

CASE STUDY APPROACH IN QUALITATIVE RESEARCH

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Abstract: *The Case Study is a method used in both quantitative and qualitative research. As expected there are varying definitions of the case study as a method in qualitative research. There are different kinds of case study approach in qualitative research. This paper wants to demonstrate the different types of case study approach in qualitative research and there advantages and disadvantages.*

Key words: *Types of Case Study, Techniques for gathering data for Cast study, Steps in using the case study method, Advantages of case studies, Disadvantages of case studies.*

1. INTRODUCTION:

Miles and Huberman (1994) present a graphic meaning of a case study by suggesting that it is like a circle with a heart in the middle (see Figure 5.1). The heart is the focus of the study, while the circle defines the edge or boundary of the case. What is beyond the edge or boundary will not be studied. In other words, to qualify as a case study, you have to state the **boundary** or delimit what you want to study. For example, you have to limit the number of people you intend to interview, you have to limit the amount of time you intend to spend. “If there is no end, actually or theoretically, to the number of people who could be interviewed or to observations that could be conducted, then the phenomenon is not bounded enough to qualify as a case (Merriam, 1998, p.28).

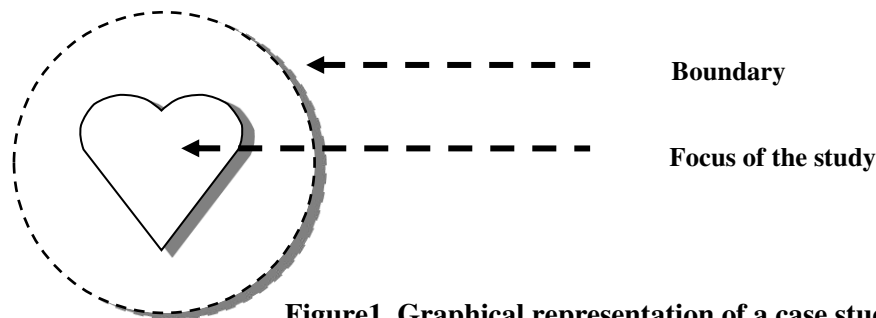


Figure1. Graphical representation of a case study

Adelman, Jenkins & Kemmis (1993) describe the case study as an “instance drawn from a class” (p.3) while Macdonald & Walker (1977) defines it as an “the examination of an instance in action” (p.181). Note that the key word is “instance” which could a individual child in the classroom, a classroom of preschool children, a low achieving high school or a specific remedial programme in reading. An “instance” of the case is selected to study in depth because it is intrinsically interesting and the researcher who studies it seeks to get a full understanding of the phenomenon as possible (Merriam, 1998). By concentrating on a single entity or case (i.e. one child, one classroom, specific programme), the researcher is able to uncover the distinct characteristics of the phenomenon (for example, the behavior of that one child when interacting with other children in the playground). Yin (1994) states that the case study design is most appropriate in situations in which it is impossible to separate the phenomenon studied from its context (i.e. the child’s behavior in relation to other children in the playground). Note that the case study method is adopted both in quantitative and qualitative research. According to Merriam (1998), the case study method used in qualitative research has the following characteristics: Particularistic, Descriptive & Heuristic.

2. TYPES OF CASE STUDY:

Basically case study are of three types such as :

- χ **Particularistic** – Focus on a particular individual, group, event, programme or phenomenon. It is possible that when a particular individual, group or event is examined, a more general aspect of the problem may be illuminated. When examining the particular individual, group or event, it may or may not be influenced by the researcher’s bias.
- χ **Descriptive** – A case study can illustrate the complexities of a situation (e.g. there is no one factor but many factors contributing to understanding the phenomenon). A case study describes the influence of people (e.g. differences of opinion of the those interviewed) and the influence of time on the phenomenon. Information about the case study is obtained from many sources (e.g. interviews, observation).

- χ **Heuristic** – A case can explain the reasons for a problem or issue (i.e. what happened and why). For example, through a case study it is possible to explain a curriculum innovation failed to work.

The Case Study is a method used in both quantitative and qualitative research. As expected there are varying definitions of the case study as a method in qualitative research. Merriam (1988) defines ‘a qualitative case study as an intensive, holistic description and analysis of a single instance, phenomenon, or social unit (p.21). The case study can be a descriptive case study, an interpretive case study or an evaluative case study

- **Descriptive Qualitative Case Study:**

Such a study presents a detailed account of the phenomenon studied. The intention is not to generalise but rather to present a description of the individual or class or school studied. The descriptive case study is not guided by any theory or hypothesis or a desire to formulate a hypothesis or theory (Lijphart, 1971).

- **Interpretive Qualitative Case Study:**

In such a case study, using the rich and thick description obtained, the researcher interprets and attempts to theorise about the phenomenon. For example, when studying how a child understands addition and subtraction, the researcher does not only describe what was observed but may also develop a continuum or sequence of steps taken by the child when doing subtraction.

- **Evaluative Qualitative Case Study:**

In such a case study the researcher goes beyond description and explanation, and attempts to evaluate and make judgements about the phenomenon studied. For example, case study can be used in evaluating a programme; and based on the case study the researcher can conclude whether the objectives of the programme have been achieved.

Design of case study

Case studies can be either a single-case design or a multiple-case design. According to Yin (1994).

- *A single-case design* are ideal for studying unique or extreme cases, to confirm or challenge a theory or for cases where the researcher did not have access to before. However, the researcher should be careful not to misrepresent what was observed.
- *Multiple-case designs* are more suited when the researcher is interested in using more than one case to gather data from various sources and draw conclusions from the facts. They serve to confirm or corroborate evidence which enhances validity of the study. Multiple-design cases may require more than one investigator and training may be required covering aspects such as the reason for the study, the type of evidence to collect and what variations might be expected.

3. TECHNIQUES FOR GATHERING DATA FOR CAST STUDY:

The following are some types of data collection techniques employed in case studies (Stake, 1995 and Yin, 1994):

- **Interviews:** The interview is an important technique for data collection and there are two forms of interview: Closed or Structured Interviews and Open-Ended Interviews. Open-ended interviews allow subjects to express themselves more freely and insight into events.
- **Observations:** this could be direct observation of events and behaviors as well as participant-observation where the researcher is an active participant in the events being studied.
- **Documents:** These could be letters, memos, agendas, administrative documents, newspaper articles and any other relevant documents. Documents are useful for making inferences about events. Documents are communications between persons in the study.
- **Physical Artifacts:** These are objects collected from the setting which could be products made by students and other individuals, the objects used such as tools or instruments.

4. STEPS IN USING THE CASE STUDY METHOD:

The case study has been widely used as a research method in law and medicine and is increasingly used in education. Yin (1994) identified the following steps in conducting any case study.

- The first relates to the *research questions* which most likely to be “how” and “why” questions, For example, ‘How do students interact in the school canteen?’.
- Second relates to the unit of analysis which could be an individual, a group of individuals, or an organization.
- Third relates to *linking the data collected* with the research questions.
- Fourth relates to the interpretation of Findings. A useful technique is “pattern-matching” where data collected from the case may be related to some theoretical proposition (Campbell, 1975).

Tellis (1997) proposed the following steps in using the case study method: (see Figure 5.2)

STEP 1. DETERMINE AND DEFINE THE RESEARCH QUESTIONS

- Establish a clear research focus by forming research questions about the problem (or situation) to be studied.
- The research focus could be a program, an entity, a person, or a group of people.
- You investigate the case study in depth using a variety of data gathering methods to certain research questions.
 - You seek to find answers to questions which begin with “how” or “why”.
 - Your questions should be targeted to a limited number of events or conditions and their inter-relationships.
 - With clear questions you will be able to pinpoint where to look for evidence and methods of analysis
- Check with literature review:
 - When formulating the research questions and check what has been done previously
 - To help you in determining how the study will be designed, conducted and publicly reported.
- **Remember** most case studies are intricately connected to political, social, historical, and personal issues, providing wide ranging possibilities for questions and adding complexity to the case study.

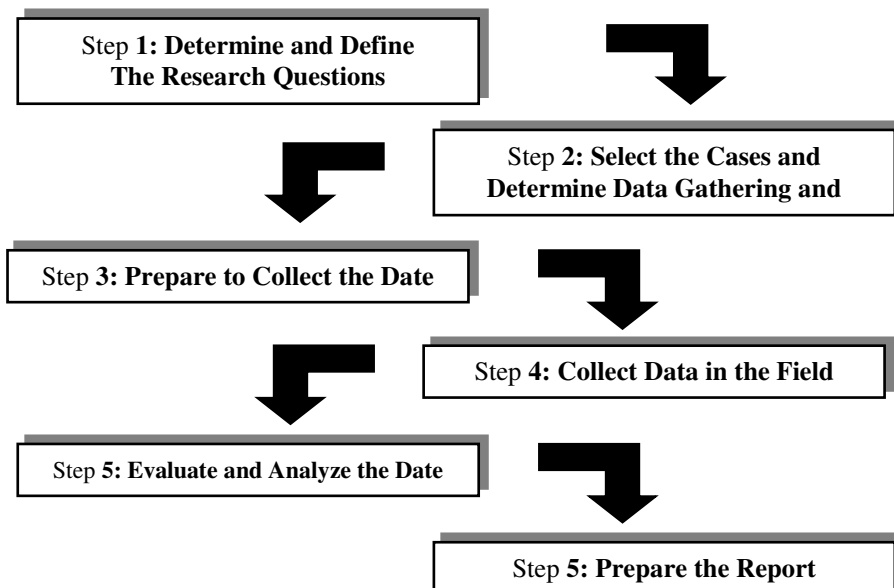


Figure 2 Steps in Using the Case Study Method

[source : Tellis, W. 1997. Application of a case study methodology. The Qualitative Report, Volume 3, Number 3]

STEP 2. SELECT THE CASES AND DETERMINE DATA GATHERING AND ANALYSIS TECHNIQUES

A) Selection of Cases

- You have to decide whether to select ‘single’ or ‘multiple’ cases to study in depth. If you decide to use multiple cases, note that each case is treated as a single case. Each case’s conclusions can then be used as information contributing to the whole study, but each case remains a single case.
- You must determine whether to select cases which are unique in some way or cases which are considered typical or cases that represent a variety of geographic region or other parameters.
- When selecting a case or cases you should repeatedly refer back to the purpose of the study in order to focus your attention on where to look for cases and evidence.
- If you are careful in the selection of a case or cases, you will be able to identify the boundary around the case.

B) Date Gathering Techniques

- You must determine in advance what evidence to gather and what analysis techniques to use with the data to answer the research questions.
- Among the tools you might want to consider are interviews, documentation review, observation, and even the collection of physical artifacts [*The techniques were discussed earlier*].

- Make sure the data gathering tools are used systematically and properly to ensure:
 - **Construct validity** i.e. you use the correct measures for the concepts being studied.
 - **Internal Validity** i.e. you demonstrate that certain conditions lead to other conditions and requires the use of multiple pieces of evidence from multiple sources to uncover convergent lines of inquiry.
 - **External validity** i.e. determine whether or not your findings are generalisable beyond the immediate case or cases. Generally, the more variations in places, people, and procedures a case study can withstand and still yield the same findings; that is, the more external validity. Techniques such as cross-case examination and within-case examination along with literature review helps ensure external validity.
 - **Reliability** i.e. the stability, accuracy, and precision of measurement. You should ensure that the procedures used are well documented and can be repeated with the same results over and over again.

STEP 3: PREPARE TO COLLECT THE DATA

- Be clear as to how you plan to organize the data collected in a systematic manner as you may be overwhelmed by the amount of data. You may lose sight of the original research purpose and research questions.
- Make preparations in handling large amounts of data in a documented and systematic fashion.
- Select a pilot site and conduct a pilot test using the data gathering techniques you have planned. Keep track of the problems you encountered and how you can avoid them in actual study.
- You need to prepare letters of introduction, establish rules for confidentiality, and be prepared to revisit and revise the research design and the original set of research questions.

STEP 4: COLLECT DATA IN THE FIELD

- Ideally, you should collect and store multiple sources of evidence comprehensively and systematically, so that you can triangulate.
- If you are observing your subject or subjects, identify factors that are possibly causing the phenomenon or particular behavior.
- Case study research is flexible, but any changes made should be documented systematically.
- Whether you are observing or interviewing the subject, make sure you record them in your field notes.
- Based on your field notes you may be able to identify patterns emerging or alternatively may need to reformulate or redefine your data collection strategy.

STEP 5: EVALUATE AND ANALYZE THE DATA

- You examine the raw data using many interpretations in order to find linkages with the original research questions [*refer to Chapter 7 and 8 on Analysis of Data*]
- Because you have used multiple data collection methods, you are able to triangulate data in order to strengthen the research findings and conclusions.
- When you analyses the data you have collected, you categories, tabulate and recombine data to address the initial research questions.
- You also will come across discrepancies in the data and data that does not fit in. Perhaps you may need to re-interview the subject to verify some of your findings or check a fact (e.g. When you said “I am disappointed”, what did you actually mean?).
- In short, In all cases, the researcher treats the evidence fairly to produce analytic conclusions answering the original “how” an “why” research questions.

STEP 6 PREPARE THE REPORT

- The report of case studies should convince the reader that you have examined all aspects of the subject studied and the boundaries of the case.
- The aims of the written report is to transform a complex issue into one that the reader can understand.
- It is also hoped that by reading your report, the reader will arrive at his or her understanding independent of the researcher.
- It is also possible that based on your report the reader may apply the experience to his or her own real-life situations.
- The format for presenting your study could be as follows:
 - If you have several cases, you could present each case as a separate chapter.
 - You could also present your case study in chronological order.
 - You could also present you case study as a story.

5. ADVANTAGES OF CASE STUDIES:

5.1 Evaluating change and innovation

The in-depth approach taken in case studies means that, by documenting and analyzing developments as they occur, it is possible to provide timely insights into the factors that researchers consider to be critical to the outcomes of the 'case' under examination. It is no coincidence that four of the five examples discussed in this overview were concerned with looking at new organizations or new forms of organizational support.

5.2 Inclusion of multiple perspectives

Case studies also seek to include multiple perspectives. By collecting information from a range of different stakeholders, such as commissioners, professionals and service users, they can document multiple viewpoints and highlight areas of consensus and of conflict. In the study of an integrated mental health trust, Peck and colleagues (2001) noted that one of the intended aims of creating a single organization was to achieve a 'shared culture'. However, those responsible for the merger assumed that new organizational structures and the co-location of different professionals would be enough to bring about this change. In the absence of any other attempts to develop a shared culture, the researchers found that the attempt to create integrated working had actually *strengthened* the attachment of some staff of their respective professional cultures and in some respects had led them to 'patrol the perceived boundaries of their profession with added vigilance'.

5.3 Flexibility in data collection

The case study approach also offers substantial flexibility in terms of what data is collected and how. The study by Roberts *et al.* (2004) of ESOL students consisted of five inter-related case studies about how ESOL students acquired literacy and numeracy skills in English. It used a wider range of data collection methods, including audio-recorded classroom data, participant observation, researcher field notes, student and teacher accounts of teaching and learning activities through interviews, and examples of teaching materials and students' work. By observing and recording interactions in the classroom, information also emerged about students' lives outside the classroom (Baynham 2006). This method of comparing data from different sources is known as triangulation and is sometimes presented as a way of demonstrating the validity of qualitative research. However, not everyone agrees on the necessity for triangulation and there are other ways of demonstrating the 'trustworthiness' of qualitative data.

5.4 Accessibility to readers

The use of a range of data collection methods can give a richness and variety to the way that research is written up and the report on ESOL students includes anonymised biographical 'pen portraits' of students, copies of photographs they had taken to illustrate their feelings about their lives, and examples of their written work.

These give a vivid sense of the 'lived experience' of participants who, in this instance, were mainly asylum seekers and refugees coming from a wide variety of countries. For policymakers and practitioners whose own lives may be very different, this way of reporting findings gives a vicarious sense of the experiences that make up other people's lives and may ultimately help in the translation of research findings into forms that are usable by policymakers and practitioners.

6. DISADVANTAGES OF CASE STUDIES:

Set against these advantages, criticisms have also been made of case studies. Chief among these is the assertion that it is impossible to generalize from a single case and that there is a tendency for verification – that is, for researchers to use data to confirm their preconceived notions (Simons 1996; Flyvbjerg 2006). Because of this, it is sometimes asserted that case studies should only be used in exploratory stages of research, although proponents of case studies would disagree with this viewpoint. There are also debates about the time periods needed to undertake case studies, with some arguing that case studies take too long. Yin (2009) points out that standard in the conduct of case study research are variable, particularly in the development of case study protocols or plans of analysis.

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