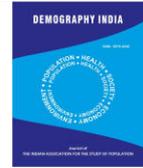


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A Note on Qualitative Methodology in Population Studies for the Beginners

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Abstract

This note introduces the philosophical foundations, methodological principles, and practical applications of qualitative research. It clarifies the crucial distinction between methodology (ontological, epistemological, and axiological assumptions underlying research) and methods, which are the specific tools such as unstructured interviews, observations, case studies, and focus group discussions. Unlike the positivist quantitative paradigm that assumes an objective, measurable reality, qualitative methodology views reality as socially constructed and co-created by participants and researchers.

The note reviews major qualitative approaches, including traditional anthropological fieldwork, participatory rural appraisal, critical participatory action research, grounded theory, and the emerging domain of qualitative meta-analysis using digital databases. These approaches offer flexible, iterative strategies for generating concepts, themes, and deep contextual insights grounded in lived experiences.

Drawing on literature and field experience, the note identifies common misconceptions among beginners, such as treating qualitative research as a tool for hypothesis testing, imposing structured questionnaires, using leading questions, mechanically coding without interpretation, fixing sample sizes in advance, or reporting narratives in numerical form. It explains core qualitative principles including theoretical sampling, conceptual saturation, reflexivity, thick description, and the role of theoretical lenses in framing interpretations.

Keywords

Hypothesis testing,
Methodology,
Sampling,
Qualitative Research,
Questionnaire.

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Introduction

Qualitative methodology and methods are well appreciated now. Even earlier, Mahmood Mamdani's famous book *The Myth of Population Control: Family, Caste and Class in an Indian Village*, published in 1973, which was written as a critique of Khanna Study used the qualitative approach. But it is during the last two decades that in social sciences in general and in population research there has developed a huge demand for qualitative methods. Shift from study of demographic transition to interventions and impact studies has necessitated application of triangulation² or method mix research, or purely qualitative analysis. Positivistic approach has already paved the way for lived experiences and postmodern perspectives, often due to greater recognition of intersectionality of culture, ethnicity, class, and gender. Yet, among the younger researchers there is some confusion regarding the usages of qualitative methodology. The purpose of this note is to remove certain misconceptions regarding the critical role that qualitative methodology can play in demography. They include the ill understood differences between methodology and methods, the arts of qualitative methods, and the way data collected through qualitative studies be analysed. Specifically, this note discusses alternatives to quantitative methodology, to explore new ways of doing social research, and to understand the philosophy, approaches, and methods of qualitative research. Thus, it focuses on both the science and art of qualitative methodology.

Methodology and methods

Methodology is the logic of methods. When we must choose between two methods, for example, structured interview schedule or case study, we must answer certain ontological³, epistemological⁴ and axiological⁵ questions. The most important of them is whether the social reality is objective or it must be seen as constructed by the contexts and researcher. While quantitative, often called positivistic, methodology takes an objective and realistic position, qualitative methodology takes a constructive⁶ position. It aims at the advocacy of the participants (subjects of research) through knowledge generation and does not claim that the knowledge is universal and independent of culture, subjects and the researchers. The term method refers to specific ways of data collection, such as experimental methods and case studies. Among them experimental methods, surveys and longitudinal studies are used primarily by quantitative researchers; the qualitative researchers use unstructured interviews, focus group discussions, observations, fieldwork and case studies, Key Informants Interviews (Singh et al., 2022; Tracy, 2013).

Conducting qualitative research involves identifying open-ended questions, selecting appropriate field sites and participants, preparing flexible interview and observation guides, and carrying out iterative fieldwork in which data collection and analysis inform each other. Researchers code the material, write analytic memos, develop themes and concepts, and remain reflexive throughout to

² Using more than one method or data source.

³What we believe about reality.

⁴ How knowledge is created, how do we know what we know? Through numbers? Through stories? Through experience?

⁵ Role of values in research, Does the researcher's personal belief affect the study?

⁶ Reality is constructed by people, culture, relationships; People see reality differently depending on their experiences.

ensure interpretations stay grounded in participants' experiences.

Types of qualitative approaches

In general, qualitative studies follow one of the following lines:

1. Qualitative studies by individual scholars
2. Participatory studies by interdisciplinary teams of scholars as conducted by Robert Chambers (1996), World Bank, and Neela Mukherjee (1994) in India, which are well known in the field of development studies
3. Critical participatory action research, promoted by American Psychological Association
4. Grounded theory⁷ - developed by Barney Glaser (Columbia) and Anselm Strauss (California) - one psychoanalyst, another medical sociologist; one positivist, another symbolic interactionist (Glaser and Strauss, 1967; Corbin and Strauss, 1990)
5. Qualitative meta-analysis (Jeevitha, 2025; Timulk and Creamer, 2023)

Qualitative methodology was a unique contribution of anthropologists who did fieldwork in an alien setting, often in other continents. They entered new cultures or communities, spent quite a lot of time in the setting, became one of the community members, and once they thought that they have learnt enough about the culture of the community they produced their own reports and papers. It is obvious that not all population professionals are motivated or have resources to spend long time in alien cultures. But if they agree with the ontology

and the theory of values on which qualitative methodology is based, they may try other options.

Robert Chambers (1996), World Bank, and then Neela Mukherjee (1994) used the second variant of qualitative methodology. It was often called rapid rural appraisal or participatory rural appraisal. The fieldwork was done quickly by an interdisciplinary team of scholars (called facilitators) by using several innovative methods of communicating with the illiterate farmers in the village settings, along with using observation methods, transect walk, now-and-then method etc. Such an approach has been particularly helpful to policy planners for quick assessment of field situation and studying impacts of health interventions.

Critical participatory method (Fine and Tore, 2021) added a critical dimension to participation by stressing the relationship between studied phenomenon and the power structure of society. In the ideal form, this methodology involves the community at all stages of research, from choosing the research questions to analysis of data. This methodology, in a way, shows a paradigm shift in qualitative methodology in the sense that the researcher is only a facilitator, the research is done by the community itself. There is a need to apply this method in Indian situations so that demographers and health scientists may develop new mental models of multiple alternatives to existing provisions of health services at the grassroots level.

These days many researchers talk about using grounded approach. They state that grounded theory approach is a theory generating rather than theory testing approach. As a matter of fact, it was

⁷ A method of generating theory from data.

developed by Glaser and Strauss (1967) to show that if a definite, scientific approach to coding is followed, the results of qualitative approach can be shown to be as scientific and valid as the results of the quantitative or experimental method. Corbin and Strauss (1990) developed the scientific side of grounded theory approach further. Richards and Farrokhnia (2016) linked it with policy research. Payne and Williams (2005) and Creswell and Poth (2018) explore the various aspects of qualitative methodology and methods from which the younger researchers may learn application of qualitative methodology in the field of population studies. Charmaz (2006) and Kleinman (1988) added many new ideas to thinking qualitatively such as qualitative findings being co-constructed by the participants (subjects) and researchers, and the need for a constructivist explanation. Aspers and Corte (2019) stressed on iterative nature of the qualitative research, their being close to the subjects and providing deeper insights beyond pre-existing and “taken-for-granted) understandings and variables.

Finally, Timulk and Creamer (2023) added a new dimension to qualitative methodology. Summarizing literature on various dimensions of meta-analysis of findings of qualitative research in a particular domain they opened a new line of enquiry in qualitative research. In this approach the researcher need not go to the field as was the case earlier, but using the existing databases (NVivo, ATLAS. ti, Provalis Research Text Analytics Software, Quirkos, MAXQDA, Dedoose, Raven's Eye, Qiqqa, webQDA, HyperRESEARCH, Transana, F4analyse, Annotations, Datagrav) collects literature on qualitative studies done in different settings, and at different times, in a specific area. Meta-analysis that employs content analysis

approach has potential to lead to new issues for research.

My experience shows that although qualitative methodology is gaining in strength in social sciences in India, specially since triangulation of methods is growing in demand from research sponsors (which includes various state departments), and many younger scholars in universities are also applying it there are some misconceptions about its applications. One common problem that I see is that in the name of case studies researchers are reporting simply background characteristics and perceptions of certain numbers of respondents while the aim of case studies is to discern the underlying patterns of relationships and explore new variables/dimensions. Based on my experiences I have identified a few common mistakes commonly made by researchers in the name of using qualitative methodology.

Instead of validity and reliability used in quantitative research, qualitative research relies on criteria such as credibility, transferability, dependability, confirmability, and reflexivity. These criteria ensure that interpretations are trustworthy and grounded in the participants' lived realities. Thick description and transparency in the research process further strengthen the quality of qualitative analysis.

Common mistakes made by qualitative researchers

A qualitative researcher must clearly understand the differences between the expectations from quantitative and qualitative methodologies. Based on my experiences and the reading of DiCicco-Bloom & Crabtree (2006), Denzin and Lincoln (2000), and Patricia Leavy (2014), I wish to say that the two methodologies are

based on two different assumptions about reality, whether any reality really exists or is simply constructed, and the way reality can be approached. It needs to be added that qualitative methodology is one thing and use of qualitative methods or qualitative data in quantitative research is another thing. Philosophically or methodologically, one may be working in positivistic tradition and still employ qualitative methods for empirical validation or use analyzing qualitative data applying meta-analysis or specific computer packages. Here is a list of some mistakes that qualitative or triangulation researchers are making in our country:

1. *Qualitative research can be used for studying a demographic pattern as though it is an objective and value-neutral reality.* It must be said that for qualitative researchers there is no pre-existing world of reality. Multiple versions of reality may be produced from the perspectives of diverse participants. Qualitative researchers are also aware of their own biases. The general understanding among qualitative researchers is that it is used for collecting narratives of the subjects (preferred to be called participants), and thick description⁸ of their behavior, experiences, beliefs, ideas, and questions and practical answers that relate them to their contexts, rather than thin description of behaviour. Thus, qualitative research is iterative and phronetic⁹ (Flyvbjerg, 2013).
2. *Qualitative research is used for testing hypotheses or making quantitative*

assessments of impacts of interventions. Qualitative research needs to generate codes, theories and themes, and raise new questions and yet, it does so by applying a certain theoretical lens or theoretical perspective, i.e., explanatory system. Without theoretical direction or lens the data generated may be unfocused and inconsistent.

3. Competing with quantitative researchers, qualitative researchers must also *produce statistical data on pre-operationalized variables in form of univariate or multivariate tables.* In fact, nobody expects qualitative researchers to generate numbers, unless they simply depict the background characteristics of those who participated in research, i.e., among whom unstructured interviews were conducted or case studies were done. Qualitative researchers work with words, not numbers as quantitative researchers do. They aim at seeking meanings that cannot be quantified.
4. *A qualitative researcher should fix a sample size in advance and that larger samples produce better results.* It needs to be noted that qualitative researchers cannot apply Cochran type formulae for estimation of sample size. They have no exact measurements of variables, and they also cannot fix the order of error they can tolerate. They are creating and not measuring variables. The standard term for sampling in qualitative research is the

⁸ Detailed, contextualized explanation of behaviour and meaning.

⁹ Research based on practical wisdom and real-life judgment.

“theoretical sampling¹⁰” which means collection of data from new types of participants whose need is discovered during the research process itself. Qualitative researchers keep on adding the number and class of participants till they arrive at invariant findings. In other words, they stop at a saturating sample, when addition of more participants in research was not leading to new questions or newer understandings of old questions. In a recent study published in *Sociological Bulletin* a paper claimed that it was based on qualitative methodology and used the idea of saturation¹¹ but the same produced several frequency tables based on data (Mukherjee and Pattnaik, 2025). How can one predict in advance that interviewing more participants would not change the statistical patterns produced in the research? The idea of saturation applies to ideas and not to statistical data. Also, one can do meaningful qualitative research with a small number of cases, especially if they involve meeting participants in different settings, repeatedly, and data are collected in multiple visits to clarify ideas generated in the field itself. For example, to study treatment seeking behavior among cancer patients as small a sample as of 20 patients would be acceptable if the patients are interviewed at different places – hospitals, homes, testing labs, religious shrines, places of provision of alternative medicines,

etc. – along with doctors and other medical staff, care givers, doctors, alternative medicine practitioners, clerics, spiritual healers, religious science practitioners, and insurance personnel. In general, as qualitative research does not use the scientific paradigm all methodological decisions are taken by the researcher (detraditionalization).

5. *Qualitative researchers must provide an initial theoretical position about study.* In qualitative methodology this would be a big blunder. Let the ideas emerge from the participants. Then they are further examined against the ideas generated by other participants or other types of participants. Their tools are autoethnography and life history methods, qualitative interviews on specific research questions, focus group discussion, observations – participant and non-participant, narrative analysis¹², case study, situation analysis, triangulation of two or more of the above methods and institutional ethnography etc.
6. *If someone uses mixed methods research design, both qualitative and quantitative work must be done together.* Mixed method research or triangulation permits one to start research using quantitative methods and then qualitative research may be done to gain insights into findings of quantitative research. Alternatively, one may start with qualitative research and subsequently a well-planned scientific design may be

¹⁰ Selecting participants based on emerging insights.

¹¹ The point at which no new ideas emerge from the data.

¹² Studying stories and accounts people provide.

used to explore the themes produced by the qualitative research. Different designs may be used sequentially several times (Cresswell and Cresswell, 2022).

7. *Qualitative research is done to help policy makers.* Contrary to this, qualitative research is often done with the aim of coping and healing the patients/participants by providing them with an opportunity to talk and develop self-reflection. Limiting qualitative research to producing policy recommendations neglects its critical, emancipatory, and reflexive potential.

In addition to the conceptual misunderstandings discussed above, beginners often misuse qualitative methods in practice. Such misuse does not merely weaken the findings; it undermines the philosophical foundations of qualitative methodology itself. The following examples clarify common forms of misuse.

1. **Using leading or biased questions:** Using leading questions or suggestive prompts such as “Don’t you think the health services are inadequate?” instead of neutral, open-ended questions. Such leading questions shape participants’ responses and violate the exploratory spirit of qualitative interviewing (DiCicco-Bloom & Crabtree, 2006).
2. **Treating unstructured interviews like structured questionnaires:** When researchers restrict responses, follow a rigid sequence of questions, or avoid probing, they turn qualitative interviews into structured surveys, undermining depth (Denzin & Lincoln, 2000; Tracy, 2013).
3. **Coding data mechanically without attention to meaning:** Some beginners use software to generate codes automatically or treat coding as merely categorizing text, without connecting interpretations to context, participant perspectives, or theoretical lenses (Charmaz, 2006; Corbin & Strauss, 1990).
4. **Reporting qualitative narratives in percentages or frequency tables:** Turning interview findings into numerical summaries (e.g., “40% of respondents said...”) reduces rich narratives to thin, quantitative-style data and contradicts the philosophical foundations of qualitative work.
5. **Fixing a sample size beforehand:** Many beginners assume that larger samples are better or try to justify sample size statistically. But qualitative research uses theoretical sampling and continues until conceptual saturation, not numerical stabilization.
6. **Starting with a fixed theoretical framework instead of allowing concepts to emerge:** Imposing pre-determined theories on data contradicts grounded, inductive qualitative logic. Qualitative analysis should let concepts emerge from participants’ experiences before linking them to wider theory (Charmaz, 2006).
7. **Using mixed methods sequentially without philosophical clarity:** Beginners often assume that qualitative and quantitative parts of mixed methods research must be done simultaneously, or without reflecting on epistemological differences.

- 8. Reducing qualitative research to generating policy recommendations:** Qualitative research is not merely a tool for policymaking; it is often meant to amplify participant voices, support coping and healing processes, and reveal structural inequalities.

Ethical considerations in qualitative research

Qualitative research requires careful attention to ethical issues because it deals with personal experiences, sensitive topics, and unequal power relationships. Researchers must ensure informed consent, protect confidentiality in small communities, manage emotions during interviews, and avoid exploiting participants' vulnerabilities. Reflexivity is essential because the researcher's own social background influences interactions and interpretations.

Conclusion

Qualitative research is reflexive. The researchers know that the findings of the study are co-constructed by the participants and the researchers and, therefore, the researchers need to reflect on their socio-economic and cultural background – class, gender and ethnicity – while interpreting the findings. They also cannot ignore the role of power structure and be politically neutral and dispassionate as the quantitative researchers can. It is potent tool to raise voice of the marginalized people. The qualitative researchers provide a holistic, phronetic and thick description of the experienced conditions of people and their state of mind. Generalization or acontextual theorization is not the aim of qualitative researchers. Further, all qualitative researchers are not required to collect primary data. Many good

lessons can be learnt through the meta-analysis of existing qualitative studies.

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