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Putting the Case for the Case Study

Jane Chia and Allan Walker

Abstract

This paper sets out to review the on-going case study debate. We do not aim to enter the qualitative/quantitative discussion, nor do we suggest that the case study is the ultimate or only form of research. We suggest that case studies should be used in conjunction with other forms of research. What is important is that the techniques selected are appropriate for any proposed research undertaking so that quantitative and qualitative strategies can meaningfully co-exist within the same research project.

We do, however, suggest that in certain sectors the case study approach is misunderstood and under-utilized. The focus of the paper is an objective discussion of a number of issues which have been raised about the case study strategy. The discussion does not assume that there is ‘one type’ of case study, rather it refers to the multitude of case study approaches which can be classified under the case study label.

In addition to a review of the case study debate and some research strategies associated with the approach, the paper discusses a number of pertinent issues which continue to generate much debate. The issues of procedure, a multi-method strategy, objectivity, generalizability and presentation are reviewed in relation to case study research.

The case study approach has weaknesses, and its share of critics, but has become an established and respected form of research. Issues involved in case study research still need to be considered as it becomes more accepted as a viable and insightful form of research.

Descriptors: case study, research, classroom research, multi-method, teachers

Research has shown us that if a teacher is to conduct an effective lesson, she should review previous learning, employ an advanced organizer, provide guided and unguided practice, allow adequate opportunity for seatwork and then check for understanding. Following this procedure....

This passage may be useful for a practicing teacher to alert her as to what should be involved in an effective lesson. The teacher quickly becomes aware of the sterile steps suggested by research. A useful start, no doubt, but how much more valuable would it be for the teacher if she had, in addition, an actual example upon which to attach the somewhat jargonistic terms? A rich, ‘real-life’ example of a teacher conducting an effective lesson. Would it clarify understanding?

The example presented here might appear somewhat simplistic, but makes a point. An idea is often understood more comprehensively if we are presented with an example or an
illustrative account to explain theoretical principles and abstract ideas. A case study is actually a scientific extension of the simple anecdote used by teachers. However, even though it possesses similar qualities to an anecdote such as interest, relevance and a sense of reality - it goes beyond simple illustration:

“It (the case study) gathers information systematically, in a scientific way ... (and) is concerned essentially with the interaction of factors and events” (Nisbet and Watt, 1977, p 73).

At the 1976 2nd. Cambridge Conference on Case Studies, the most widely accepted definition of a case study was adopted which was:

“An umbrella term for a family of research methods having in common the decision to focus an enquiry around an instance” (Adelman, Jenkins and Kemmis, 1977, p 140).

A case study is not a label for a static methodological package, it is necessarily eclectic, capable of drawing on a number of naturalistic and other techniques. Therefore, a case study is not, as Cohen and Manion (1986) imply, synonymous with an observational study. Nor is it purely a forerunner for experimental research.

In short, a case study is “a systematic investigation of an instance” (Adelman, et. al., 1977, p 141). It examines an instance or individual unit such as a child, a group, a class, a community, a specific policy, issue or event. Ideally, but not necessarily, a case study is a multi-method, systematically conducted form of research that concentrates on providing detailed, ‘real life’ data in order to provide a deeper understanding of a specific, delineated natural phenomenon. Case studies have provided and continue “to produce creative perspectives on education, schooling, and child and adult learning” (Goetz and LeCompte, 1984, p 24).

Research Strategies

The case study is an approach to research and should not be regarded as a method. Approaches used in educational research are never atheoretical, neutral or value-free because they are selective. The case study approach is also value-laden. An exclusive reliance on any one method of research may well bias or distort a study. The more the methods utilized by a researcher contrast with each other then the more confidence can be attached to the outcomes of the study, provided that the approaches are appropriate and consistent with the aims of the research. If, as seems likely, outcomes are artefacts of research approaches, then the use of contrasting strategies would considerably reduce the possibility that any consistent findings could be attributable to similarities of approach. A multi-method approach to research may ameliorate the possibility of ‘method-boundness’ and alert the researchers to be aware of their own predilections to favourite research techniques:

“Much research has employed particular methods or techniques out of methodological parochialism or ethnocentrism. Methodologists often push particular pet methods either because they are the only ones they have familiarity with, or because they believe their method is superior to all others” (Smith, 1975, p 73).

The multi-method approach is often used in educational research. Although not a prerequisite of the case study approach, we believe that the strategy has certain advantages in this instance. It aims to avoid the problem of ‘method-boundness’ and since the education milieu is so multi-faceted, reliance on a single method could easily result in misleading or limited data.

A multi-method approach requires value judgements to be made about which particular methods will be employed. Also, once a selection of methods has been made, questions arise as to how the various techniques are to be combined into a meaningful research strategy and how the data collected are to be used and presented.

When using more than one method, there is no either/or in terms of so-called qualitative or quantitative techniques. Both can co-exist in any given research undertaking provided the techniques selected are congruent with and appropriate to the study being undertaken.

A judicious combination of quantitative and qualitative methods can provide further safeguards against the possibility of methodological
parochialism. Within educational institutions, such as schools, where research questions are seldom simple to define and pursue, it seems realistic to adopt a multi-method approach. Any single research strategy seems unlikely to be able to penetrate the complexities of educational life:

"Combining.....quantitative and qualitative methods is not uncommon. Given the assets and liabilities in single-method designs when researching social phenomena, the desirability of this linkage has been strongly advocated by various social researchers. The primary benefit in combining methods is that each method can be used to provide insight to the research problem that neither method alone can provide." (Bifano, 1989, p 58).

Indeed, many research studies may begin with a statistical survey in order to provide a broad appreciation and overview of the issues under review and, subsequently, case studies may then be developed in order to penetrate beyond the rather bald data yielded by the resultant statistical analysis. Alternatively, a researcher may begin with a case study and then conduct a quantitative study in an attempt to find congruence with a wider population.

A case study, therefore, should not be considered as a standard methodological package. Data collection techniques appropriate for the case study researcher include familiar techniques such as interviews, accounts, both participant and non-participant observation, and document analysis. Data can also be collected through more innovative approaches such as group interviews, diaries, video and audio tapes, photographs and other non-written artefacts (Taylor and Bogden, 1984).

Although it is not the intention of this paper to describe case study approach in detail, a brief review of the major methods is useful. Interviews, observation and document analysis are perhaps the most commonly utilized data collection methods. However, almost any data collection technique, including various statistical procedures, can be used.

In depth interviews are employed in the belief that people are more willing to communicate orally than in writing and, therefore, provide complete data as compared to the information supplied in a questionnaire. A face-to-face meeting allows the researcher to encourage and probe into a deeper analysis of a particular instance. This can be especially useful when dealing with emotionally charged issues or potentially evasive individuals, and for observing the non-verbal behaviors of respondents (Baily, 1978; Best and Kahn, 1986, Van Dalen, 1966, Williamson, Karp, Dalphin and Gray, 1982).

The analysis of primary documents, original materials such as correspondence, newspapers and public documents generated at the time of an instance, and secondary documents, usually a reflection on an instance, are also valuable to the case researcher (Williamson et al., 1982). Documents are pertinent because they catalogue and express peoples' sensations, experiences and knowledge which in turn are a reflection of opinions, values and feelings. Documents are the material manifestations of the behaviors and beliefs which constitute a culture (Goetze and LeCompte, 1984).

Perhaps the most common technique of case researchers is some form of observation. Both participant and non-participant observation are often utilized, depending on the type of setting (Cohen and Manion, 1986). Participant observation engages the researcher in complete immersion in the case being studied. Participant observation:

"...involves social interaction between the researcher and informants in the milieu of the latter, during which the data are systematically and unobtrusively collected" (Taylor and Bogden, 1984).

Non-participant observation detaches the observer from the group she is investigating. One example of this type of observation is the researcher recording student-teacher interaction from the back of the classroom.

The types of methods employed in the case study approach are determined by the context in which the research is being conducted and the issues being addressed. The eclectic nature of the case study allows the researcher to tailor her methodology to the instance identified for investigation. Whichever techniques are selected must be appropriate to the particular instance,
systematically employed and checked against other methods.

The case study approach is accepted as a respectable research strategy in a wide range of disciplines. Indeed, the range and scope of the case study is impressive in its application which includes the areas of medicine, law, engineering, psychology and anthropology, and has become increasingly used in education.

Researchers who support the use of the case study in education include Adelman et al (1977) Gross, Giaquinta and Bernstein (1971) Oja and Smulyan (1989) and McNiff (1988). Further support for the approach comes from many social scientists and qualitative psychologists who believe that context has a significant influence upon the human behavior which occurs within it.

Having in these initial sections of the paper defined the case study and reviewed the range of techniques commonly to be found in the case researcher's stratagie approach, the major issues of ethical considerations, objectivity, generalizability and presentation will now be addressed. For although over the last twenty years the case study approach has been legitimized and accepted as an useful vehicle for research in its own right, these particular issues continue to arise and need to be discussed in relation to the approach.

Case Study: Issues

1 Principles of Procedure

“The growth of educational research...has been accompanied in recent years by a growth in criticism about its methods and consequently about its results. There are so many variables that it is impossible to control all of them; even obviously important variables may sometimes remain uncontrolled. In addition, there are unpredictable effects. Human subjects when assigned to experimental and control groups differ from the biologist's wheat grains in being autonomous” (Beard, Bligh and Harding, 1978).

For researchers embarking upon the case study approach certain principles of procedure need to be observed and be integral to the whole enterprise. Three such principles, those of the integrity of the subject focus, the research relationship and objectivity, which the authors consider to be the sine qua non of the case study method are elaborated here.

Firstly, there is the central ethical issue of the integrity and uniqueness of each subject focus of the case study whether this is an individual, a class or group or a whole institution, and that all possible care is taken to ensure that this is preserved. The notion of integrity is an affirmation that each subject involved in case study research has a coherent wholeness and totality which have to be respected. Goode and Hatt, (1952), referred to this ethical aspect as the "unitary character of the single object being studied”.

Confidentiality, or the promise of it, has to be made explicit to all concerned, including those sponsoring the research. If this can not be guaranteed then participants in the case study will be less than forthcoming, with good reason, and thus make the development the work an impossibility. Researchers need to be absolutely clear of what precisely it is they are assuring their respondents. It is axiomatic of qualitative research that “if you can’t guarantee it, don’t promise it”.

Case studies inevitably emphasize collaboration and participation of those being 'researched', not an 'us and them' situation but one of genuine partnership. The approach therefore has wide implications for school-based, in-service provision as it provides a systematic means whereby teachers are able to reflect upon their practice.

Collaborative research of this type is a relationship as well as a technique, and as such has implications for the role of the investigator. Any organization which admits a researcher is making as considerable commitment in terms of time, effort and patience and the researcher’s approach must therefore be highly professional. In addition, the investigator has to establish an independence from the institution to avoid being perceived as a tool of the establishment.

Finally, any researcher utilizing the collaborative approach will need to develop a theoreti-
cal framework for the study which will, in some measure, provide a safeguard against an excess of subjectivity which might be a feature of such an approach. A formative study of the relevant literature will enable the research to progressively focus upon areas of interest, the foreshadowed problem or ‘foci for analysis’ (Smith and Pohland, 1974) and develop this essential theoretical structure.

It is this question of objectivity which has been the focus of much of the criticism levelled against the case study researcher which we will now examine and which requires a separate section to adequately answer that criticism.

2 Objectivity

Objectivity is a central concern of those who remain unconvinced of the case study as a valuable and worthy research strategy. In other words, critics question how one person, who by necessity becomes immersed in a situation, can possibly retain an objective view and present unbiased conclusions. One could argue that all researchers hold certain biases which will affect the study from the instant the research is conceptualized and so determine the design and subsequent data collection.

All educational research has its subjective side and it is highly questionable to maintain that any observation whether, for example, participant or non-participant, can be totally neutral or value-free as observations will be filtered through personal perceptions.

And case studies, which usually involves a close interaction with people over a period of time, almost inevitably leads to personal involvement:

“Educational research has its subjective side. It involves the study of human beings by other human beings....The researchers point of view, feelings and emotions influence what is looked at and what interpretations are made” (Johnson, 1975, p 2).

This is not necessarily undesirable provided that care is taken to present the evidence in such a way that the reader has the opportunity to make his or her own judgement about the degree of confidence to be assigned to any inferences made and conclusions drawn.

Scriven (1971) defines subjectivity and objectivity as:

“‘Subjectivity’ refers to what concerns or occurs to the individual subject and his experiences, qualities and dispositions while ‘objectivity’ refers to what a number of subjects of judges experience - in short, the phenomena in the public domain” (p 95).

Lincoln and Guba (1985) when discussing a naturalistic approach to case studies, suggest that if Scriven’s definition is adopted, the criteria for objectivity (or what they term ‘confirmability’) is inter-subjective agreement. For naturalistic researchers this can be reached either through ‘people’ or ‘technical’ approaches. In people approaches:

“...if multiple observers can agree on a phenomenon their collective judgement can be said to be objective” (Lincoln and Guba, 1985, p 292).

Technical approaches, or what many term triangulation, test objectivity through the application of multiple methods for the purpose of cross-checking data to ensure that objectivity as well as validity and reliability. Professional case researchers use a combination of people and technical approaches both of which are methods of triangulation.

Naturalistic researchers are aware that their data can be polluted by themselves becoming closely involved with their subjects and so employ a range of data collection techniques. As noted earlier, a case study is inherently a multi-method approach. The use of multiple methods allows the researcher to triangulate data. Triangulation combines methods and sources of data in single study. It is a way of cross-checking accounts from different respondents, guarding against researcher bias and of gaining a clearer understanding of the people and setting being studied (Denzin, 1978; Williamson et al. 1984). Miles and Huberman (1984) view triangulation as an essential part of qualitative research:

“If you self consciously set out to collect and double check findings, using multiple data sources and modes of evidence, the verification process will largely be built into the data gath-
ering process and little more needs to be done than report the procedure" (p 235).

Triangulation checks the researchers’ objectivity by preventing her from accepting the validity of initial impressions:

“It enhances the scope, density and clarity of the constructs developed during the course of the investigation” (Glaser and Strauss, 1967 as cited in Goetz and LeCompte, 1984, p11).

Objectivity then is tested and retested in correctly conducted case studies through the utilization of a number of methods such as interviews, observation and document analysis.

Case researchers guard against personal bias contaminating their study by involving other people in the verification process. The importance of this strategy diminishes somewhat if the case study is developed by a team of researchers. Studies such as this have an almost built in self-check mechanism. However, even in such cases it is worthwhile to have ‘outsiders’ review the data. For case researchers working alone, verification of objectivity through actors not intimately involved in the study is standard practice. This involves the researcher making her data available to others for scrutiny and to provide the opportunity for that data to be challenged as to their assumptions and interpretations.

Data can also be verified through ‘member-checks’, where members of the stakeholding groups from whom the data are collected, test the analytic categories, interpretations and conclusions (Lincoln and Guba, 1985). Stakeholding groups are not disinterested bystanders to the research, rather they introduce the problem of ‘value-boundness’ into any research project as they are self-interest parties. ‘Value boundness’ can arise from the limited perceptions, prejudices and concerns of any individual respondent or a researcher.

The care taken by researchers using the case study strategy to check their personal biases indicates how seriously they consider the issue of objectivity. They are aware of the need to ensure that data is as free as possible from their own assumptions, prejudices and biases. Triangulation both through other researchers or outside actors and through the utilization and cross-checking of varied data collection techniques, go a long way towards ensuring objectivity.

If the whole debate surrounding objectivity requires lengthy discussion, then the question of generalizability - stated as a central purpose of all research - necessitates an even closer examination. For generalizability has the status of a credo when applied to research, an essential characteristic which, if limited, evokes serious doubts from some quarters that the undertaking can even be called research at all.

Section three of this paper then focuses on the weighty matter of generalizability and examines its validity within research generally and case study methods specifically.

3 Generalizability

Generally, any educational research justifies its existence on two fundamental premises. Firstly, the claim is made that research must contribute to the improvement of practice and secondly, that findings from research studies must be generalizable which will eventually coalesce into educational theory. Without these underlying, basic principles it is claimed that educational research has no purpose.

Of the former basic premise, much has been written concerning the failure of much educational research to have any noticeable impact on practice. Many reasons have been adduced for this unhappy state of affairs which has involved many people in the research industry in many hours of painstaking work and elaborate presentation of data. The fact remains that the majority of practitioners remain largely unaware of many research findings and, consequently, their practice is largely unaffected by the reports of such findings. Suggestions as to why this might be so have included the view that research reports are written in largely incomprehensible jargon, that research does not actively involve teachers and that their experience has tended to be dismissed by researchers. Indeed, much of the impetus for the action research movement derived from the articulation by teachers of criticism of this type vis à vis traditional research techniques.

Generalizability, the second basic principle
which is proffered in defence of the existence of educational research, has been ranged as the heavy artillery of criticism levelled against the case study method. In the simplest terms, empirical generalization:

"... is a collation of observed results, or findings, or conclusions. If a result rises from the study of one set of events, then a generalization is a statement which collates the results from a number of sets of events" (Bassey, 1981).

It is further necessary to differentiate between empirical generalizations which are based on facts and logic and normative generalizations which are grounded in value judgements. Such statements as 'teachers ought to have warm personalities' and 'the nation needs more computer experts' are normative generalizations based on someone's value judgements and not empirical generalizations unless supported by research findings.

In his 1981 paper, Michael Bassey addresses this central issue of the generalizability of educational research which has implications for all those engaged in research activities. Bassey, as a result of a survey of research findings, defines two categories of generalization, namely closed and open generalization.

Closed generalizations are attributable to a closed or clearly circumscribed set of events and are encapsulated in a statement which refers to that specified set of events. No attempt is made to extrapolate the statement or findings to similar events as the statement is descriptive and does not necessarily purport to predict outcomes. Such a generalization, summarizes verified experience within the boundaries of time and space and although not primarily concerned to predict outcomes may be used by teachers to relate in a systematic way, experience in other classrooms to their own situations. Stake summarizes the value of 'naturalistic' generalization as allowing the researcher to optimize:

"... reader opportunity to relate the case described directly to their own cases, to infer particularistic understandings not necessarily mediated by general rules" (Stake, 1985, p 280).

The following statement is an example of a closed generalization:

"In 1987 in six schools in the south west region of England, teachers were developing formative methods of assessment and utilized these strategies:
- Regular tutorials
- Peer review
- Criterion-referenced assessment
- Subject and pastoral profiles
- Goal setting
- Parental involvement
- The compilation of a record of achievement".

Crucially, when such generalizations are presented within the contextual frame of reference created by a case study, they provide a powerful stimulus for reflection and thinking which can influence judgements and decision-making.

Open generalizations, similar to the predictive generalizations of Stenhouse (1981) and the formal generalizations of Stake (1978) refer to a statement pertaining to an open, universal set of events which statement can subsequently be extrapolated to similar events and be similarly applicable, descriptive and predictive. An example of an open generalization might be that:

"Examinations motivate students to learn subject matter which is to be examined."

Both statements are empirical generalizations in that they are based on factual information and evidence from a research study. That closed generalizations have been classified as descriptive and open generalizations as descriptive and predictive should not be taken to mean a rigid dichotomy, rather they are two polarizations along a continuum. The statement about six schools in the south west of England could be used to make predictions about other teachers...
in the region or about the practice of teachers generally who are engaged in a similar innovation. Similarly, the statement about examinations makes an accurate prediction for many students but for some, the prediction will be false as in the case where anxiety about examinations inhibits learning.

Researchers tend to value open generalizations more than closed ones, indeed the subset of researchers who perceive themselves as scientists are, with rare exceptions, only concerned with open generalizations. Whereas, in education, there exist far more opportunities for making closed generalizations than open ones, as in the example above about a particular group of schools at a particular time.

That research which extrapolates open generalizations is of value to planners, administrators and polemists is undeniable. However, various studies have indicated the paucity of open generalizations which are relevant to classroom practice (see, for example, Maccoby and Jacklin, 1974, who reviewed 1400 studies on gender differentiation and classroom performance and identified only four statements about sex differences which they considered to be fairly well-established).

In educational research, the common procedure in analyzing data is to obliterate the individual and to consider averages and standard deviations. It is argued, that this procedure is necessary to draw meaningful conclusions from the data, but inevitably this conceals the evidence of individuals who are different. With open generalizations much information is lost because similarities are looked for rather than differences so the detailed examination of cases is potentially more valuable to teachers than any open generalizations.

The more information that is provided with closed generalizations the better for teachers trying to relate it to practice. However, educational research within the qualitative paradigm has concentrated upon large populations whereas in teaching, the fundamental unit is the individual student or students which central focus is consonant with the case study approach.

Pedagogical research needs to be identified and described as a subset of educational research which by embracing the fundamental principle of contributing to the improvement of practice, can fulfill this obligation by making closed generalizations accessible to teachers.

Teachers need to have access to closed generalizations within which they can identify parallels to their own practice. By identifying similarities and differences with their individual situations, closed generalizations may offer them a range of possibilities for action and decision-making.

Relatability, the ability of pedagogic research to identify issues and suggest possible courses of action, is more important to practitioners than generalizability:

"...an important criterion for judging 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 relatability of a case study is more important than its generalizability" (Bassey 1981, p 85).

Bassey also considers that if case studies:

"...are carried out systematically and critically, if they are aimed at the improvement of education, if they are relatable, and if by publication of the findings they extend the boundaries of existing knowledge, then they are valid forms of educational research" (Bassey, 1981, p 86).

An issue related to generalizability, that of presentation, is the subject under review in the following section. For practitioners to be able to relate the data presented in a case study to their own situations, how the material is arranged and organized is critically important.

4 Presentation

A central concern of those working with the case study approach is how to present the veritable mountain of data resulting from qualitative research. There are no short cuts when analyzing data, complex coding schemes and impeccable triangulation techniques are required. (For examples of suggestions on how to analyze qualitative data see Goetz and LeComte, 1984; Guba and Lincoln, 1984, Miles and Hubberman, 1984; Taylor and Bogden, 1984).
After analysis, the case researcher is usually still faced with a formidable amount of ‘paper’ to write into a case. What then should be included?

Lincoln and Guba (1985) suggest information be presented in two broad categories, substantive considerations and methodological considerations. They suggest substantive considerations be placed in the case itself and include the problem studied, the context or setting, the transactions, the salient points of interpretation and outcomes of the inquiry. Methodological considerations are included in case study reports, as in any study, but are perhaps more important in naturalistic reporting as it is repeatedly accused of being ‘soft’ or ‘sloppy’ (Lincoln and Guba, 1985). When recording the methodology in a case study report the writer should include information about the investigator, the methods used to collect and analyze the data and the ‘trustworthiness’ or triangulation procedures employed.

Case study reports are often criticized because they are much longer than traditional research reports. Inevitably, cases are usually longer but this can not and should not be avoided since case research aims to provide an accurate picture of reality. Real descriptions can not be reduced to such an extent that they lose the very richness that makes them valuable to such a wide range of researchers and audiences. Case researchers are, however, sensitive to the fact that they write for a variety of audiences and have developed strategies to increase the effect of their work. One such method is to keep conclusions (if any are drawn) separate from the evidence and methodology. Large appendices can be effective in this regard. By segmentalizing the case findings and conclusions, the findings are available to the lay reader in a shortened form and the detailed evidence is accessible to other researchers or those who want more in depth information. By this means, the authors interpretations can be checked or challenged. Of course, to be effective a case study also needs to be well written and to engage the reader.

It is exceedingly difficult to present a case study, one which captures the essence of a situation both succinctly yet intelligibly. Besides being faced with the inevitable ‘data overload’, case study researchers have less avenues for publishing and often struggle with precisely what to include and what to omit. Taylor and Bogden (1984) recommend that the writer be concise and direct, clearly state what they are trying to do, ground the writing in specific examples and target audiences before commencing writing. Standard case presentation includes methodology, time and length of the study, number of informants, the setting, the research design, the writer’s frame of mind, the writer’s relationship with the informants and how the data was checked. A case writer who includes these categories not only meets accepted research practice but provides a practical interpretation of an instance which can be invaluable in understanding education.

The preceding discussion, central to case study research, has attempted to present in as objective a way as possible, a range of views about case study research. The next three sections review the advantages of case studies and suggest situations where they may be useful.

Advantages

Adelman (1977) and his colleagues suggest a number of advantages associated with case studies which can be summarized as:

1 Case studies are ‘strong in reality’ but difficult to organize whereas quantitative research is ‘weak in reality’ but more easily organized. The advantages inherent in reality are that it tends to hold the readers attention and so allow her to utilize natural processes for judgement and generalization. Readers of case studies can associate what they are studying with concrete situations which they have experienced. Lincoln and Guba (1985) agree with Alderman and believe that case studies are valuable because they allow the reader to build on their own tacit knowledge.

2 Case studies allow the reader to generalize about or from an instance. Their strength lies in their attention to detail and the subtlety inherent in a particular case.
3 Case studies recognize that social research is rarely straight forward, there are usually issues and feeling below the surface, what Alderman labels ‘embeddedness’. The careful attention and depth provided by correctly conducted cases can present the conflicts and ambiguities usually present in any social setting. Case studies have the potential for more readily presenting and challenging various interpretations.

4 Correctly conducted case studies, if considered products, can provide data rich enough for later interpretation. Different cases can be re-examined through various analytic models to provide greater insight. Researchers from varying educational specializations can dissect and examine given sections of cases to glean insights relevant to their interests.

5 Case studies, by virtue of their grounding in reality, can readily contribute to the world of action. The insights provided by case studies can be directly interpreted and used in ‘front line’ educational situations. These include whole staff and individual development, intraorganizational feedback, evaluations and in educational policy making.

6 Case studies, once again by virtue of their attention to reality, provide a more practical, accessible form of research than other research reports. The language used in case studies should be less ‘jargonistic’ and dependent upon trained interpretation.

7 Case studies are capable of appealing to a wider range of educational practitioners than quantitative research. The readability of the case study reduces the readers dependence on knowledge of specialized research techniques and their implicit assumptions. Case studies, therefore, may encourage greater participation and debate in educational issues by a wider range of participants involved in and peripheral to the educational process (Adelman et al., 1977).

8 Case studies are immediately intelligible to the reader. A well written case study can be compared to a television documentary. It has the potential to communicate a powerful image of an ‘instance’ to a diverse audience. Used professionally, this can promote a particular issue in a particular political or social situation.

9 A case study has the potential to identify patterns of interest that are considered too infrequent or ‘insignificant’ to interest or be identified by conventional statistical analysis.

10 Case studies are more amenable to single researcher studies, whether they be in the classroom or the wider community. Other styles of research tend to be more dependent on teams of researchers and ever-more-sophisticated computer and analysis packages which often require great expertise and very specific knowledge.

Lincoln and Guba (1985) believe the case study to be the primary vehicle for emic inquiry. They also promote the case as the most effective way of demonstrating the interplay between inquirer and respondent. Case studies provide the reader with the opportunity to check for internal consistency, something not always possible in studies using traditional techniques.

There are additional advantages of the case study as a research method, the most powerful of which is the real possibility of actively involving teachers in a genuine partnership which in turn could provide the focus for school based professional development. True collaboration of this type requires an appraisal of the relationship between ‘researchers’ and ‘researched’, particularly on the part of ‘professional’ researchers who are frequently at least one step removed from the context of the enquiry. Partnership in this context, means that no one participant in the research undertaking has a superior claim to insight or perceptions of the situation under review, rather that both have unique contributions to make. Teachers, in the case of school-based research, have their wealth of experience and local knowledge to impart which has too frequently been dismissed by the researchers. The ‘researchers’, who too often have a perception of themselves as ‘Researchers’ have tended not to subscribe to the Stenhouse (1981) notion of the teacher as researcher:

“It is not enough that teachers work should be studied: they need to study it for themselves” (Stenhouse, 1981).
Teachers have repeatedly criticized much research as being done to them rather than attempting to involve them as active partners. One reason perhaps for the familiar phenomenon of teachers being little-influenced by research findings.

Case studies contextualize research findings which teachers would find more meaningful in relation to their practice. A case study is not simply an extended example or an anecdote interestingly narrated. Rather they exemplify an attempt to create the reality of a context which reality is generated by the systematic collection of data. This systematic investigation of a specific instance (which will have involved a great deal of cross-checking and other techniques such as triangulation) has to allow the reader to penetrate the superficial record of events and to be able to check the author’s interpretation of events by an examination of an appropriate selection of the evidence from which the case study has been generated.

Centrally, the case study method is concerned with the interaction of factors and events as:

“...sometimes it is only by taking a practical instance that we can obtain a full picture of this interaction” (Nisbet and Watt, 1977).

With the inherent potential of enabling the research undertaking to concentrate upon a specific instance(s) or situation(s) and to identify, or attempt to identify the various interactive processes at work, the case study illuminates these processes which remain hidden in a large scale survey but may be crucial to the success or failure of systems or organizations. Case studies are also frequently generated to extend and elaborate a survey or can precede a survey and used to identify key issues which merit further investigation. However, the majority of case studies are free standing exercises which are used to explain, elucidate and understand complex, interactive phenomena. Such case studies may either be used as a communicative mechanism or alternatively, as a basis for decision making.

Additionally, case studies can generate theory as well as test one because in seeking theory grounded in the reality of a particular case, a researcher is familiar with previous work. Rather, the research contributes to knowledge by indicating the corroboration and contradiction of findings with those of other workers. This does not mean that quantitative methods have no place in case studies. As stated at the outset, the methods used in case research should be appropriate to the questions being asked and collect the most pertinent data. The advantages presented need to be weighed against and balanced with the commonly accepted benefits of statistical techniques.

Case studies have the unique advantage of being able to penetrate aspects of organizations which are not readily accessible by statistical analysis and attempt to identify unique features of interaction within an instance(s) in order to present the information in such a manner as to recreate the multi-dimensional reality of a particular context. And, it is the contexts or situations in which the case study methodology can be appropriately applied which provides the focus for the penultimate section of our paper.

**Situations**

Case studies have provided valuable contributions to knowledge and understanding in a number of situations both inside and outside of education. Although no one typology of the various types of case study exists, Lincoln and Guba (1985) suggest that case studies can be written for a variety of purposes. These include case studies written to chronicle an event, to provide vicarious experience to the reader, to teach (as in Harvard Law School) or to trial certain theories. Furthermore, case studies can be written at various levels, where they are used depends on the researcher, the purpose or the clients involved.

Goetz and LeCompte (1984) divide ethnographic case studies conducted in education into five groups. The groups are:

i) Career and life histories or role analysis of individuals (e.g. Walcott, 1973; Oja and Smulyan, 1989)

ii) The study of small groups within classrooms or schools;

iii) Studies of individual classrooms, groups
of classrooms or schools (e.g. King, 1979, Rutter, 1979, Chew, 1988, Chia, 1987)
iv) Studies of school districts or discrete units (e.g. Dalin, 1973).
v) Conceptualizing controlled comparisons of the previous four groups across numbers of individuals or groups

To these categories we would add one, additional focus of research particularly well-suited to the case study approach. Studies of specific policy or political issues related to education at a local, regional, state or federal level (e.g. Peterson, 1976; Edwards, 1979; Walker, 1990).

Case study as a method of enquiry has already gained acceptance in the educational research community in Singapore. Chew (1988) used case studies to examine the nature, forms and modes of moral education in Singapore. And, through an ethnographic study of one secondary school, Low (1988) employed in depth interviews and questionnaires to develop cases which examined the differences on several issues between female and male administrators, whereas Chen (1990) used clinical and naturalistic research methods to explore the phenomenon of success as experienced by several female administrators.

It is difficult to specify an educational situation where a case study approach would not be appropriate. Possibly, for long term planning of educational provision, those responsible for administering an educational system do not require in depth evidence of likely future demographic trends. Bald statistics are sufficient for their needs. Whereas practitioners and policy makers frequently request case studies in situations as diverse as studying an individual child, a federal policy issue and an entire educational community.

The case study does not exist, there are as many examples of the methods and applications as there are practitioners. Undoubtedly, some of the most valuable case studies have not been those published and publicized but are those conducted by individual teachers or other educational practitioners for the purpose of better understanding their students or programme.

Case Studies and Teachers' Professional Development

It is perhaps in the area of in-service training, both initial and post-qualification, where the case study has so far failed to make an impact on teachers in Singapore. As part of any in-service and pre-service programme teachers could be taught basic research techniques which will enable them, in collaboration with other researchers who might be other teachers or lecturers from institutes of higher education, to systematically reflect upon their practice. And, by reflecting upon practice in this focused way, the teacher as researcher becomes a reality:

"The real purpose of collecting and recording data during the lesson is so that the teacher can become more informed on some aspect of his/her teaching. The teacher is in effect provided with a unique window on his/her teaching and is assisted in the process toward enacting a role as researcher of his/her own classroom practices" (John Smyth, 1982).

Researchers must establish modes of working which recognizes and respects different interests and perspectives. Educational research should be linked to the educational processes and life of school if it is really concerned with improving practice.

Networks of school-based research groups could be established so that any closed generalizations which are formulated can be easily disseminated.

Such a suggestion has many implications for all the participants the most significant being time as the approach discussed is extremely labour intensive and time consuming. This important prerequisite can not be underresourced as the consequence may be a superficial case study, one which has no relevance to any practitioner.

For a case study approach to professional teacher development which is envisaged here, personnel from institutions of higher education will need to develop a relationship which has much in common with the mentoring role when engaged in the promotion of the requisite research skills. Experimentation and action are important concomitants to teacher awareness
of their own teaching performance and classroom practices. Pedagogical research must establish modes of working which recognizes and respects different interests and perspectives. Educational research should be linked to the educational processes and life of school if it is concerned with improving practice. The relationship between all parties must involve mutual respect and a genuine willingness to collaborate. Professional researchers in the field of education have much to achieve if they are to demonstrate and convince teachers of the truth of their intent to collaborate in equal partnership in any given research undertaking.

Research as defined here is indeed a relationship as well as a methodology. The case study, multi-method strategy stands in sharp contrast with the ubiquitous, but more limited and misleading, single method approach which characterizes so much research in education.

A major advantage of the case study lies not in the extent to which it can be generalized but in the extent to which a teacher reading it can relate it (or aspects of it) to his or her own teaching. Closed generalizations can be extremely effective in assisting teachers:

i) To expand their own perceptions so that they may identify their own strengths and weaknesses more readily;
ii) To systematically view their own teaching so that there is congruence between their own teaching behavior and intent;
iii) To illuminate systematically whatever classroom issues they wish.

If the skills required by teachers to reflect systematically upon practice are considered central to the teacher's professional repertoire, then it is clearly essential that they are supported and encouraged:

".. to develop and sustain a heightened sense of awareness of their own classroom efficacy." (Hook and Rosenshine, 1979)

and also that:

"..they be helped to develop methods of distancing themselves from the act of teaching, while at the same time remaining involved in it..." (Hook and Rosenshine, 1979).

Traditional techniques used in educational research, largely borrowed from the sciences, have had little effect upon classroom practice.

Distinguishing pedagogical research as a subset of educational research has the beneficial effect of acknowledging in a practical way the teacher as researcher and of espousing the development of closed generalizations which are common within educational practice. Case studies can effectively contribute to the development of these closed generalizations in a systematic way and thus increases the individual's potential for problem solving by providing possibilities for action and further deliberation:

"I think that recent years have seen a move away from the naive idea that problems are solved by educational research; that is the old 'Educational Science' idea and it is a myth. Educational research can strengthen the information base of decision making...investigate important issues...encourages debate and the exchange of views and thus deepens understanding...Research of this kind aims to increase the problem-solving capacity of the educational system, rather than provide the final answers to questions" (Nisbet, BERA, 1974).

Conclusions

In this paper, the case study has been examined as an appropriate technique for educational research with particular relevance in the area of pedagogical research and the generation of closed generalizations within which teachers can discern relatability to their own circumstances. Certain central issues have been addressed, notably principles of procedure, ethical considerations, generalizability, objectivity, staff development, techniques and questions of presentation. Crucially important to the case study strategy is that it is not random intervention into the lives of people but a systematic and rigorous methodological approach. An approach which is both time-consuming and labour intensive.

The scope and range of the case study approach is impressive as the following examples will serve to illustrate: the in-depth study of an individual, as a mechanism for enabling teachers to systematically reflect upon their practice, to monitor changes within an organizational structure and as a teaching strategy for trainee
teachers. Any educational system could utilize the case study approach with great benefit at a variety of levels and Singapore is beginning to perceive the value of the strategy.

It is perhaps the use of case studies in the professional development of teachers where we feel that there is much scope which has yet to be fully realized. Enabling practitioners to be actively involved in true partnership with a ‘researcher’, would contribute significantly towards a teacher’s ability to reflect systematically upon practice:

“In the past.....there was no connection between those who did the research, and those upon whom the research was done...in its crudest form rules were devised and used in the process of converting teachers. This conversion process contained all manner of problems, not least of which was untold damage to the teachers’ self-concept and their vision of themselves as professionals. A more constructive and positive scenario involves the concept of transformation...” (Smyth, 1982, p 339).

It is the process ‘transformation’ which the case study can promote and develop effectively. This paper is our contribution to the ‘more constructive and positive scenario’ in which we believe the case study approach has a unique role to play.

REFERENCES


