Applying Case Studies in Educational Research

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Abstract

Case study research, one of the principal research methods, has been undertaken for a number of years in multidisciplinary areas. This paper therefore attempts to analyze the principles and practices of case study in education. Case study research will be first defined according to its principles. The characteristics of case study research will be further explored, followed by the process of case studies and case study methods. Last but not least, the writer will conclude the paper with the pros and cons of case study research.

Introduction

Regarded as an important research method, case study research has been employed for ages by researchers in many fields. In education research, case study, branded as one approach to the problem of verification and accumulation of educational knowledge, seeks to understand and interpret the world in terms of its doers and may be finally described as interpretative and subjective. (Cohen et. al, 2000) Case study research can lead to an understanding of a multifaceted issue or object and can extend experience or add strength to what is already known through previous research. Case studies focus on detailed contextual analysis of a constrained number of events or conditions and their relationships.
Education researchers, particularly, have made wide use of this qualitative research method to examine current situations in education and provide the basis for the application of ideas and extension of methods. Yin (1984) defines the case study research method as an empirical inquiry that investigates a contemporary phenomenon within its real-life context.

Nevertheless, critics of the case study methodology point out that the study of a small number of cases can offer no grounds for establishing reliability or generalization of results. Some feel that the intense exposure to study the case biases the findings. It can be argued that case studies have much potential in research areas, but it is somewhat problematic in principle and practice, especially from the point of view of the single case and the wider use of such a study. (McDonough and McDonough, 1997)

Principles of case study

In fact, the purpose of case study is not to represent the world, but to represent the case. Case study has been one important research methodology in the class of empirical inquiry (Yin, 1984). One of the crucial contributions of research to language teaching theory has been that it has introduced empirical procedures into the study of language education (Stern, 1983). Research is ‘empirical’ when it employs observation, description, and case study as research techniques. Case study is intended to portray, analyze and interpret the uniqueness of real individuals and situations through accessible accounts and to present and represent reality. (Cohen et. al, 2000).

Case study defined

A case study is a specific instance that is frequently designed to illustrate a more general principle (Nisbet and Watt, 1984). Some characteristics
of case study are that a case is a bound system in which in-depth, detailed data from wide data source are used. It is a natural approach following the central tenets of qualitative research by being emic, from within the case, and holistic, of the whole system in its context (McDonough and McDonough, 1997). Also, it is crucially concerned with an understanding of people’s own meanings and perspectives. According to Cohen et. al (ibid.) case studies observe effects in real contexts, recognizing that context is a powerful determinant of both causes and effects.

**Characteristics of case study**

Sturman (1999) puts it that a distinguishing feature of case studies is that human systems have a wholeness or integrity to them rather than being a loose connection of traits, necessitating in-depth investigation. Cohen et. al (ibid.) suggest that the case study approach has several features as follows:

1. It is concerned with a rich and vivid description of events relevant to the case.

2. It provides a chronological narrative of events relevant to the case.

3. It blends a description of events with their analysis.

4. It focuses on individual actors or groups of actors, and seeks to understand their perceptions of events.

5. It highlights specific events that are relevant to the case.

6. It focuses on the researcher as integrally involved in the case.

7. It shows that an attempt is made to portray the richness of the case in writing up the report.
In recent times, with reference to classroom research in particular, it has been noticeable that many action researchers favor case study in that it concentrates on what is unique. Therefore, specific problems encountered in the classroom can be addressed and thoroughly investigated. Wallace (1998) points out that the definite focus of case study indeed becomes a positive advantage for action researchers.

Process of case study

According to Cohen et. al (ibid.), a case study, when it is planned or designed, usually may follow the typical framework— that is — orienting decisions, discussing research design and methodology, analyzing data and presenting and reporting the results.

However, Adelman et. al (1980) suggest the following issues be taken into careful consideration in conducting case studies:

- the use of primary and secondary sources;
- the opportunities to check data;
- triangulation (including peer examination of the findings, respondent validation and reflexivity);
- data collection methods;
- data analysis and interpretation;
- theory generation (where appropriate) and
- the writing of the report.

Interestingly, Nisbet and Watt (1984) put forward three main stages in undertaking a case study. In order to catch the dynamics of unfolding
situations, researchers need to commence with a very wide field of focus, an open phase, without selectivity or prejudgment. Hence, in the second stage, progressive focusing enables a narrower field of focus to be established, identifying key foci for subsequent study and data collection. At the third stage, a draft interpretation is prepared which needs to be checked with respondents before appearing in the final form.

Methods in case study

According to Stake (1994), the methods of qualitative case study are largely the methods of disciplining personal and particularized experience. As for cases to be sought out and sampled, McDonough and McDonough (1997) propose that questionnaires and structured interview schedules be more likely employed by the researchers in case studies since these techniques allow for numerical analysis of elicited data. They also suggest that coded observation and factual logs will make use of pre-specified categories of information, which would contribute greatly to the examination of large-scale trends.

Some other possible techniques catering for different aims and approaches to data collection for case study include naturalistic and descriptive observation, narrative diaries, unstructured and ethnographic interviews, verbal reports, and collection of existing information (McDonough and McDonough, ibid.)

In the case of case analysis for scientific research, the wide range of ways includes correlation, tabulation, tallying, coding, thematic frequency and saliency, quantitative content analysis, and so on (McDonough and McDonough, ibid.). However, in the interpretative mode, Stake (1994) specifically adds two further categories: categories aggregation of instances
within and across cases; and direct interpretation. Furthermore, in the process of analysis and interpretation, triangulation will obviously be an important feature, particularly of data sources and methods (Stake, ibid.)

Conclusion: pros and cons of case study research

As a unique and particular research method, case studies enjoy distinctive advantages. Adelman et al. (1980) think of case studies as a satisfactory and attractive research method to educational evaluators or researchers for a number of reasons. Firstly, the data for case study is strong in reality and therefore appeals to practitioners who will be able to identify with the issues and concerns raised. Secondly, case studies allow generalizations about an instance, or from that to a class. Thirdly, case study can represent a multiplicity of viewpoints, and can offer support to alternative interpretations. Fourthly, case studies can form an archive of descriptive material available for reinterpretation by others. Fifthly, the insights yielded by case studies can be put to immediate use of for a variety of purposes. Here, case studies are viewed as a step to action. At last, case studies present research in an accessible form. Besides, Nisbet and Watt (1984) support the use of case study research, reasoning that case studies are more easily understood by a wide audience as they are frequently written in everyday, non-professional language. In addition, they are immediately intelligible; they speak for themselves. Moreover, they catch unique features that may otherwise be lost in large scale data; these unique features might hold the key to understanding the situation. They also provide insights into other similar situations and cases, thereby assisting interpretation of other similar cases. Last of all, they can be undertaken by a single researcher without needing a full research team in addition to their potential to embrace and build in unanticipated events and uncontrolled variables.
In applied linguistics, case study has been employed principally as a tool to trace the language development of first and second language learners (Nunan, 1992). In the field of second language acquisition, case studies have generated very detailed accounts of the processes and/or outcomes of language learning for a variety of subjects, ranging from young children in bilingual home environments, adolescent immigrants, adult migrant workers to university foreign language learners.

Nonetheless, every coin has two sides. Some researchers put forward some possible weaknesses of case studies. Nisbet and Watt (1984) see that case studies have some weaknesses. Firstly, the results may not be generalizable except where other researchers see their application. Secondly, they are not easily open to cross-checking; hence they may be selective, biased, personal and subjective. Thirdly, they are prone to problems of observer bias, despite attempts made to address reflexivity. Furthermore, the validity and reliability of case studies is doubtful.

In a nutshell, case study research, like other education research methods, is very useful for carrying out an investigation in which a particular focus is of importance. However, it must be adopted with circumspection as it needs to meet the challenges of validity and reliability in undertaking research.

References


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