



Chapter 3: Methodology

Introduction

Checklist:

Begin with an introduction and restatement of the problem and purpose sentences verbatim.

Provide a brief overview of the contents of this chapter, including a statement that identifies the research methodology and design.

Research Design

Checklist:

Describe the research methodology and design. Elaborate upon their appropriateness in relation to the study problem, purpose, and research questions.

Identify alternative methodologies and designs and indicate why they were determined to be less appropriate than the ones selected. Do not simply list and describe research methodologies and designs in general.

Population and Sample

Checklist:

Describe the population, including the estimated size and relevant characteristics.

Explain why the population is appropriate, given the study problem, purpose, and research questions.

Describe the obtained sample.

Explain why the appropriateness of the sample, given the study problem, purpose, and research questions.

Describe the recruitment process (e.g., email lists from professional organizations, flyers) and/or the obtained data (e.g., archived data, public records) with sufficient detail for future study replication.



Materials or Instrumentation

Checklist:

Describe in detail any field or pilot testing of instruments, including their results and any subsequent modifications.

Operational Definitions of Variables

Term 1

Term 2

Checklist:

For quantitative and mixed methods studies, identify how each variable was used. Use terminology appropriate for the selected statistical test (e.g., independent/dependent, predictor/criterion, mediator, moderator).

Base the operational definitions on published research and valid and reliable instruments.

Identify the specific instrument used to measure each variable.

Describe the level of measurement of each variable (e.g., nominal, ordinal, interval, ratio), potential scores for each variable (e.g., the range [0–100] or levels [low, medium, high]), and data sources. If appropriate, identify what specific scores (e.g., subscale scores, total scores) were included in the analysis and how they were derived (e.g., calculating the sum, difference, average).

Study Procedures

Checklist:

Describe the exact steps followed to collect the data, addressing the nature of the data and how, when, from where, and from whom they were collected in enough detail to replicate the study.



Data Analysis

Checklist:

Describe the strategies used to code and/or analyze the data and any employed software.

Ensure the analyzed data can be used to answer the research questions and/or test the hypotheses to address the identified problem.

Use proper terminology associated with each design/analysis (e.g., independent and dependent variables for an experimental design, predictor and criterion variables for regression).

Validity/Credibility Issues

Checklist:

For quantitative studies, describe the analysis used to test each hypothesis. Provide evidence of the appropriateness of the statistical test chosen to test the hypotheses and how the data meet the assumptions of the statistical tests.

For qualitative studies, describe the processed and analyzed data, including any triangulation efforts. Explain your role as the researcher.

For mixed methods studies, include all of the above.

Assumptions

Checklist:

Discuss the assumptions along with the corresponding rationale underlying them.

Limitations

Checklist:

Describe the study limitations.

Discuss the measures taken to mitigate these limitations.



Delimitations

Checklist:

Explain how these research decisions relate to the existing literature and theoretical/conceptual framework, problem statement, purpose statement, and research questions.

Ethical Assurances

Checklist:

Confirm in a statement the study received approval from Capitol Technology University's Institutional Review Board (IRB) before data collection.

If the risk to participants is greater than minimal, discuss the relevant ethical issues and how you addressed them.

Describe how confidentiality or anonymity was achieved.

Identify how the data were securely stored per IRB requirements.

Describe your role in the study. Discuss relevant issues, including biases and personal and professional experiences with the topic, problem, or context. Present the strategies to prevent these biases and experiences from influencing the analysis or findings.

Include the IRB approval letter in an appendix.

Summary

Checklist:

Summarize the key points presented in the chapter.

Logically lead the reader to the next chapter on the study's findings.