

TRIANGULATION

What is triangulation? Triangulation is the application and combination of several research methodologies in the study of the same phenomenon. Triangulation was originally used in social sciences and has now spread to psychology.

- It can be employed in both quantitative(validation) and qualitative(inquiry) studies.
- It is a method-appropriate strategy of founding the credibility of qualitative analyses.
- It becomes an alternative to " traditional criteria like reliability and validity"
- It is the preferred line in the social sciences

Why use triangulation?

By combining multiple observers, theories, methods, and empirical materials, sociologists can hope to overcome the weakness or intrinsic biases and the problems that come from single method, single-observer, single-theory studies. Often the purpose of triangulation in specific contexts is to obtain confirmation of findings through convergence of different perspectives. The point at which the perspectives converge is seen to represent reality.

Types of Triangulation:

There are **four** basic type of triangulation:

- a. **data triangulation**, involving time, space, and persons
- b. investigator triangulation, which consist of the use of multiple, rather than single observers;
- c. **theory triangulation**, which consists of using more than one theoretical scheme in the interpretation of the phenomenon;
- d. **methodological triangulation**, which involves using more than one method and may consist of within-method or between-method strategies.
- e. **multiple triangulation**, when the researcher combines in one investigation multiple observers, theoretical perspectives, sources of data, and methodologies.

An example of Multiple triangulation: The Police Peasant in Europe and America by Thomas and Znanieck's. Their investigation uses triangulated data, investigators, theories, and methods.

Criticisms of Triangulation usually refer to its data triangulation, investigator, theory, methods

Examples of triangulation in research

<http://www.qualitative-research.net/fqs-texte/1-01/1-01jakob-e.htm>

On the Triangulation of Quantitative and Qualitative Data in Typological Social Research: Reflections on a Typology of Conceptualising "Uncertainty" in the Context of Employment Biographies

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Abstract: Generally speaking, standardised and non-standardised methods each offer specific advantages as well as disadvantages. Non-standardised procedures seem to be especially suitable where the collection and reconstruction of subjective constitutions of meaning is concerned; standardised procedures, on the other hand, allow for conclusions concerning the quantitative distribution of the phenomena under study within the respective population. In this contribution, I will present an empirical study about the way German officers (holding a university degree) construct "uncertainty" just prior to leaving the army (JAKOB 2000). In this study, triangulation was used in such a way as to combine the advantages of both the qualitative and the quantitative approach. Both the possibilities and the limitations resulting from this specific combination of methods will be presented and illustrated as well as discussed using examples from the said research project.

Key words: *triangulation, validity, cluster analysis, biographical (un)certainty, army officers*

This contribution is only available as a full text in the German language. [German text](#)

Example Research in chronic poverty:

<http://idpm.man.ac.uk/cprc/CPTtoolbox/Combiningintro.htm>

Summary of common research methods

Method	Key Features	
Sample Surveys	Collect quantitative data through questionnaires. Usually a random sample and a matched control group are used to measure pre-determined indicators before and after the intervention	
Rapid Appraisal	A range of tools and techniques developed originally as rapid rural appraisal (RRA). Involves the use of focus groups, semi-structured interviews with key informants, case studies, participant observation and secondary sources	
Participant Observation	Extended residence in a programme/project community by field researchers using qualitative techniques and mini-scale sample surveys	
Case Studies	Detailed studies of a specific unit (a group, locality, organisation) involving open-ended questioning and the preparation of 'histories'.	
Participatory Learning and Action	The preparation by beneficiaries of a programme of timelines, impact flow charts, village and resource maps, well being and wealth ranking, seasonal diagrams, problem ranking and institutional assessments through group processes assisted by a facilitator.	
Specialised methods	E.g. Photographic records and video.	

Source: Herbert and Shepherd, 2001, adapted from Hulme (1997) and Montgomery et al (1996)

Combining methods and triangulation

Impact assessments at the project level and other forms of poverty-oriented research have moved increasingly from single method to multi-method approaches (Herbert and Shepherd, 2001), and greater use of participatory approaches in impact assessment has expanded the toolbox (Hulme, 1997 in Herbert and Shepherd, 2001). Although sample surveys are still common, they are now often combined with participatory and other qualitative approaches, and qualitative methods (rapid appraisal, participant observation, PLA) are often used on their own, particularly for NGO implemented projects (Herbert and Shepherd, 2001). As each key method has its own strengths and weaknesses (see Table 2) they are increasingly selected for use together. As a result studies are now able to benefit from the advantages of sample surveys and statistical methods (quantification, representativeness and attribution) and the advantages of the qualitative and participatory approaches (ability to uncover approaches, capture the diversity of opinions and perceptions, unexpected impacts etc.) (Herbert and Shepherd, 2001). Which method(s) to choose will depend on the nature of the project, the type of information which is needed (or given priority), the context of the study and the availability of resources (time, money, human) (ibid.).

Triangulation is simply using different methods to research the same issue with the same unit of analysis (i.e. an in-depth unstructured interview with each member of a household on health care needs following a survey of household heads on the same topic), thus cross-checking one result against another, and increasing the reliability of the result. Contradictory results often bring up important problems with question design, as well as fundamental issues surrounding researcher understanding of a topic.