# The Case Study Method: Critical Reflection

By Fahad Alnaim

*University of Manchester, United Kingdom*

*Abstract-* This paper tackles different aspects of the case study method. This covers a critical discussion about the definition; including its meaning in both of qualitative and quantitative. The paper reveals key criticisms of this method; particularly the concerns about generalizability and subjectivity. Exploratory, explanatory and descriptive cases are different styles that have been examined. Furthermore, the way of conducting case studies and its related ethical issues have been critically discussed.

*Keywords:* case study, generalizability and qualitative methods.

*GJHSS-A Classification :* FOR Code: 139999

THECASESTUDYMETHODCRITICALREFLECTION

*Strictly as per the compliance and regulations of:*

# The Case Study Method: Critical Reflection

Fahad Alnaim

*Abstract-* This paper tackles different aspects of the case study method. This covers a critical discussion about the definition; including its meaning in both of qualitative and quantitative. The paper reveals key criticisms of this method; particularly the concerns about generalizability and subjectivity. Exploratory, explanatory and descriptive cases are different styles that have been examined. Furthermore, the way of conducting case studies and its related ethical issues have been critically discussed.

*Keywords:* case study, generalizability and qualitative methods.

## I. Introduction

Every field of sciences use commonly certain research methods (Shuttleworth, 2008). For example, there are many research methods go well with educational and social research such as: case studies, action research and historical research which all are most common in qualitative research. (Shuttleworth, 2008; Cohen et al, 2007). However, natural sciences frequently suit quantitative research such us: experimental methods (Shuttleworth, 2008). However, it is accepted to use quantitative methods even in educational and social research (Myers, 2010).

Qualitative and quantitative research, as the main basic of all research, are different in that qualitative research explores events or attitudes by certain strategies such us: focus group or interviews through researcher's viewpoints of details. On the other hand, quantitative research investigates facts or issues depending on statistics or trends which can be generated by some methods such as: surveys or structured interviews (Hara, 1995; Sanchez, 2006; Myers, 2010).

This paper will consider case studies because several reasons. Firstly, case studies play significant roles in educational and social research, so we have to consider it carefully as educationists. Furthermore, case studies have been used widely and increasingly (Demetriou, 2009). This dealing with case studies is not only in social science but even in other majors such as: business, political science and management studies (Soy, 1997; Yin 1994). As a result, researchers will highly likely come across numerous case studies which they need to understand in its different aspects such as collecting data and analyse it. Also, when one needs to investigate the effectiveness of a programme, a case study is one of the most appropriate methods to explore it in depth (Mc Namara, c2009 ; Kohn, 1997).

*Author: School of Environment, Education and Development, University of Manchester, UK. e-mail : akosford12@gmail.com*

## II. Definition of the Case study

There are some features Demonstrates case studies which can be considered in a definition or characteristics. As a definition, Yin (1989, p. 23) presents it comprehensively with a way that enables us to distinguish it from other methods, which is:

"A case study is an empirical inquiry that: investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used".

Case studies are characterized by many qualities such as its ability to illustrate a phenomenon in action (Cohen et al, 2007). Yin (1994) highlights that a case study works typically to answer "how" or "why" questions. Furthermore, Demetriou (2009) states that this method facilitates realising how the format of the events was shaped and what are the real needs of it which are better to be explored by future research. From last perspectives of case studies as well as other views (Soy, 1997; Myers, 2010), it can be stated a significant point which is always repeated explicitly or implicitly. This is that case studies have an excellent clarification of an instance in "its real life context" which means that this method: works realistically; can explain details articulately; can avoid some concerns of theoretical analysis.

As researchers look deeply in details of case studies to describe it by their analytical perspectives, one can state that this method is qualitative. Demetriou (2009, p. 204) explains that it is "purely qualitative" although it might has acceptably quantitative evidences as some trends or statistics. In sum, researchers, in order to draw an obvious picture of case studies, can use qualitative or quantitative evidences which all end by their perspectives of cases.

The case or the unit of this method can be an individual, a programme, school, etc (Wellington, 2000; McNamara, c2009). In addition, this method can be applied by multiple case studies, as well as it can work as a part with other method in an approach called mixed-method approach (Demetriou. 2009). While they seems as equal options of case studies designs, Yin (2009) encourages researchers to use multiple-cases rather than using a single case in order to provide stronger results, and avoid some fears of having suspect causes of choosing that specific case. Researchers, as well, should take into account that

29

mixed methods can deal with more complex study questions.

## III. Criticisms of the Case Study

Despite of the significant benefits of case studies, it has been argued regarding certain concerns of it, which need to be discussed. One of the most important critics is that case studies are not generalizable (Yin, 1984; Bassey, 1999). This also can be seen as a concern of its external validity (Demetriou, 2009). This issue considers whether the results of a case study research can be generalised for other cases. Generalisation is a strength character which exists clearly in several styles such surveys that based on random sample. Although these surveys represent entire of population, the case study reflects the reality of cases better as well as it does not determine to be generalizable (Kozerawska & Kovatcheva 2002). When compare between statistical analysis and case studies, one can realise that statistical analysis can generalise results to population through a sample which this case relied on. On the other hand, research of case studies can be generalised to theories which represent the scope of that theory of the cases (Demetriou, 2009).

Another concern needs to be taken into account is that subjectivity by researchers of case studies is likely to affect results and then reliability (Demetriou, 2009; Kohn, 1997). This can be treated by promoting 'multiple sources of evidence'. Also, reviewing drafts of a case study report by principal informants can address this problem (Yin, 1994).

## IV. Designing Case Studies

Yin (2009) argues that there are three forms which researchers can use any one of them for their case studies.

a) Exploratory case studies play affective role in investigations studies. In addition, research questions should be defined after collection data. However, formatting framework must be at the beginning (Demetriou, 2009).

b) Explanatory cases studies are used more with experiment or casual studies. Also, pattern-matching techniques are used to analyse its data (Yin, 2009).

c) Descriptive cases, which can be seen more in education and social sciences, need a theory to be set primarily which has to address deeply dimensions of cases through the studies (Ibid).

As mentioned earlier, the case study method can be based on a single-case, multiple cases or as a part of mixed-methods. Subsequently, every case of multiple-cases needs to be treated as a single-case study, and the whole study will be contributed by the conclusions of the single cases (Demetriou, 2009).

In sum, one needs to realise that he or she can design their case study research as one type of 3x3 matrix: one of the three mentioned forms with being single- or multiple-case(s) or part of mixed-methods.

## V. The Conduct of Case Studies

Case studies can be conducted effectively by following the next steps:

a) *Defining the research questions and selecting the cases*

Two points are essential in order to write excellent hypothesis which are: finding out accurate questions from problems of a study; and concentrating on the study purpose appropriately. Also, researchers have to pay their attention on their cases and emerging variety of potential questions. Following this, it is necessary to think about different data-gathering strategies which might assist to explore evidence that tackle those questions (Demetriou, 2009).

Choosing case studies also require the two points above, and determine whether a researcher want to select a case that unique, typical or one that represent certain areas or population, and then link logically between questions and chosen cases (Ibid).

b) *Preparing to collecting data*

In order to organize the data systematically, investigators have to be prepared in advance (Demetriou, 2009). Several skills are requested to be trained by investigators Yin (2009). Asking very appropriate questions, which can provide effective information, is an essential skill which is followed by the way of being accurate listener with the capacity of understanding and interpreting interviewees' speech. Moreover, sufficient knowledge of the phenomenon is needed for investigators in order to control procedures more effectively (Ibid).

While preparing for collecting data, one must consider a case study protocol which involves instrument, recorders and general rules. This protocol includes certain sections: outline of research project; clarification of field procedure like access to cases; the most important questions of the study; an instructor for the report of case study (Ibid).

c) *Collecting the evidence*

To begin with, in the case study method, it is recommended to seek for multiple sources of evidence (Demetriou, 2009). As mentioned previously that evidence of case studies can be qualitative and quantitative sources. In addition, there are many types of sources suit to use in case studies, but some of them are more common which are explained in different amount between writers (Stenhouse, 1988; Yin, 2009). However, it seems that documentations, observation and interviews are the basic sources in case studies.

It can be stated that documents provide value information, particularly, about the past of the case. Yin

(2009) shows variety of forms of this type such as: letters, agendas, progress reports and calendars. Also, observation, whether direct or participant observation, produces deeper understanding of behaviours or events (Sanchez, 2006). However, Yin (2009) concerns about the bias in participant observation which can be possible from observers. Yet, this might be reduced if there more than one observer along the qualified experience of investigators. Finally, interviews which include in three sort: unstructured, semi-structured or structured (Sanchez, 2006). Generally, in interviews there is more needed of good questions and prepared listeners.

*d) Analysis the evidence*

This step can be started informally during collecting data (TESOL, c2003). Researchers have to be keen to explore data to figure out the links between the collected information and research questions as well as research object (Demetriou, 2009). Also, categorizing and sorting data systematically is significant to assist to tackling the study propositions (Ibid).

Yin (2009) explains that analysing of a case study is important to be directed by theoretical propositions which had shaped the case study design. Therefore, researchers are likely to concentrate on the needed data among other huge information. Furthermore, Yin (2009) suggests using pattern matching, as an analytic technique, if the case study is explanatory or descriptive one. Alternatively, if the case is explanatory one, explanation-building techniques can be used also, which is applied by setting articulate demonstration regarding the case in order to analyse data. Remarkably, analysis is better to present the strength in the coherence of evidence; alternative interpretation; addressing of the study problem.

Because case studies are included qualitative research, which means it depend more on perspectives, it more tolerates different viewpoints (Shuttleworth, b2008), but at the same time it need more precision.

*e) Prepare the report*

At the end of a case study process, it must be organized a report that would be obvious for readers, particularly, case studies are very attractive research to read publicly (Demetriou, 2009).

Moreover, reports should include: acknowledge of participants' cooperation; outline of the study problems and questions; justifying the selected collecting data strategies and analytic techniques; obvious presentation of the evidence, results and suggestions (Soy, 1997).

## VI. ETHICS OF CASE STUDY RESEARCH

Ethical issues in case studies must be applied, particularly, with participants when collecting data in such observation and interviews. Several ethics need to be considered in this field. A researcher has to have participants' consent and the permission of institutions. Also, When refer to participants in a case study report, it must be used such numbers that represent them instead of appearing their real names. Significantly, participants are must not be harmed, but they should be benefited (Simons, 1989).

## VII. CONCLUSION

Case study method is really significant in research generally and in the field of education particularly. Although this method is pointed of some criticisms, but it can play unique role of explore complex phenomenon. Even though its relying on multiple sources of collecting data can be a concern of the need for well prepared investigators, this can give it more unique strength.

## REFERENCES RÉFÉRENCES REFERENCIAS

1. Bassey, M. (1999) *Case study research in educational settings*. Buckingham: Open University.
2. Cohen, L. et al (2003) Research Methods in Education, 6th Edition New York Taylor & Francis. Routledge: London.
3. Demetriou, H. (2009) The case study. In E Wilson (Ed), *School - based Research*. London: Sage, pp. 203-215.
4. Hara, K. (1995) Quantitative and Qualitative Research Approaches in Education. *Education*, 115 (3), pp. 351-356. Available at: http:// findart-icles.com/p/articles/mi_qa3673/is_n3_v115/ai_n286 56082/?tag=content;col1 [Accessed February 3, 2011]
5. Kohn, L. T. (1997) *Methods in Case Study Analysis*. Technical Publication No. 2. Washington: The Center for Studying Health System Change.
6. Koshy, V. (2005). Action research for improving practice: A practical guide. London : Sage.
7. Kozerawska A. & Kovatcheva E. (2002) Qualitative and quantitative research: comparison of different research methods. Department of Economics and Finance. Available at: http://www.pafis.shh.fi /~ann-koz02/case/methods.html [Accessed March 1, 2015]
8. McNamara, C. (c2009) Basics of Developing Case Studies. *Free Management Library*. Available at: http://managementhelp.org/evaluatn/casestdy.htm [Accessed January 2, 2015].
9. Myers, M. D. (2010) Qualitative Research in Information Systems. *MIS Quarterly*, Available at: www.qual.auckland.ac.nz [Accessed February 1, 2011].
10. Sanchez, a. (2006) The Difference Between Qualitative and Quantitative Research. *e-article*

*directory*. Available at: http://e-articles.info /e/a/title /THE-DIFFERENCE-BETWEEN-QUALITATIVE-AND-QUANTITATIVE-RESEARCH/ [Accessed February 1, 2015].

11. Shuttleworth, M. (2008). How to choose between different research methods. *Experiment Resources*. Available at: http://www.experiment-resources.com/different-research-methods.html [Accessed February 1, 2011].

12. Shuttleworth, M. (b2008). Case Study Research Design. *Experiment Resources*. Available at: http://www.experiment-resources.com/case-study-research-design.html [Accessed February 1, 2011].

13. Simons, H. (1989) Ethics of Case study in Educational Research and Evaluation. In Burgess, R. (ed), *Ethics of Educational Research*, New York: Falmer, pp. 114-140.

14. Soy, Susan K. (1997). The case study as a research method. Unpublished paper, University of Texas at Austin. Available at: http://www.ischool. utexas. edu/~ssoy/usesusers/l391d1b.htm [Accessed February 4, 2015].

15. Stenhouse, L. (1988). Case study methods. In J. P. Keeves (Ed.), *Educational research, methodology, and measurement: An international handbook.* Oxford: Pregamon Press, pp. 49-53.

16. TESOL (c2003) Qualitative Research: Case Study Guidelines. *TESOL Quarterly*. Available at: http://www.tesol.org/s_tesol/sec_document.asp?cid =476&did=2153 [Accessed March 3, 2015].

17. Wellington, J. J. (2000) Educational Research: Contemporary Issues and Practical Approaches, London: Continuum.

18. Yin, R. (1984) *Case study research: Design and methods* (2nd ed.). Beverly Hills, CA: Sage Publishing.

19. Yin, R. (1989) *Case study research: Design and methods* (Rev. ed.). Newbury Park, CA: Sage Publishing.

20. Yin, R. (2003) *Case study research: Design and methods* (3rd ed.). Beverly Hills, CA: Sage Publishing.

21. Yin, R. K. (2009). *Case study research: design and methods* (4th ed.). Los Angeles, Calif: Sage Publications.