Case Study in Contemporary Educational Research: Conceptualization and Critique

SHEN Qi

Abstract: As one of important research methods, case study research has been used for many years across a variety of disciplines. This paper tries to review the principles and processes of case study. First, I would like to define case study according to its principles. Second, attentions will be put to the features and classification of the research of case study. Third, I intend to explain the process of case studies and case study methods. Fourth, I would review the strengths and weaknesses of case study research. Last, I shall summarize and critique a case study of language learning.

Key words: Case Study; Research Methods; Educational Research

INTRODUCTION

As one of important research methods, case study research has been used for many years across a variety of disciplines. In education research, case study, labeled as one of the three approaches to the problem of education research, has been widely used in the study of educational policy, curriculum development, teaching strategy, etc. In the field of educational research, many scholars have done research using case study methods.

1 PH.D Candidate to College of Education Science, Nanjing Normal University and Associate professor of College of Foreign Languages, Nanjing University of Aeronautics and Astronautics, China.

* Received 4 March 2009; accepted 12 August 2009
verification and accumulation of educational knowledge, seeks to understand and interpret the world in
terms of its actors and may be finally described as interpretative and subjective. (Cohen et al., 2000,
p.181) Case study research can bring us to an understanding of a complex issue or object and can extend
experience or add strength to what is already known through previous research. Case studies emphasize
detailed contextual analysis of a limited number of events or conditions and their relationships.
Education researchers, in particular, have made wide use of this qualitative research method to examine
contemporary situations in education and provide the basis for the application of ideas and extension of
methods. Researcher Robert K. Yin defines the case study research method as 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
(Yin, 1984, p. 23).

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 generality of findings. Others feel that the intense exposure to
study of the case biases the findings. 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, p.203)

This paper tries to review the principles and processes of case study. First, I would like to define case
studies according to its principles. Second, attentions will be put to the features and classification of the
research of case study. Third, I intend to explain the process of case studies and case study methods.
Fourth, I would review the strengths and weaknesses of case study research. Last, I shall summarize and
critique a case study of language learning.

THE PURPOSE OF CASE STUDY

The purpose of case study is not to represent the world, but to represent the case. Case study has been one
of important research methodologies in the category of empirical inquiry. (Yin, 1984, p.23) 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, p.63) Research is ‘empirical’ when it
employs observation, description, and case study as research techniques. On the other hand, Researchers
from different disciplines view the term “case”, more or less, in different meanings. 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, p.79) The study of case in
language learning and education plays a very important role:

In education practitioners study schools or groups of schools (Cohen and Manion, 1989:134ff); curricula;
the effect of innovations; the implementation of materials; classrooms; teachers; students. And in
language learning, researchers often study mother tongue acquisition and L2 developments by looking at
individual learners, and at what they have in common.

(Wallace, 1998, p.164) suggest that case study research is aimed at:
- Solving particular problems
- Applying theories into practice
- Generating hypotheses
- Providing illustrations

WHAT IS CASE STUDY?

Case study can be defined in a variety of ways. A case study is a specific instance that is frequently
designed to illustrate a more general principle. (Nisbet and Watt, 1984:72) Adelman et al. suggest that it is the study of an instance in action. (Adelman et al., 1980) The single instance is of a bounded system, for example a child, a clique, a class, a school, a community. (Cohen et al., 2000, p.181) That is to say, a researcher may select an instance from the class of objects and phenomena one is investigating and investigates the way this instance functions in context. (Nunan, 1992, p.75) Nunan states in his book that he would agree that the case study is similar to ethnography in its philosophy, methods, and concern for studying phenomena in context. However, he maintains most case studies are different from ethnography. (ibid.: p.75) Adelman et al. suggest that the case study research may be initiated in one of two ways: on the one hand, an issue or hypothesis is proposed, and an instance drawn from that class is selected and studied. On the other hand, a case is selected and studied in its own right. (Adelman et al, 1976:140) So a case is now conventionally referred to as a “bounded system”, a term put forwarded by Louis Smith (see Stake 1995). Nunan quotes some sources giving definitions of case study. (Cited in Nunan, 1992, p.76-7)

- ‘the study of the speech, writing or language use of one person, either at one point in time or over a period of time, e.g. the language acquisition of a child over a period of one year’ (Richards, Platt, and Weber 1985:36).
- ‘it tries to illustrate a decision or set of decisions: why they were taken, how they were implemented, and with what result’ (Schramm 1971 cited in Yin 1984:23)
- ‘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’ (Yin,1984, p.23)
- ‘the qualitative case study can be defined as an intensive, holistic description and analysis of a single entity, phenomenon, or social unit. Case studies are particularistic, descriptive, and heuristic and rely heavily on inductive reasoning in handling multiple data sources’. (Merriam . 1988: 16)

Therefore, we can see through the above definitions put forward and draw some characteristics of case study as follows:

- case referred to as a ‘bounded system’
- in-depth, detailed data from wide data source
- a natural approach following the central tenets of qualitative research by being emic (from within the case) and holistic (the whole system in its context) (McDonough and McDonough., 1997, p.205)
- Crucially concerned with an understanding of people’s own meanings and perspectives. (ibid.:p.205)
- Case studies observe effects in real contexts, recognizing that context is a powerful determinant of both cause and effects. (Cohen et al., 2000, p.181)

**FEATURES OF CASE STUDY**

Besides the above definitions, Adelman et al. think that case study can be a useful research method that can enable readers to understand how ideas and abstract principles can fit together. (Adelman et al. 1980, p.72-3) Sturman put 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. (Sturman, 1999, p.103) Hitchcock and Hughes (1995, p.322, cited in Cohen et al.) suggest that the case study approach has several features as follows:
It is concerned with a rich and vivid description of events relevant to the case.
It provides a chronological narrative of events relevant to the case.
It blends a description of events with the analysis of them.
It focuses on individual actors or groups of actors, and seeks to understand their perceptions of events.
It highlights specific events that are relevant to the case.
The researcher is integrally involved in the case.
An attempt is made to portray the richness of the case in writing up the report.

They also point out that case study (ibid. p.319)
1) are set in temporal, geographical, organizational, institutional and other contexts that enable boundaries to be drawn around the case.
2) can be defined by individuals and groups involved.
3) can be defined by participants’ roles and functions in the case.

Many action researchers favor case study research in that case study concentrate on what is unique (with individual units). So the specific focus of the case study therefore becomes a positive advantages for action researchers. (Wallace, 1998, p.161)

CLASSIFICATION OF CASES

Case study can be classified in different ways, and the type preferred will depend on the objective of the research and probably on the paradigm underpinning it. (McDonough and McDonough, 1997, p.206) A number of taxonomies were put forward by many researchers from different aspects. Concerning about the case study’s outcome, Yin (1984) identifies three types of case studies as follows:

exploratory (as a pilot to other studies or research questions)
descriptive (providing narrative accounts)
explanatory (testing theories)

Merriam (1988) also put forward a three-way schema:
descriptive (narrative accounts)
interpretative (developing conceptual categories inductively in order to examine initial assumption)
evaluative (explaining and judging)

From the two classifications, we may see that Yin’s classification coincides with Merriam’s in the three types. Exploratory case studies that act as a pilot can be used to produce hypotheses that are tested in large scale surveys, experiments or other forms of research, e.g. observational. (Cohen et al., 2000, p.183) Both of the two classifications are related particularly with the way the research is conducted and its outcome in the final report. (McDonough and McDonough, 1997, p.207)

Stake (1994) looks at the classification from the point of view of the purpose informing the initial choice, and distinguishes between:
the intrinsic case study, where the interest is in the case for its own sake, based on uniqueness.
the instrumental case study, selected to help in the understanding of something else, based on issues.
the collective case study, groups of individual studies that are undertaken to gain a fuller picture, more than one case studied.

Lincoln and Guba (1985, p.361) also put forward a broad taxonomy that notes case studies as follows:
may be written with different purposes (to chronicle; to ‘render’, to describe; to teach; or a combination)
may be written at different analytic levels
will demand different actions from the enquirer
will result in different products

Besides, Stenhouse (1983) develops a typology of case studies. On the one hand, he concludes the first two as ‘neo-ethnographic’ and ‘evaluative’. As for the neo-ethnographic, he refers to an in-depth investigation of a single case by a participant observer. As for the evaluative, he identifies it as ‘a single case or group of cases studied at such depth as the evaluation of policy or practice will allow (usually condensed field work)’. On the other hand, he raises the multi-site case study, which consists of ‘condensed field work undertaken by a team of workers on a number of sites and possibly offering an alternative approach to research to that based on sampling and statistical inference’. The final type of case study is teacher research. As an English language teacher, I think this should be one of accessible approaches in that this type is ‘classroom action research or school case studies undertaken by teachers who use their participant status as a basis on which to build skills of observation and analysis’ (Stenhouse, 1983, p.21)

PROCESS OF CASE STUDY

A case study, when it is planned or designed, usually may follow the typical frame work of a research arranged by Morrison (1993, cited in Cohen et al.):

orienting decisions
research design and methodology
data analysis
presenting and reporting the results

But in planning a case study, Adelman et al. (1980) suggest the following issues should 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 (to be discussed in the following section);
data analysis and interpretation, and where appropriate, theory generation;
the writing of the report.

Nisbet and Watt (1984, p.78) suggest 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 prejudgement. 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

Since this paper has so far looked at the various categories of definitions, features and types of case studies, we may feel sure that there must be a lot of possible methods for various case studies. The methods of qualitative case study are largely the methods of disciplining personal and particularized experience (Stake, 1994). As for cases to be sought out and sampled, McDonough and McDonough (1997, p.207-8) introduce to us that questionnaires and structured interview schedules are more likely to be 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.
Finally, they list some other possible techniques catering for different aims and approaches to data collection as follows:

- naturalistic and descriptive observation
- narrative diaries
- unstructured and ethnographic interviews
- verbal reports
- collection of existing information

In the case of case analysis, the wide range of ways includes correlation, tabulation, tallying, coding, thematic frequency and saliency, quantitative content analysis, and so on. (McDonough and McDonough, 1997, p.208)

In the interpretative mode, Stake (1995) specifically adds two further categories: (1) categories aggregation of instances within and across cases and (2) direct interpretation. Furthermore, in the process of analysis and interpretation, triangulation will obviously be an important feature, particularly of data sources and methods. (McDonough and McDonough, 1997, p.208).

**STRENGTHENS AND WEAKNESSES**

Through the above introduction to case studies, we may sense that as a unique and special research method, case studies enjoy distinctive advantages. Adelman et al. think of case studies as a satisfactory and attractive research method to educational evaluators or researchers. (Adelman et al., 1980, p.59-60)

First, he believes that the data for case study is ‘strong in reality’ and therefore it is appealing to practitioners who will be able to identify with the issues and concerns raised. (cited in Nunan, 1992, p.78)

Second, case studies allow generalizations about an instance, or from that to a class. Third, case study can represent a multiplicity of view points, and can offer support to alternative interpretations. (ibid., p.78)

Fourth, case studies can form an archive of descriptive material available for reinterpretation by others. (Cited in McDonough and McDonough, 1997, p.217)

Fifth, the insights yielded by case studies can be put to immediate use of for a variety of purposes. (Cited in Nunan, 1992, p.78)

Case studies are a ‘step to action’. (Cited in McDonough and McDonough, 1997, p.217)

Last, case studies present research in an accessible form. (ibid., p217) Adelman et al. (1976, p.149) point out that case studies may contribute towards the “democratization” of decision-making and knowledge itself.

Besides, Nisbet and Watt’s strengthen of case study offers us more complete views below:

- The results are more easily understood by a wide audience as they are frequently written in everyday, non-professional language.
- They are immediately intelligible; they speak for themselves.
- 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 are strong on reality.
- They provide insights into other similar situations and cases, thereby assisting interpretation of other similar cases.
- They can be undertaken by a single researcher without needing a full research team.
- They can embrace and build in unanticipated events and uncontrolled variables.

(Nibert and Watt, 1984)

In applied linguistics, the case studies have been employed principally as a tool to trace the language development of first and second language learners. (Nunan, 1992, p. 78) In the field of second language acquisition, as Duff (1990, p.34, cited in Nunan) puts it that the 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, to adolescent immigrants, adult migrant workers and university-level foreign language learners.

But as every coin has two sides. Some researchers put forward some possible weaknesses of
case studies. Nisbet and Watt think case studies suffer the following three weaknesses: (Nibert and Watt, 1984)

- The results may not be generalizable except where other readers/researchers see their application.
- They are not easily open to cross-checking; hence they may be selective, biased, personal and subjective.
- They are prone to problems of observer bias, despite attempts made to address reflexivity.

Furthermore, many researchers also cast their doubts on the validity and reliability of case studies. Yin (1984) suggests four critical tests confront the case study researcher. These are:

- Construct validity (establishing correct operational measures for the concepts being studied)
- Internal validity (establishing a causal relationship, whereby certain conditions are shown to lead to other conditions, as distinguished from spurious relationships)
- External validity (establishing the domain or population to which a study’s findings can be generalized)
- Reliability (demonstrating that the study can be replicated with similar results)

(Cited in Nunan, 1992, p.80)

In short, case studies, like other education research methods, need to meet the challenges from validity and reliability in undertaking the research. In fact, many researchers make tentative researches by employing the case studies in their educational and language learning researches. For example, D. R. Ransdell (1993) conducts a case study research of language learning. Ransdell offers an account of her own experiences in learning Modern Greek and of how it proved to be ‘a dramatic eye-opener’ on the learning processes of her students.

**CRITIQUE OF A CASE STUDY**

In this section, I will try to examine Ransdell’s case study.

**RESEARCH AREA**

D. R. Ransdell set out to explore the relationship between learning Modern Greek and teaching EFL classroom at the beginning stage.

**JUSTIFICATION**

Considering her own teaching experience, Ransdell pointed out that it was a common practice that ‘most language teachers traditionally improve their teaching skills through classroom work, journals and conferences.’ (1993, p. 40) Her review of teachers’ continuing education experience might be quite similar to that of many other EFL teachers. Then she raised the creative writing as her major study item. She had thought of it as too hard a task for beginner and thus had long overlooked it in her teaching assignment. But it proved that the creative writing was ‘a strong potential tool’. (ibid., p.43) In fact, her misconception of role of writing, particularly creative writing in EFL beginner learning class is quite common among many teachers. As she put it that ‘creative writing is Greek to me’. So in this case, her case study research reflects practicability in language learning and really makes sense in this area.

In her literature review, Ransdell referred to White (1987, p.259), who believes writing assignment has face validity since it offers concrete evidence of learners’ accomplishments. Next, she quoted
Krashen’s ‘i+1’ hypothesis (Krashen, 1987, p.38) and self-confidence (ibid., p.39) in her literature review as her argument for her creative writing assignment. Besides, Bassano and Christison (1987, p.201) provided their belief that learners are eager to be enthusiastically and authentically involved in their new language. Last, Ransdell reviewed Blair’s argument that learners want to take over their new language by governing its production. (Blair, 1982)

**BACKGROUND**

In this case study, the population, namely the target group, is one student learning elementary Greek (the student is the writer herself, otherwise a teacher of EFL). ‘Sometimes language teachers find it a useful self-development exercise to learn another language and record their thoughts and emotions as they undergo experiences which may parallel those being experienced by their own students.’(Wallace, 1998, p.55) Ransdell gave us an account of one semester of her own experience in learning Modern Greek and how it contributed to her teaching in her own language classrooms. In this sense, this case study is different from other case studies in that the ‘case’ in question is the writer herself. (Wallace, 1998, p.170) As a personal case study (ibid., p.170), Ransdell introduced herself as a teacher who had studied Spanish and German when she was an undergraduate. Next, Ransdell had taken a Master’s in ESL and taught ESL for six years. She claimed that she had known a lot about language teaching methodology by trial and error in the classroom. Besides, she kept abreast of literature in the field and swapped ideas with fellow teachers.

However, Ransdell viewed it as ‘a more dramatic eye-opener’ (ibid., p.40) for her to start studying another language. At the very beginning of this paper, Ransdell narrated her first day in the Greek class, which proved to be a suffering for her. Through her own case of learning the Greek, she realized that she could learn from her own learning experience so as to improve the ESL classroom teaching. As for a beginner of a totally different foreign language, she sensed the difficulty in learning and became more patient with her own teaching “when I had to repeat ‘how are you?’ over and over to the beginning group.”(ibid., p.41)

During the first week, Ransdell made little progress in Greek. She measured her situation up to her students and made observations towards her beginning students while they were class assignments. She tried to compare her own with her own students in this case. Ransdell began to take notes of observations about teaching practices that she would like to ‘try out and mould to her own use’ (ibid., p.42) in her Greek class.

When it comes to a creative writing assignment in her Greek class, although a tough job for her, she participated in it with great enthusiasm and confidence. Although her writing made the others laugh owing to simple expression of meaning, Ransdell felt that she was highly motivated by her writing power. ‘Thanks to this brief exercise in creative writing, I had finally achieved a mild success in Greek learning.’ (ibid., p.43) Thus, Ransdell decided to follow the same method in ESL class. Previously, she had never thought writing assignment would be suitable for beginning language classes. She had to take a fresh and new look at her own teaching methodology and the significance in writing instructions and decided to justify the role of writing in her beginning language students.

**TYPE OF DATA AND ANALYSIS**

This paper as a case study draws on many data sources including:
- Personal accounts
- observation
- field-notes,
- interviews,
- questionnaires,
- verbal reports.
First, this case study reflects Ransdell’s personal accounts of her Greek learning and EFL teaching experiences, which is not only interesting and valuable for the readers, but also useful to the narrator in helping him or her to make sense of the experiences. (Wallace, 1998, p.65) As the ‘case’ herself, she benefited a lot from her learning experiences. Through her personal accounts, she was convinced of the validity of the creative writing assignments for her own language study and for the students in her beginning English classes. (Ransdell, 1993, p.45)

Second, Ransdell made observations in her Modern Greek class. Wallace called it as ‘unstructured observation’ (ibid., p.109) in that researcher notes down whatever seems of most importance and relevance. One of the apparent advantages for this technique lies in its flexibility. (ibid., p. 109) But the negative potential is that this unstructured approach may be subjective in some way. (ibid., p. 109) Ransdell had many years experiences in teaching, so her data of observation may differ from that from inexperienced ones. Similarly, Ransdell also kept field notes in her Greek classroom. The data in this sense collected are focused on the teaching practices demonstrated by the other teacher. Wallace holds that field notes can be kept in a highly structured way, following a particular format with a focus on a particular aspect of teaching and learning. (ibid., p.58-9)

Third, Ransdell had an interview with an EFL student, posing a teacher-student interview as follows:

‘How to you manage to write so well? Don’t you have trouble with the letters?’
‘It’s very difficult. I have to concentrate all the time, and still, I make very many mistakes.’
‘How long did it take to feel comfortable writing in English?’
‘I think it took forever. Or maybe only one year.’

(Ransdell, 1993, p.41-2)

From this dialogue, we see this interview is unstructured one in that Ransdell had a clear research purpose and asked the student questions for answers. The unstructured interview is featured since it is an open-ended and free-wheeling approach. (Wallace, 1998, p.147) Ransdell drew the conclusion form this interview that ‘I was able to make use of my sweaty palms and choked throat as a measure of comparison with my own students and tried to be more patient and encouraging than before. She consolidated her research to be meaningful through the analysis of this interview.

However, I have to talk about the ‘sampling’ in this interview, since Cohen and Manion (1994, p.89-90, cited in Wallace) point out that for statistical analysis, a minimum sample size of 30 is desirable. As a matter of fact, in this case study, Ransdell interviewed only one student and it is obvious that her data would be subjective. But Ransdell’s case study was conducted for her own research purpose, so her case study in itself is subjective to her own and it would be beneficial for her own professional development.

Fourth, Ransdell (ibid., p.45) conducted a questionnaire as to the learning techniques. She wanted to test out the role of writing among her fellow students of Greek by asking them to answer a questionnaire about the learning techniques used in class. Among the group being researched, 13 out of 14 students favored the creative teaching and all students in the group agreed that the assignments were useful learning activities. Some of the comments had been collected as follows:

Doing your own writing is great, because it forces you to do your own thinking. The writing assignments were the best ones we did all semester.

The assignments were quite difficult. I spent more time on them than the other exercises we had to do for class. However, they weren’t boring like the other ones.

(ibid., p.45)

Ransdell’s questionnaire was also unstructured in that the question was open-ended. The unstructured and open ended questionnaire can catch the authenticity, richness, depth of response and honesty. (Cohen, et al., 2000, p.255) But it also can be problematic since it makes it difficult for the researcher to make comparisons between respondents.(ibid., p.256) In this case study, almost all the students, including Ransdell herself believed the role of the creative writing in learning a language. Ransdell successfully conducted a small-scale questionnaire and achieved first-hand and honest data.

Last, this case study, on the whole, reflects a self verbal report from Ransdell herself. For example, she reported when her first creative writing assignment was read aloud in class. ‘The fact that my dialogue made the other students laugh was more compensation then any grade could be. My spirits were
...high as I walked off to teach my own class.’ (Ransdell, 1993, p.43) Obviously, the self-report here reflects Ransdell had been strongly motivated by the creative writing and is a highly ‘conscious and considered response’ (Wallace, 1998, p.80) from Ransdell herself.

CONCLUSION

It should be admitted that Ransdell’s case study is quite different from many other studies in that the ‘case’ in question is the writer herself. So as a personal case study, from the above analysis, we can see this case study is subjective in nature, but objective in her teaching and research area. Thus, in this action research, Ransdell not only achieved the validity and reliability of the creative writing assignments for her own language study and for the students in her beginning English classes through her research, but also tested out the role of writing among her fellow students of Greek.

Finally, Ransdell concluded her paper with her implications from her own case study by attending a beginner’s class in Greek ‘taught me more than I had learned in several years of attending conferences and sifting through journal articles’ (ibid., p.45) Specifically, as Wallace puts it that ‘she learns the motivating value of creative writing, which she successfully transfers to her own EFL teaching.’ (Wallace, 1998, p.168) She acquired through this case study a broader understanding of her students and their linguistic hardships and promoted her own professional development. Her personal case study is a lively and refreshing reminder of our need to find ways of increasing our understanding of learning and improving the quality of learning experiences for our students.

REFERENCES


30

