Case Study Research
Program Transcript

Section 1: Introduction to Case Study Research

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Welcome to the Case Study Research tutorial. This tutorial outlines the elements of case study research, as a design and a methodology. Emphasis is on determining the appropriateness of the case study approach for a research problem and examining procedural considerations in conducting case study research. This tutorial incorporates examples from case studies to illustrate best practices for data collection and analysis. In addition, the tutorial provides key resources for further exploration of case study research.

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After successful completion of this tutorial, Students will be able to:
- Explain how case study research fits into the research continuum
- Explain the basic theory, principles, and structural design components of case study research
- Determine the appropriateness of case study research to respond to a specific research or practice problem and answer specific research questions
- Describe data collection and analysis procedures for case study research
- Summarize the strengths and limitations of case study research
- Outline the steps to take to effectively plan, implement, and report on case study research.

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This tutorial is organized into 7 sections that each include tips and strategies associated with a topic:
- Introduction to Case Study Research
- Background: What Is Case Study Research?
- Case Study Research: Alignment and Design
- Process: How to Do a Case Study
- Next Steps: Is Case Study Right for You?
- Additional Resources
- Evaluation
Section 2: Background: What is Case Study Research

Slide 1

Welcome to the Background: What Is Case Study Research? Section.

This section of the tutorial provides background information on case study research, as a design and a methodology. This section presents details about the benefits of using the case study approach and provides examples of its use in various disciplines.

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In this section of the tutorial, focus on the following objectives:

- Describe the characteristics of the case study approach
- Identify the benefits of using case studies
- Contrast case study research to other qualitative approaches
- Explain how various disciplines use case study research

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Definitions: What Is a Case Study?

A case study is a detailed and intensive analysis of a particular event, situation, organization, social unit, etc. Typically, a case has a defined space and timeframe. (Miles & Huberman, 1994, p. 26)

In terms of scope, a case study is an in-depth investigation of a contemporary phenomenon within its real-life context. The case study approach is appropriate especially if you think the context is relevant to the phenomenon. Because the boundaries between a phenomenon and its context are not always clear, case study relies on multiple data sources for evidence. (Yin, 2009, p. 18)

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Definitions: What Is a Case?

A case could be an individual, a role, a small group, an organization, a community, or a nation (Miles & Huberman, 1994, p. 26).

Examples of a case include:

- A natural disaster, such as an earthquake, tsunami, or hurricane
- A political conflict, such as a war or riot
- A president
- A high school principal
• An education program
• A company or organization, such as a school, business, or health care organization

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Well-Known Case Studies

You may have heard of these well-known case studies:

Freud’s study of Dora

Published in 1905, Sigmund Freud’s case study of Dora used anamnestic data, reconstruction, and dream analysis to depict a young woman suffering from hysterical symptoms, including difficulty breathing, nervous coughing, and headaches. Freud thought her case was rather uninteresting in its own right, but could help further knowledge about Dora’s disorder. His point was that analysis of even an ordinary case can have an application in similar situations.

Cuban missile crisis

During the Cuban missile crisis in 1962, President John F. Kennedy and his leadership team made optimal decisions to avoid nuclear conflict. Graham Allison’s 1971 case study on the Cuban missile crisis, based on a broad range of data ranging from government documents to interviews with numerous officials, has often served to instruct others about leadership styles and processes, based on how Kennedy handled this difficult situation.

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Case Studies: Research vs. Teaching Purposes

You may be familiar with the use of the case method in the classroom for learning, but it is important to distinguish teaching case studies from those used for research purposes. Teachers use case studies to illustrate a lesson of instruction and spark discussion among students in the classroom. Teachers often use case studies, especially in the fields of law, public policy, and management education.

For the purposes of this tutorial, a teaching case study is different from a research case study. Although teaching case studies do not necessarily need to present data in a rigorous and scholarly way, that is precisely what research case studies need to do. (Yin, 2009, p.4)

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Benefits of Using a Case Study Research Approach
The case study research approach offers benefits in terms of process as well as outcome.

Benefits of the process …
- May help prevent “scope creep” as you will focus research within the confines of space and time on a specific case
- Gives you an opportunity to collect different kinds of data about the case
- Provides the chance to get an in-depth look at an organization or individual, its inner workings and interactions

Benefits of the outcome …
- Provides a comprehensive understanding of a case
- Helps the reader examine a certain case so he or she can learn from it
- Allows others to apply the principles and lessons learned in a case to other cases or situations
- Leads to transferability, rather than generalization

For example, if someone wanted to learn what it was like to be a high school principal, a case study could help that person learn about that experience, and apply it to another situation.

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Origins of the Case Study Approach

Case study has been used as a research approach for many years. In the United States from the early 1900s to the mid-1930s, the University of Chicago Department of Sociology was a leader in case study methodology and a source of much literature in the field. The city of Chicago, with its diverse, immigrant population and issues with poverty and unemployment, had abundant subject material for case studies (Tellis, 1997).

The case study approach became more common in the 1950s and 1960s. It has been used for the past several decades in social science applications and more recently in education and management. Disciplines such as sociology, psychology, political science, and anthropology have utilized case studies to gain in-depth views of specific cases.

Key contributors to the development of case study design and methodology include Egon G. Guba, Yvonna S. Lincoln, Robert E. Stake, and Robert K. Yin.

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Philosophical Underpinnings of Case Study Research: Postpositivism
Case study research primarily fits in the postpositivist approach or philosophy, meaning that there is an ultimate reality, but that we can only approximately—not completely—understand it. In the strictly positivist view, reality can be ultimately verified, and even predicted. The positivist knows, or claims to be able to verify, exactly why things happen the way they do—whether that is how people learn, or why parts of nature interact the way they do, and so on. The postpositivist (those who think “after” the positivist) are not so sure—they think they can get a good idea of reality, but that they cannot verify it as completely as the positivist.

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Philosophical Underpinnings of Case Study Research: Constructivism

Case study research also tends to be constructivist, meaning those who engage in it (and those who read it and learn from it) tend to create or construct their own sense of reality and learn from the research process. Constructivism is a postpositivist approach; any learning that occurs is not necessarily already there as it might be in positivist (often quantitative) designs and approaches.

Case study research can also contain critical, feminist, and other postmodern concepts, depending on the research purpose. That is, a case study can expose the historical, political, gender, socioeconomic, and other structures that make material differences in peoples’ lives and hold them back from their true potential.

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Alignment Between Design and Method in Case Study Research

The research method primarily refers to a way of collecting data. For example, interviews, observations, and surveys are types of research methods.

The research design is the approach a researcher uses to conduct a study. For example, narrative analysis, phenomenology, and experiments are research designs.

In the sense that case study is a design—and there are methods inside of case study, depending on the research question—case study can align with quantitative and/or qualitative methods. A case study using both qualitative and quantitative methodologies is an example of a mixed-methods case study.

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What Is the Focus of Case Study Research?

Case study research focuses on a specific event, person, place, thing, organization, or unit of some kind (or potentially more than one, but typically a small number). Thus, a case study does not involve just conducting a quantitative survey at an organization to
get an idea of people’s perceptions on a topic. The case study must involve multiple sources of data about the entity under investigation to gain a broad, robust understanding.

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The Key to Focusing Case Study Research

The key to case study research is identifying the case and the boundaries of that case. The key question to ask is, “What is the ‘case’?” You can help yourself answer that by answering the question: “What is inside, and what is outside the case?” If the case is one school, then other schools are not part of the case; if the case is the principal, other teachers or administrators are not part of the case. Therefore, the specific unit of study, or unit of analysis, is a defining characteristic of a case study. Take care when defining the case; the research question drives this.

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Case Study Compared to Other Types of Research

To better understand what case study is—and is not—it is useful to compare it to other types of research. The tables below summarize the goals of several methodologies and provide the description of a sample study using the role of a school principal as the research topic.

<table>
<thead>
<tr>
<th>Qualitative</th>
<th>Method</th>
<th>Goal or Focus</th>
<th>Sample Study</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Case Study</td>
<td>Examine an issue in a specific location over a period of time</td>
<td>one principal at one school for a specific period of time (documents,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>conversations, principal-teacher interaction); or multiple case study of</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>more than one principal (with each one in their own school)</td>
</tr>
<tr>
<td></td>
<td>Narrative Analysis</td>
<td>Tell a story about an experience from the voices not normally heard</td>
<td>one principal’s life story</td>
</tr>
<tr>
<td></td>
<td>Grounded Theory</td>
<td>Develop theory about a process inductively from data collected</td>
<td>interview 25–30 principals to generate a theory about interactions with</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>teachers/students</td>
</tr>
<tr>
<td></td>
<td>Ethnography</td>
<td>Describe different aspects of a culture and how the principal fits into</td>
<td>culture of the school and how the principal fits into</td>
</tr>
</tbody>
</table>
### Case Study Research

| Phenomenology | Describe one aspect of human experience not bounded by time or location | culture of the school and how the principal fits into that culture |

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#### Quantitative

<table>
<thead>
<tr>
<th>Method</th>
<th>Goal or Focus</th>
<th>Sample Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantitative survey</td>
<td>Gain information by asking questions that can be answered by yes or no, or on a scale, such as 1–5</td>
<td>one principal at one school for a specific period of time (documents, conversations, principal-teacher interaction); or multiple case study of more than one principal (with each one in their own school)</td>
</tr>
<tr>
<td>Quasi-experimental</td>
<td>Test the difference between two alternate ideas, or approaches, on an outcome; but without the rigor of a true experimental design</td>
<td>survey comparing principals at two different schools to see the impact of different leadership styles</td>
</tr>
<tr>
<td>Correlational study</td>
<td>Examine a correlation between two variables</td>
<td>correlation between education degree and effectiveness and tenure of principals</td>
</tr>
</tbody>
</table>

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**Disciplines That Use Case Study Research**

Any discipline can use case study research; this type of research is most common in education and other social sciences, as well as law, political science, and health care. For example:

<table>
<thead>
<tr>
<th>In this discipline</th>
<th>a case study could investigate…</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health care</td>
<td>A hospital or specific type of patient</td>
</tr>
<tr>
<td>Education</td>
<td>A school, a principal</td>
</tr>
<tr>
<td>Business</td>
<td>A business, a CEO, a startup organization</td>
</tr>
<tr>
<td>Public policy</td>
<td>A natural disaster and policy implications for responding to the disaster</td>
</tr>
<tr>
<td>Psychology</td>
<td>An individual with a certain disorder, a mental</td>
</tr>
</tbody>
</table>

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Examples of Research Studies that Use the Case Study Approach

Here are some examples of research studies that use the case study approach. Note that each has clear boundaries of place and time, which is a defining characteristic of case studies.

1) A multiple case study explored the use of formative assessment systems (processes by which students and teachers can use assessments to adjust their learning and teaching strategies) in three northeastern school districts over the course of a year and a half. (Militello, Schweid, & Sireci, 2010)


3) A single case study observed the development of the nurse-patient relationship between one nurse and one patient over a 3-day period in a hospital’s cancer unit. (Lotzkar & Bottorff, 2001)

Examples of Research Studies that Use the Case Study Approach (cont.)

Below are more examples of research studies that use the case study approach. Note that each has clear boundaries of place and time, which is a defining characteristic of case studies.

4) A collective case study focused on role stress among four music teachers at a high school in the midwestern U.S. during the school’s fall academic semester. (Scheib, 2003)

5) A multiple case study examined social service programs for rape victims in 22 communities across the U.S. in the late 1990s. (Campbell & Ahrens, 1998)

Self-Assessment

Next, you will take a short self-assessment to check your comprehension of the information presented in this section. There is no time limit or record of your score.

Self-Assessment Tip
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Multiple Choice
From the multiple choice options listed, please select the correct answer to the question.

A case study is ________________.

Choose the correct answer:

a) a brief look at a passing trend in modern times  
b) a true life account of a historical event as explained by one person  
c) a detailed investigation of a contemporary phenomenon within its real-life context  
d) a cursory analysis of the corporate culture of a multinational organization

Answer:
c. A case study is a detailed and intensive analysis of a contemporary phenomenon within its real-life context. The case is typically bound by both space and time and relies on multiple data sources.

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True/False
Read the statement, and then choose whether it is true or false.

Teaching case studies are the same as research case studies because they both need to present data in a rigorous and scholarly way.

a. True  
b. False

Answer:  
b. False  
A teaching case study is different than a research case study. Research case studies need to present data in a rigorous and scholarly way, while teaching case studies do not necessarily need to do so.

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Matching
The case study research approach offers benefits in terms of process as well as outcome.  
Match the items in Column 1 to one of the two options in Column 2.

<table>
<thead>
<tr>
<th>Column 1</th>
<th>Column 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Case Study Research

| Provides a comprehensive understanding of a case | a. Benefits of the process |
| Allows you to collect different kinds of data | b. Benefits of the outcome |
| Leads to transferability, rather than generalization | |
| Gives you the chance to get an in-depth look at an entity | |
| Helps others learn from and apply the lessons learned in a case | |
| Limits research scope within space and time | |

Answer:

The case study research approach offers benefits in terms of process as well as outcome. The process of the case study approach allows you to collect different kinds of data, limits research scope within space and time, and gives you the chance to get an in-depth look at an entity. The outcome of the case study approach provides a comprehensive understanding of a case, helps others learn from and apply the lessons learned in a case, and leads to transferability, rather than generalization.

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**Multiple Choice**
From the multiple choice options listed, please select the correct answer to the question.

Which of these could be a case study about a high school teacher?

Choose the correct answer:

a) A report analyzing perceptions of high school teachers about their career choices
b) A project using various data sources to examine the first working year of a high school teacher
c) A survey of high school students to find out who is the best teacher
d) A long-term exploration of the culture of a high school and how one teacher fits into it

Answer:
b) A project using various data sources to examine the first working year of a high school teacher

Using the research topic of a high school teacher, a possible case study could be a project using documents and interviews to examine the first working year of a high school teacher.

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**True/False**
Read the statement, and then choose whether it is true or false.

The use of case study research is restricted to only a few disciplines such as law, political science, and business.
a. True
b. False

Answer:
b. False
Any discipline can use case study research. It is most common in education and other social sciences, as well as law, political science, and health care.
Section 3: Case Study Research: Alignment and Design

Slide 1

Welcome to the Case Study Research: Alignment and Design section.

This section of the tutorial provides information on appropriate research topics for a case study, guidance on formulating a case study research question, and examples illustrating the use of case studies with other research methods. In addition, this section discusses sample size, the role of the researcher, and ethical considerations in doing a case study.

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In this section of the tutorial, focus on the following objectives:
- Identify appropriate types of research topics explored with a case study approach
- Illustrate how case studies may be embedded in the design of another research approach
- Explain important theoretical and conceptual framework considerations
- Examine the role of the researcher in doing a case study

Slide 3

Case Study and the Continuum of Inquiry

In the continuum of inquiry graphic, the long arrow represents the state of current knowledge within a paradigm or problem area. At one end of the continuum, much is known about a situation. At the other end, very little or nothing is known about it.

The Continuum of Inquiry description

The Continuum of Inquiry depicts how the state of current knowledge aligns with both types of inquiry and research approaches.

A horizontal line with an arrow on the right represents the state of current knowledge within a paradigm or problem area.

The far left side of this axis represents a state where very little or nothing is known. This idea is depicted in a box above the horizontal line representing the state of current knowledge. The far right side represents a state where much is known, and this idea is depicted in a box above the horizontal line representing the state of current knowledge. Each of these boxes contains an arrow pointing down to the horizontal axis.
A specific method of inquiry can be placed at a point either at or between the boxes to represent that a particular method of inquiry applies when very little or nothing is known or when much is known.

The method of inquiry would then align with a number of horizontal rectangles arranged below the state of current knowledge, as follows.

Below the line representing the state of current knowledge are three rectangles of equal length. The left rectangle represents descriptive studies. The middle rectangle represents correlational studies. The right rectangle represents cause-and-effect studies.

Below these three rectangles of equal length are the following three rectangles of varying length, stacked one atop the other.

The top rectangle represents qualitative approaches and it extends the length of the rectangles above that represent descriptive studies and correlational studies. This line ends one-quarter of the way through cause-effect studies.

Below qualitative approaches, the middle rectangle represents quantitative approaches. This rectangle begins in alignment with the final quarter of descriptive studies. It then extends the length of correlational studies and through the end of cause-effect studies.

The bottom and final rectangle represents mixed methods utility. This rectangle begins in alignment with the final quarter of descriptive studies. It then extends the length of correlational studies and ends at the first quarter of cause-effect studies.

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**Case Study and the Continuum of Inquiry (cont.)**

Researchers most typically use the case study approach when very little is known about a case — hence the need for exploration and understanding of it. Researchers do not use case study research (or any qualitative approach) to test a theory or an assumption. They use it to gain greater understanding of a situation or a phenomenon when there is more to explore beneath the surface.

In the graphic, case study research falls into the qualitative aspect of the continuum. Its studies tend to be more descriptive than the studies one would find in more quantitative approaches.

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**Case Study Research Questions**
Case study questions use terms similar to other qualitative research designs, focusing on concepts like explore and understand. Typically, case study research questions use words such as how or why. They may also include the basic “who,” “what,” “when,” and “where” questions. That is the form of case study questions. Overall, the case study research questions need to address the substance of what (case) the study is about. (Hatch, 2002, p. 10)

To formulate your case study research questions, think of conducting a case study like painting a picture. What does the case look like, whether it is an individual, organization, or situation? What image will the reader have in his/her mind after reading the case study? Therefore, to paint that picture, what kinds of questions would you need to ask?

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Formulating Case Study Research Questions

When formulating the research questions for a case study, consider the following:

- Questions need to be broad and open, not closed. That is, case study questions are not answerable by yes or no responses or by some other discrete answer.
- If your study is qualitative, it will not typically test a hypothesis, so you will not ask questions about the relationship between two variables or make a prediction about outcomes.
- Usually you will have one broad question, and then sub-questions that support, add detail to, or offer more specific direction to the research.
- The research questions should also help set the boundaries that focus the research work.

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Examples of Case Study Research Questions

Some case studies have one or two broad research questions:

For example, the collective case study of school music teachers explored the open-ended question of why their work life is stressful, through the lens of role theory. (Scheib, 2003)

The case study on rape victim services set out to answer how and why coordinated service programs are effective. (Campbell & Ahrens, 1998)

The case study on nurse-patient relationships sought to answer the question of exactly how such a relationship develops. (Lotzkar & Bottorff, 2001).
Examples of Case Study Research Questions (cont.)

Other case studies state more specific questions:

For example, the case study on a virtual learning community had five specific questions, including “Does the web-based virtual environment enhance collaborative work? How?” and “Why is a moderator needed, and how can his importance be measured?” (Joia, 2002, p. 309).

And some use one overarching question followed by sub-questions:

“To what extent does the fit between intended use and system characteristics foster or inhibit the ultimate utility of formative assessment systems for schools?

1. Intended Use: What data and action did each district want from the assessment system?
2. System Characteristics: What were each of the formative assessment systems designed to do?
3. Actual Use: How are school district educators using the assessment systems?” (Militello, Schweid & Sirecci, 2010, p. 34)

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Can the Case Study Approach Be Used With Another Approach?

A case study can be embedded in a larger research project that uses another approach. For example, an ethnography study could explore the culture of an urban school. As part of that study, the researcher could conduct a case study of the school's principal, focusing on the influence of the principal on the school's culture. In this way, the ethnography uses the case study of the principal to understand the larger picture of the school culture.

A case study can also use the methods of another research approach. For example, a researcher doing a case study on an organization may employ quantitative surveys to assess the organization climate or conduct phenomenological interviews with management staff to find out about their experiences as managers.

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Theoretical and Conceptual Frameworks

All research needs to be grounded in a framework of some kind. This framework provides a foundation for the study that can be based in the literature, in established theory, or in some comprehensive understanding of how a phenomenon works or operates. Often, researchers will find a model in the literature that is plausibly related to the subject under study but not necessarily based on the particular population involved in the study. In health care, researchers may use a health promotion model; in adult
learning, researchers might consider a model like Malcolm Knowle’s concept of andragogy.

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Theoretical and Conceptual Frameworks for Case Studies

In a case study, typically a conceptual framework is more appropriate than a theoretical framework because the researcher is not testing a theory. Theoretical frameworks imply testing or verifying that theory, using a deductive approach; case studies typically use an inductive approach.

A conceptual framework involves broader understandings or general ideas about the way the world works and is not focused on testing ideas. For example, in a study about factors that contribute to educators’ self-efficacy, the researcher is not really testing a theory, but he or she is examining a concept about the way the world works from a broader qualitative framework. The researcher may want to understand the educators’ experience with gaining self-efficacy (that is, a better feeling about one’s ability to instruct or lead students) but may not have a specific approach or theory to test.

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Case Study Sample Size

For case study research, you may consider the case itself being the sample, as well as the number of individuals within the case to interview. Typically, a case study has a sample of one, unless the research project is a multiple case study. In a multiple case study, having 3–4 distinct cases is probably the most you can handle.

When using multiple cases or sampling within a case, it is effective to use a selection method known as purposeful sampling. By selecting the cases (and the individuals, documents, and artifacts within the case), purposeful sampling allows you to focus on a phenomenon in-depth. It allows you to explore information-rich cases from which you can learn a great deal about issues of central importance to the research (Patton, 2002, p. 46). By selecting unusual cases or finding a good amount of variation to represent diverse cases, purposeful sampling allows the researcher “to fully describe multiple perspectives about the cases.” (Creswell, 2007, p. 129)

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Purposeful Sampling vs. Sampling for Quantitative Studies

One way to understand purposeful sampling used for case studies and other types of research is to contrast it to sampling for quantitative research. Samples obtained for quantitative research studies are often probability samples that are presumed to be representative of the population being studied and are used to generalize to that
population; in a way, it doesn’t matter who the individuals in the sample are—only that they are statistically representative of the larger population. In purposeful sampling, the goal is to find individuals or cases that provide insights into the specific situation under study, regardless of the general population.

Note: Do not use convenience sampling (selecting cases or individuals just because they happen to be available). Select cases and individuals for the value they can bring to the study, not just because they are easy to access.

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Sample Size Considerations

Sample sizes in case studies are typically small, as is common in most qualitative studies. Sometimes the selection of samples and cases to use is straightforward and clear, due to the uniqueness of the person or organization or because of special arrangements or access to the case. In some situations, however, there may be many qualified case study candidates, and you may have to use a screening procedure to select the proper ones. In his seminal work on case study research, Yin (2009) suggested the possibility of asking knowledgeable people about the case candidates or collecting limited documentation on them. What you clearly want to avoid by doing this is selecting a case that is representative of something other than what you want to study.

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Examples of Sample Selection

Here are examples of samples in which the choices were straightforward and clear:

In the single case study analyzing a virtual learning community in Brazil, the case was a web-based learning community of 43 students enrolled in a graduate course on e-commerce. The researcher was an associate professor at the business school where the course was based, and he began the study when the course was first introduced. (Joia, 2002)

In the collective case study about role of stress on high school music teachers, the researcher first selected the site based on the facts that he had access to it, that it had well-established music programs, and that the music department offered band, choir, and orchestra. After selecting the site, the researcher focused on the four music teachers who taught there. (Scheib, 2003)

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Examples of Sample Selection (cont.)
But screening for a sample can often be a more involved process:

For example, in the case study on formative assessments, the researchers used a sample of three schools from three different school districts. They chose them by identifying prominent formative assessment companies and the districts that had contracts with these companies in a certain northeastern state. After consulting with the state Department of Education to find out which districts “exhibited prominent use of formative assessments,” the researchers narrowed their selection based on the use of formative assessments in middle school mathematics. The researchers then selected three school districts based on phone interviews with assessment personnel from the state Department of Education. The study focused on a single school from each of the three districts (Militello, Schweid, & Sirecci, 2010).

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Examples of Sample Selection (cont.)

Sometimes a previous study is used to inform the sample for a follow-up study:

The nurse-patient relationship case study had a sample of one nurse-patient dyad (group of two). In a previous study, the researchers videotaped eight patients continuously for a period of 72 hours. Out of these eight patients, one nurse-patient dyad was selected because it exhibited the most interactions, allowing the researchers the most opportunity for insight (Lotzkar & Bottorff, 2001).

Typically, a case study sample is small, but data collected from a previous study may allow for appropriate selection of a larger number.

For example, in the multiple case study on rape victims services, the sample size was 22 communities with coordinated service programs. The researchers chose these communities by starting with a much larger sample of communities from a previous study and selecting the ones with the most highly coordinated programs, as well as victims who showed positive outcomes (Campbell & Ahrens, 1998).

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What Is the Role of the Researcher in a Case Study?

The researcher is the key data collection instrument in a case study, as in most qualitative research. Typically, the researcher conducts interviews, administers surveys, and observes whatever is being studied. In a case study, the researcher is situated in the activity or organization being studied.

In quantitative research, the research may be done in a location other than where the object of study is located. For example, the researcher may not need to be present to
conduct surveys. In qualitative research, the researcher is less separated from the object of study than in quantitative research.

The researcher must be very careful to avoid bias. He or she can mitigate potential bias by using techniques shared by all qualitative research, such as journaling, triangulation of data, and member checking. The next section of this tutorial will explain these techniques in more detail.

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**General Ethical Considerations**

In designing a case study, keep in mind these general ethical principles, which apply to all human subject research:

**Respect for Persons.** Subjects should give proper and informed consent. Certain subject populations—such as children, prisoners, and the mentally disabled—require additional protections.

**Beneficence.** Maximize anticipated benefits from the research, while minimizing possible harm to participants. Examine the design of your study so that the risks are justified by the benefits of the research.

**Justice.** Be sure to treat subjects fairly. Do not select or exclude particular people (or classes of people), unless you have a scientifically valid reason. Do not include subjects who will not likely benefit from the research.

For more information on general ethical considerations in research, visit: Walden’s Office of Research Integrity and Compliance at [http://researchcenter.waldenu.edu/Office-of-Research-Integrity-and-Compliance.htm](http://researchcenter.waldenu.edu/Office-of-Research-Integrity-and-Compliance.htm)

**Slide 20**

**Additional Ethical Considerations for Case Study**

In terms of ethics, here are reminders on what to do—and what not to do—in conducting case study research:

**Do:**
- Manage bias
- Apply for IRB approval and comply with all IRB guidelines
- Secure permission for any kind of access to facilities and people
- Maintain the integrity of the facility infrastructure
- Maintain the integrity of artifacts and documents

**Do not:**
• Ask leading questions in interviews
• Remove or disturb things that should not be disturbed
• Disrupt the natural flow of activities and processes, such as classroom teaching, meeting processes, etc.
• Become so involved in the activities of the organization that you lose a sense of your objectivity

Slide 21
Self-Assessment

Next, you will take a short self-assessment to check your comprehension of the information presented in this section. There is no time limit or record of your score.

Self-Assessment Tips
• You may go back and review the information in this section before starting the self-assessment.

Slide 22
Multiple Choice

From the multiple choice options listed, please select the correct phrase to fill in the blank.

The research questions for a qualitative case study should not _____________.

Choose the correct answer:

a. Use straightforward language
b. Be open-ended
c. Make a prediction about outcomes
d. Offer specific direction to the research

Answer:
a. Use straightforward language

Slide 23
True/False

Read the statement, and then choose whether it is true or false.
The case study approach can use the methods of other research approaches.
Choose the correct answer:

a. True
b. False

Answer:
True. A case study can be used with another approach. A larger research project that uses another approach can have a case study embedded in it. The case study approach can also use the methods of other research approaches.

**Slide 24**
**Multiple Choice**

From the multiple choice options listed, please select the correct phrase to fill in the blank.

When using multiple cases or sampling within a case, the most effective sampling method is _________________.

Choose the correct answer:

a. Random sampling  
b. Convenience sampling  
c. Quantitative sampling  
d. Purposeful sampling  

Answer:  
d. Purposeful sampling  

**Slide 25**
**True/False**

Read the statement, and then choose whether it is true or false.

Typically a case study has a sample of one, unless the research project is a multiple case study.

Choose the correct answer:

a. True  
b. False  

Answer:  
True. Typically a case study has a sample of one, unless the research project is a multiple case study. In a multiple case study, having 3–4 distinct cases is probably the most you can handle.

**Slide 26**
**Matching**

Connect the matching items:
Case Study Research

In terms of case study research ethics, what should you do and not do?

<table>
<thead>
<tr>
<th>In terms of case study research ethics, what should you do and not do?</th>
<th>Choose from the following answers:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disrupt the natural flow of activities</td>
<td>a) Do</td>
</tr>
<tr>
<td>Get permission for access to facilities and people</td>
<td>b) Do Not</td>
</tr>
<tr>
<td>Ask leading questions in interviews</td>
<td></td>
</tr>
<tr>
<td>Remove or disturb things that should not be disturbed</td>
<td></td>
</tr>
<tr>
<td>Manage bias</td>
<td></td>
</tr>
<tr>
<td>Lose your sense of objectivity</td>
<td></td>
</tr>
<tr>
<td>Maintain the integrity of artifacts and documents</td>
<td></td>
</tr>
</tbody>
</table>

Answer:
In terms of case study research ethics, you should manage bias, get permission for access to facilities and people, and maintain the integrity of artifacts and documents. You should not ask leading questions in interviews, remove or disturb things that should not be disturbed, disrupt the natural flow of activities, or lose your sense of objectivity.
Section 4: Process: How to Do a Case Study

Slide 1

Welcome to the Process: How to Do a Case Study section.

This section of the tutorial presents information on how to collect and analyze case study data. In addition, this section explains how to ensure quality in a case study research project.

Slide 2

In this section of the tutorial, focus on the following objectives:

- Describe data collection procedures for a case study
- Compare and contrast how data is analyzed
- Explain how to ensure validity of the research findings

Slide 3

Types of Data Collected for a Case Study

With a case study, as with all research approaches, the research questions drive the data to be collected. From the research questions, the researcher determines the kinds of questions to be asked in interviews, what to observe, what documents to review, and what artifacts to examine.

Data in a case study may include:

- Responses to interview questions
- Documents
- Observations (e.g., activities or processes)
- Artifacts (objects, buildings, fixtures, facilities, infrastructure)
- Surveys (e.g., as a prelude to interviews; such surveys can even be quantitative in nature as well as included in open-ended questions)
- Focus groups

Note that it is important to distinguish between research questions and interview questions. The research questions are what you as the researcher want to ultimately answer. The interview questions are the questions that you will pose to the study participants. You do not ask your participants the research questions; you ask them interview questions that will help you answer your research questions.

Slide 4

Data Collection Procedures
In terms of a procedure for collecting case study data, be sure to follow these principles:

- **Use multiple sources.** You should use different types of data, and you should obtain different perspectives by using a variety of people and other sources.
- **Build a case study database.** Keep your notes, documents, narratives, and other materials organized by maintaining a physical or electronic file system. Consider using software such as Nvivo to assist you.
- **Establish a chain of evidence.** Be sure you are able to track the final conclusions or report backwards through your notes or database to your approach, protocols, and research questions (Yin, 2009, pp. 114–124). From your conclusion, someone should be able to backtrack through the data to see how it is supported. Ask yourself, “Can I do a backwards line of sight from my report all the way through to the research questions? Is there alignment between the conclusions, the evidence, and the research questions?”

### Slide 5

**Data Collection Instruments**

If you use surveys to collect data, you will need survey instruments. You will also need interview protocols, or a list of questions and prompts used to interview. Whether your interviews are structured or unstructured, protocols are useful to ensure the consistency of the interviews across the individuals being interviewed. You could use different interview protocols for different groups within the case. For example, you could use different interview protocols for teachers than for students.

### Slide 6

**Examples of Data Collection**

As stated earlier, case studies typically use multiple data sources. Interviews are a common source of data, as are documents:

The case study on music teachers and stress relied on a variety of data, including direct observations of and interviews with the music teachers, school policy publications, documents sent to students and parents, and music concert programs (Scheib, 2003).

The case study on rape victim programs used interviews from various sources, including rape victim advocates, crisis center directors, police, prosecutors, and medical staff, as well as the rape survivors themselves. The researchers supplemented these interviews by examining pamphlets and training manuals for each community program (Campbell & Ahrens, 1998).

### Slide 7

**Examples of Data Collection (cont.)**
Data can be collected from online sources:

The virtual learning community case study collected data from the course’s web-based environment, which included a moderated discussion group as well as a variety of features such as e-mail and webmail, a file directory, a bookmark directory, chat sessions, and online polls. The researcher collected quantitative data such as number of email messages to analyze characteristics such as participation levels. The researcher also analyzed qualitative data such as e-mail content to investigate the moderator’s role in discussions. (Joia, 2002)

Or include video:

In the nurse-patient relationship case study, the data consisted of 60 interactions videotaped by two video cameras over a 3-day period, as well as demographic and clinical data on the patient (Lotzkar & Bottorff, 2001).

Slide 8

Examples of Case Study Research Questions (cont.)

Data can also be collected in multiple phases:

For the formative assessment case study, data were collected in three stages during the 2006–2007 school year. In the first stage, the researchers conducted interviews with district administrators, attended district-level meetings, and collected artifacts such as internal memos. The interview protocols at this stage focused on the organizational history and goals of formative assessment.

In the second stage, the researchers interviewed test developers, with questions focusing on the purposes of the assessments and whether evidence exists that the assessments fulfill their purposes. At this stage, research data also included technical documentation from assessment companies.

In the third stage, the researchers interviewed school-level educators including principals, guidance counselors, and teachers. The interview protocol focused on how educators used the data from formative assessments. The researchers also attended math department and grade-level meetings, using observational notes as data for the study (Militello, Schweid, & Sirecci, 2010).

Slide 9

Data Analysis Techniques: Describing

Generally, data (or content) analysis involves several phases: describing, interpreting, drawing conclusions, and determining significance. Specific techniques will vary based
on the type of study and its purpose, and often individual researchers will develop their own approach and style. Typically in case study, data analysis will involve these steps:

**Describing.** Basic description of the case meaning the “who, what, when, where” of the situation under study. The descriptive phase of the analysis of the data involves several readings and reviews of the data collected, whether from interviews, observations, or other sources. Field notes—those taken while at the research site or while studying parts of the case—are reviewed extensively to discover patterns or themes. Patterns tend to be descriptive, such as “most students are excited about the first day of class,” whereas themes are often more topical, such as “excitement about school.”

**Slide 10**

**Data Analysis Techniques: Emergence of Findings**

**Emergence of findings.** Through the researcher’s interaction with, and often immersion in, the data, findings in the form of patterns, themes, or categories, tend to emerge. This is the essence of the inductive form of qualitative data analysis, where findings emerge out of the data. The initial stages involve open coding, which means that the research is open to what the data is saying without bringing in any pre-existing codes. Open coding emphasizes recognizing any patterns that emerge from the data, rather than analyzing data based on an existing framework as one might do in deductive analysis with quantitative data.

**Slide 11**

**Data Analysis Techniques: Coding**

**Coding.** As researchers review the data through these steps, they also begin to apply codes, or brief, short-hand labels, to passages of data or other items for easier organization and recognition. Coding is essential when multiple researchers are working on the same project to ensure common understanding and consistency. Basic coding can begin with the initial review of data, but it becomes more systematic upon subsequent data reviews and reflection. Further, codes can be identified in advance of the data analysis (based on what the researcher anticipates seeing in the data) or be allowed to emerge from the data, either from the information itself or from the individuals interviewed. The latter is often called “in vivo” coding.

**Slide 12**

**Data Analysis Techniques: Comparing**

**Comparing.** Final steps in case study data analysis can include making comparisons across the various themes that have emerged from the data, as well as making comparisons across different cases, if the study was a multiple case study design.
Finally, it is important to understand that these steps may not necessarily happen linearly, but in an iterative way. You may be comparing themes as you identify them. You may even need to go back and collect more data after completing these steps. This aspect is somewhat unique to qualitative research.

Slide 13

Examples of Data Analysis

Sometimes analysis uses quantitative methods:

In the case study on a virtual learning environment, the researcher described his process of data analysis as data “consolidation.” He used tables and charts to describe behavior and usage in the virtual community and the geographic distribution of its students in terms of participation. In addition, the researcher analyzed the typology of the web-based community according to a taxonomy established by previous research (Joia, 2002).

In the nurse-patient relationship case study, the videotaped data were analyzed using quantitative ethological methods in four steps. First, the researchers reviewed the videotaped data to identify and describe behaviors of interest. Second, researchers reviewed the tapes to identify clusters of behaviors indicating the development of the relationship. Third, the researchers described patterns of behavior within each cluster and compared the clusters. Fourth, the researchers constructed a detailed behavioral description, including conditions, cause or function, and consequences of the observed behaviors (Lotzkar & Bottorff, 2001).

Slide 14

Examples of Data Analysis (cont.)

In data analysis, codes are sometimes identified from previous research:

In the case study on role stress and music teachers, the researcher used various coding techniques to analyze the interview transcripts, field notes, and documents. Among the codes used by the researcher were the six specific role stressors (e.g., role conflict, role ambiguity, role overload) identified by previous researchers. The researcher used the data to create detailed descriptions of the high school, the teachers, and the context of the case study (Scheib, 2003).

Slide 15

Examples of Data Analysis (cont.)

Or, codes can come from both previous research and unreported findings:
In the formative assessments study, data analysis consisted of a “coding phase and comparative analysis.” The researchers created memos from field notes and artifacts. They exported the memos, along with their interview transcriptions, into a computer database, and they described them using an open coding system. They applied codes to represent themes identified in existing literature, as well as codes to represent unreported findings. Using a similar coding system, researchers also analyzed the technical data. The researchers then compared the data to analyze gaps between the intended and actualized use of formative assessments in the case study (Militello, Schweid, & Sirecci, 2010).

Slide 16

Examples of Data Analysis (cont.)

It is not unusual when the process of analysis needs revision along the way:

In the case study on programs for rape victims, four coders initially reviewed interview transcripts but some issues arose that required the researchers to independently review the transcripts and develop a reliable system of coding. Once the researchers agreed upon a coding scheme, two to four of the coders rated each interview, filling in three blank tables to describe each community (Campbell & Ahrens, 1998).

Slide 17

Considerations in Case Study Reporting

Depending on the purpose of your case study report—whether you are a student writing a dissertation or a researcher preparing an executive summary—be sure to:

- Provide a thorough description of the case.
- Separate reporting from interpreting (Reporting means presenting the facts: what happened, what did you see, etc.; interpreting involves finding meaning in the data).
- Include sections outlining your methodology and your literature review, including how that literature led to your research questions.
- Ensure that the reader can easily follow the progression from your original problem, purpose, and methodology, to your analysis conclusions (there should be a clear sense of alignment among these items).
- Make it clear what the case study informs and how it lays the groundwork for future studies.
- Write the report in a way so that a person not involved in the case can understand it (and limit the use of technical language so that a broader audience can learn from your experience).

Slide 18

How to Ensure Quality
In a case study, threats to trustworthiness can include researcher bias, as well as the possibility that when interviews are conducted or the case is observed, these instances might not be representative of typical operations. Before you collect data, you must correctly do purposeful sampling to ensure you will be observing the case during typical operations. Make sure your sample is not biased one way or another. After collecting data, you should do triangulation and member checks to further ensure trustworthiness of your study.

The main criteria that contribute to the validity of any qualitative study are credibility, transferability, dependability, and confirmability. The following screens contain strategies you can use to establish these aspects of validity.

Slide 19

Credibility and Transferability

To establish credibility (internal validity), use these strategies:
- Triangulation (multiple methods, multiple data sources, multiple investigators, or multiple theories)
- Prolonged contact with participants around the phenomenon of interest
- Respondent validation/member checks
- Saturation (adequate amount of data has been examined to support that no additional data would yield different findings)
- Reflexivity (the use of field journals to capture ideas, connections, methodological notes, etc., related to the understanding of the phenomenon)
- Peer review of data and findings

To ensure transferability (external validity), use these strategies:
- Rich, thick description derived from the data
- Participant selection that includes sufficient variation / “typicalness”

Slide 20

Dependability and Confirmability

To establish dependability (the qualitative counterpart to reliability), use these strategies:
- Audit trail (research journal or memos)
- Triangulation of investigators, data, methods, and theoretical perspectives
- Peers review
- Reflexivity (use of field journals to capture ideas, connections, methodological notes, etc., related to the understanding of the phenomenon)

To ensure confirmability (the qualitative counterpart to objectivity), use these strategies:
- Reflexivity (the use of field journals to capture ideas, connections, methodological notes, etc., related to the understanding of the phenomenon)
• Triangulation of data toward a common finding
• Audit trail (a thorough description of research design and data collection and analysis methods)

Slide 21

Self-Assessment

Next, you will take a short self-assessment to check your comprehension of the information presented in this section. There is no time limit or record of your score.

Self-Assessment Tip
• You may go back and review the information in this section before starting the self-assessment.

Slide 22

Multiple Choice

From the multiple-choice options listed, please select the correct phrase to fill in the blank.

Data in a case study may include _______________.

Choose the correct answer:

a. Documents but not observations
b. Any artifacts except buildings
c. Surveys, unless they are quantitative
d. Responses to interview questions

Answer:
d. Responses to interview questions

Slide 23

Multiple Choice

From the multiple-choice options listed, please select the correct phrase to fill in the blank.

In collecting data for a case study, you should do all of the following except ____________.

Choose the correct answer:

a. Use a single source of data
b. Obtain data from multiple perspectives
c. Maintain a file system for your data
d. Establish a chain of evidence

Answer:
a. Use a single source of data

**Slide 24**
**True/False**

Read the statement, and then choose whether it is true or false.

The phases of data analysis in a case study must happen in a strict, linear order.

a. True
b. False

Answer:
False
Case study data analysis generally involves several phases: description, interpretation, drawing conclusions, and determining significance. These steps may not necessarily happen linearly, but in an iterative way.

**Slide 25**
**Multiple Choice**

From the multiple choice options listed, please select the correct phrase to fill in the blank.

In writing your case study report, you should try to _________________.

Choose the correct answer:

a. Provide a brief, superficial description of the case
b. Separate reporting from interpreting
c. Leave out the section on the methodology
d. Write the report using a lot of technical language

Answer:
b. Separate reporting from interpreting

**Slide 26**
**True/False**

Read the statement, and then choose whether it is true or false.
In a case study, there is a possibility that when the case is observed, it might not be representative of typical operations, but this would not be a threat to the trustworthiness of the study.

a. True  
b. False

Answer:  
False  
In a case study, there is the possibility that when the case is observed, it might not be representative of typical operations. This would be a threat to the trustworthiness of the study. Before you collect data, you must correctly do purposeful sampling to ensure you will be observing the case during typical operations.
Section 5: Next Steps: Is Case Study Right for You?

Slide 1

Welcome to the Next Steps: Is Case Study Right for You? section.

This section of the tutorial provides guidance on determining whether case study is a suitable approach for your research topic. In addition, this section presents information on what to do before proceeding with case study research.

Slide 2

In this section of the tutorial, focus on the following objectives
- Determine whether case study may be appropriate for your research topic
- Identify next steps to take before beginning a case study

Slide 3

Is the Case Study Approach Right for You?

To determine whether a particular research approach is right for your project:
- Start with the problem (e.g., gap in literature, theory, or practice)
- Determine the purpose of the research (What do you want to accomplish? Why are you doing the research?)
- Draft the research question that will guide the overall study
- Based on the research question, determine the methodology you will use

Do not decide, “I want to do a case study” or “I think a case study or qualitative research will be easier.” The research method must align with the research problem, purpose, and question.

Consider also the types of questions that you would like to address in your research. Case studies can address questions about who, what, where, how, or why, or any combination of those. Case studies answer questions focused on understanding or explaining.

Slide 4

What Else Can You Do on Your Own?
- Do a preliminary literature search to get a sense of the problem or research question
- Search the library for articles and dissertations using the case study approach (Suggested keywords to help with searching include: case, case study, qualitative research)
- Read a text devoted specifically to the details of case study (See Section 6 for additional resources)
• If you are a student, talk to your committee chair as soon as you have a topic or problem and sense of the purpose (Begin exploring research designs to see which one most appropriately fits the problem)
• As you are developing your research design, you may want to speak with a methodologist to help you sort through which type of method would be most appropriate for you

Slide 5

Next Steps: Conclusion
• Do a preliminary literature search to get a sense of the problem or research question.
• Search the library for articles and dissertations using the case study approach (suggested keywords to help with searching include: case, case study, and qualitative research).
• Read a text devoted specifically to the details of case study (see Section 6 for additional resources).
• If you are a student, talk to your committee chair as soon as you have a topic or problem and sense of the purpose (Begin exploring research designs to see which one most appropriately fits the problem).
• As you are developing your research design, you may want to speak with a methodologist to help you sort through which type of method would be most appropriate for you.
Section 6: Additional Resources

Slide 1

Welcome to the Additional Resources section.

This section of the tutorial presents a summary of the tutorial content, a list of resources for more information on case study research, and a glossary of case study terms.

Slide 2

Summary

In summary, a case study is an in-depth investigation of a contemporary phenomenon within its real-life context. A case study typically relies on multiple data sources and is bound by both space and time. Any discipline can use case study research, and case studies can be used with other research approaches.

Research questions for a case study should be open-ended, few in number, and straightforward in language. Sample sizes in case studies are typically small, as is common in most qualitative studies. The researcher must be careful to avoid bias when collecting data and follow general ethical considerations that apply to human subject research. The researcher can mitigate potential bias by using techniques such as journaling, triangulation of data, and member checking.

Data in a case study may include interviews, documents, observations, artifacts, surveys, and focus groups. The researcher should collect different types of data and obtain different perspectives from a variety of sources. The researcher should also maintain a file system for the data and be able to backtrack from the conclusions to the evidence to the research questions.

Slide 3

Summary (cont.)

Case study data analysis generally involves several phases: describing, interpreting, drawing conclusions, and determining significance. These steps may not necessarily happen linearly, but in an iterative way. In writing the case study report, the researcher should provide a thorough description of the case, separate reporting from interpreting, and limit the use of technical language.

Threats to trustworthiness can include researcher bias, as well as the possibility that when interviews are conducted or the case is observed, these incidences might not be representative of typical operations. Purposeful sampling, at the beginning of the project, can help ensure that data collected represent typical operations. After collecting data, triangulation and member checks can further ensure trustworthiness of the study.
Slide 4

Resources on Qualitative Research With Case Study Information

Here are books about qualitative research that contain good sections on the case study approach:


Slide 5

Here are authoritative books on case study research:


Slide 6

Introductory Articles on the Case Study Approach

Here are introductory articles on case study:


Slide 7

**Case Study Articles**

Here are articles that are good examples of case studies:


Slide 8

**Case Study Articles (cont.)**


**Slide 9**

**Case Study Articles (cont.)**


**Slide 10**

**Glossary: Terms From the Tutorial**

Here is a list of terms you have seen in this tutorial:

- **Case**: The object of a case study; a case could be an individual, a role, a small group, an organization, a community, a nation. (Miles and Huberman, 1994, p. 26)

- **Bounded system**: An entity (such as a person, organization, event, role) defined by parameters such as time, location, political structure, etc.

- **Qualitative research**: Research that explores ideas, concepts, or phenomenon in the world from an inductive, rather than deductive, approach. Typically
qualitative researchers study phenomenon in their natural settings, “in terms of the meanings people bring to them.” (Creswell, 2007, p. 36)

Slide 11

Glossary: Types of Case Studies

Here is a list of terms for types of case studies, that you may encounter when exploring the case study approach:

- Intrinsic case study: A case study on one case, that “is of primary, not secondary, interest.” (Stake, 1995, p. 171)

- Instrumental case study: A case study on an issue or issues, with the case used to illustrate the issue; “research on a case to gain understanding of something else.” (Stake, 1995, p. 171)

- Collective case study: A case study on more than one case; “studying several cases within the same project.” (Stake, 1995, p. 169)

- Explanatory case study: A case study that seeks to explain causal links that are too complex for other research methods, such as surveys or experimental methods. (Yin, 2009)

- Exploratory case study: A case study that investigates a situation where the phenomenon being evaluated has no clear set of outcomes. (Yin, 2009)

Slide 12

Glossary: Types of Case Studies (cont.)

- Descriptive case study: A case study used to describe the real-life context in which a situation occurred. (Yin, 2009)

- Multiple-case studies: A case study on more than one case where the goal is to replicate findings, and compare and contrast between cases. (Yin, 2009)
Section 7: Evaluation

Congratulations!

You have completed the tutorial. Please take a moment to complete a brief evaluation of your experience by going to the “Case Study Research Survey” at https://waldenir.us2.qualtrics.com/SE/?SID=SV_87i8LWEzE7OLVrK