



Choosing the Right Method & Doing Research Responsibly

Welcome to week 4. This presentation explores the fundamental aspects of research methodology and ethics. We'll examine different research paradigms, methodological approaches, data collection tools, sampling techniques, and ethical considerations that are essential for conducting responsible and effective research.

Research Paradigms

Positivism

- Objective reality exists independent of the researcher
- Emphasizes observable, measurable phenomena
- Seeks to discover universal laws and patterns
- Values researcher neutrality and detachment

Interpretivism

- Reality is socially constructed and subjective
- Focuses on meanings, experiences, and contexts
- Acknowledges researcher's role in knowledge creation
- Values depth of understanding over generalizability



Research Approaches

Quantitative



Focuses on numerical data and statistical analysis. Tests hypotheses and identifies relationships between variables. Emphasizes measurement, objectivity, and generalizability.

Mixed Methods



Combines quantitative and qualitative approaches. Provides comprehensive understanding of research problems. Triangulates findings for greater validity.

Qualitative



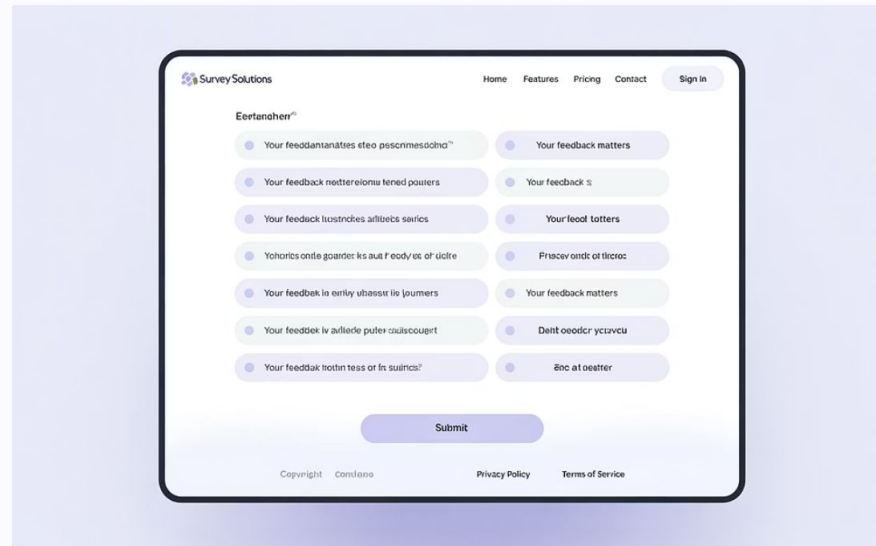
Explores meanings, experiences, and contexts. Uses narrative and descriptive data. Emphasizes depth, complexity, and nuance in human experiences.

Data Collection Tools



Interviews

Structured, semi-structured, or unstructured conversations. Provides rich, detailed data about experiences and perspectives. Allows for follow-up questions and clarification.



Surveys

Standardized questionnaires distributed to larger samples. Collects structured data efficiently. Can be administered online, by mail, or in person.



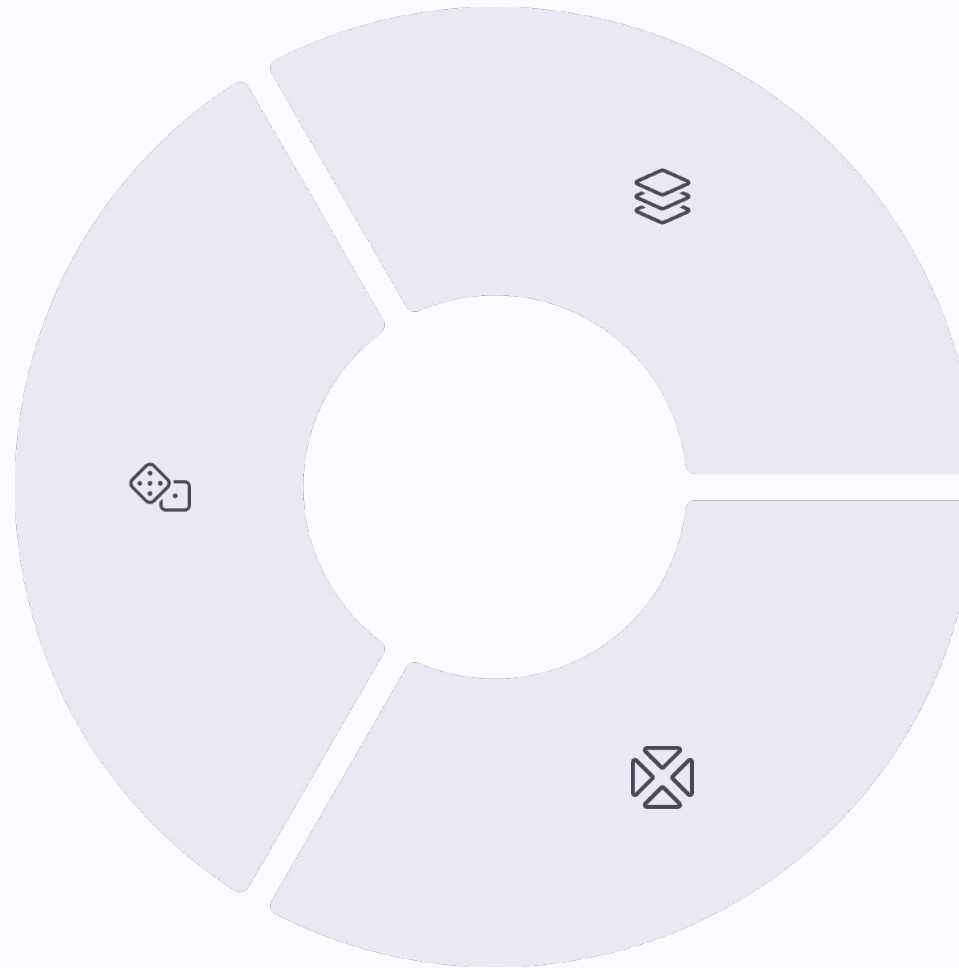
Secondary Data

Analysis of existing information from databases, archives, or previous studies. Cost-effective and time-saving. Allows for historical or longitudinal analysis.

Sampling Techniques

Random Sampling

Every member of the population has equal chance of selection. Reduces selection bias. Includes simple random, systematic, and cluster sampling methods.



Stratified Sampling

Population divided into distinct subgroups (strata). Samples drawn from each stratum. Ensures representation of key population segments.

Purposive Sampling

Deliberately selecting participants based on specific characteristics. Used when specialized information is needed. Common in qualitative research.

Ethical Considerations

1 Informed Consent

Participants must understand the research purpose, procedures, risks, and benefits before agreeing to participate.

2 Anonymity & Confidentiality

Protecting participant identities and ensuring sensitive information remains private.

3 Bias Awareness

Recognizing and mitigating researcher biases that could influence data collection or interpretation.



Data protection regulations (like GDPR) require secure storage, limited access, and proper disposal of research data.

Completing an Ethics Form

Project Description

Clearly outline research aims, methods, and justification. Explain how the research contributes to knowledge.

Risk Assessment

Identify potential risks to participants and researchers. Describe mitigation strategies for each identified risk.

Consent Procedures

Detail how informed consent will be obtained. Include sample consent forms and information sheets.

Data Management

Explain data collection, storage, access, and disposal procedures.
Ensure compliance with data protection regulations.



Key Takeaways

Align Methods with Questions

Choose research paradigms and methods that best address your specific research questions and objectives.

Triangulate When Possible

Consider using multiple methods and data sources to strengthen validity and provide comprehensive understanding.

Prioritize Ethics

Ethical considerations should be integrated throughout the research process, not treated as a mere formality.

Next steps: Apply these principles to develop your own research proposal, complete the ethics approval process, and begin your research journey.

