CHAPTER 2

Types and Uses
of Case Study Research
in Education

Case studies in education tend to draw from other disciplines for both theory and method. In particular, theory and technique from anthropology, sociology, psychology, and history have informed case study investigations in education. Case studies can also be differentiated in terms of their end product. Some are descriptive, others are interpretive, and still others are evaluative. This chapter explores how case studies in education draw from other disciplines and how they can be differentiated by whether they are primarily descriptive, interpretive, or evaluative. The second half of the chapter discusses when to use a case study design and evaluates the strengths and limitations of case study research.

The Influence of Other Disciplines

Certain fields of study use case study research for specific purposes. Law, medicine, psychology, and social work, for example, often employ case studies on behalf of individual clients.

Political science, business, journalism, economics, and government have found case studies helpful in formulating policy. Case studies in *education* can focus on individual students—to diagnose learning problems, for example. They have also been used in the service of policy formation. More commonly, though, case study research in education seeks to understand specific issues and problems of practice. In so doing, case studies in education often draw upon other disciplines such as anthropology, history, sociology, and psychology both for theoretical orientation and for techniques of data collection and analysis.

Ethnography (from anthropology) is itself a research design developed by anthropologists to study human society and culture. Recently, the term *ethnography* has been used interchangeably with fieldwork, case study, qualitative research, and so on. For anthropologists, however, the term has two distinct meanings. Ethnography is a set of methods used to collect data, and it is the written record that is the product of using ethnographic techniques. Ethnographic techniques are the strategies researchers use to collect data about the social order, setting, or situation being investigated. Common techniques of data gathering are interviewing, documentary analysis, life history, investigator diaries, and participant observation. Just using these techniques, however, does not necessarily produce an ethnography in the second sense of the word. An ethnography is a sociocultural interpretation of the data. As analytic descriptions or reconstructions of participants' symbolic meanings and patterns of social interaction, "ethnographies recreate for the reader the shared beliefs, practices, artifacts, folk knowledge, and behaviors of some group of people" (Goetz and LeCompte, 1984, p. 2).

An *ethnographic case study*, then, is more than an intensive, holistic description and analysis of a social unit or phenomenon. It is a sociocultural analysis of the unit of study. Concern with the cultural context is what sets this type of study apart from other qualitative research. Wolcott (1980) distinguishes sharply between the techniques of ethnography and the ethnographic account itself: "Specific ethnographic techniques are freely available to any researcher who wants to approach a

problem or setting descriptively. It is the essential anthropological concern for cultural context that distinguishes ethnographic method from fieldwork techniques and makes genuine ethnography distinct from other 'on-site-observer' approaches. And when cultural interpretation is the goal, the ethnographer must be thinking like an anthropologist, not just looking like one" (p. 59).

Goetz and LeCompte (1984, p. 22), in tracing the history of educational ethnography from its roots in the first decades of this century to the present day, note that "culture remains a unifying construct of this tradition." Whatever the unit of study —students, schools, learning, curriculum, informal education— an ethnographic case study is characterized by its sociocultural interpretation. An ethnographic case study of a junior high school, for example, would take into account the community at large and its cultural context. The history of the neighborhood, social-economic factors, the community's racial and ethnic makeup, the attitudes of parents, residents, and school officials toward education—all would be important components of this ethnographic case study.

A second type of case study found in education is the *historical case study*. Just as ethnographic case studies distinguish between technique and account, so do historical case studies. This type of research employs techniques common to historiography—in particular, the use of primary source material. The handling of historical material is systematic and involves learning to distinguish between primary and secondary sources. The nature of the account also distinguishes this form of case study. In applied fields such as education, historical case studies have tended to be descriptions of institutions, programs, and practices as they have evolved in time. Historical case studies may involve more than a chronological history of an event, however. To understand an event and apply one's knowledge to present practice means knowing the context of the event, the assumptions behind it, and perhaps the event's impact on the institution or participants.

Bogdan and Biklen (1982), in their discussion of types of case study, list historical organizational case studies as one form

common in educational research. These studies focus on a specific organization and trace its development (p. 59). "One might do a study of a 'free school,' " for example, "tracing how it came into being, what its first year was like, what changes occurred over time, what it is like now (if it is still operating), or how it came to close (if it did)" (p. 59). The key to historical case studies, organizational or otherwise, is the notion of investigating the phenomenon over a period of time. One still wishes to present a holistic description and analysis of a specific phenomenon (the case), but from a historical perspective.

A third type of qualitative case study employs concepts, theories, and measurement techniques from psychology in investigating educational problems. The focus of a *psychological case study* is on the individual. The most famous precedent for case study in psychology was set by Freud in the early 1900s. His intensive self-analysis combined with case studies of a few individuals led to uncovering the unconscious life that is repressed but nevertheless governs behavior.

Psychologists investigating learning have had the most direct relevance to education. Again there are famous precedents for using case study to gain insight into learning processes. Ebbinghaus in the late nineteenth century, for example, self-administered thousands of tasks in the study of memory (Dukes, 1965). His findings provided the basis for memory research for the next half century. Piaget in studying his own children developed stages of cognitive structure that have had an enormous impact on curriculum and instruction. Indeed, his theory is still being tested and refined in educational research investigations. Finally, many studies in child and adult development have employed a qualitative case study as the mode of inquiry. Vaillant's (1977) findings about mental health are derived from longitudinal case studies of ninety-five Harvard men; Levinson studied forty men and built a theory of male adult development (Levinson, 1978).

The focus on the individual as a way to investigate some aspect of human behavior is what characterizes the psychological case study. In education a case study of an individual, program, event, or process might well be informed by a psycholog-

ical concept. A case study of an elderly learner might draw upon Piaget's theory of cognitive development, for example, or research on behavior change might inform a case study of a patient education program.

Case studies in education might also draw upon theory and technique from sociology. Rather than focusing on an individual as in a psychological orientation, or on culture as in an anthropological study, *sociological case studies* attend to the constructs of society and socialization in studying educational phenomena. Sociologists are interested in demographics, social life and the roles people play in it, the community, social institutions such as the family, church, and government, classes of people including minority and economic groups, and social problems such as crime, racial prejudice, divorce, and mental illness. Educational case studies drawing upon sociology have explored such topics as student peer interaction as a function of high school social structure, the effect of role sets on teachers' interactions with students, the actual versus the hidden school curriculum, the relationship of schooling to equalities and inequalities in society at large, and so on (Goetz and LeCompte, 1984).

Until the 1960s, research methods in educational sociology were dominated by large-scale surveys, quantification, and experimentation (Bogdan and Biklen, 1982). By the 1970s, "sociologists had begun to address a gap in their knowledge base that had confounded efforts to explain intriguing correlations between classroom processes and other social phenomenon" (Goetz and LeCompte, 1984, p. 28). Qualitative approaches including case studies of the social life of schools and their participants began to appear. In 1967, sociologists Glaser and Strauss published *The Discovery of Grounded Theory,* a definitive work on how to build theory from descriptive data "grounded" in real-life situations. Several of the techniques for data collection and analysis—theoretical sampling and the constant comparative method in particular—are used by case study researchers and will be discussed more fully in subsequent chapters.

Thus sociology, like history, anthropology, and psychology, has influenced the theory and methods of case studies in

education. What makes these case studies in *education* is their focus on questions, issues, and concerns broadly related to teaching and learning. The setting, delivery system, curriculum, student body, and theoretical orientation may vary widely, but the general arena of education remains central to these studies.

Descriptive, Interpretive, Evaluative Case Studies

Irrespective of disciplinary orientation or area of specific interest, case studies can also be described by the nature of the final report. Is the end product largely descriptive? Does it present an interpretation of the data? Is it an analysis? Does it build theory? Does it present judgments about the worth of a program? The end product of a case study can be primarily descriptive, interpretive, or evaluative.

A *descriptive* case study in education is one that presents a detailed account of the phenomenon under study—a historical case study that chronicles a sequence of events, for example. Lijphart (1971, p. 691) calls descriptive case studies "atheoretical." They are "entirely descriptive and move in a theoretical vacuum; they are neither guided by established or hypothesized generalizations nor motivated by a desire to formulate general hypotheses." They are useful, though, in presenting basic information about areas of education where little research has been conducted. Innovative programs and practices are often the focus of descriptive case studies in education. Such studies often form a data base for future comparison and theory building. Moore (1986), for example, conducted case studies of high school interns to find out how newcomers in organizations learn. He developed case studies of interns in such diverse settings as a furniture-making shop, an animal protection league, a hospital speech clinic, a food cooperative, a museum, and a labor union. With these descriptive studies he later devised a conceptual framework about learning in nonschool settings. Whatever the area of inquiry, basic description of the subject being studied comes before hypothesizing or theory testing.

Interpretive case studies, too, contain rich, thick description. These descriptive data, however, are used to develop con-

ceptual categories or to illustrate, support, or challenge theoretical assumptions held prior to the data gathering. If there is a lack of theory, or if existing theory does not adequately explain the phenomenon, hypotheses cannot be developed to structure a research investigation. A case study researcher gathers as much information about the problem as possible with the intent of interpreting or theorizing about the phenomenon. A researcher might study how students come to an understanding of mathematical concepts, for example. Rather than just describing what was observed or what students reported in interviews, the investigator might take all the data and develop a typology, a continuum, or categories that conceptualize different approaches to the task. In another example, Medina (1987) studied the literacy-related activities of a rural farm family and interpreted the data in terms of the meaning of functional literacy in a rural context. The *level* of abstraction and conceptualization in interpretive case studies may range from suggesting relationships among variables to constructing theory. The model of analysis is inductive. Because of the greater amount of analysis in interpretive case studies, some sources label these case studies "analytical." Analytical case studies are differentiated from straightforward descriptive studies by their complexity, depth, and theoretical orientation (Shaw, 1978).

Evaluative case studies involve description, explanation, and judgment. Much has been written lately about naturalistic evaluation, responsive evaluation, and qualitative evaluation (Guba and Lincoln, 1981; Patton, 1980; Stake, 1981; Goetz and LeCompte, 1984). Guba and Lincoln (1981) review the kinds of reports that might be produced in naturalistic evaluations, and they conclude that case study is the best reporting form. Their rationale recalls the discussion in Chapter One on defining the case study. For them, case study is best because it provides "thick description," is grounded, is holistic and lifelike, simplifies data to be considered by the reader, illuminates meanings, and can communicate tacit knowledge (pp. 375–376). Above all else, though, this type of case study weighs "information to produce judgment. Judging is the final and ultimate act of evaluation" (p. 375).

The case study is a particularly good means of educa-

tional evaluation because of its ability to "*explain* the causal links in real-life interventions that are too complex for the survey of experimental strategies. A second application is to *describe* the real-life context in which an intervention has occurred. Third, an evaluation can benefit, again in a generative mode, from an illustrative case study—even a journalistic account—of the intervention itself. Finally, the case study strategy may be used to *explore* those situations in which the intervention being evaluated has no clear, single set of outcomes" (Yin, 1984, p. 25). Case study evaluation of educational issues (or ethnographic evaluations, as they are also called) became "extremely popular in the late 1970's" and have been "the genesis of much educative and basic research since then" (Goetz and LeCompte, 1984, p. 30).

In summary, then, case studies can be identified by their disciplinary orientation, by the end product, or by some combination of the two. Thus in education we have case studies that are ethnographic evaluations, program descriptions, historical interpretations, sociological studies, and so on. While some case studies are purely descriptive, many more are a combination of description and interpretation or description and evaluation.

When to Use a Case Study Design

An investigator may choose among several basic research designs, each of which reveals something different about the phenomenon under study. The question of when to use a qualitative case study for research versus some other design essentially depends upon what the researcher wants to know. How the problem is defined and the questions it raises determine the study's design. Bromley (1986, p. 23) writes that case studies, by definition, "get as close to the subject of interest as they possibly can, partly by means of direct observation in natural settings, partly by their access to subjective factors (thoughts, feelings, and desires), whereas experiments and surveys often use convenient derivative data, e.g. test results, official records. Also, case-studies tend to spread the net for evidence widely, whereas experiments and surveys usually have a narrow focus."

Kenny and Grotelueschen (1980) suggest that several

"preconditions" can help the researcher decide on the appropriateness of using a case study. First, a case study can be considered when "the desired or projected objectives of an educational effort focus on humanistic outcomes or cultural differences, as opposed to behavioral outcomes or individual differences" (p. 3). An example of this situation might be a community literacy program that teaches reading while at the same time empowering adults to take more control of their lives. While quantitative measures might be used to assess "empowerment," data gathered from interviews and perhaps observation would yield more insight into the changes that had occurred.

A case study may also be appropriate when information gleaned from participants is not subject to truth or falsity but "can be subject to scrutiny on the grounds of credibility" (p. 4). In fact, the aim of a case study "is not to find the 'correct' or 'true' interpretation of the facts, but rather to eliminate erroneous conclusions so that one is left with the best possible, the most compelling, interpretation" (Bromley, 1986, p. 38). Suppose, for example, a researcher is interested in employees' opinions on the effectiveness of their company's training program. Of crucial importance here is the individual employee's perspective, not how "true" or "accurate" (by some standard) the account is. A third precondition—one that has already been mentioned as a rationale for a single-case design—is the uniqueness of the situation. Kline's (1981) case study of a back-to-industry program for vocational instructors at a junior college is an example. At the time of her study, only three such programs could be located in the United States.

Paralleling these preconditions, Kenny and Grotelueschen (1980) offer several reasons for choosing a case study design when doing an evaluation: "Case study can be an important approach when the future of a program is contingent upon an evaluation being performed and there are no reasonable indicators of programmatic success which can be formulated in terms of behavioral objectives or individual differences" (p. 5). Case study is appropriate when the objective of an evaluation is "to develop a better understanding of the dynamics of a program. When it is important to be responsive, to convey a holistic

and dynamically rich account of an educational program, case study is a tailormade approach" (p. 5). They also argue that a case study design can be justified on the basis that sometimes it is important to leave an account: "This goal of case study is essentially descriptive and of historical significance" (p. 5). Finally, "case study can be supported as the common language approach to evaluation" (p. 5). Using common language, as opposed to scientific or educational jargon, allows the results of a study to be communicated more easily to nonresearchers.

These preconditions are congruent with the four characteristics of case study presented in Chapter One. Case studies are particularistic, descriptive, holistic, and inductive. They also are concerned with understanding and describing process more than behavioral outcomes. Interest in process and interpretation as reasons for using a case study design were pointed out in an early but seminal article on case study (Foreman, 1948, p. 419). Case study, Foreman says, is particularly useful when the problem involves developing a new line of inquiry, needs further conceptualization of factors or functions, "demands emphasis on the *pattern* of interpretation given by subjects," and involves determining "the particular *pattern* of factors significant in a given case."

Process as a focus for case study research can be viewed in two ways: "The first meaning of process is monitoring: describing the context and population of the study, discovering the extent to which the treatment or program has been implemented, providing immediate feedback of a formative type, and the like. The second meaning of process is causal explanation: discovering or confirming the process by which the treatment had the effect that it did" (Reichardt and Cook, 1979, p. 21). Collins and Noblit's (1978) case study of a desegregated high school in Memphis, Tennessee, illustrates the two meanings of process. They discuss the city, the setting, and the extent to which desegregation had been implemented. They also describe how each of the school system's three subsystems (administrative, academic, student) affected the process of interracial schooling. Of particular interest were the differing experiences of the school under two different principals, the climate in the

classrooms before and after desegregation, and the students' extracurricular activities. In summarizing the importance of a process rather than an outcome as justification for selecting a case study, Sanders (1981, p. 44) writes: "Case studies help us to understand processes of events, projects, and programs and to discover context characteristics that will shed light on an issue or object."

Strengths and Limitations of Case Study Design

All research designs can be discussed in terms of their relative strengths and limitations. The merits of a particular design are inherently related to the rationale for selecting it as the most appropriate plan for addressing the research problem. One strength of an experimental design, for example, is the predictive nature of the research findings. Because of the tightly controlled conditions, random sampling, and use of statistical probabilities, it is theoretically possible to predict behavior in similar settings without actually observing that behavior. Likewise, if one needs information about the characteristics of a given population or area of interest, a descriptive study is in order. Results, however, would be limited to describing the phenomenon rather than predicting future behavior.

Thus one selects a case study design because of the nature of the research problem and the questions being asked—it is the best plan for answering one's questions. Its strengths outweigh its limitations. The case study offers a means of investigating complex social units consisting of multiple variables of potential importance in understanding the phenomenon. Anchored in real-life situations, the case study results in a rich and holistic account of a phenomenon. It offers insights and illuminates meanings that expand its readers' experiences. These insights can be construed as tentative hypotheses that help structure future research; hence, case study plays an important role in advancing a field's knowledge base. Because of its strengths, case study is a particularly appealing design for applied fields of study such as education. Educational processes, problems, and programs can be examined to bring about understanding that in turn can affect and perhaps even improve practice. Case study

has proved particularly useful for studying educational innovations, for evaluating programs, and for informing policy. Collins and Noblit (1978, p. 26) note the strengths of this type of research, which they call field studies, for policy analysis:

> Field research better captures situations and settings which are more amenable to policy and program intervention than are accumulated individual attributes. Second, field studies reveal not static attributes but understanding of humans as they engage in action and interaction within the contexts of situations and settings. Thus inferences concerning human behavior are less abstract than in many quantitative studies, and one can better understand how an intervention may affect behavior in a situation. . . . Field studies are better able to assess social change than more positivistic designs, and change is often what policy is addressing.

The special features of case study research that provide the rationale for its selection also present certain limitations in its usage. Although rich, thick description and analysis of a phenomenon may be desired, one may not have the time or money to devote to such an undertaking. And assuming that one does take the time to produce a worthy case study, the product may be deemed too lengthy, too detailed, or too involved for busy policymakers and educators to read and use. Some suggestions for dealing with reporting and disseminating case studies can be found in the literature, but the amount of description, analysis, or summary material is basically up to the investigator. Guba and Lincoln (1981, p. 377) note an additional limitation of case study narratives: "Case studies can oversimplify or exaggerate a situation, leading the reader to erroneous conclusions about the actual state of affairs." Furthermore, they warn, readers can be seduced into thinking case studies are accounts of the whole: "That is, they tend to masquerade as a whole when in fact they are but a part—a slice of life."

Qualitative case studies are limited, too, by the sensitivity and integrity of the investigator (Riley, 1963). The researcher is

the primary instrument of data collection and analysis. This has its advantages. But training in observation and interviewing, though necessary, is not readily available to aspiring case study researchers. Nor are there guidelines in constructing the final report, and only recently have there been discussions about how to analyze the data collected. The investigator is left to rely on his or her own instincts and abilities throughout most of this research effort.

A further concern of case study research—and in particular case study evaluation—is what Guba and Lincoln (1981, p. 378) refer to as "unusual problems of ethics. An unethical case writer could so select from among available data that virtually anything he wished could be illustrated." Both the readers of case studies and the authors themselves need to be aware of biases that can affect the final product. Clearly related to this issue of bias is the inherently political nature of case study evaluations. MacDonald and Walker (1977, p. 187) observe that "educational case studies are usually financed by people who have, directly or indirectly, power over those studied and portrayed." Moreover, "at all levels of the system what people *think* they're doing, what they *say* they are doing, what they *appear* to others to be doing, and what in fact they *are* doing, may be sources of considerable discrepancy.... Any research which threatens to reveal these discrepancies threatens to create dissonance, both personal and political" (p. 186).

Further limitations involve the issues of reliability, validity, and generalizability. There is much debate about how to interpret these principles. With regard to generalizability, for example, some assume that one cannot generalize from a case study and count that as a limitation of the method. Others argue that rather than applying statistical notions of generalizability to case studies, one should develop an understanding of generalization that is congruent with the basic philosophy of qualitative inquiry. These issues are discussed more fully in Chapter Ten.

Summary

The disciplines of anthropology, history, psychology, and sociology have influenced case study research in education. Ter-

minology, theory, and data gathering and analysis techniques from each of these disciplines are used by educators to study problems broadly related to teaching and learning. When the *techniques* of another discipline are employed—for example, participant observation from anthropology or analysis of primary sources from history—the case study is best described as educational. When *concepts* or *theories* are borrowed from another discipline in order to frame the study or interpret the data, the case study is best characterized as being within that discipline's purview. For example, a sociocultural interpretation of some educational practice can be called an ethnographic case study; a historical examination of an educational program can be labeled a historical case study.

Case studies in education also vary in terms of their end product. Some are little more than intensive descriptions of a program, event, or process. Such descriptions are useful in learning about unique or innovative situations and may form a data base for future research. Case studies that go beyond description are interpretive in nature. The researcher uses the data to analyze, interpret, or theorize about the phenomenon. Finally, many case studies are evaluative in that they are undertaken to assess the merit of a particular practice or program. In reality, most case studies are a combination of description and interpretation, or description and evaluation.

The decision to use a case study design is dependent upon the nature of the problem being investigated. The decision is also contingent upon an understanding of the design's inherent strengths and weaknesses. For example, the holistic description is at once a strength and a limitation. Reliance upon the investigator as the primary instrument for data collection and analysis can produce brilliant insights about a phenomenon, or it can produce a pedestrian, incorrect, or even fraudulent analysis. In selecting a research design, something is gained and something is sacrificed. One can only weigh the design's benefits against its limitations and select accordingly.

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