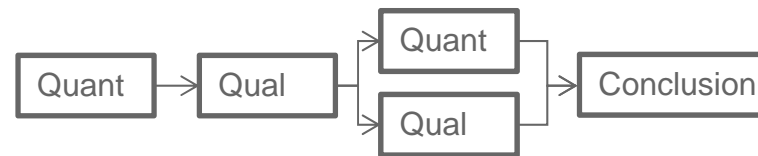
Scale

Scale



Mixed Methods Design Classification (Greene 2007)

Component or integrated?



Mixed Methods Design

- Component designs:

Convergence designs

Extension designs

- Integrated designs:

Iteration design

Blending design

Nesting/Embedding design

Substance/value design

Purposes of mixed methods research?

Three major directions:

1. If you want to know something about the object of research with greater certainty.
2. If you want to know more about the object of research
3. If you want to investigate objects of research inaccessible with only one method

Greater certainty?

Triangulation (Campbell and Fisk 1959):

- Extension of logic of replication
- Aims for convergent validation
- Assumes independent measurements
- Assumes coherent and stabile object of research

Design example: Iteration (Triangulation)

Sutton and Rafaeli 1998:

Study of the relationship between the friendliness of shop clerks
and sales.

1. Quantitative, confirmative analysis.

Rejected

2. Qualitative, explorative analysis.

New hypothesis

3. Quantitative, confirmative analysis.

Confirmed

More knowledge?

1. Complementarity

- Investigates several dimensions of the same phenomenon to give a more nuanced, multifaceted description
- Strive for integration

2. Complexity

- Investigates multiple aspects of the same phenomenon without connecting these
- Strive for multiplicity and polyvocality – not integration

Design example: Nesting (Complementarity)

Skjøtt-Larsen 2011

Study of class and cultural capital in Aalborg

1. Survey study
 2. Cluster analysis on SES variables
 3. Selection on interviewees based on cluster analysis
 4. Illustrative and elaborating analysis of interviews
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Inaccessible phenomena

Composit objects of research:

- Objects that are sequences
- Objects that are interconnected spheres
- Objects that are relationships between phenomena

Design example: Substance (Relations between phenomena)

Albæk et al. 2014

Study of the relationship between political journalists self perception and their practice

Parallel, independent design with two independent objects of research

1. Political journalists self perception (Survey)
2. Published articles with political content in major newspapers (content coding)

Results are compared in conclusion

Mixed methods potentials?

1. More or different knowledge
2. More nuanced or complex knowledge
3. Acces to different objects of research
4. Probably rarely more certain knowledge
5. Probably rarely more consistent knowledge

Integration in Mixed Methods Research

Integration is a point of both convergence and divergence in MMR literature.

- Convergence because every one agrees integration is a good idea
 - Divergence because everyone disagrees as to what integration is
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Integration in Mixed Methods Research

Integration is a point of both convergence and divergence in MMR literature.

- Bryman 2006: Integration simply means research that involves both quan and qual strands.
- Brannen 1992: Integration is the merger of data and analysis in opposition to complementarity in which they remain distinct (Denzin 1970)
- Caracelli and
Greene 1997: Integration is a design type where strands interact before the meta-inference stage
- Moran-Ellis et al.
2006: Integration is a 'bridge' produced intentionally by the research to connecting separate parts of the study(s)
- Creswell and
Plano Clark 2011: Integration indicates the design shift from handling strands separately to handling them together. Integration point
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Mixed Methods forms of integration

Six levels of integration:

- Theory Integration
 - Design Integration
 - Data Integration
 - Method Integration
 - Analytical Integration
 - Interpretation integration
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Forms of integration

	Theory	Design	Method	Data	Analysis	Interpretation
What is integrated?	Assumptions about the object of research	The role of strands in relation to research questions	Data collection	Data	Procedures for analyzing and structuring data	Inferences drawn from research findings in the light of research questions and theory
Which form of integration is particularly dependent on this form?	Design, method and interpretation	Method, data and analysis	Data and analysis	Analysis and interpretation	Interpretation	-
On which form on integration does this one depend?	-	Theory	Design	Method	Design	Theory

THANK YOU!