A Quick Guide to Case Studies

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Case study research is a social science research method. There are different ways of conceptualizing case studies (Schwandt & Gates, 2018). A case is often defined as "…an instance, incident, or unit of something…” (Schwandt & Gates, 2018, p. 600). However, there is no consensus on what a case is. According to Yin (2018), cases can involve concrete (e.g., individuals, groups, organizations) and less concrete (e.g., relationships, communities, decisions) topics. As a method, case studies can help us understand complex social contexts by studying a case or cases in depth in their natural environment. Further, to study the case, information is typically gathered from multiple sources (Yin, 2018). Stake (1995) and Yin (2018) have created two of the most popular approaches to this methodology (Baxter & Jack, 2008). This handout summarizes some critical aspects of case study research from Yin’s (2018) perspective.

**Philosophical Background**

Constructivist: This framework recognizes that truth is relative because it depends on a person's perspective (Yin, 2003). This is referred to as a social constructivist perspective. A social construct is an idea that is created by a group and is accepted by society. Since ideas are created by the groups under study, researchers need to work with participants so the latter can share their stories and the way they see the world.

**Conditions to Use a Case Study**

According to Yin (2018), there are three basic reasons to use a case study:

1. **The type of research question:** Case studies are usually appropriate when the researcher is formulating a research question about **how** and **why**. Questions on the process rather than just the outcome are optimal for this type of research. For example, how do high school students describe their experiences with dating violence following a dating violence prevention program? It is important to determine your research question(s) to help define your case.

2. **Behavioural control:** Case studies focus on understanding contemporary events. In case studies, the researchers do not attempt to change participants' behaviours (Baxter & Jack, 2008). Further, the environment is not manipulated and nothing is done to change the context or people under study. Data collection in case study research usually depends on interviews and observation of participants and their environment. Case studies can be used to study the effects of an intervention in a real-world setting. However, when studying the effects of an intervention, the researcher does not control how participants respond to it, and is often interested in exploring how the larger social context shapes uptake of and/or responses to the intervention.
3. Focus on contemporary or present time events: Case study research focuses on present-day events, processes, individuals, and/or groups.

**Data Sources**

Case studies rely on multiple sources of information (Yin, 2018). These sources can include, quantitative (e.g., survey data), qualitative (e.g., interviews, photographs, narrative, records, field notes) and arts-based approaches.

**Choosing a Case Study Design**

The study design provides a sequence that helps connect theory and findings (Yin, 2018). Yin (2018) includes five relevant case study research design elements:

1. **Define your case study’s research question.** Yin (2018) notes that “how” and “why” questions are the most appropriate for case study research. For example, you might want to focus on high school students’ experiences of participating in a dating violence prevention program. Thus, your research question might be: How do high school students describe their experiences with dating violence following a dating violence prevention program? The case in this research question would be the experiences of high school students with dating violence after attending the program. Thus, the case study focuses on each student’s experience with the program.

2. **Identify key propositions.** Propositions are statements that can help researchers focus on a specific element of the case study (Yin, 2018). Propositions can come from different sources (e.g., other research studies, theories, or professional experience; Baxter & Jack, 2008), or they can be identified through a literature review of your research topic. For example, going back to the dating violence example, you might want to consider if living in an impoverished neighbourhood increases the risk of dating violence.

Not every case study has propositions, especially if it is exploratory. For example, there might be no propositions if the case under study is exploring a new area of research and there are no theories or studies to guide it.
3. **Determine the case.** To identify the case, you need to determine the purpose of your research. It is important to think if you want to explore a specific case and describe it, or if you want to compare and contrast different cases (Baxter & Jack, 2008). Remember that a case can be a person, small group, or event, among other things (Yin, 2018). For example, you might want to compare high school students’ experiences participating in a dating violence prevention program in two different schools. Although there are different types of case studies, case studies tend to be explanatory, exploratory, or descriptive (Baxter & Jack, 2008). Explanatory studies try to explain the link between an intervention that is used in a real-life setting and its effects (Baxter & Jack, 2008; Yin, 2018). For example, you could explain the effect a dating violence prevention program had on sexual violence in a group of high school students. In this example, sexual violence is the outcome because the intervention was designed to reduce it, and the researchers want to understand this outcome within the richness provided by studying different cases. Exploratory studies are used when there are no defined outcomes for an intervention (Baxter & Jack, 2008). Using the dating violence program example, you might want to explore any effects (i.e., not a specific outcome) a dating violence prevention program has on high school students. In an exploratory case study, your case study will help you identify outcomes for future research. Descriptive case studies describe a case, so that you can describe a phenomenon or intervention in its natural environment. For example, you could describe a dating violence prevention program within a specific high school context.

4. **Bind the case.** It is impossible to study every single aspect of your case. To identify what your case study will not cover, it is important to set boundaries for the case (i.e., what it will and will not cover; Yin, 2018). Cases can be bounded by time, places, and/or definitions (Baxter & Jack, 2008). For example, you can bind a case focused on describing a dating violence prevention program by describing the program implemented during the 2020-2021 academic year in two high schools in Western Canada.
Is my case study a single or multiple case study design?

Once you know what your case is and its type (i.e., exploratory, explanatory, or descriptive), you can identify whether your case study is a single or multiple case study design (Baxter & Jack, 2008). **Single case studies usually focus on one group, person, or event.**

Case studies can also have embedded units of analysis (Yin, 2018). Embedded units of analysis are subunits of analysis within the case (Yin, 2018). For example, you might want to focus your case study on studying dating violence among Grade 10 students in a specific high school. However, you might want to gather other contextual data such as the perspective from teachers through a survey. The data collected through the survey would be an embedded unit of analysis. **In a multiple case study design, the researcher studies two or more cases** (Yin, 2018). The main difference between single case study designs and multiple case study designs is that, in the latter, cases have different contexts. Multiple case studies can also include embedded units of analysis (Yin, 2018).

5. **Identify the link between the case and the propositions.** Propositions can help outline the steps that need to be followed once you start analyzing your data. Propositions can also provide information that is important to keep in mind when analyzing your data. For example, a proposition might be that LGBTQ2SIA+ youth experience more dating violence compared to their heterosexual peers (PREVNet & Martin-Storey, 2020). Going back to the research question identified in point one, the proposition on LGBTQ2SIA+ in this section suggests that it would be important to analyze, if possible, if LGBTQ2SIA+ youth in the high school where the dating violence prevention program was conducted experience more dating violence compared to their heterosexual peers.

6. **Establish criteria to interpret your findings.** Each data source you use can provide information to answer the research questions (Baxter & Jack, 2008). Yin (2018) recommends discussing any alternate explanations for your findings (if you find alternative explanations) and describing elements of the design that support its validity or trustworthiness (Baxter & Jack, 2008). Yin (2018) highlights four criteria to judge the quality of the research design: a) construct validity, b) internal validity, c) external validity, and d) reliability.

**Explanation building:** Case study data is analyzed by creating an explanation about the case.
Construct validity has to do with choosing tests or instruments that accurately measure the constructs under study (Yin, 2018). Internal validity is considered in explanatory studies because it helps researchers establish a cause-and-effect relationship that is trustworthy (Yin, 2018). Through internal validity, the researcher can claim that there is a relationship between different variables under certain conditions because other explanations have been eliminated. External validity has to do with the ability to generalize the results outside of their original context (Yin, 2018). Reliability means that, if the same procedures are followed in another study, the same results could be replicated in a different context (Yin, 2018). To meet each criterion, different tactics can be used. Table 1 summarizes tactics that can be used to ensure the case study is valid and reliable. Explaining each tactic is beyond this summary’s scope, but this information is covered in detail by Yin (2018).

Pattern matching: This tactic helps compare your case study’s findings to other findings.
### Table 1

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<thead>
<tr>
<th>Test</th>
<th>Case Study Tactic</th>
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<td>Construct validity</td>
<td>• in the data collection phase, use multiple sources of evidence</td>
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<td>• in the reporting phase, have key informants read the draft of the case study report</td>
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<td>Internal Validity</td>
<td>In the data analysis phase:</td>
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<td>• do pattern matching (i.e., comparing the findings of your case study to other findings)</td>
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<td>• do explanation building (i.e., case study data are analyzed by creating an explanation about the case. This tactic is commonly used in political science.)</td>
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<td>• address competing explanations</td>
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<td>• use logic models (i.e., logic models help operationalize a series of events. Logic models are helpful to show the series of steps necessary to implement an intervention or program. These models can also help establish causes and effects).</td>
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<td>External Validity</td>
<td>In the research design phase:</td>
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<td>• use theory in single case studies</td>
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<td>• use replication logic in multiple case studies (i.e., different cases are studied and compared. Typically, cases are selected because similar results can be predicted across cases or there will be differences that were anticipated and that can be contrasted).</td>
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<td>Reliability</td>
<td>In the data collection phase:</td>
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<td>• use a case study protocol (i.e., questions to collect data. Besides the questions, it also outlines rules and procedures for the person collecting information).</td>
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<td>• develop a case study database to organize all the data collected</td>
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<td>• maintain a chain of evidence (i.e., when reporting a case study, the reader should be able to understand where the evidence being reported comes from, and they should be able to connect the research question to the findings and vice versa. This way, findings are connected to the evidence presented in the report.)</td>
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*Note: Adapted from Yin (2018, p. 43).*
Case Study Examples

The case study examples below follow some of the design aspects mentioned above:

- **Single case study example.** Monroe and Obidah (2004) studied the disciplinary practices of an African American middle-school teacher and how these actions were influenced by cultural synchronization. Cultural synchronization means that there is a match between the school’s and the student’s culture. The focus on this teacher’s classroom was to understand some of the cultural factors that impact discipline in the classroom.

- **Multiple case study example.** Miyahara and Wafer (2004) used a multiple case study approach to describe and analyze the teaching process of using a skill and movement program for children with Developmental Coordination Disorder (DCD). Seven student teachers were paired with seven children with DCD and each pair was a case. The purpose of this case study was to provide information and examples to practitioners on how to teach children with DCD in this program.

There are few examples of case study design in teen dating violence research. A narrative review of EBSCO Academic Search Complete, PsycINFO, PsycArticles, and Google Scholar using the terms “case study” AND “teen dating violence” suggests that no studies have been conducted following Yin’s (2018) approach. However, Bloom et al. (2018) published a descriptive case study to describe the context of a faith-based program to prevent teen dating violence. This example has some elements described in this summary, but the research question and case are not defined.

**Conclusion**

A case study is a type of qualitative research design that helps researchers understand a case within a specific context by collecting data from different sources. Yin (2018) provides a thorough approach to case study research.
References

Note: References marked with an asterisk are recommended readings. Case Study examples have been bolded.


