



March 1983

Qualitative Methodology, Hypothesis Testing and the Needs Assessment

John W. Murphy
Arkansas State University

Follow this and additional works at: <https://scholarworks.wmich.edu/jssw>



Part of the Social Work Commons

Recommended Citation

Murphy, John W. (1983) "Qualitative Methodology, Hypothesis Testing and the Needs Assessment," *The Journal of Sociology & Social Welfare*: Vol. 10 : Iss. 1 , Article 10.

Available at: <https://scholarworks.wmich.edu/jssw/vol10/iss1/10>

This Article is brought to you for free and open access by the Social Work at ScholarWorks at WMU. For more information, please contact wmu-scholarworks@wmich.edu.



Qualitative Methodology, Hypothesis Testing and the Needs Assessment

John W. Murphy

Arkansas State University

ABSTRACT

The qualitative methodologist argues that data have meaning only when they are verified experientially. In order for this type of verification to take place, program evaluators must utilize a "responsible" methodology when conducting research. In this paper a definition of responsible methodology is advanced, while the proper operationalization of this type of methodology is illustrated. In particular, it is shown how key needs assessment strategies can be used in a responsible manner, so as to capture the experiential significance of data.

Qualitative Methodology: An Introduction

Qualitative methodology advances one major assumption that quantitative methodology does not. Simply, all research endeavors must be responsible relative to the methodology which they employ. What it means to be methodologically responsible is really quite simple. When researchers are methodologically responsible they do not approach an object or environment of inquiry as if it were something universal (Douglas, 1976: 1-9). Rather, the researcher who is using a qualitatively-grounded methodology must be extremely sensitive to the contextual exigencies of any milieu that is investigated, and must simultaneously make sure that the methodology or knowledge assumptions which he or she is making are not different from those made by the people who are under investigation.

This idea of methodological responsibility has received a lot of attention recently by social scientists, but is just beginning to appear in the program evaluation literature (Murphy, 1979; Murphy and Pilotta, 1980; Patton, 1979: 199-238). For example, Gouldner (1970) has referred to "domain assumptions", Foucault (1970) to "epistemological grids", Kuhn (1962) to "paradigms", and Goffman (1974) to "frames".

What each of these authors is saying in his own inimitable terminology is that the individuals who live in the social world take-for-granted major assumptions which are thought to be valid for anyone who lives a social existence. These assumptions, moreover, outline what is thought to be factual or socially real for those persons who inhabit the social world (McHugh, 1970). Social facticity or truth to the researcher who is grounded in a qualitatively-oriented methodology, however, cannot be naively taken-for-granted. It is viewed as having the status of a social assumption which must be thoroughly exposed before any truth claims can be advanced.

This approach to social facticity or evidence, of course, makes new demands on the researcher or program evaluator. Both the evaluator and those persons that are evaluated make assumptions about the nature of social reality. Traditional quantitative methodologists assume that the individuals who are investigated merely possess opinions about the social world, while scientists are thought to be able to purge themselves of mere opinion, in order to ferret out from these prevailing opinions what is really truthful or factual about a social setting. Because of this belief, social scientists are thought to be capable of attaining a state of "value neutrality", and therefore are not presumed to be harboring assumptions about the nature of social reality which could eventually become manifest in their research methodology (Morris, 1977: 4-42).

Accompanying this philosophical shift away from value neutrality is an awareness of exactly how any social environment must be approached. Social scientists must now be cognizant of the fact that, throughout an investigation, procedural decisions are made that are totally imbued with assumptions about the nature of the social reality that may or may not be held in common with the persons who are investigated (Lee, 1979). For example, when choosing a linear regression model for projecting the number of heroin addicts that may enter treatment in the coming year, a major assumption is made pertaining to the actual linear nature of the data or reality that is investigated. When this type of model is employed for use in conducting a needs assessment, much concern is devoted to understanding what data mean mathematically, but little to what they actually mean experientially (Murphy, 1978). What the investigator who is grounded in a qualitative methodology must now do is to become aware of the assumptions that are made throughout an investigation and the limited applicative validity they have as truth statements.

This theoretical gambit made by the qualitatively-substantiated social investigator has in recent literature been

referred to as attaining a state of "reflexivity", in that the ability of reality (i.e, methodological) assumptions to guide and, possibly, distort the focus of an investigation is recognized. Then, social scientists must take extreme care to ensure that the reality assumptions they are making about the social world are similar to those made by the people who are investigated. If the proper alignment is made between the reality assumptions of the investigator and the persons who are investigated, the possibility of obtaining valid research results is appreciably increased (Douglas, 1979: 125ff). This entire process of aligning reality assumptions embodies the essence of a responsible methodology. Without a responsible methodology data collection proceeds in a very haphazard manner, thus generating data that have little validity and, thus, generalizability. The use of irresponsible data for the purpose of social planning, moreover, must be viewed as highly suspect.

With this notion of responsible methodology in mind, the remainder of this discussion will be devoted to exploring a variety of research techniques that are presently used by program evaluators to generate data, in order to illustrate how they may be used in a totally irresponsible manner, and how such irresponsibility can be corrected.

The Experimental Design

Most evaluators and managers agree that the highest stage of program evaluation is represented by evaluation research. Evaluation research, moreover, is assumed to be synonymous with experimental research which employs some type of experimental research design. The experimental design that is employed may be either classical or what is commonly referred to nowadays as quasi-experimental. No matter what type of design is employed, however, the attempt is made by the researcher to systematically isolate a particular variable, in the hope of assessing the effects that a so-called independent variable has on producing concomitant changes in other dependent variables. Stated simply, the use of an experimental design announces on the part of the evaluator an attempt to isolate at least minimal causal relations among variables (Bailey, 1978: 191-214).

The qualitatively-oriented researcher does not deny that causal relationships between variables can be discovered, but fears that the use of an experimental design, because of the sterile mode in which it is often operationalized, must necessarily distort data. The qualitatively-oriented researcher believes that the rendition of causality which usually accompanies the use of an experimental design must be deepened before any valid data are forthcoming from that style of research.

It appears as if evaluators are mesmerized by the prospect of advancing the scientific status of program evaluation primarily through the use of experimental designs. They seem to believe that the successful use of an experimental design in some way guarantees the generation of precise data, as if precision is an adequate measure of accuracy. Therefore, pressure is currently on the evaluator to perfect the use of experimental designs, despite their difficulty within the confines of an applied setting, so that the scientific status of program evaluation will be upgraded. The hoped-for result of this increase in the scientific stature of program evaluation is that more valuable (i.e., causal?) information will be generated for the purpose of enhancing the decision-making capability of program administrators (Wilner, 1975).

The qualitatively-oriented researcher believes that this focus of attention on experimental designs in evaluation research is misguided. Specifically, it appears as if evaluators are fundamentally concerned with eliminating the logistical problems that are associated with implementing an experimental design in an applied setting, and thus with merely refining the formal structure of this procedure. When this occurs, the issue of the content that is introduced into these experimental procedures is obscured. Therefore, an enormous amount of energy is spent attempting to remove all the possible sources of error within an experimental design that may reduce the internal validity of information, while the issue of external validity is not taken seriously.

The difference between internal and external validity is important. Internal validity is concerned with systemic completeness, so that the experimental system is closed to the extent that all unwanted information is excluded. External validity addresses the issue of the adequate conceptualization of the variables that are included in any experiment. These different types of validity are only logically and not necessarily structurally linked. That is, the generation of highly reliable information, through the successful implementation of an experimental design, in no way guarantees the simultaneous creation of valid information, even though on the surface the relationship between these types of information seems to be perfectly logical. Getting good answers is not useful if the wrong questions are asked.

Therefore, in terms of adequately implementing an experimental design in evaluation research, the qualitatively-oriented researcher asks that the evaluator not become enamored with the form of an experiment to the extent that an in-depth analysis of the conceptual problems facing the evaluator are ignored or taken-for-granted. Moreover, the qualitatively-oriented evaluator must also not merely be concerned with

procedural issues that pertain to the proper operationalization of a variable, e.g., merely refining the definition of a concept that is used. But additionally, an evaluator must ensure that all concepts embody the logic-in-use of the persons who are assessed (Kaplan, 1964: 3-11).

The research concepts that are used must not only be clearly delineated, but more importantly must be defined in a manner which ensures that the meaning they embody is similar to that used by the individuals who are evaluated. In this sense, the qualitatively-grounded researcher focuses not only on logistical proprieties, but also on the content or meaning of all the variables that are included in an experiment.

The Questionnaire

It is usually assumed that a questionnaire can provide the most comprehensive source of data when conducting a needs assessment. A questionnaire is believed to be a truly comprehensive approach to data collection simply because it can be created in a methodical manner, and can be distributed according to the canons of scientific sampling procedures. Questionnaire data, moreover, can be systematically retrieved and reinterpreted in a variety of ways by the researcher, and can be more easily coded and prepared for computer analysis than, say, strict interview data, due to their more tangible nature (Rossi, Freeman, and Wright, 1979: 112ff). In a much more mundane vein, a questionnaire can also be administered relatively cheaply. All-in-all many evaluators immediately view the questionnaire as an excellent vehicle for collecting needs assessment data because it is generally believed that a properly used questionnaire can reduce the error variance present in an investigation to a minimum.

This is not to suggest that fundamental problems are not associated with collecting information via the questionnaire. Quite to the contrary, numerous problems will automatically be identified by a competent researcher with the use of a questionnaire. For example, it is coming to be more widely known that a questionnaire is not an appropriate method for eliciting information from certain populations, e.g., heroin addicts. Likewise, the usual problems that are thought to be inherent to questionnaire design are also raised. Every evaluator using a questionnaire will most likely address issues that pertain to, for instance, questionnaire length, the interaction effect that can take place between the individual items of a questionnaire, the clarity of items, and the relevance of specific items to the construct that is assessed. And of course, the problems associated with sampling will also be recognized (Bailey, 1978: 93-133).

The qualitatively-oriented researcher does not suggest that finding solutions to the aforementioned logistical problems associated with questionnaire use is irrelevant, but that such solutions may not be sufficient to ensure that accurate and, thus, valid data are collected. As with the experimental design, the problem-solving activity employed most often by evaluators to remedy the difficulties associated with using a questionnaire is primarily logistical or formal. That is, time is spent ensuring that the questionnaire is long enough to guarantee a high degree of reliability, but not too long so as to induce fatigue. Instructions are articulated in simple language, in order not to confuse respondents. Also, care is taken to ensure that irrelevant or distracting stimuli are excluded from a questionnaire. And most likely the issue of content validity will also be raised, while the logistics of generating a random or representative sample are also discussed. In a word, a competent researcher will devote a lot of time to developing the technical accuracy of a questionnaire.

The qualitatively-oriented researcher, however, requires that construct validity be given much more serious consideration. Most often the issue of construct validity is handled by pilot-testing a questionnaire. It is at this juncture in the process of developing a questionnaire when the subjects to be surveyed are supposedly allowed to have "input" into its design, so that a high degree of construct validity might be ensured. However, most often pilot-testing is viewed as merely an academic exercise that should theoretically be conducted, or, again, the opportunity is merely taken to work some of the logistical "bugs" out of the method used to administer a research instrument (Isaac and Michael, 1971: 92ff). It is not very often that the pilot-testing procedure is taken seriously enough that it is used as an opportunity to raise trenchant questions which pertain to construct validity. Specifically, questions are not often raised that relate to the definitional adequacy or validity, as measured by the individuals to whom a questionnaire is applied, of the variable(s) that is represented in a questionnaire.

A qualitatively-grounded researcher advances the notion that the process of constructing a technically accurate questionnaire should be supplemented by a seriously undertaken ethnographic study of the population to be surveyed before it is designed. The members of the population to be surveyed should be actively involved in the process of constructing the questionnaire to which they will eventually be asked to respond. If this ethnographic procedure is done correctly, the values and social/cultural meanings of a population can be contained in the language of the questionnaire.

When this is the case, the validity of the constructs used in a questionnaire will certainly be enhanced. What is important to remember at this juncture is as follows: an unambiguously outlined construct is not at all synonymous with one that is experientially valid; standardization is only indirectly related to validity.

The Community Forum and the Key Informant Technique as Data Collection Methods

Relative to the other needs assessment methods discussed thus far, these two approaches to gathering information are usually associated with a unique problem in program and evaluation research. Even though this problem is indigenous to the use of the experiment and questionnaire, it seems to manifest itself most often when a researcher has to infiltrate a group to gather data. This problem relates to ethics, or specifically the ethical responsibility or conduct of the evaluator. It is in terms of the focus of this ethical concern that the qualitatively-oriented researcher differs from those who are guided by a positivistically or quantitatively-grounded methodology.

Both the community forum and the key informant technique require that a strong bond of trust must be established between those who are being evaluated and the evaluator (Warheit, Bell, and Schwab, 1977). In order for valid information to be gathered, an evaluator must constantly labor to maintain this bond of trust. If this bond is abridged or destroyed, subjects can easily begin to feel that they are being manipulated, and can start to sanction their responses or refuse to respond altogether. This is an old problem, and in point of fact was recognized by the ancients. Since Aristotle wrote his Rhetoric, however, this problem of convincing respondents that a researcher (or a speaker) does in fact possess high ethical standards has been approached in primarily one way (Perelman, 1979: 1-41). Specifically, researchers have usually tried to illustrate that they are responsible individuals by adhering to both formal research and professional standards that are presented as being inherently unbiased, and thus naturally legitimate. Through the use of these assumed universal standards it is believed the ethical integrity of the researcher will be maintained throughout an investigation.

When conducting a community forum or a key informant interview session, these ethical considerations take a variety of forms. For example, care is taken to ensure that a community forum is well advertised, so as to guard against a community feeling it was not well informed in advance that a

session would be conducted to develop social policies. When a forum is actually convened, care is usually taken to ensure that the various segments of a community are represented, in order to make sure that different community interests have equal input into any decision that might eventually be rendered. Similarly, many times elaborate schemes are devised to guarantee that these meetings are not dominated by one particular group, merely because it may be, for example, more aggressive or better educated. In addition, highly sophisticated procedures have been developed to guarantee the systematic treatment of all the ideas that are generated, so that only the proposals that truly represent a particular group receive attention during any policy decision (Patton, 1978: 97-117).

Similar practices are followed by the researcher who conducts a key informant needs assessment. Care is taken, for example, to ensure that all key informants are really voicing the opinion of the group they supposedly represent, and not merely their own self-interest. A key informant's group ties can be monitored through the use of network analysis. Most important in this type of "closed" interview session, however, is that the impression should not be created that an interview actually constitutes surveillance. It must be made perfectly clear to the informant at the outset of this procedure that the community has control over all the data that are generated, and that this information will never be used against it. This type of stipulation can be met by making it necessary for a community to be consulted before data are used for any purpose, therefore allowing a community to actively decide exactly how all information shall be utilized. In both the community forum and key informant approaches to gathering data, the members of a community must sense that they are active participants in any project that is undertaken. This can be accomplished by creating a situation where all subjects are fully informed of the decisions made throughout a project, and because of this feel that they can trust an evaluator's judgments.

The attempt here is not to be exhaustive in specifying how an evaluator's ethical integrity can be maintained. Rather, the point is to illustrate that the solutions to the ethical problems associated with these data-generation procedures have traditionally been merely formal. Stated simply, ethical responsibility is equated with methodological consistency and the ostensive adherence to a set of procedures that are presented as being inherently unbiased and, thus, held to be universally legitimate. The qualitatively-oriented researcher requires that ethical responsibility acquire a more in-depth meaning if an evaluator is to ever be truly ethically responsible. This means sharing control of the data.

In addition to adhering to experimental proprieties, a researcher must also be capable of providing a responsible account of what is actually transmitted between a subject and the evaluator. Only if an evaluator makes an attempt to interpret information correctly, to understand the meaning it has for a community, will ethical responsibility be exhibited. These two approaches to data collection require an evaluator to penetrate the interpretive dimension of social existence, so that the meaning social life has for a community's members can be adequately grasped. In order to accomplish this task evaluators must undertake a field study of the community, so that they become familiar with its values, argot, and general cultural orientation. Only if this is done will there be a good chance that an evaluator will ever really tap the true needs of a community.

Mathematical Projection Models

With the budget cuts currently facing every program manager, the needs assessment requirements of a program are many times met in the most expeditious manner. When economics begins to dictate the manner in which needs assessments are conducted, a manager's best bet is to opt for some type of indirect indicator of a community's treatment needs. One approach to the use of indirect indicators that is presently gaining currency is the mathematical forecasting technique. (Murphy, 1978; Nakkash, 1977). This technique is relatively inexpensive, in that data are used which are already being collected, e.g., intake admissions, or are readily available in the form of, say, census tract demographics. Once these data are garnered, they are fed into a mathematical model and, simultaneously, combined with some theoretical assumptions that pertain to the nature of social life in order to generate a hypothetical account of a community's treatment needs. The problem with this method is not that it produces an inherently speculative picture of a community's treatment needs, but that many times these projections are treated as unquestionably real.

The mathematical and theoretical models that are combined to provide the substance for these indirect projection techniques make major assumptions about the world, and because of their presumed universality, many times, go unchallenged and, thus, unverified. Therefore, these models advance a view of the social world that may or may not in fact be real. Just because these models are abstract they should not be treated as "value-free", as if they are not connected to the real world. These models and theories not only have impact on the so-called real world, but in fact shape data to the extent that they do not even vaguely resemble the world from which

they are originally extracted. When this occurs, these forecasting techniques advance propositions that are totally erroneous. Most often these incorrect projections are attributed to historical changes, when in fact a major source of their error may be that originally the assumptions that were advanced were unsubstantiated. Actually, how many evaluators who employ these forecasting techniques take seriously the methodological assumptions that accompany their use?

Again, a qualitatively-oriented researcher does not demand that a program evaluator totally reject the use of these forecasting models. Instead, all that is required is that the assumptions in which these models are couched be taken seriously. For example, a linear projection model makes significant assumptions about the nature of time, for it is thought to proceed in a rectilinear manner, at a constantly increasing velocity. A curvilinear model makes a shift in the assumption made about the velocity of any increases or decreases that may be witnessed in a specific phenomenon in the future. Time series analysis can theoretically accomodate a variety of data trends, yet a major assumption is still made about the linear nature of all data. The "concentric ring" theory which is used most often by evaluators who attempt to make prognostications about a community's treatment needs, makes key assumptions about the attitudes of individuals who live in certain spatial locations. In this case assumptions are not advanced about time, but space. As these examples show, an evaluator may be making major assumptions about the tacitly held beliefs of a population that may, in fact, not be true.

In order for these projection models to produce accurate data, a researcher must carefully reflect upon all the significant methodological assumptions that are made by an evaluation technique, and subsequently try to verify those assumptions against the validity they have for the population that is surveyed. This alignment of assumptions can be accomplished in a variety of ways. The following section of this paper will briefly discuss one approach that has recently been developed by Murphy and Pilotta (1980).

The Penetration of Assumptions

In order to expose the assumptions that are made by a particular speaker (i.e., researcher or subject), a situation must be created in which individuals must act on information they believe to be obviously factual. Only through this type of strategy can the limits of the specific understanding a person has of a situation be revealed. When an individual acts on information that is presented by another person, the

interpretation which the acting person has of the original information is open to public scrutiny. Simply, the original presenter can challenge any interpretation of his or her original presentation. Public scrutiny of a particular interpretation of information creates a type of "shock effect", which many times will force individuals to recognize the limited view they have of the world, and realize that the assumptions they are making about the world in fact have limited validity. When interpreters are held publicly accountable for their interpretations, they must be more sensitive to the intended meaning of the information expressed by subjects.

The strategy for facilitating this mutual clarification of concepts is relatively simple. In the key informant methodology, for example, key subjects may be interviewed by three different interviewers at three different times, as opposed to the same time as is suggested by Rothe (1978). These three interviewers ask the key informant similar questions. Once these three private interviews are completed, all the interviewers and the subject should meet together, in order to engage in what might be called a final debriefing session. At this session, each interviewer will act on his or her interpretations of the information that was obtained from each private interview, i.e., each interviewer begins to draw conclusions. It is at this time that the key informant can correct the interviewer's interpretations of the originally presented information as needed. This type of public scrutiny many times reveals significantly different interpretations of similar information. It must be remembered that interviewers only tend to ask questions about answers which seem unclear, and not about every response. Because of this, individual errors in interpretation may go unnoticed until conflicts in interpretation arise. If the reader is interested in investigating further the various other strategies that can be used to get individuals to seriously reflect on the assumptions they make about the nature of the world, the work of Garfinkel (1967) should be consulted. The point that should be emphasized at this juncture is as follows: the private interviews conducted by each interviewer, even though similar questions are asked, may produce totally different interpretations of the information the key informant presents. It is from these differences in interpretation that may emerge at a public meeting that the limits of a possible interpretation can be made known, and the assumptions of that interpretation can be explored.

Conclusion

In this paper the attempt has been made to present the reader with a view to what the qualitatively-oriented researcher means by the phrase "responsible methodology", the hallmark of a qualitatively-grounded research endeavor. Following this, the idea of responsible methodology is applied to a variety of evaluation techniques. The attempt is made to illustrate how these procedures are usually used in a manner that is methodologically irresponsible, and how they can be supplemented by the principles held by the qualitative methodologist in order to render them more responsible. When these traditional quantitative methodologies are used responsibly, they pose no real threat to the collection of valid data. Yet as a qualitatively-oriented researcher asserts, a methodologically irresponsible application of quantitative techniques may result in the generation of data that have little utility for community planning.

References

- Bailey, K.D. Methods of Social Research. New York: Macmillan, 1978.
- Douglas, J.D. Investigative Social Research: Individual and Team Field Research. Beverly Hills, CA.: Sage, 1976.
- Foucault, M. The Order of Things. New York: Pantheon, 1970.
- Garfinkel, H. Studies in Ethnomethodology. Englewood Cliffs, New Jersey: Prentice-Hall, 1967.
- Goffman, E. Frame Analysis. New York: Harper and Row, 1974.
- Gouldner, A.W. The Coming Crisis in Western Sociology. New York: Basic Books, 1970.
- Isaac, S. and Michael, W.B. Handbook in Research and Evaluation. San Diego: Edits, 1971.
- Kaplan, A. The Conduct of Inquiry. Scranton, PA.: Chandler, 1963.
- Kuhn, T.S. The Structure of Scientific Revolutions. Chicago: University of Chicago Press, 1962.
- Lee, A.M. "On Context and Relevance". Pp. 3-16 in G. Jacobs, ed., The Participant Observer. New York: Braziller, 1970.
- McHugh, P. "A Common-sense Perception of Deviance". Pp. 151-180 in H-P. Dritzell, ed., Recent Sociology, No. 2. New York: Macmillan, 1970.
- Morris, M. An Excursion into Creative Sociology. New York: Columbia University Press, 1977.

- Murphy, J.W. "Drug Program Evaluation: Outcome Measures". Journal of Drug Education 9 (4): 309-314, 1979.
- Murphy, J.W. "Drug Abuse and the Needs Assessment". The Loop 7: 3-5, 1978.
- Murphy, J.W. and Pilotta, J.J. "The Needs Assessment as a Source of Data". Evaluation News, February, 1980.
- Nakkash, K. Time Series Analysis: An Application for Drug Needs Assessment. Washington, D.C.: NIDA, 1977.
- Patton, M.Q. Utilization-Focused Evaluation. Beverly Hills, CA.: Sage, 1978
- Perelman, C. The New Rhetoric and the Humanities. Dordrecht, Holland: D. Reidel, 1979.
- Rossi, P.H., Freeman, H. and Wright, S. Evaluation: A Systematic Approach. Beverly Hills, CA.: Sage 1978.
- Rothe, P. "Situational Studies: A Common-sense Approach". Evaluation News 10: 30-32, 1979.
- Warheit, G.J., Ball, R.A. and Schwab, J.J. Needs Assessment Approaches: Concepts and Methods. Rockville, MD.: DHEW, 1977.
- Wilner, D.M. "Evaluation: State of the Technical Art". Pp. 27-54 in J. Zusman and C.R. Wurster, eds., Program Evaluation: Alcohol, Drug Abuse, and Mental Health Services. Lexington, MA.: D.C. Heath, 1975.