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Case Studies: Qualitative Approach

Introduction to Case Studies

Case studies examine an individual or group within its unique situation (context). Examples include an individual's or family's progress in therapy and relationships within organizations, such as a corporation or a school. The case study method is a good choice for research questions that ask "how" or "why" a phenomenon occurs (Yin, 2009). The goal is to get a complete picture of behavior, so many sources are tapped for data for case studies.

Yin (2009) recommends selecting the case study when you want to understand a real-life phenomenon in depth, but such understanding "encompasse[s] important *contextual conditions*—because they [are] highly pertinent to your phenomenon of study" (p. 18). Many variables are usually involved when someone starts investigating a case, so researchers use multiple sources of evidence, and the data triangulate as all the different sources come together. Case studies are popular with psychologists; they are a good way to understand individuals, groups, and organizations. Selecting the case study allows researchers to "retain the holistic and meaningful characteristics of real-life events—such as individual life cycles, small group behavior, organizational and managerial processes, neighborhood change, school performance, international relations, and the maturation of industries" (p. 4).

Willig (2001) outlines some specific characteristics of case studies that build on Yin's general definition.

1. Case studies are **idiographic:** they concentrate on unique traits of individuals or groups.
2. Case studies focus on context.
3. Case studies using multiple data sources have **data triangulation.** Multiple data sources converge for a greater understanding of a situation.
4. Case studies examine processes and take place over a period of time.

Cases are either **intrinsic** or **instrumental** (Willig, 2001). **Intrinsic case studies** are unusual or interesting and are not easily **generalized.** Cases of feral children who never hear human language are good examples of intrinsic cases. Feral cases are interesting and unusual, but they are difficult to generalize from because there are so few examples and so many confounding variables that could explain the brain damage to these children's language centers. **Instrumental case studies** examine how individual or group experiences fit with larger theory. For example, many case studies of therapy sessions, such as cognitive therapy, are instrumental because they symbolically represent people who use catastrophic and dysfunctional thinking. Instrumental cases are more easily generalized.

Many sources are appropriate to use in gathering case study data, including the following (Yin, 2009).

1. Documentation, such as letters, email, diaries, minutes of meetings, or mass media articles
2. Archival records, including U.S. census data, budget or personnel records, maps, and survey data
3. Interviews
4. Observations

Next, let's look at two examples of modern case studies.

Note to IB Students

> The first case study is useful for the Paper 2 abnormal psychology option learning outcome about treatments of mental disorders. The second is useful for the Paper 2 sport psychology learning outcome about theories relating arousal and anxiety to performance.

Case Study 1: Case Study about Families Receiving Eating Disorder Treatment Using a Multiple Case Study Design

Joyce Ma (2008) studied parent–child conflicts between young people with eating disorders and their parents in Shenzhen, China. The goal was to analyze the meanings of the conflicts within the sociocultural context of

living in Shenzhen. This case shows how important it is to understand the cultural context of a person.

Ma writes that drug treatment for eating disorders is not very effective, especially if it is the only treatment used. In addition, family therapy is more effective than individual therapy.

Ma created an eclectic and feminist-oriented family therapy treatment based on Salvadore Minuchin's structural family therapy. Structural family therapists make changes in the way a family manages stressors by rearranging the boundaries between family members. Sometimes dysfunctional families are too enmeshed (meaning emotionally entangled), and they focus too much on the behavioral problem of a patient instead of ways to resolve it. Ma's goal was to shift the family focus away from the child's destructive behavior and reframe conflicts that maintained the disordered eating behavior. Reframing means giving people a different perspective on a problem. Ma sought culturally relevant ways to resolve conflict to ensure that the therapy was relevant to participating families.

There are many studies investigating eating disorder treatments in China, but the recommended treatments are fairly ineffective. Some Chinese mental health practitioners think that hospitalization is the best solution. But Ma believed that parent–child conflict, particularly the mother–daughter relationship, was a main contributing factor. It is not helpful to blame the mother for causing her child's eating disorders. Rather, the mother–child interaction is reciprocal, meaning that it is a give-and-take process. It is a vicious cycle whereby the mother's behaviors intensify the child's behavior and the daughter's behavior intensifies the mother's reactions.

China has experienced rapid economic growth since the 1980s; one result is that people have more access to Western media, which comes from individualistic countries. As a consequence, intergenerational conflict is rising. The parents grew up in a highly collectivist and conforming China; young people, however, are more and more embracing Western standards of beauty (e.g., slimness). The highest rates of eating disorders in Chinese people are in Hong Kong, followed by Shenzhen (a region that has transformed rapidly from a rural setting to a metropolis with a market-based economy, while at the same time still retaining most features of traditional Chinese family culture, in which the family is dominated by the father's wishes), and then Hunan (which is still primarily rural). Shenzhen was a good place to conduct the study because it was still in transition.

Ma used a **multiple case studies design** for her study. She selected this design because it allowed her to draw data from many different sources. As a result of the data collection process, the study has **data triangulation.** The use of multiple cases also gives the study **analytical generalization** because replicatiing the findings of each individual case supports the same theory.

The sample consisted of 10 families from a larger group of 24 families that sought family treatment at a Shenzhen clinic. The families were of different ages, from different regions of China, and from different socioeconomic groups, although they were primarily from middle and upper socioeconomic strata. Ma used an **opportunity sample** made up of families that gave consent for videotaping and had attended at least three previous family therapy sessions.

All treatment sessions lasted about 90 minutes and were transcribed using **verbatim transcription** into Chinese and then into English.

Ma used **inductive content analysis** to identify **categories** of parent–child conflicts. The conflicts were originally **coded** into general groups, and then major categories representing important **themes** were extracted. Here is how the coding worked. First, Ma (2008) and her research team read through the transcripts and "marked off units that were related to the same thing (e.g., parent-child conflicts), and then divided them into topics (e.g., mother-child conflicts, father-child conflicts) and subtopics (mother-daughter conflicts in the lunch room, father-son conflicts in the lunch room)" (p. 805). By the end of data analysis, all the similarities and differences among parent–child interactions were analyzed, and any disagreements were open for discussion until the research team agreed on the final categories.

Three categories emerged:

1. Control issues and power struggles between parents and children.
2. Children's psychological development was growing more slowly than their physical development.
3. The desire of the children to pursue their own life goals within a rapidly developing economic society that was often in contrast to traditional Chinese cultural values.

These Chinese parents had problems with managing their children's disordered eating that were similar to the problems of Western parents. These similarities were seen particularly in the parent–child interactions in the lunchroom. For example, the therapist encouraged Mrs. M to try to get her daughter to eat a little food. Patient M responded with screams that she would follow her mother's directions only at home, not in the clinic. The mother then retreated and asked the therapist to hospitalize her daughter. Then the therapist encouraged Mr. M to try. The father was more patient and slowly was able to get patient M to eat a little food. It is typical for a child with an eating disorder to have a more antagonistic relationship with one parent than the other. Power struggles are typically more intense

between mothers and daughters. To defuse and reframe the parent–child interaction, the therapist creates a small struggle between the parents and children in the lunchroom and then empathizes with the pain everyone feels. Then the therapist can help the patient understand the importance of getting assistance from both parents, who are also learning new ways to cope. Both parents and children end up viewing each other through a new lens. Parent blaming is avoided, and underlying issues, such as seeking independence, are reframed as developmental issues. The family is no longer focused on the eating behaviors.

Case Study 2: Case Study about Emotions and Sport Performance Using a Multiple Case Study Design

This case study is about **sport psychology.** Interviews and questionnaires were used to collect data.

Cohen, Tenenbaum, and English (2006) studied two golfers' experience with learning to self-regulate emotions. They asked two research questions.

1. How are different aspects of emotion (such as arousal level and pleasantness) related to performance?
2. Does participating in a psychological skills training (PST) program change emotions and improve performance?

The theory of the individualized zone of optimal functioning (IZOF) was the framework for the study. IZOF is a newer theory about the relationship between emotions and performance (Hanin, 2003). IZOF theory states that there is not one optimal level of arousal that all athletes need to perform. Instead, each athlete has a zone of optimal performance, with some performing best with higher levels of arousal and others performing best with lower levels of arousal. IZOF theory challenges theories suggesting that there is one level of emotional arousal that is necessary for all athletes to perform. Hanin developed the theory after observing elite Russian divers just before Olympic team selection. Some divers had high levels of arousal but still had high levels of performance. These divers were also self-confident and relaxed, interpreting high arousal as a sign that they were ready to compete. Other divers had low levels of arousal, but were also calm and relaxed.

According to IZOF theory, a number of factors interact to create optimal sport performance. There are five dimensions of performance-related emotional states, and they all combine differently in each individual: content, intensity, context, form, and time. As examples, intensity of emotion refers to the strength and depth of emotions and context refers to unique situations that affect emotions. The goal of training using IZOF theory is to create an optimal zone of performance for each individual.

Qualitative methods are the best choice for investigating IZOF because the theory is about an individual's unique experience.

Cohen and colleagues (2006) thought that a case study would help clarify the relationship between emotions and performance. This study is a detailed analysis of two individual's assessment and training. Since the case study uses more than one participant, it is called a **multiple case design.**

Cohen predicted that the IZOF model would be supported, that PST would help each golfer find her optimal level of emotional arousal, and that the performance of both golfers would improve.

Two 20-year-old females from the varsity golf team at a major Division I southeastern university in the United States were participants. They were selected from a larger group of eight golfers. These two women are a **criterion sample**, a type of **purposive sample** where the cases are important enough to allow for more **generalizing** outside the sample. It is assumed that the experiences of criterion samples represent the experiences of others.

Cohen took the role of **participant-observer.** The researcher took an active role with the golfers as a sport psychologist and volunteer assistant coach. This role increased the trust between participants and the researcher.

The study took place during four golf tournaments in the spring of 2002. Data collected during pretournament practice and the first two tournaments were used to create IZOF profiles. These profiles, along with interview data, helped researchers create an intervention program for each golfer. Three questionnaires were used throughout the study to help create the IZOF profiles and assist in creating interventions. One example is the Modified Affect Grid Scorecard, which asks such questions as "Please rate your mood as it is right now." Participants rated themselves along the continuums of pleasure–displeasure and arousal–sleepiness.

The procedures were as follows. Starting with pretournament practice, the golfers played hole 1 and then rated themselves according to the level of pleasantness, for example. They repeated the process as they played each hole.

At the midpoint of the season, each golfer's IZOF and psychological strategies profile was created from the collected data. Next, an interven-

tion strategy was created so that each golfer could improve her performance. For example, player A (based on her high arousal zone) was instructed in ways to get "psyched up" for the tournament and at the same time remain calm so that she could channel her energy into productive play. Player B (based on her lower arousal zone) was instructed in ways to identify and control negative thoughts.

Both players improved a great deal, as shown by a change in tournament scores over time. The IZOF model appears helpful in maximizing performance. Player A performs best when emotional arousal is high and she has pleasant feelings about these emotions. Player B, on the other hand, performs best when emotional arousal is low and she does not report negative feelings about the low arousal.

Cohen and colleagues feel that the results support the IZOF model and advise trainers to help athletes create and work within an optimal performance zone.

Evaluate the Use of Case Studies in Research

Case study research includes the following strengths:

1. Multiple data sources offer different perspectives and increase **data triangulation.**
2. Case studies are sensitive to context and are one way to study how people make meaning out of their lives.
3. If the situation is unique, a case study may be the only way to research behavior.
4. Case studies help researchers come up with new theories. Much of what we know about psychology started with the observations of specific cases.
5. Case studies have good **ecological validity** because the data are gathered from real-life contexts.

At the same time, case study research includes the following weaknesses:

1. Poor **population validity** is the greatest weakness of case studies because data come from specific individuals or groups. But if the case is instrumental and data are gathered from multiple sources, the case has more generalizability.

2. Cases based on an individual's testimony are difficult to validate. A person's past memory is not always accurate, and people are likely to respond to the **vividness effect.** This means that subjects are more likely to recall items tied to highly emotional situations. This is why it is helpful to collect data from multiple sources.
3. Willig (2001) identifies several potential **ethical** problems. Confidentiality and anonymity are important concerns, particularly if the situation is unique enough that someone is easily identifiable.
4. While triangulation from multiple sources is an advantage of case studies, it can also be a weakness if the researcher emphasizes the multiple perspectives over context, which is one of the main reasons for conducting a case study (Willig, 2001).
5. Case study research is time-consuming.
6. **Researcher bias** is a potential problem. Consider all the possible sources of data for a case study. Could researcher selectivity become a problem?
7. Some sources of evidence may be difficult to obtain, such as certain kinds of documents.

Discuss the Extent to Which Findings Can Be Generalized from a Single Case Study

Generalizing refers to the extent to which the findings of a study apply to similar situations or people outside of the study. Case studies have the potential for generalization outside the study (Willig, 2001). However, we must distinguish between **intrinsic** and **instrumental** studies.

Although students are fascinated by feral children when studying language or attachment theories, there really are few feral children, too few to make good generalizations about general human behavior from them. The feral cases available are indeed fascinating and unique in their own right. Just watch the tendency to want to make general theoretical statements about human behavior from them. It is hard to evaluate or compare cases of feral children for many reasons. For example, any one feral child case could be confounded by diet, abuse, or exposure; any of these factors could contribute to brain damage to language centers, poor language skills, or insecure attachment.

On the other hand, instrumental cases have more potential for generalizing. The Ma (2008) and Cohen and colleagues (2006) case studies are good examples. Both used multiple cases, so there is more **data triangulation.** Ma also claims to have **analytical generalization.**

Willig (2001) writes that if enough cases show the same thing, then there is more chance for generalization. However, it cannot be a direct generalization to other cases outside those used in a multiple case design. The **samples** in case studies do not represent a larger target population the way they might in a survey. The generalization may be better thought of as a way to refine theory and give direction for future research.

Yin (2009) agrees; he feels that there is more chance for generalizing from cases if you think about the concept of generalization critically. It is common to question generalizing from a single case study. But think about it this way. What if we were to ask the same question about generalizing from a single experiment? In reality, no one should generalize from a single experiment. Good generalizations from experiments are made only from experiments that have been replicated numerous times. Yin believes that the same approach should be used for thinking about generalizing from case studies: "The short answer is that case studies, like experiments, are generalizable to theoretical propositions and not to populations or universes" (p. 15). The goal of cases is to expand theory, called **analytical generalization.**

Explain How a Case Study Could Be Used to Investigate a Problem in an Organization or Group

Use the case study from Ma (2008) in an investigation of a problem in a group (the family is an appropriate example).

9 Questionnaires: Quantitative Approach

Genetics and Cross-Cultural Research Are Two Places Where Students Encounter Questionnaires

Questionnaires are commonly used in research, but students do not always realize how often they encounter them because introductory texts seldom identify all the details about the methods used in studies; it would take up a lot of space.

Genetic research frequently uses questionnaires, including twin, adoption, and gene–environment correlation studies (where one's genotype is correlated with environmental factors). For example, questionnaires ask people about their alcohol use, aggressive behavior, language development, or depressive symptoms and correlate the responses to having a specific gene variation. Genetic research, however, is just one place to find questionnaires.

Cross-cultural research on the **dimensions of culture** also uses questionnaires. People are classified on dimension continuums, such as individualism and collectivism, on the basis of questionnaire responses. Cultural psychology research shows how psychological concepts apply to everyone, and questionnaires are used in many of these studies.

Note to IB Students

Genetics and the dimensions of culture are required topics for IB students and are just two of the many places you encounter questionnaires. The example studies in this chapter are relevant for Paper 1 learning outcomes about genetics, the dimensions of culture, and how the environment affects physiology, as well as the Paper 2 learning outcome about the etiology of mental disorder.