A Review of the Literature on Case Study Research

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Abstract

This paper presents a review of the literature on case study research and comments on the ongoing debate of the value of case study. A research paradigm and its theoretical framework is described. This review focuses extensively on the positions of Merriam (1998), Yin (1981, 1984, 1994, 1999, 2003a, 2003b, 2005), and Stake (1978/2000, 1994, 1995, 2005, 2008) as foundational writers in the area of case study research. As well, a range of voices in the debate related to case study research and its position as a research methodology in both the quantitative and qualitative paradigms are identified.

Introduction

In outlining my qualitative research strategy in my doctoral research proposal, I quoted Merriam (1998), “this research will be undertaken as a descriptive case study” (p. 50). My committee challenged me to justify this choice, and in response to the challenge, I explored the rationale for case study as my research strategy in depth. As part of this exploration, I undertook an extensive literature review on case study research and this paper provides the results of this review. I initially identify my rationale for case study as a choice of research strategy, supported by my research paradigm and theoretical framework. I then focus on the positions of Merriam, Yin (1981, 1984, 1994, 1999, 2003a, 2003b, 2005), and Stake (1978/2000, 1994, 1995, 2005, 2008), whom I consider to be foundational writers in the area of case study research. I then identify a range of voices in the debate related to case study research and its position as a research methodology in both the qualitative and quantitative paradigms.

Perspective of the Researcher

As researcher, I locate my work within a constructivist/feminist paradigm (Guba & Lincoln, 1994; Mertens, 2005; Smith, 1987). I understand there are multiple realities through which one can make sense of the world, and I construct my reality from my experiences, and my standpoint on my reality is valid. This worldview is embedded in the qualitative research approach that I
have undertaken. For me, the experience of the inquiry is a process of interpretation and of making sense of the phenomenon under study. The theoretical framework of my research in higher education is grounded in the interpretations of organizational culture and change, and leadership (Schein, 2004; Wheatley, 2007). Case study is my choice of research strategy for the exploration of how women leaders in higher education work with organizational culture impacted by change. Case study research has contributed a great deal to researchers’ knowledge of organizational culture (Chaffee & Tierney, 1988; Kanter, 1977; Kanter & Stein, 1979; Schein, 2004). The use of case study is a powerful means to understand institutions of higher education as socially constructed organizations. As Chaffee and Tierney argued, “This cannot be done through armchair research but only through intimate contact with daily institutional life….By departing from traditional lines of inquiry, our exploration of these … institutions allows us to attempt a multifaceted interpretation of organizational life” (p. 13). Case study will enable me to research a “bounded system” (Creswell, 1998) or case, utilizing informative and contextual data to interpret my findings about the phenomenon that I am exploring. My interpretation will lead to a more complete understanding of a specific aspect of a situation, and provide affective information that could not be collected otherwise (MacNealy, 1997).

To expand my rationale for case study as my choice of research strategy, I began to examine the literature on case study methodology and methods. As a novice researcher, the writing about case study methodology was contradictory and confusing at first reading. Merriam (1998) maintained that most people have heard of case studies in their work or their training, however “there is little consensus on what constitutes a case study or how this type of research is done” (p. 26). In the field of qualitative research methodology, case study is discussed as a significant qualitative strategy or tradition along with phenomenology, ethnography, biography, and grounded theory (Crotty, 1998; Creswell, 1998, 2003; Denzin & Lincoln, 2005, 2008; Guba & Lincoln, 1994; Mertens, 2005; Hatch, 2002; Patton; 1990). Case study is differentiated from other research strategies because the focus of the research is a bounded system or case. Situating my interpretations of aspects of organizational culture in higher education within a defined or demarcated framework supported my work. The case study seemed like a natural approach to use, given my desire to understand how and why the members of the organizational culture did what they did. I delved further into the literature on case study to gather more understanding and support for my research choice.

Case study as a research strategy has been explored in depth by three writers in particular, Merriam (1998), Yin (1981, 1984, 1994, 1999, 2003a, 2003b, 2005), and Stake (1978/2000, 1994, 1995, 2005, 2008). As I am working in the field of higher education, I focused first on the work of Sharan Merriam. Her research on case study applications in education from a qualitative researcher’s perspective offered a practical and accessible understanding of the strategy. The second source I investigated was Robert Yin, whose background as a consultant in policy research has influenced his approach as a methodologist. The third source I explored was Robert Stake, who, wanting to represent the complexity and personal experience of the phenomenon of program evaluation, offered his view of case study as a highly interpretive endeavour. These three foundational writers further informed my understanding of case study as a research strategy.
Three Foundational Voices in the Literature of Case Study

*Merriam: An Educator*

From her perspective as an educational researcher, Merriam (1998) presented a comprehensive overview of case study as an application of qualitative research. She summarized the choice of case study design as a way to gain understanding of the situation, where the process of inquiry rather than outcome of the research are of interest to the investigator. Merriam acknowledged that the use of case study is often misunderstood by stating:

> Those with little or no preparation in qualitative research often designate the case study as a sort of catch-all category for research that is not a survey or an experiment and is not statistical in nature. While case studies can be very quantitative and can test theory, in education they are more likely to be qualitative. (p. 19)

In her discussion regarding the aspects of case study, Merriam (1998) maintained that the “single most defining characteristic of case study research lies in delimiting the object of study: the case” (p. 27). The case is a unit, entity, or phenomenon with defined boundaries that the researcher can demarcate or “fence in” (p. 27), and therefore, can also determine what will not be studied. The case is “a thing, a single entity, a unit around which there are boundaries” (p. 27). It may be the limit on the number of people to be interviewed, a finite time frame for observations, or the instance of some issue, concern, or hypothesis. The researcher is challenged to fully understand and articulate the unit under study.

According to Merriam (1998), the case study does not claim any specific data collection methods, but “focuses on holistic description and explanation” (p. 29). Within this focus, the case study can be further described as particularistic, heuristic, or descriptive. Merriam describes particularistic as relating to the specific focus of the case. It can suggest to the reader what to do in a similar situation. A heuristic case study is able to shed light on the phenomenon, allowing the reader to extend their experience, discover new meaning, or confirm what is known. It explains the reasons for a problem, the background of the situation, what happened, and why. A descriptive case study is complete and very literal in its reporting of the findings of the research, and it references the “thick description” (p. 29) of anthropology. The descriptive case illustrates the complexities of the situation, and presents information from a wide variety of sources and viewpoints in a variety of ways.

Merriam (1998) provided significant direction for the researcher using a case study research design. She supported the theoretical framework as the definition of the research problem. She also discussed the concept of sampling in case study, where unlike other types of qualitative research, there are two levels of sampling inherent in the design. The first is the selection of the case to be studied; the second is the sampling of the people within the case. Sampling of people may be purposeful sampling -- typical, unique, maximum variation, convenience, snowball, chain, network, or theoretical, each with its own features -- or random sampling.

Regarding data collection, Merriam (1998) noted that interviews are the most common source of data in case study research. She commented that observations are also an important but highly
subjective data source whose use must be carefully considered. Merriam cited Gold’s (1958) description of four stances that the observer might take: complete participant, participant as observer, observer as participant, and complete observer. Merriam extended this analysis to include a fifth perspective, that of the collaborative partner, where the researcher and participant are complete partners in the research process. She noted that at the other end of this continuum is the researcher participant, where the researcher may participate socially but at arm’s length. However, she contended that the relationship of the researcher with the setting will change as the research is undertaken.

Merriam (1998) provided commentary on data analysis strategies within a case study, such as ethnographic, narrative, phenomenological, constant comparative, content analysis, and analytic induction. She commented that “historically, data analysis in qualitative research has been something like a mysterious metamorphosis. The investigator retreated with the data, applied his or her analytic powers, and emerged butterfly-like with ‘findings’” (p. 156). The process is highly intuitive; the learning is in the doing. That being said, Merriam maintained that the evidence does need to be systematically recorded and managed, and she referenced Yin’s (1984, 1994) data base and Patton’s (1990) case report of data as strategies for organizing material. Levels of data analysis include construction of categories or themes, naming the categories and sub-categories, and developing systems for placing the data into categories. Through this process of data analysis comes the thinking and theorizing about the data that provides the richly interpretive narrative that is the heart of the case.

In summary, Merriam (1998) provided a highly accessible approach to case study research that was organized and thorough. She offered a firm grounding in the philosophical paradigm of qualitative research, while also covering the mechanics of conducting a qualitative case study in a straightforward manner. As an educator, she revealed her approach as a seasoned practitioner of the research strategy.

Yin: A Methodologist

According to Yin (2003b), case study strategy has five components: the study’s questions, its propositions which reflect on a theoretical issue, its unit(s) of analysis (the event, entity, or individuals noted in the research questions), the logic linking the data to the propositions, and the criteria for interpreting the findings. Yin provided an extremely comprehensive and systematic outline for undertaking the design and conduct of a case study. The conduct of the study included preparing for data collection, collection of evidence, analysis of the evidence, and composition of the case study report.

The process of data collection focuses on the skills of the investigator. It includes the ability to ask questions, to listen actively, to adapt to unforeseen circumstances that may arise, to grasp the issues being addressed, and to identify personal bias. In Yin’s (2003b) view, rigorous data collection follows carefully articulated steps: the use of multiple sources of evidence, the creation of a case study database, and the maintenance of a chain of evidence. The use of multiple sources of data enables the researcher to cover a broader range of issues, and to develop converging lines of inquiry by the process of triangulation. The use of a case study database, in
the form of notes, documents, tabular materials, and narratives, enables the researcher to organize and maintain raw data, and it increases the reliability of the case study.

Yin (2003b) proposed three general strategies for data analysis, which is “one of the least developed and most difficult aspects of doing case studies” (p. 109). First, the theoretical propositions that lead to the case study must be followed to help focus attention on certain data. Second, rival explanations must be considered, and finally, a descriptive framework for organizing the case study must be developed. He suggested specific analytic techniques that include pattern-matching (finding patterns and building an explanation of these patterns), utilizing time-series analysis (the ability to trace changes over time), and logic models. Yin contended that “no matter what specific analytic strategy or techniques have been chosen, [the researcher] must do everything to make sure that [the] analysis is of the highest quality” (p. 137). The analysis must attend to all the evidence, address all major rival interpretations, address the most significant aspect of the case study, and it must utilize the prior, expert knowledge of the researcher. The researcher “must be able to develop strong, plausible, and fair arguments that are supported by the data” (p. 137) in order to provide a strong analysis.

The final aspect of the case study is the reporting of the results and findings. The descriptive case study utilizes a linear-analytic, comparative, chronological, or unsequenced structure for reporting. If the unsequenced choice is made, as it often is in the descriptive case study, the researcher must ensure that all topics are covered, or there will be a concern about bias.

In Yin’s (1984) first well-known edition on case study research design and applications, he situated the case study as a research approach for many paradigms. In later writings (2003b), he made an important distinction between case study strategy and qualitative research by acknowledging that a case study strategy could also be used with quantitative evidence. Yin (1994) maintained that “case studies can be conducted and written with many different motives, including the simple presentation of individual cases or the desire to arrive at broad generalizations based on case study evidence” (p. 15). It was the most appropriate research approach for “appreciating the complexity of organizational phenomena” (p. xv). He acknowledged the long-standing critique of case study as having “insufficient precision (that is, quantification), objectivity, and rigour” (1984, p. 10). He challenged the notion of the case study as a “weak sibling” (p. 10) among social science methodologies by arguing that case study is not just “a data collection tactic or merely a design feature alone” (2003b, p. 14). These distinctions clarified the significant position that case study holds as a methodology or research strategy, rather than as a research paradigm or a research method.

Yin (1984) contended that each research strategy has advantages and disadvantages, depending on three conditions: the type of research question, the researcher’s control over behavioural events, and the focus on contemporary as opposed to historical phenomena. In outlining these three conditions, Yin introduced his often quoted description of the choice of the case study as “the preferred strategy when ‘how’ or ‘why’ questions are being posed, when the investigator has little control over events, and when the focus is on a contemporary phenomenon within some real-life context” (p. 1).
In his work, Yin (1981, 1984, 1994, 1999, 2003a, 2003b, 2005) provided an extremely comprehensive discussion of each of the components of a case study, and due to this attention to the detail of the process, I have situated him as a methodologist. His approach and language suggest the quantitative paradigm of a positivist. Clearly, scientific methodologies have influenced his approach to case study, and I would argue that this approach is based on his desire to build and maintain validity and rigour in the data. Attention to documentation of the research protocol or process serves to strengthen the credibility and trustworthiness of the methodology; therefore, consideration of these points is vital. In a critique of Yin’s methodology, Platt (1992) commented that Yin has drawn from a “substantive and methodological” (p. 46) tradition that “disassociate[s] the idea of case study from that of fieldwork or participant observation” (pp. 46-47). Yin has “redefine[d] case study method as a logic of design, seeing it as a strategy to be preferred when circumstances and research problems are appropriate, rather than an ideological commitment to be followed whatever the circumstances” (p. 46). Platt’s critique is refuted by Yin’s (2005) recent comment on the significance of case study in education, which attests to his understanding and appreciation of case study as a qualitative research strategy, was given as:

One way of starting your inquiry [might be to] amass a lot of statistics … but statistics is not what education is really about. Starting to understand the world of education means bringing to life what goes on in [the setting] and how [this is] connected to a broader panoply of real-life … Case studies fill this need. They can provide both descriptive richness and analytic insight into people, events, and passions as played out in real-life environments. (p. xiv)

As case study methodology has developed and been proven to be a strong strategy for research in the qualitative paradigm, Yin (1981, 1984, 1994, 1999, 2003a, 2003b, 2005) has acknowledged the value of the interpretive perspective.

**Stake: An Interpreter**

In his early work on case study methodology, Stake (1978/2000) maintained that “case studies are useful in the study of human affairs because they are down-to-earth and attention-holding” (p. 19). This approach to research makes sense to readers because it resembles our understanding of the naturalistic world through our personal experiences. Stake commented that “case studies will often be the preferred method of research because they may be epistemologically in harmony with the reader’s experience and thus to that person a natural basis for generalization” (p. 20). However, Stake also acknowledged a negative bias towards case study. He observed, “The more episodic, subjective procedures, common to the case study, have been considered weaker than the experimental or co-relational studies for explaining things” (p. 20). Stake concluded that when the purpose of the research is to provide “explanation, propositional knowledge, and law … the case study will often be at a disadvantage. When the aims are understanding, extension of experience, and increase in conviction in that which is known, the disadvantage disappears” (p. 21).

Stake (1995) believed that the most important role of the case study researcher was that of interpreter. His vision of this role was not as the discoverer of an external reality, but as the builder of a clearer view of the phenomenon under study through explanation and descriptions,
“not only commonplace description, but ‘thick description’” (p. 102), and provision of integrated interpretations of situations and contexts. This constructivist position, Stake claimed, “encourages providing readers with good raw material for their own generalizing” (p.102).

In recent discussions of case study, Stake (2005, 2008) continued to focus on the importance of the role of researcher as interpreter, and he commented that if the case is “more human or in some ways transcendent, it is because the researchers are so, not because of the methods” (2005, p. 443). He acknowledged that the case itself may be studied qualitatively or quantitatively, analytically or holistically, through measures or by interpretation, but the critical factor is that the case is a system with boundaries, and with certain features inside those boundaries. The work of the researcher is to identify “coherence and sequence” (2005, p. 444) of the activities within the boundaries of the case as patterns. The case needs to be organized around issues – complex, situated, problematic relationships – and questions around these issues will help deepen the theme of the case. Stake (2005) noted that the contexts of the case, whether they are social, economic, political, ethical, or aesthetic, are important to consider, and they “go a long way toward making relationships understandable” (p. 449). The researcher must be “ever-reflective”, considering impressions, and deliberating on materials and recollections. He furthered, “The researcher digs into meanings, working to relate them to contexts and experience. In each instance, the work is reflective” (p. 450). He confirmed his earlier views on the significance of the concept of generalizability of case study research, when he noted, “The purpose of case study is not to represent the world, but to represent the case … the utility of case research to practitioners and policy makers is in its extension of experience” (1994, p. 245).

While he agreed that both qualitative and quantitative research could be undertaken through case study, Stake (1978/2000, 1994, 1995, 2005, 2008) is clearly grounded in an interpretivist paradigm. His creative discussion of the characteristics of case study has informed many qualitative researchers in the meaning making of their experiences and observations within a bounded context.

Discussion

Case Study Methodology along the Continuum

The discussion of case study research strategy undertaken by Merriam, Yin, and Stake clarified and confirmed the importance of the use of this methodology in qualitative research, and supported the use of case study in my work. The perspectives of these foundational writers are in agreement on the fundamentals of case study. However, their philosophical positions are distinctly different, and over time, these positions have shifted. Drawing from Rolfe (2006), who suggested that “the quantitative-qualitative dichotomy is in fact a continuum” (p. 304), I envisioned the qualitative case study methodology of Merriam somewhere near the middle of the continuum, with Yin’s work situated on the far right, and Stake’s work located on the far left. Merriam presented a balanced, pragmatic approach, while Yin was highly methodical and logical, and Stake was like an artist or poet, creating and crafting meaning. However, Yin’s appreciation of the interpretive aspects of case study methodology is now more apparent, while Stake has acknowledged the value of case study in quantitative research. These shifts mirror the positions of other voices in the field of case study.
There is ample evidence of ongoing debate about where case study research is situated as a research paradigm and even about its value as a research strategy (Corcoran, Walker, & Wals, 2004; Hammersley, 1992; Lloyd-Jones, 2003; Verschuren, 2003). For example, Mo (1978) posed the question, “What really makes a method scientific? Some social scientists would include intuition and introspection among scientific methods; others draw the line barely to include or exclude exploratory research and qualitative case studies; some would allow only quantitative and/or deductive approaches” (p. 165). As well, the term case study is used in many disciplines and contexts other than research. This has contributed to some confusion about the nature of case study, as lawyers, detectives, and medical practitioners all call their work case studies (Hammersley & Gomm, 2000; Hatch, 2002; Mitchell, 2000).

The argument related to case study and the relative merits of qualitative and quantitative research methodologies had been debated in a number of academic disciplines. In sociology, Feagin, Orum, and Sjoberg (1991) considered case study to be an “extraordinarily useful and important strategy for social analysis” (p. vii), while Hamel (1992) spoke of the conflicted meanings of case study and Ragin (1992) argued that the “different conceptions of the term ‘case’ are central to the enduring gulf between quantitative and qualitative social science” (p. 3).

In social work, Gilgun (1994) labeled case study as “uncontrolled” (p. 373), and the result of the “new impossibility of ascribing causation in a single case where no pretest is available and few variables are measured at posttest” (p. 373). She acknowledged that case study research is valuable for other characteristics than causation, such as interpretability, but she cautioned that “process research” (p. 373) in social work was not well understood and did take more time to carry out. In contrast to this opinion, Allen-Meares (1995) suggested that social workers should discard the idea that the two paradigms are inherently incompatible, and they could think about how to integrate them creatively. Fraser (1995) echoed this suggestion to embrace interpretive case study and he commented on the growing rigour of qualitative case study. Hammersley & Gomm (2000) noted the shift in the assessment of case study, which has “sometimes been regarded as a weakness … [due to the] less-than-scientific or even unscientific character of this kind of research” (p. 2). The critique is less prevalent due to the “growing public suspicion of science, and increasing doubts about the possibility or desirability of a science of social life” (p. 2).

Simons (1996), researching in the field of education, indicated that the pressure for quantification and the growth of multi-site case study design in policy research has obscured the “original vision and utility of case study for understanding complex educational phenomena…and thereby an opportunity [has been] diminished for new ways of knowing” (p. 1). She delighted in case study as a paradox, where the researcher studies the “uniqueness of the particular” (p. 4) but through this study is able to understand the universal.

In political science, Cutler (2004) critiqued case study methods in public relations research because the researchers often “fail to meet the basic methodological standards needed to achieve the tests of validity” (p. 374). However, he concluded that case study could provide a powerful tool for researchers and contribute to the body of knowledge in public relations if a comprehensive and rigorous strategy as outlined by Yin (1981, 1984, 1994, 1999, 2003a, 2003b,
2005) was applied. Bennett and Elman (2006) dealt with issues of the limitations of case study based on a quantitative paradigm, but concluded that there is an opportunity for “a new phase in social science methodology that emphasized the complementarity of alternative methods while it more clearly recognizes their differences” (p. 474).

Recent publications in nursing have noted that the emphasis that case study places on multiple sources of evidence and potential to cover multiple realities (Jones & Lyons, 2004), and the opportunity to bridge paradigms (Luck, Jackson, & Usher, 2006) are in fact, the strengths of the case study. Luck et al. argued that the flexibility in definitions and uses of case study research acknowledges the need for paradigmatic flexibility, reflecting Patton’s (1990) earlier contention that rather than a paradigmatic competition, it was a time for a new paradigm of choices.

The case study has been criticized in part because researchers disagree about the definition and the purpose of carrying them out. Meyer (2001) argued: “Given this unclear status, researchers need to be very clear about their interpretation of the case study and the purpose of carrying out the study” (p. 349). The case study has been regarded as a design, a methodology, a particular data collection procedure, and as a research strategy. While this approach allows a pathway for researchers to embrace methodological openness and paradigmatic freedom, it is “beholden upon the inquirer to logically justify their philosophical position, research design and include a coherent argument for inclusion of varying research methods” (Luck et al., 2005, p. 107). It is incumbent on the researcher to ensure that case study is the right strategy based on the intention of the investigation. As Heck (2006) wrote, it is the “appropriate application of an approach to a particular problem, rather than the approach itself, that enables judgments to be made about a study’s … merit and its value to the field” (p. 373). The greatest challenge for the researcher is not the case study strategy itself, but in fact articulating the research paradigm and theoretical framework that is guiding every aspect of their work and ensuring the trustworthiness and credibility of the data and method of research.

Conclusion

The scope of the case study is bounded and the findings can rarely be generalized, but the case study can provide rich and significant insights into events and behaviours. It can “contribute uniquely to our knowledge of individual, organizational, social, and political phenomena” (Yin, 1984, p. 14). This approach serves my constructivist/feminist research paradigm and the theoretical framework of organizational culture and change (Schein, 2004; Wheatley, 2007) embedded in that paradigm. Qualitative case study research is supported by the pragmatic approach of Merriam, informed by the rigour of Yin and enriched by the creative interpretation described by Stake.

Case study provides descriptive details about how our workplaces function, and can increase understanding of a particular phenomenon. Examples of case study research might include the exploration of how a class of students learns a new language, the study of how a group of co-workers accepts new technology or the investigation of how women leaders in higher education function as the assumptions of the organizational culture are challenged by globalization. The in-depth focus on the particular within a bounded system can help provide a holistic view of a
situation. It is a view that includes the context as well as the details of an individual. Case studies do provide a humanistic, holistic understanding of complex situations, and as such are valuable research tools. However, unless the researcher fully understands case study and its place in the research process, and is confident in the research paradigm from whence s/he works, the debates on its merits will obscure the strength and direction of the research endeavour.
References


