
Qualitative Research: Beyond a Number Game

Solomon Areaya*

Introduction

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An Over View about Qualitative Research

A research methodology to be employed could be determined on the bases of what and how the researcher is trying to find out in relation to his/her research problem. It is a misconception to dichotomize qualitative Vs quantitative research approaches in terms of using or not using statistics per se. The issues of validity and reliability so often posed by quantitative researchers are relevant to qualitative research in varying ways (Silverman: 2000:1). A research problem could be studied either qualitatively or quantitatively depending on the research orientation the researcher has.

Educational researchers normally are characterized by the research questions they pose and the answer they subsequently seek. Certain kinds of questions initiate some kinds of research method. The type of research and the appropriate strategy to be employed by and large could be influenced by the nature of the research questions. A basic

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categorization scheme for the types of questions is the familiar series: "Who", "what", "How", and "Why"

For instance, if we want to know "What" the outcomes of a newly introduced curriculum had been, we could answer this question by doing a survey or by examining economic or any other relevant data. If we again want to know how many people did the curriculum serve? What kinds of benefits were received? We could answer all such questions without doing qualitative case study. However, if we need to know "how" or "why" the curriculum had worked or not worked, we could necessarily lean towards a qualitative case study. If the researcher is concerned with exploring people's life histories or every day behaviors, then qualitative methods may be favored. The researcher has to bear in mind that qualitative and quantitative methods are often evaluated differently. Silverman (2000:1-2) showed this by using the terms used by speakers at a Conference on research methods as follows:

Claimed Features of Qualitative and Quantitative Methods

Qualitative	Quantitative
Soft	Hard
Flexible	Fixed
Subjective	Objective
Political	Value-free
Case Study	Survey
Speculative	Hypothesis testing
Grounded	Abstract

Looking thoroughly to the above table and depending on once own point of view, one might suggest that quantitative research is superior because it is value free. On the other hand, it could be argued that such value freedom in education is either undesirable or impossible. Similarly, for some people, flexibility encourages qualitative researchers to be innovative and for others it might be criticized as lacking structure. This structure could of course be obtained by being

"fixed" to research but without flexibility. Therefore, it is not as easy as most junior researchers, like me, think to produce balanced argument to evaluate the two research methods.

Qualitative research is therefore defined as a category of research design or model which elicits verbal, visual, tactile, olfactory, and gustatory data. These data take the form of descriptive narratives like field notes, recordings, or other transcriptions from audio-and videotapes, and other written records as well as pictures or films (Preissle and Diane 1991:56).

Qualitative research is based on and grounded in descriptions of observations. In qualitative research design any thing can be asked – ordinary occurrences, extraordinary events, or circumstances puzzling to an investigator. The questions to be asked are not necessarily predetermined rather they could be context driven. There are some qualitative researchers who believe that the name qualitative research is imprecise, misleading, and implying a lack of concern with quantity. Subsequently the terms: *Interpretive research* (Erikson, 1986), *naturalistic research* (Lincoln and Guba, 1985), *phenomenological research* (Wilson, 1977), and *descriptive research* (Wolcott, 1980) are among the synonymous used. The term interpretive refers and focuses on meaning investigation. This means that human activity can only be understood when the meaning of the action to the actor is taken into account. Similarly, the term naturalistic indicates a concern for studying human life as it proceeds unaffected by a scientist or researcher interested in studying it.

Both interpretive and humanistic ways of understanding qualitative research call upon the importance of understanding human phenomena from the perspective of the human participants who produce them. The label phenomenological research is also meant that knowledge, reality, and value can only be known through human experience. It focuses on the concrete and specific characteristics of phenomena as experienced by the human observer.

Some people call qualitative research as descriptive research because of its preoccupation with complete, detailed and concrete depictions. Though this term is more inclusive than the proceeding terms, some researchers find it unsatisfactory because the term *descriptive* is also a label for some statistical designs. Ethnographies, field studies, community studies, case studies, biographies, and document analyses are some of the major qualitative designs frequently considered.

Qualitative and quantitative researches should not be perceived as mutually exclusive by default. Being rigid in necessarily employing a certain educational research design has ended as the result of the inclination towards inclusive and flexible designs. Quantitative data can be integrated into qualitative educational studies and the vice versa (Preissle and Diane: 1991:57). Put differently, research design has become the development and evolutions of a way to ask particular questions regarding particular phenomena framed by particular philosophical assumptions and theoretical orientations. Therefore, it can be said that all research models function as scholarly conventions to guide, but not to dictate, creative research. Qualitative investigators are usually more concerned with generating theory than confirming with the already established explanations. As a result, qualitative research is more often inductive than is quantitative research (ibid: 60).

In qualitative research the principal instrument is the researcher, working face-to-face with the subjects studied as opposed to quantitative research which is usually distanced from research participant. Preissle and Diane (1991:62-63) capitalized the following three points as major advantages of qualitative research qualitative:

- researcher attends to context, and this is a significant factor in education
- research attempts to construct holistic views of events which permits analysis of the complex relationships among factors such as students, teachers, principals, classrooms and curricula in general. This holism extends beyond the borders

of the school itself taking in to account communities and their subgroups and the general socio cultural context within which they are embedded.

- researcher is devoted to the generation, refinement and examination of a theory. Qualitative analysis which is inductive and recursive allows investigators to trace what actually does happen to something like a curriculum innovation rather than merely reporting the degree to which what occurred was in line with the expectation or reporting why something failed to occur.

Information Gathering Methods

A major contrast between qualitative and quantitative research design is how information is gathered and analyzed. A qualitative researcher does not assume that techniques used in quantitative research are the only ways of establishing the validity of findings. A number of practices, which originate from quantitative studies, may be inappropriate to qualitative research. For instance, the assumption that social science, including educational research, can only be valid to bring about generalizable social or educational facts if the study is based on experimental data, official statistics or random sampling of population that can be quantifiable is inappropriate to areas pointed out above. However, it does not mean that quantified data are inappropriate to educational research, but there are many aspects of human day-to-day activities and behaviors which could not be quantified. For instance, classroom situation, curriculum process, and students learning problems could better be studied by looking in to qualitative data. Put differently, there are areas of social reality which cannot be measured by numbers or statistics (Silverman 2000:8).

In a qualitative research there is no one and final superior instrument that is used to gather information rather varieties of instruments are advised to be used. Hamersley (1992:160-72) summarized the diversity and variety of preferences of qualitative researchers as follows:

- preference for qualitative data: *understand simply as the analysis of words and images rather than numbers*
- preference for naturally occurring data: *observation rather than experiment unstructured rather than structured interviews*
- preference for meanings rather than behavior: *attempting to document the world from the point of view of the people studied*
- preference for inductive, hypothesis generating research: *rather than hypothesis testing*

Interviews, observations, documents, and recordings are the major sources of data for qualitative research. In addition to these, nearly all qualitative researchers produce field notes. These typically consist of records of observations and a commentary on what was observed, how it was observed, and what it might mean (Preissle and Diane 1991:59). In qualitative research there are no exclusive phases for data collection and analysis. Qualitative data analysis can begin as soon as information is gathered about the questions posed. Often, this analysis proceeds throughout data collection, in to an initial interpretation, review and reinterpretation of the data.

Qualitative researcher often claims a development of theory or generalization out of his/her data. The initial evidence for a claim is a pattern in the data. Because generalization in qualitative research is grounded in thick, descriptive accounts of what goes on, there, may be plentiful examples of these patterns. Some students of education might think that they need to study many people in order to arrive at generalization. However, this might not be always true especially in educational processes. One can study few people and/or cases more intensively and qualitatively to arrive at generalization as that of those who studied many people.

Case Study as a Form of Qualitative Research

In this section, I intend to discuss one of the designs of qualitative research namely case study. I shall focus on the specific methodological issues related to the application of descriptive and explanatory case studies which are particularly applicable to the study of implementation process in education. Why and when a case study research approach need to be chosen as opposed to other methods of inquiry have been treated. I also adapted a qualitative case study design so that any beginner researcher could easily use it.

When and why would I do a case study on some topics? Are crucial questions to be posed and explored by an investigator before embarking on the actual study. A case study in general is a preferred strategy when *how* or *why* questions are posed, when the investigator or the researcher has minimum control over events ,and when the focus is on a contemporary phenomenon within some real – life context (Yin,2003:1).

Recently, there is a tendency to use case study among educational researchers. This is because exploring the processes and dynamics of educational practices seem to lend themselves to this design. Thus, I suggest a qualitative case study design inorder to approach problems and practice curriculum implementation from holistic perspective. I also suggest a qualitative case study design to be employed inorder to get an in-depth understanding of the implementation situation and its meaning for those involved. Put differently, a researcher, here, is interested and focused on the process of an implementation rather than outcomes, in a context rather than a specific variable, in a discovery rather than a confirmation. Such insights in to aspects of curriculum implementation practices can have a direct influence on policy, practice, and future studies (Merriam, 1988: xii).

A qualitative case study is an intensive, and a holistic description. It is also an analysis of a bounded phenomenon such as a program, a

person, or a process of implementation. Survey research, which is deductive in nature, on the other hand, typically assesses a few variables across a large number of instances, whereas a case study concentrates on many of the variables presented in a single unit. Descriptive and interpretive qualitative case studies, which are suitable for studying curriculum implementation process, where it is practically impossible to identify all the important variables ahead of time on the other hand are usually inductive in nature.

Educational descriptive case study presents a detailed account of a phenomenon under study and moves in a theoretical vacuum. A case study focuses on examining more of the contemporary events. Moreover, the case study strategy basically requires a direct observation of the events studied and interviews of persons involved in the events. These are some distinguishing characteristics of the case study strategy. Case studies have a lot of advantages that have a direct application to study the process of curriculum implementation. Some of the possible advantages of a case study according to Adelman et al.(1980:59-60) are :

- case study data, paradoxically, is strong in reality but difficult to organize. In contrast, other research data is often weak in reality but susceptible to ready organization. This strength in reality is so because case studies are down- to- earth, hold attention, are in harmony with the reader's own experience, and provide a natural base for generalization;
- case studies allow generalization either about an instance or from an instance to a class. Their peculiar strength lies in their attention to the subtlety and complexity of the case in its own right;
- case studies recognize the complexity and '**embedded ness**' of social truths. By carefully attending to social truths, case studies can represent something about the discrepancies or conflicts between the view points held by participants;
- case studies, considered as a product, may form an archive material which is sufficiently rich to admit subsequent reinterpretation and;

- case studies are 'step to actions'. They begin in a world of action and contribute to it.

Furthermore, among the advantages of using a "case study" strategy, the distinctive one is its strength to get answer when a "how" or a "why" question is asked about contemporary events like an implementation process of a new curriculum, over which the investigator has little or no control on the curriculum as well as on the implementers. Some of the applications of case study strategy pertinent to curriculum implementation process are to:

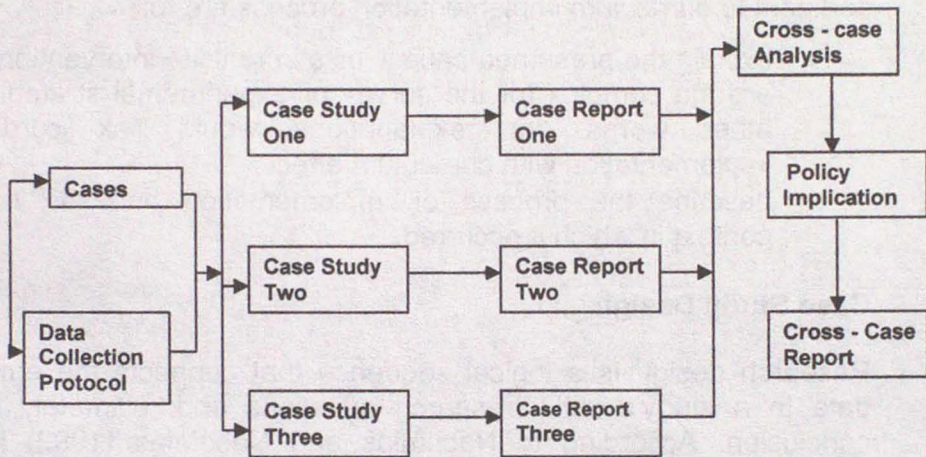
- explain the presumed causal links in real life interventions that are too complex for the survey or experimental strategies. In other words, the explanations would link curriculum implementation with curriculum effect.
- describe the process of implementation and the real-life context in which it occurred.

Case Study Design

Research design is a logical sequence that connects the empirical data to a study's initial research questions and, ultimately, to its conclusion. According to Nachmias and Nachmias (1992) in Yin (2003:21) a research design is a plan that guides the investigator in the process of collecting, analyzing, and interpreting observations. Moreover, it is a logical model of proof that allows the researcher to draw inferences concerning causal relations among the variables under investigation. Merriam(1988, pp.9-11) defined case study as an investigation of any phenomenon that is clearly separable from other phenomenon. Her examples of phenomenon are programs, events, persons, processes, institutions, and groups. She emphasized that the selected phenomena must be an instance of some category of phenomena. Like the process of curriculum implementation is an instance of education as a phenomena. A precise meaning and application of a research design that is meaningful to this essay is given by the words of Powell (1999:22) as follows:

a research design is a sequence of events which connects the procedures for collecting the empirical data to the initial research questions on the one hand, and to the subsequent data collection, analysis and conclusions on the other.

The Figure below Depicts Explicitly a Qualitative Research Design:



(Adapted from: Yin, 2003:50)

Cross-case Analysis and Generalization

In a qualitative study, data collection and analysis are usually a simultaneous activities. Analysis begins with the first interview, observation, and document record. This simultaneous data collection and analysis are mandatory because one does not know whom to interview, what to ask, or where to look next without analyzing data as they are collected. The process of data collection and analysis in a qualitative case study that focuses on process could uncover the secrets of the process if and only if it is recursive and dynamic. One

of the debates among qualitative researchers is the generalizability of case studies (Tsai, 1996:19; Stake, 2000:19-26; Lincoln and Guba, 2000:27-44). There is also a frequently heard question concerning a case study. That is, "how do you generalize from a single case?" Though the answer to this question may not be simple, the same question could be asked for an experimental study. That is, "how can you generalize from a single experiment?"

The possible and may be a short answer is that case studies, like experiments, are generalizable to theoretical propositions and not to population or universe (Yin; 2003:10). Case studies usually start from the existing theories and they may modify, generate new theories, or substantiate and expand the existing theories. In other words, a case study like experimental study doesn't represent a "sample". Moreover, its major goal is not to enumerate frequencies.

Robert Stake (1980:64-75; 2000:19-26), however, introduced the concept of '**Naturalistic Generalization**' in his paper entitled '*The Case Study Method in Social Inquiry*' as an alternative meaning for generalization. Naturalistic generalization, according to Stake, develops within a person as a result of experience. They form the tacit knowledge of how things are, why they are, how people feel about them, and how these things are likely to be later or in other places with which the person is familiar.

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