

An Introduction to Case Study Methodology: Single Case and Multiple Case Approaches

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ABSTRACT

Case study has been one of the most often used qualitative research methodologies in the field of education at all levels – from preschool to adult. Yet the number of available resources for case study researchers—be they emerging or experienced—is still limited. This paper will review the definition of the case study method as well as some of the methodological variations that a case study may take. The purpose of this paper is to provide the reader with a better understanding of the methodology of case study as well as to provide the reader with ideas for how to apply this methodology within different contexts within the field of educational research.

KEYWORDS

Case Study, Constructivism, Educational Research, Generalization, Multiple Case, Single Case

THE CASE STUDY METHOD: DEFINITION AND VARIATIONS

According to Yin (1981), a case study is “(a) a contemporary phenomenon in its real-life context, especially when (b) the boundaries between phenomenon and context are not clearly evident” (p. 59). In other words, a case study focuses on observing a unique situation that occurs (or occurred) in real life; and, the case study method is particularly appropriate when the situation cannot be defined apart from the context in which it occurs (as opposed to a randomized, controlled experiment, for example). The case itself can range from something concrete (e.g., an individual person or organization) to something abstract (e.g., a relationship or idea) (Creswell & Poth, 2018; Yin, 2009a).

Epistemological beliefs play an important role in identifying the case, developing research questions, and deciding how the case study will be designed. Researchers must begin the case study research process with an understanding of their epistemological beliefs, because this epistemological perspective will ultimately guide the focus and direction of the research (Bloomberg & Volpe, 2016; Creswell & Poth, 2018; Huff, 2009). In this paper, we will focus on case studies that align with a positivist or, alternatively, constructivist viewpoint. As the reader will note in the different examples presented in this article, some case studies seek to draw objective, generalizable conclusions based on scientific approaches to data collection and data analysis. This is reflective of the positivistic epistemological approach to case study research (Phillips & Burbules, 2000; Yin, 2009a). The constructivist epistemological approach also seeks to draw conclusions, but this approach is transparent about the role of the researchers’ subjectivity in interpreting the data (Yazan, 2015).

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Central to the positivistic approach is the idea that “there are social *facts* with an objective reality apart from the beliefs of individuals” (Firestone, 1987, p. 16, italics in original); hence, objectivity, validity, and generalizability are considered the essential tenets of positivism-oriented research (Crotty, 1998). This leads those adopting positivism to believe construct validity, internal validity, external validity (i.e., generalizability of the findings), and reliability should be emphasized in case study research (Yin, 2012b, 2018).

As opposed to Yin who has more quantitative or positivistic leanings, most contemporary case study researchers hold that constructivism should be the epistemology orienting and informing case study research (e.g., Merriam, 1998; Stake, 1995; Yazan, 2015) because, as Merriam (1998) elucidates, “the primary instrument in qualitative research is human, all observations and analyses are filtered through that human being’s worldview, values, and perspective” (p. 22). From the constructivist viewpoint, “knowledge is constructed rather than discovered. The world we know is a particularly human construction” (Stake, 1995, pp. 99-100), and, to use Merriam’s (1998) words, “reality is not an objective entity; rather, there are multiple interpretations of reality” (p. 23). Consequently, case study researchers with constructivist tendencies are interested in exploring and grasping the meaning people have constructed through their lived experiences with the world (Merriam, 1998) rather than trying to obtain objective, quantifiable, and generalizable knowledge as those with positivistic orientation usually do (Crotty, 1998). That is, constructivist case study inquirers do not separate the phenomenon under study from its setting, for it is impossible to study a phenomenon void of its pertinent context (Miles & Huberman, 1994).

It is also significant to highlight how case study research tends to begin with a theoretical framework, in contrast to other methodological approaches, such as grounded theory (Merriam, 1985, Yin 2009b). Grounded theory research uses the data and experiences of participants to develop a theory, while case study research begins by identifying a theory to guide choices related to the data sources, data collection, and data analysis.

In this paper, we will present examples of three commonly used approaches to case study design: single case study, multiple case studies, and intrinsic case study (Bloomberg & Volpe, 2016; Creswell & Poth, 2018). The single case study concentrates on a specific person, group, or organization to provide insight into a larger issue (Creswell & Poth, 2018). This approach is appropriate within a number of different scenarios. For example, single case studies are appropriate in cases that are understood to be rare and unique, where document of the case is essential. Alternatively, representative cases denote cases where there are many examples to choose from but where one case is particularly representative of the phenomenon and, thus, worthy of documentation and exploration. Finally, longitudinal case studies examine a single case over time, thus lending itself to single case study design.

Multiple case studies (or collective case studies) also seek to explore one particular issue or phenomenon, but the design of the study contains more than one well-bounded case. Often, the rationale that supported the single instrumental case study will not apply to the multiple case study; for example, cases that are considered unique will not often provide the opportunity for multiple cases to be formed; however, using multiple case studies is favored by researchers who choose to ascribe to a positivistic epistemology, because the multiple case study design is thought to increase the reliability and validity of the research findings (Yin, 2009b).

DATA SOURCES AND DATA ANALYSIS

A variety of data sources can be used when conducting a case study. The qualitative data sources of documents, interviews, and direct observations align with the constructivist approach to case study design (Yazan, 2015). Yin (2009b), however, suggests the use of both qualitative and quantitative data (such as survey data) to ensure that a high-quality case study is conducted, as multiple data sources help to aid in the process of triangulation (Yin, 2009a). Many case study researchers emphasize the importance of documenting the process of data collection, also referred to as an audit trail (Guba &

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