The Case of the Hybrid Umbrella: a Study of Case Studies

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Abstract

Case studies are not always easy to define, and have been variously compared to hybrids (Nunan, 1992) and umbrellas (Adelman, Jenkins and Kemmis, 1976), hence the title of this paper. A distinguishing feature is that they use individual cases to generalise about the wider population. Case studies may use participant or non-participant observation and may be conducted in natural or artificial settings. They are usually longitudinal, often involve qualitative rather than quantitative data and analysis, and may be structured or unstructured depending on the level of control desired by the researcher. Case studies often derive theory from data rather than the other way around, a process known as "grounded theory". Other important issues in case study research include relatability and point of view.

As with other methods, the process of case study research includes writing a literature review, and, at the end, a report. It is necessary to determine the research questions, the feasibility of the proposed research, the operational definitions, and how the data is going to be collected and analysed. Strengths of the case study approach include its sense of reality, its open-endedness, its flexibility, and the fact that it can be used to stimulate action. Weaknesses include the level of subjectivity involved, and the difficulty with establishing reliability and validity. Overall, case study research tends to produce high interest results, which no doubt contributes to its popularity.

What is a Case Study?

According to Nunan (1992, p.74): “Deciding whether a study is or is not a case is not always particularly easy”. Resorting to metaphor, Nunan employs the term “hybrid” because, as he explains, a case study “utilises a range of methods for collecting and analysing data, rather than being restricted to a single procedure”. Adelman, Jenkins and Kemmis (1976) also employ metaphor when they describe case study as an umbrella term covering a group of research methods which focus on particular instance”. Bell (1993) goes on to say that although the most frequently used methods in case studies are observation and the interview, no method is excluded. It is perhaps because of this eclecticism that case studies, crossing as they do the boundaries of so many other approaches and methods, are so difficult to define precisely. The dual metaphors comparing case studies to hybrids and umbrellas have generated the title of this paper.

Richards, Platt and Weber (1985, p.36) define case studies as “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”. It is assumed that the case being studied is typical of a type, and that, therefore, it will be possible to generalise from the case being studied to other similar cases (Kumar, 1996). An example of this kind of study is the one by Ioup, Boustagui, el Tigi and Moselle (1994) of successful second language acquisition by an adult in a naturalistic environment. The study concerned Julie, an Englishwoman who, at the age of 21, married an Egyptian and went to live in Cairo. After two and a half years, according to the authors, she was able to pass as a native speaker. The study examined how Julie went about learning her second language and attempted to discover why she managed to acquire a second language successfully as an adult when so many others have failed. Another well known study of an individual language learner is the one by Schmidt (1983) who studied Wes, a Japanese artist living in Hawaii. In spite of apparently very positive attitudes towards the target culture, Schmidt found that Wes’s grammatical competence failed to equal his overall communicative competence, leading to the conclusion that, in addition to acculturation, hard work is also required in order to successfully develop all round competence in a second language.

Not all writers, however, agree that a case study is necessarily concerned with just one person. A case study is typically concerned with “an individual unit - a child, a clique, a school or a community” (Cohen and Manion, 1991, p.124). According to Kumar (1996, p.99), a case, which provides the orgainsing principle for the gathering and presentation of data, may be “a person, group, episode, process, community, society or any other unit of social life”. Examples of case studies of more than a single person include a study of teaching activities by Adams and Biddle (1970), who observed what happened in 16 classrooms over 32 lessons. Another case study which includes more than one person is the one by Lambert, Bullock and Millham (1975) in which they attempted to examine the effects of boarding school life on pupils’ emotional and sexual lives. They surveyed 1,238 pupils and studied a total of 66 schools.

A distinguishing feature of a case study is the nature of the conclusions reached. Since different approaches to research utilise different methods, they tend to come to different kinds of conclusions. An experimenter manipulates variables to determine causal significance. A surveyor asks standardised questions of representative samples. An ethnographer studies people in natural settings with an emphasis on the cultural significance of what is observed. A case study uses individuals (be it an individual person, class, school or whatever) in order to generalise about the wider population. These generalisations are "based on the assumption that the information gathered on a particular individual, group or community will also be true of the other individuals, groups or communities" (Richards, Platt and Platt, 1992, p.47). Ioup et al. (1994), for instance, use the case of Julie to reach the generalisation that "For some yet to be discovered reason, talented adults, unlike children, appear to require conscious attention to grammatical form" (p.93).

Underlying Principles

According to Cohen and Manion (1991, p.125) "at the heart of every case study lies a *method of observation"*. Case studies can involve either participant observation or non-participant observation. In participant observation, the observer becomes involved in the activities he sets out to observe. The study by Lambert et al. (1975) provides us with an example of participant observation where the researchers visited each school for usually two weeks or more, living and sleeping on the premises, joining in the everyday pattern of life in an endeavour to experience all aspects of the school. In non-participant observation, the researcher "stands aloof.....and eschews group membership" (Cohen and Manion, 1991, p.127). King (1979), for instance established himself as a non-participatory observer in his study of infant classrooms by remaining standing, by avoiding talking to or showing interest in the children, and by avoiding eye contact.

It is possible to conduct case studies in either a natural or an artificial setting. Natural settings are the places where the behaviour being studied normally takes place, such as the school or the classroom. Artificial settings might include a psychologist's clinic or the researcher's office, where researchees are removed from their usual environments. Adams and Biddle (1970), for instance, conducted their research in the natural setting of the classroom, while the study by Shields (1962) of a severely disturbed adolescent took place in the artificial setting of the therapist's clinic.

According to Brown (1991), case studies are "usually *longitudinal*", that is, they are conducted over a period of time. For instance, Sato's (1985) study of Thanh, an adolescent Vietnamese learner of English, was carried out over 10 months. The study by Wolcott (1973) of the activities of a school principal took even longer (two years). The study of Julie (Ioup et al., 1994) took three years.

Case studies are often thought to involve qualitative rather than quantitative data and analysis. According to Allwright and Bailey (1991, p.65) "Any sort of measurement

that yields numerical information generates quantitative data". Quantitative analysis involves counting or measuring of data. Qualitative data such as diaries, student writing and photographic records are not the result of measurement or counting, and analysis is achieved by "reflecting upon and trying to interpret" the data (Allwright and Bailey, 1991, p.65). Shields (1962), for instance, in his case study of Chris, a severely disturbed adolescent, presents qualitative data in the form of case study reports, subsequently reflecting upon and interpreting this data in order to gain an insight into the nature of the underlying problems. The study by Lambert et al. (1975), on the other hand, used a questionnaire to obtain quantitative data which was then analysed quantitatively to yield percentages. Other studies use a mixture of quantitative and qualitative data and analysis. Ioup et al. (1994), for instance, back up their essentially qualitative data and analysis of Julie's progress with quantitative data on native speaker and non-native speaker grammaticality and interpretation of anaphora.

Depending on the level of control exerted by the researcher, case study research can be structured or unstructured. The study by Weinreich (1979) is an example of a highly structured study of the problems of cross-ethnic identification of John, a West Indian adolescent boy. In the course of the study, constructs were systematically presented to John one at a time on rating sheets. The study by Shields (1962) of Chris, a severely disturbed adolescent, on the other hand, was unstructured in that it was not the therapist but Chris who imposed a structure on the sessions.

An important concept in case study research is relatability, which refers to the degree to which others can relate to the subject matter or to the conclusions reached. As Bassey (1981, p.85) puts it: "the merit of a case study is the extent to which the details are sufficient and appropriate for a teacher working in a similar situation to relate his decision making to that described in the case study". The conclusion reached by Schmidt (1983) regarding Wes, for example (that adult learners need more than positive attitudes to the target culture to develop competence in a second language) is one to which second language teachers can easily relate and which they can use to help make decisions in their teaching situations.

During the course of case studies it is not uncommon for researchers to obtain data which points in directions different from what was expected. In this way, a researcher may begin with one set of questions and end by answering others. Nunan (1992, p.57) explains that "the practice of deriving theory from data rather than the other way round is known as *grounded theory*". Although this kind of process is unacceptable, for instance, in experimental research, where the hypothesis must precede the data, it is common in case study research. Wolcott's (1973) study of a school principal is an example of grounded theory. Instead of starting with fixed hypotheses about the principal's role "Wolcott's painstaking and detailed observing.....reveals the complex demands that are made of a school leader" (Cohen and Manion 1991, p.135).

According to Denny (1978) an important underlying principle of case studies is that they must go beyond mere description and the presentation of an objective account: case studies present a point of view. Ioup et al.'s (1994) study of Julie, for instance,

does more than merely describe Julie's progress. The study also presents the authors' point of view on the nature of adult second language development.

Overall Processes

Like any other piece of research, Johnson (1992, p.83) points out that "Case studies begin with a research question". A major difference, however, is that while an experimenter, for instance, keeps rigidly to the original questions, the case study researcher often develops and refines them during the course of the study. Johnson (1992) cites the example of the study by Naya, Reisner, Douglas, Johnson, Morales, Tallmadge and Gadsden (1984) which began as a study of the roles of bilingual education officers. During the study the researchers discovered a discrepancy between the attention given to Spanish speaking groups versus Native American groups and explored this issue in greater depth than they had initially planned.

Having decided on the question, the researcher next needs to consider: "Is the question worth investigating?" (Nunan 1992, p.227). If the question is worth asking, the researcher then needs to ask whether it is feasible? For instance, a researcher may need access to records, or he may be dependent on the co-operation of colleagues for data gathering. If these are not forthcoming, the feasibility of the study may be threatened.

The literature review, according to Nunan (1992, p.216) is "An essential step in any research project". The purpose of the literature review is to provide background information on the proposed research question and on previous work in the field. The literature review may also alert the researcher to "problems and potential pitfalls in the chosen area" (Nunan 1992, p.216).

Operational definitions (which Richards, Platt and Platt (1992, p.257) define as "a definition of a concept in terms which can be observed and measured") need to be carefully established. It is also important that the subjects and the settings are carefully described. Ioup et al. (1994), for instance, describe Julie and her situation in considerable detail. Schmidt (1983) also provides precise information about Wes. These descriptions are essential for an understanding of the factors which contribute to the progress of these two learners.

In case study research, as in any other kind of investigation, the data gathering process needs to be carefully planned. As Johnson(1992, p.85) reminds us "A wide range of techniques can be used to collect information for case studies". Options for data collection include, among others, participant or non-participant observation, interviews, questionnaires and diaries. Methods of recording include note-taking, audio-taping and video-taping. Explicit details at this stage may help to avoid problems with reliability and validity later on.

Having collected the data, thought needs to be given to the process of analysis. The analysis strategies used will depend in part on whether the data collected is

quantitative or qualitative. It may be possible, if desired, to quantify qualitative data and to present them in table or graph form. The basic purpose of analysis is to "examine the data for meaningful themes, issues or variables, to discover how these are patterned, and to attempt to explain the patterns" (Johnson, 1992, p.90).

The final stage of the case study process is the preparation and presentation of the report. Case study reports, according to Johnson (1992, p.91), "can make very enjoyable reading". However, it is not enough for a report merely to be entertaining. The report must answer, or at least address, the original research question. Perhaps other interesting findings will have emerged during the study and can be included in the report. The pedagogical implications of the findings need to be discussed and suggestions made for further research.

Strengths and Weaknesses

A great strength of case studies, according to Adelman, Jenkins and Kemmis (1976), is their reality. Although the data gathered from case studies is often difficult to organise (partly because there is often so much of it), they often hold a reader's attention and are easy for a reader to relate to. This is possibly because case studies deal with real people in real situations, as distinct, perhaps, from experimental groups which often seem rather removed from reality. Julie, for instance (Ioup et al., 1994) is highly interesting because we can relate to her as a real person, not merely as a set of facts and figures.

Another great advantage of case studies is that they are often more open-ended than other approaches to research. Unlike, for instance, questionnaires, which aim to produce "results", case studies often conclude by offering some support to alternative interpretations (Adelman et al., 1976). For instance Weinreich (1979) arrives at two possible opposing interpretations of the data on John's identity structure. On the one hand Weinreich suggests that John has improved since he is more positive about himself and more controlled in his behaviour. On the other hand, the fact that John dislikes his own skin colour and that he does not associate with members of his own ethnic group lead Weinreich to believe that John still has identity problems in spite of some positive signs. Weinreich makes no attempt to impose on the reader his own belief about which of these two opposing beliefs he personally agrees with, thereby illustrating another of the strengths of case studies, that they allow readers to judge the implications of a study for themselves.

Case studies, according to Adelman et al. (1976) are a step to action. The insights gained from case studies can be used for teacher development, for feedback, for formative evaluation and for policy making. Action research has become increasingly utilised in language education and is aimed at bringing about change. The research on infant schools by King (1979), for instance, showing the consequences of teacher philosophies could have important implications for subsequent action. Furthermore, instead of beginning with a rigid hypothesis which must be either proved or falsified, case studies are flexible and can allow ideas to evolve. When King (1979) began his study of infant schools he says he was not able to give a clear idea of what he was

trying to do because he did not know exactly himself. This kind of approach means that interesting and important data which might be missed in an experiment can be gathered up and included in a case study.

The case study approach is not without its critics, however. Much of the criticism of case studies has to do with the issue of subjectivity versus objectivity. It is difficult to cross-check case study information and it is usually impossible to know the extent to which the data has been selected by the researcher, and, perhaps, other significant data down-played or ignored. As Bell (1993, p.9) points out "Inevitably, where a single researcher is gathering all the information, selection has to be made.....and so there is always the danger of distortion". Reliability and validity are, therefore, major issues in case study research.

Reliability and Validity

Reliability and validity are two terms which are often confused, partly because they are often interrelated. According to Allwright and Bailey (1991), reliability relates to "the concern for consistency" (p.46), while validity relates to "the concern for truth" (p.47).

According to Nunan (1992, p.17), internal reliability relates to the question "Would an independent researcher, on analysing the data, come to the same conclusion?". In order to maintain internal reliability it is important for the researcher to be extremely explicit concerning purpose, operational definitions and procedures. "Thick" data which recognises "the importance of taking into account all of the factors which may have an effect on the phenomenon under investigation" (Nunan, 1992, p.58) helps to establish internal reliability, as does peer appraisal of the data and soliciting other opinions. It needs to be remembered, however, that the possibility of alternative interpretations is considered by some to be one of the strengths of case studies. Differing interpretations of data do not therefore necessarily indicate that a case study is completely without validity.

External reliability, according to Nunan (1992, p.17) relates to the question "Would an independent researcher, on replicating the study, come to the same conclusion?". Repeating the study in another setting is one way of establishing external reliability. Given, however, that each case study is unique to a setting, a time, an individual, the chances of replicating it exactly are probably slim. In spite of possible problems with external reliability, this uniqueness which "allows the researcher to concentrate on a specific instance or situation" (Bell 1993, p.8) remains one of the strengths of the case study approach.

Construct validity relates to the question "Is the study actually investigating what it is supposed to be investigating?" (Nunan 1992, p.16). Construct validity can be a problem in case study research, partly because the data and analysis used are often qualitative and therefore more liable to subjective interpretation. It is important to

ensure that the instrument really does measure the construct (for instance, a Burt Word Recognition Test is NOT a valid test of second language communicative competence). Quantitative data can also be used alongside qualitative data to provide a more objective base for interpretation.

Internal validity is concerned with causal relationships in research (Nunan 1992). According to Hatch and Lazaraton (1991, p.33) "Some common threats to internal validity include subject selection, maturation, history, instrumentation, task directions, adequate data base and test effect". Of these threats, three which are particularly problematic for case studies are maturation (subjects change over time - maybe getting more mature, more tired, more bored), history (other factors, such as extra tutoring, may be concurrent with the research and affect the results) and obtaining an adequate data base. In order to protect internal validity it is important for the case study researcher to make every attempt to consider these factors.

External validity relates to the question of whether we can generalise from the individual to a wider population (Nunan 1992). There is controversy over the validity of data yielded by case studies since "Researchers who take a quanitative approach to research question the extent to which we can generalise from a single instance" (Nunan 1989, p.71). Triangualation can be useful as a means of helping to establish external validity. According to Allwright and Bailey (1991, p.73), triangulation involves using "multiple perspectives", such as a variety of sampling strategies, using more than one observer, or using different methods (for instance interviews and self-report).

The nature of case studies, dealing as they do with individual cases, means that issues of reliability and validity can be problematic. Some researchers, indeed, believe that reliability and validity are less important in case study research than in other kinds of research, since the interest is in the "understanding of the particular case, in its idiosyncrasy, in its complexity" (Stake 1988, p.256). Yin (1984), however, believes that reliability and validity are just as important in case study research as in any other type of research. Whichever of these views the individual researcher might take, it would seem only sensible to do as much as possible to protect the reliability and the validity of the study within the bounds of the unique situation which each case involves.

Conclusion

As Bell (1993, p.8) puts it: "The great strength of the case study method is that it allows the researcher to concentrate on a specific instance or situation". By concentrating on individual cases, case studies can reveal processes which may remain hidden in larger-scale research.

Case study research is not without its critics. However, at their best, case studies are "not only informative but also involving and entertaining" (Johnson 1992, p.91). No doubt it is these characteristics which help to account for the popularity of case

studies. In contrast to the detatched matter-of-factness of the experiment, for instance, our "hybrid umbrella" embodies a human interest which often makes it more "real" than the graphs and figures which are more typical of other approaches.

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