

Lecture 8: Combining Methods and Data

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COMBINING METHODS

One can prevent indiscriminate application of one or the other type of methods only by spreading knowledge about the nature and limitations of each of them. At the moment there is very little critical understanding of quantitative methods among social scientists in India. Statistical methods are often misused due to avoidance of assumptions, fallacious use of small samples for 'show-biz', deliberate concealment of facts, use of computing equipment, and lack of knowledge. None of them is, however, a charge against statistical methods only. All of them can be equally applied to qualitative methods.

However, it is important to note that the problem actually does not lie with the statistical methods or the qualitative methods per se. The actual problem may arise due to misuse of any particular approach. The misuse might occur due to lack of knowledge and ritualistic usage of a method, whether quantitative or qualitative. Statistical methods such as chi-square may be used or abused. The mindful and creative use of statistics may rest some of the criticisms of the positivistic paradigm. Qualitative approach on the other hand has to be evaluated in terms of its quality and reliability. Most of the criticisms of qualitative methods are directed towards the question of validity and reliability.

The aforementioned discussion makes it clear that both the approaches have their strengths and weaknesses. The epistemology of quantitative vs. qualitative methodologies specifies that the distinction between the two is more or less spurious, superficial and not well grounded. What should then be the answer to this debate? A complementary relationship between the two is a good idea.

At times the idea of triangulation or method-mix or employing multi-method approach is very useful. Operations researchers commonly advocate use of combining different methods, such as questionnaires, interviews, check-lists, content analysis etc., to study the various components of a complex phenomenon. They suggest collapsing the construct into its components (values, ideas, images etc.) and using different method to study each component.

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Today most practical researchers would favour methodological pluralism. The best way is to use the two seemingly different approaches as complementary. Since complementary methods are those that do not share the same limitations, triangulation by application of multiple, complementary methods may provide a firm basis for eliminating methodological limitations. Complementary methods can be used for the purpose of verification, estimation of error, monitoring of data collection process, and testing out the meaning of data.

The above discussion provides a basis for arguing in favour of mixing qualitative and quantitative approaches for maximum gain. It must be emphasized that much of contemporary research in population deals with risk behaviour and its psychological correlates necessitating explorations of social representations of risk and risk behaviour. HIV/AIDS epidemic has led to new issues and new definitions. This involves change in the meanings of sexuality and condoms, place of women in society, debate on certain religious practices and greater acceptance of sub-cultures within a culture. The complex and multi-faceted nature of social representations of HIV/AIDS is evident from the field studies. Since the HIV/AIDS research is about complex social representations, such as sexuality, homophobia, process of coming out, and meanings of life and death, it cannot be captured by any one approach: quantitative or qualitative.

Qualitative methods provide a detailed exploration of meanings in a research context whereas quantitative methods provide rigour and form. Qualitative methods may be used successfully in combination with multi dimensional scaling (MDS), regression analysis, cluster analysis and qualitative content analysis. MDS and cluster analysis are used as complementary methods to analyze proximity data. Content analysis is used to draw inferences from qualitative data – written and verbal.

On the basis of the arguments and evidence presented in this lecture it can be concluded that combinations of qualitative and quantitative methods can be very fruitful because they offer an opportunity for validating research findings and make it possible to gain required information using suitable methods.

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PRIMARY AND SECONDARY DATA

Population research requires diverse kinds of data. They may broadly be divided into two categories of data: primary and secondary. Primary data are those data which are collected by the researchers themselves. Thus the data collected from key informants, survey data, focus group discussions (FGDs), and experimental data – normally used in action research – are all the types of primary data. Secondary data refer to pre-existing data, collected by other researchers in the past for the similar or different objectives. For example, in situation analysis of HIV/AIDS, results of national and subnational surveys on issues pertaining to reproduction, STI/RTI, mortality and morbidity, administrative records from police and health departments, development data from District Rural Development Authorities (DRDAs), education data from Basic Education Officer, etc. are secondary data. They present a broad scenario of development and HIV/AIDS in the study area.

The secondary data can be of immense use but the problem with secondary data is that those who collected them may have used other definitions of study variables than used by the researcher. One must know the original definitions. One must also examine the limitations and various kinds of errors that may be present in the data. If you are using census or NSSO data on work and employment you must study the definition of employment and unemployment used by them so that data can be interpreted accurately.

Secondary data often has the attraction of being natural, unbiased and non-obtrusive. In sociology class many of my Muslim students claimed that Muslims did not believe in the caste system and the data collected by sociologists of caste, among Muslims, is biased and distorted. I told them to look at matrimonial pages in newspapers and on net. For me, they are like secondary data. They are written by Muslims themselves and they show that they are looking for brides and grooms in the same caste. If they are liberal they write “caste no bar”. This shows that caste among Muslims is a social reality.

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Among Indian researchers there has been a preference for primary data. Today we have very rich data on population and related issues, produced by censuses, national and sub-national surveys and sample registration scheme (SRS). One can do good research by analysing these data through innovative conceptual schemes and advanced statistical techniques.

ETHICAL ISSUES IN DATA COLLECTION

Research among human beings presents several dilemmas and conflicts as the researchers have to develop a set of ethical guidelines for all those people involved in the research process at any stage. Ethical considerations demand that the researchers respect the subjects and do not do anything which can harm the subject. The subjects should be properly informed about the nature of research and its possible uses. In other words, the research has to adopt a “no harm policy.” When fieldworkers approach the individuals and groups with whom they need to talk in an opportunistic manner, they must respect the needs and wishes of people with regard to privacy. The subjects who are asked to share information during the fieldwork should not be put to any kind of risk during the process, nor should participation in the process lead to any kind of loss. The purpose of research and the methods involved should be explained to all subjects approached by the research team. On the basis of information respondents may give their consent (written or oral) to participate in the research or not.

Respondents are informed that the session will last about one hour (or whatever is the expected time for interview or experiment), and they are not obligated to stay till the end of the session if they do not wish to. They are told where the session will be held, how the information they share will be kept secure, and that their participation in the mapping will remain anonymous. The ethical issues acquire great significance while dealing with vulnerable populations, such as commercial sex workers, truckers, the marginal communities and others who come from disadvantaged sections of society. With them an attitude of equality and sharing should be maintained.

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It may be noted that in “no harm policy” harm has to be defined in a broader sense. It covers not only loss of income or clientele it also covers embarrassment or shame. Imagine that a male investigator is interviewing a female respondent on sexuality, childbirth practices or RTI/STI in an Indian village. Will the respondent feel comfortable? If you are a woman, would you like to be a respondent in such a study? If the answer is no, it means that even if permitted by donors, such a research practice is unethical. Male respondents must be interviewed by males and female respondents by females. However, if the topic of research is poverty or one is collecting data on education and work, topics which have no connection with sexuality, then it may be accepted if male investigator collects data from female subjects.