

Appendix

Methodology Elements (Quantitative vs. Qualitative vs. Mixed Methods)

Aspect	Quantitative	Qualitative	Mixed Methods
Design specifics	<p>What to describe:</p> <ul style="list-style-type: none"> - Type of study (e.g., cross-sectional, longitudinal, experiment) - Aim of the investigation (descriptive, explanatory, testing) <p>Why: To clarify how variables are measured and compared.</p> <p>Example: The study was designed as a quantitative cross-sectional survey and aimed to examine the relationship between usage intensity and satisfaction.</p>	<p>What to describe:</p> <ul style="list-style-type: none"> - Qualitative design (e.g., interviews, case study, Delphi study, ethnography) - Research context and setting - Researcher's role in the process (if relevant) <p>Why: Because qualitative research is highly context-dependent.</p> <p>Example: The study followed a qualitative design using semi-structured interviews conducted in a school setting.</p>	<p>What to describe:</p> <ul style="list-style-type: none"> - Type of mixed-methods design (sequential or concurrent) - Weighting of the phases - Purpose of combining methods <p>Why: To show how qualitative and quantitative data complement each other.</p> <p>Example: A sequential mixed-methods design was chosen, where qualitative interviews informed the development of the questionnaire.</p>

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<p>Sample/material</p>	<p>What to describe:</p> <ul style="list-style-type: none"> - Population - Sampling procedure - Inclusion/exclusion criteria - Planned vs. actual sample <p>Why: To assess generalizability.</p> <p>Example: The sample included 214 bachelor students. Included were students in semesters 2–6. The response rate was 42%.</p>	<p>What to describe:</p> <ul style="list-style-type: none"> - Sampling strategy - Access to the field - Stopping rule (e.g., theoretical saturation) <p>Why: Focus is on quality rather than representativeness.</p> <p>Example: Interview participants were selected via purposive sampling. Data collection ended after 15 interviews due to theoretical saturation.</p>	<p>What to describe:</p> <ul style="list-style-type: none"> - Samples per phase – Relationship between samples <p>Why: To ensure transparency in integration.</p> <p>Example: Participants from the interview phase were subsequently invited to complete the quantitative survey.</p>
<p>Instruments / measurements</p>	<p>What to describe:</p> <ul style="list-style-type: none"> - Constructs and their operationalization - Scales, number of items, response formats – Source of instruments <p>Why: To ensure measures are understandable and verifiable.</p> <p>Example: Satisfaction was measured with an 8-item, 5-point Likert scale.</p>	<p>What to describe:</p> <ul style="list-style-type: none"> - Type of guide/protocol - Development based on theory and research questions – Recording and transcription <p>Why: To ensure methodological rigor.</p> <p>Example: The interview guide was theory-driven and pilot-tested beforehand.</p>	<p>What to describe:</p> <ul style="list-style-type: none"> - Instruments per phase - Contribution of each phase <p>Why: To justify the extra effort.</p> <p>Example: The qualitative phase was used for hypothesis generation, while the quantitative phase tested the hypotheses.</p>

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<p>Procedure + ethics</p>	<p>What to describe:</p> <ul style="list-style-type: none"> - Location, timing, and type of data collection - Standardization of procedures - Consent, anonymization, and data protection <p>Why:</p> <p>To ensure transparency, comparability, and ethical integrity.</p> <p>Example:</p> <p>Data were collected from March to April 2025 via a standardized online survey. All participants received identical instructions. Informed consent was obtained, and data were anonymized.</p>	<p>What to describe:</p> <ul style="list-style-type: none"> - Interview situation and setting - Type of interview and approximate duration - Consent and anonymization <p>Why:</p> <p>Because context and researcher-participant relationships influence data generation.</p> <p>Example:</p> <p>The interviews were conducted between November and December 2025 and lasted between 45 and 60 minutes each. Prior to the interviews, the research project was explained and informed consent was obtained from all participants. The interviews were transcribed in anonymized form.</p>	<p>What to describe:</p> <ul style="list-style-type: none"> - Sequence of data collection phases - Transitions between phases <p>Why:</p> <p>To clarify the methodological logic of the combination.</p> <p>Example:</p> <p>Qualitative interviews were conducted first to inform the development of the quantitative questionnaire, followed by the standardized online survey.</p>

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Analysis + quality	<p>What to describe:</p> <ul style="list-style-type: none"> – Planned analysis method – Decision rules for data preparation – Reliability and validity checks <p>Why: To ensure objective, reproducible, and robust results.</p> <p>Example: Data were analyzed using descriptive statistics and regression analysis. Missing values were excluded according to pre-defined rules. Internal consistency was checked using Cronbach's α.</p>	<p>What to describe:</p> <ul style="list-style-type: none"> – Analysis method – Steps of the coding process – Measures to ensure trustworthiness <p>Why: To guarantee transparency and quality of interpretation.</p> <p>Example: Data were analyzed using qualitative content analysis (Mayring & Fenzl, 2019). Categories were initially derived deductively from the literature and research questions, then supplemented inductively from the data and continuously reviewed.</p>	<p>What to describe:</p> <ul style="list-style-type: none"> – Analysis per phase – Integration procedure <p>Why: To demonstrate the added value of combining methods.</p> <p>Example: Qualitative and quantitative analyses were first conducted separately, then results were compared systematically to identify consistencies and differences.</p>

Elmasllari, D., & Ceka, M. (2026). *How to write the methodology chapter of your thesis: A guide with examples and an AI prompt*. Delta Lektorat.
<https://deltalektorat.ch/en/how-to-write-the-methodology-chapter-of-your-thesis-a-guide-with-examples-and-an-ai-prompt/>