

10.4

Qualitative research: case studies

HL

Learning outcomes

- Evaluate the use of case studies in research
- Explain how a case study could be used to investigate a problem in an organization or group (e.g. a football team, a school, a family)
- Discuss the extent to which findings can be generalized from a single case study

Use of case studies in research

The case study is defined as an in-depth investigation of human experience. A single case can be one person, but it could also be a family, a social group, an event, or an organization. The design of a case study can be a single case study, or multiple case studies where a series of cases are compared.

The case study often takes place in the participant's natural environment. For example, a single case study may involve interviewing staff in a small but growing computer company on the social psychological aspects of managing staff (Hayes and Lemon 1990). This information could eventually be used to compare cases with larger companies, in terms of how they had tackled staff management issues at a similar stage in their history.

According to Willig (2001), case studies can be **intrinsic** case studies and **instrumental** case studies. Intrinsic case studies represent nothing but themselves. The cases in intrinsic case studies are chosen because they are interesting in their own right. This could be a person who has been kept prisoner in a basement for many years by a perpetrator. The researcher simply wants to gain insight into one particular phenomenon by studying that case. Instrumental case studies represent more general phenomena of interest, such as losing a child, being homeless, or being diagnosed with cancer. In principle, any individual who has experienced the phenomenon under investigation is a useful case in instrumental case studies.

Willig (2002) also makes a distinction between **descriptive** and **explanatory** case studies. The purpose of descriptive case studies is to generate a detailed description of a phenomenon. It is believed that such a description will in itself generate new knowledge. The findings of the descriptive case study are not analysed in terms of existing theory. In explanatory case studies, the aim is to describe *and* find possible explanations for the phenomenon under investigation. This includes theoretical analysis based on existing theory, or generation of new theory based on the data (e.g. grounded theory).

According to Willig (2001), a case study should always be seen in *context*. The researcher should include psychological, sociocultural, historical, or biological dimensions that are relevant to the phenomenon under investigation. It is important to specify the context in which the case is explored—for example, a case study on resilience in street children could focus on early development, family relations, personality, and social support. Although a case study may be narrowly focused, modern researchers do not believe that individuals can be understood in isolation.

When a researcher has found a case to study, he or she must decide on the participants and how to collect the data. The participants can be found using the sampling methods described in Chapter 10.1.

As for data collection, the semi-structured interview is a widely used method, but it is not the only one. Case studies often include a certain amount of triangulation. Because they are complex, it is believed that using different perspectives will result in **rich data** (i.e. data which are open to a number of interpretations) and a better all-round understanding of the situation. Conclusions based on multiple sources are considered to be more trustworthy and accurate.

Research on resilience in a group of street children, for example, might use focus groups, semi-structured interviews, and observations, as well as accounts from adults in the community and newspaper articles on street children.

The case study is not a research method itself, but rather a *research strategy*. Data for case studies can come from a number of methods, such as semi-structured interviews, participant observation, diaries, personal notes (e.g. letters, photographs, notes), or official documents (e.g. case notes, clinical notes, appraisal reports), as well as questionnaires.

Strengths of the case study method

- **Opportunity to investigate phenomena that could not be studied otherwise.** The case study gives researchers the possibility to investigate cases which could not be set up in research laboratories. The case studies of Clive Wearing in Chapter 3.1 and the Czech twins in Chapter 6.2 are examples of this. It would not be possible to create such situations for research purposes.
- **Permits insight into social processes in a group.** The case study method offers the possibility to study such processes using different methods—for example, looking at group culture, communication patterns, beliefs, and attributions, and how these influence behaviour and decisions.
- **Stimulates new research,** because the case can highlight phenomena which need further investigation. For example, case studies of people with brain damage have sparked off research in memory processes and biological correlates of memory, using animal research to test theories. Case study research on intervention programmes for youth at risk has resulted in more case studies to evaluate the effectiveness of interventions, in terms of how the users see them.

Be a critical thinker

What would be preferable in a case study on serial killers—a descriptive or an explanatory case study? Why?

Be a researcher

- 1 What data collection method would be the most appropriate if you were to conduct a case study with a street gang? Why?
- 2 Mention some ethical considerations in such a study.

- **Contradicts established theory and helps to develop new theories.** Case studies have sometimes contradicted established psychological theories. One example is the case study mentioned in Chapter 6.2 of the severely deprived Czech twins, who showed remarkable recovery when they were placed in a caring social environment. This challenged the established theory that the early years of life determined human social development. This case and similar studies of deprived children have shown that some (but not all) children are resilient, and this has sparked off research into factors that promote resilience.

Limitations of the case study method

- **Difficult to define a case study** according to Willig (2001). It can be difficult to determine whether a series of related studies constitute a proper case study or if they are just a collection of studies dealing with the same question.
- **Researcher bias**—that is, the researcher's own subjective feelings may influence the case study. There is a potential risk for researcher bias in case studies, in that the researcher's own beliefs can influence the way the data are collected and analysed, but this could be controlled via reflexivity and strategies to achieve trustworthiness. According to Flyvbjerg (2001), there is no greater researcher bias in case studies than in other methods of enquiry.
- **Memory distortions and effects of social desirability.** Qualitative data depend to a large extent on people's cognitions (perceptions, memory). The reliance on memory when reconstructing the case history (i.e. in narrative interview) could be subject to distortion. Participants in case studies may also change their accounts in order to appear more socially acceptable. However, this could be the case in most research studies.

Ethical aspects of the case study method

If there are only one or a few participants in a case study, there is the risk that they can be identified in the research report, so researchers have to be very careful and do their best to anonymize the participants.

Another ethical issue in relation to case study research is that it often requires the active involvement of the participants, who are asked to participate in interviews or write about their experiences in depth. This can be time-consuming and involve self-reflection that may affect the participants negatively in that they will have to deal with painful memories and emotions. The researcher is responsible for the consequences that the research process has on the participants and must deal with this in ethical ways. (Read more about this in Chapter 10.1.)

How could the case study be used to investigate a problem in an organization or group (e.g. a school)?

Many students who belong to minority groups and come from an impoverished background do not perform well academically. Some drop out before they finish school, while others barely make it to their exams, but have already lost the motivation to stay in the educational system. This is a problem since society focuses so much on education as the basis of professional life, and this means that many of these young people never get a job. In school classes the majority of the students are from minority groups. As is the case in some urban schools, the students do not learn what they are supposed to and many seem to give up. They are often hostile to the school and the teachers.

In the Danish school system (among others), young children have a class teacher who teaches them many subjects. Although a number of factors are at stake in a complicated case like this, a class teacher can have a significant influence on the children's attitudes to learning and on their development of self-efficacy. Pedagogical strategies and communication patterns in the class are important factors. However, minority students' membership of a minority group contributes to social identity and expectations about the future. Studying students' beliefs via the attributions they make about their own possibilities in the education system could be an important way to learn about how they experience school.

The case study approach is an ideal strategy to investigate a situation like this, because it provides an opportunity to combine different data collection methods (triangulation). The method can bring out important data from the viewpoint of the participants, using multiple sources of data. This provides the basis for a more in-depth and holistic analysis.

Aim

The aim of the study is to explore psychological and social processes that prevent children from learning and to find ways to promote student self-efficacy. The research will focus on one question: "Can specific teaching strategies used by a class teacher promote motivation and build self-efficacy in minority students in one class?"

Design

The design could be a single case explanatory case study, because the aim is to go beyond description and actually explore whether specific teaching strategies can promote change in students' motivation. Data collection should include participant observation, semi-structured interviews, focus groups and student writings, in order to have multiple sources of data. The study will include method and theory triangulation in the analysis.

A number of class sessions could be video taped for further analysis. Semi-structured interviews could be tape recorded and transcribed verbatim. Two focus group interviews—one after two months and another after eight months—could be previewed.

The participants might be a class with students aged 9–10 years, because it has previously been found that it is around this age when students seem to give up on their schooling. The sample should be purposive, because the class has to match two criteria: the majority of students belong to minority groups and they should perform below average in their academic work. A school in the inner city could be contacted to ask if it would participate in the study. The teacher should be known as an efficient teacher and should agree to participate in special teacher training sessions. The researcher should follow the class for one year (as a co-teacher in Danish, history, and mathematics in our example). The study thus takes place in the natural environment of the students.

Field research

While conducting the research in the field, working as a co-teacher for one year while collecting data enables the researcher to establish rapport with the students, and to get an idea of what it is like to be a student. During the year, the researcher will collect data using different methods. There is the problem, of course, that this situation could cause the researcher to lose objectivity.

The researcher could start with an unstructured participant observation while working as a co-teacher, in order to get a first impression of the students, the teacher, and the interactions between them. Field notes are taken after two classes. The teachers' and the students' interactions, as well as interactions between the students, are used as themes of interest. This provides the basis for a semi-structured observation later. It is important to get a view of how the students themselves experience the situation, so that obstacles to learning can be identified.

Other observations focus on the implementation of teaching strategies—for example, how the teacher discusses immediate goals with the students; how he or she arranges class projects in which students can explore topics that they have chosen themselves; how he or she makes them perform oral presentations to strengthen their use of language; and the teacher's use of feedback.

The researcher conducts two semi-structured interviews with the students in the class during the year, following an interview guide with a focus on the students' experience of the teaching. The interviews are transcribed verbatim. Student essays should be read and used for



analysis as well. The researcher conducts semi-structured interviews with the teacher every month.

Data analysis

Analysis of the data should be an ongoing process and should help to generate themes that can be used to formulate questions for the interviews. The two interviews with each student should be analysed and compared to look for changes in relation to motivation and self-efficacy during the year. One method that could be used is IPA, described in Chapter 10.2, but grounded theory could also be used. The data may generate theory, but they could also be analysed using existing theory, such as self-efficacy theory.

Conclusion

The conclusion of such a case study could lead to recommendations for better teaching strategies in minority groups—for example, giving more focus to language development; involving students in goal setting; skills training that creates a bridge to the next level of

education; feedback to enhance the quality of the work; and incorporation of teaching projects chosen by the students themselves. These strategies were found to be important in this case study. The findings from the case study could be used to design further case studies like this one, in order to find out if the same pattern is found in similar studies. If this is found to be so, it could be argued that the findings can be generalized using inferential or theoretical generalization. They could also be used to generate theory about efficient teaching strategies that could be used in interventions in other case studies.

- 1 Give two reasons why the case study could be an appropriate method to use to study attitudes to learning in a minority group.
- 2 Give one weakness and one strength of the study in relation to what you know about the case study and data collection in general.
- 3 Discuss whether there could be cultural considerations in this example of a case study.

The extent to which findings can be generalized from a single case study

It has been argued by researchers within the quantitative tradition that a case study cannot be of any value outside the case because it cannot be replicated, it cannot be used for prediction, and the results cannot be generalized. Qualitative researchers do not agree.

However, the discussion among qualitative researchers shows some disagreement as to how generalization can be made. A single case study normally uses a small sample that has been purposively selected so that it is not statistically representative. This makes it difficult to generalize findings to other populations. However, if evidence from other studies confirms the findings, it is argued that it is possible to generalize to other people who are similar to those in the case study (Hammersley 1992).

A single case study may be used for inferential generalization—that is, the findings can be applicable to similar settings if the researcher has provided a “rich-thick” description of the phenomenon and the context. This is referred to as “transferability”. The efficient teaching strategies of the teacher in the case study on the role of teaching strategies on minority children’s motivation could be used as a hypothesis on a causal link between specific strategies and specific outcomes, but it will remain a hypothesis until it is supported or disproved by further evidence.

According to Yin (1994), the results of single case studies can be generalized to existing theory—that is, theoretical generalization—but not to populations. If the patterns found in a single case study can be found in multiple cases—that is, they replicate the pattern found in the single case study—the theory derived from the single case study gains in robustness.