Making Sense of Your Data

Welcome to Week 7 of our research methods course. This presentation will guide you through essential data analysis tools and interpretation techniques to help you make meaningful sense of your research data.

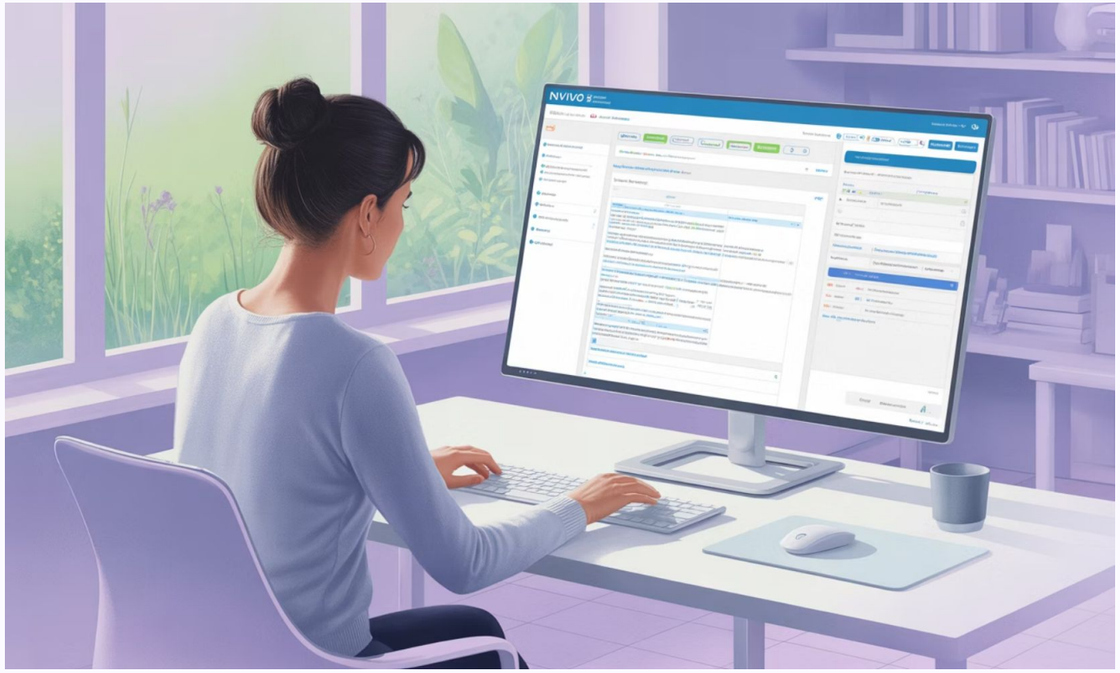
Qualitative Data Analysis

Coding & Themes

- Identify recurring patterns in text data
- Develop coding framework based on research questions
- Group similar codes into broader themes
- Use inductive or deductive approaches

NVivo Basics

- Import various data formats (text, audio, video)
- Create nodes for organizing codes
- Run queries to identify patterns
- Generate visualizations of relationships



Quantitative Data Analysis

Charts & Visualizations

Select appropriate chart types based on your data (bar charts for comparisons, line charts for trends, scatter plots for relationships). Ensure visualizations accurately represent your findings without distortion.

Statistical Analysis

Apply descriptive statistics (mean, median, standard deviation) and inferential statistics (t-tests, ANOVA, regression) to test hypotheses and identify significant relationships in your data.

Software Tools

Learn basic functions in SPSS (for complex statistical analysis) or Excel (for simpler calculations and visualizations). Understand data cleaning, variable transformation, and analysis procedures.

Interpreting Results

Review Objectives

Return to your original research questions and objectives. Ensure your analysis directly addresses these goals.

Identify Patterns

Look for consistent trends, unexpected findings, and relationships between variables. Consider both statistical significance and practical importance.

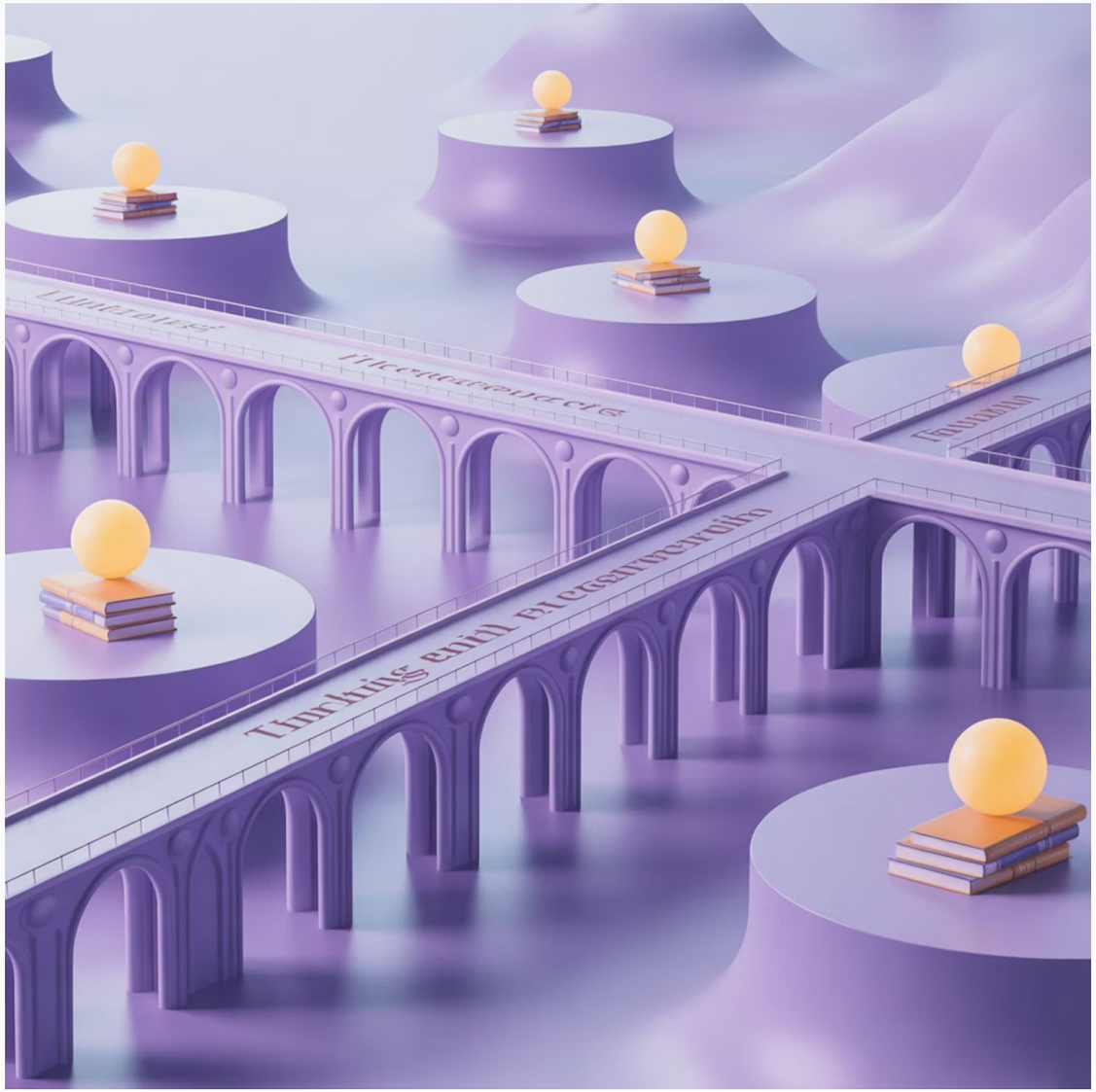
Consider Context

Interpret findings within the specific context of your study. Account for limitations and potential confounding factors that may influence results.

Linking Findings to Theory

Connecting your results to existing theoretical frameworks is crucial for situating your research within the broader academic conversation.

- Identify relevant theories that help explain your findings
- Compare your results with previous studies
- Note where your findings support, extend, or challenge existing knowledge
- Consider alternative theoretical explanations for unexpected results



Planning Your Discussion Section

Summarize Key Findings

Briefly recap your most important results without simply repeating the results section. Focus on what the findings mean rather than just what they are.

Interpret & Contextualize

Explain the significance of your findings. Discuss how they fit into the existing body of knowledge and what new insights they provide.

Address Limitations

Honestly discuss the limitations of your study and how they might impact the interpretation of your results. Suggest how future research might address these limitations.

Suggest Implications

Discuss the theoretical and practical implications of your findings. Consider how your results might influence future research or practice in your field.

Supervisor Checkpoint #2

Preparing for Initial Results Review

- Organize your preliminary findings in a clear, logical format
- Prepare visualizations that effectively communicate key results
- Identify areas where you need guidance or clarification
- Be ready to explain your analysis process and decisions
- Consider alternative interpretations of your data

Key Takeaways

1 Choose Appropriate Tools

Select analysis methods and software that match your data type and research questions. Qualitative data benefits from coding in tools like NVivo, while quantitative data requires statistical analysis in SPSS or Excel.

2 Connect to Research Objectives

Always interpret your findings in relation to your original research questions and objectives. Ensure your analysis directly addresses what you set out to investigate.

3 Prepare for Supervisor Review

Organize your initial results clearly for Checkpoint #2. Be ready to discuss your analysis process, preliminary findings, and plans for your discussion section.