

Introduction to Research Methods

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Introduction to Research Methods

Lecture 9



Learning Outcomes

1. Understand the goal of qualitative analysis in theory development.
2. Identify and apply various qualitative analysis strategies.
3. Implement open and axial coding techniques in grounded theory.

Learning Outcomes

4. Know NVivo software for organizing and analyzing qualitative data.
5. Effectively present qualitative research findings without quantification.
6. Apply theoretical sampling to address data gaps during analysis.

Introduction to Qualitative Analysis

Purpose

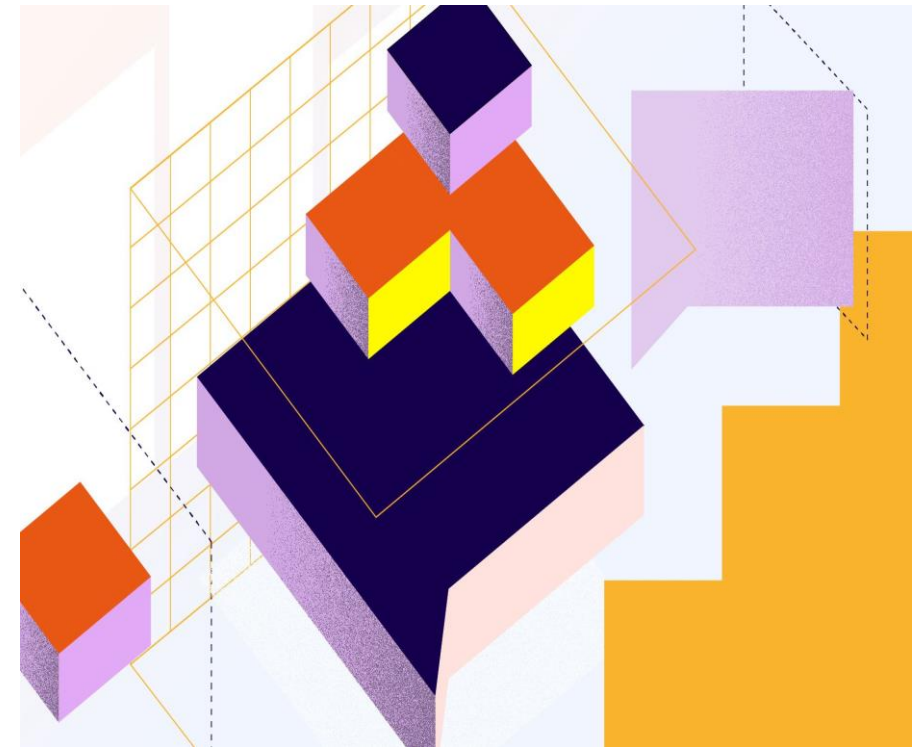
- Develop theories from detailed data

Key Methods

- Interviews, observations, discussions

Approach

- Simultaneous data collection and analysis



Key Steps in Qualitative Analysis

Understand

- Comprehend the topic deeply

Connect

- Find relationships within the data

Explain

- Develop theories to explain findings

Contextualize

- Relate new insights to existing knowledge



Main Strategies for Analysis

1. Constant Comparative Analysis
2. Phenomenological Strategies
3. Ethnographic Methods
4. Narrative and Discourse Analysis



Phenomenological Strategies

Focus

- Individual experiences in detail

No Comparisons

- Unique, one-off accounts

Outcome

- Detailed narrative of an event

Example

- A Phenomenological Study of Nurses' Experience in Caring for COVID-19 Patients



Ethnographic Methods

Focus

- Human experiences in context

Immersion

- Researchers live within the culture

Outcome

- Comprehensive view of beliefs and lifestyles

Example

- An ethnographer may study a village of indigenous people on an island to observe their culture and customs outside of modern civilization.



Narrative and Discourse Analysis

Focus

- How people describe their experiences

Language

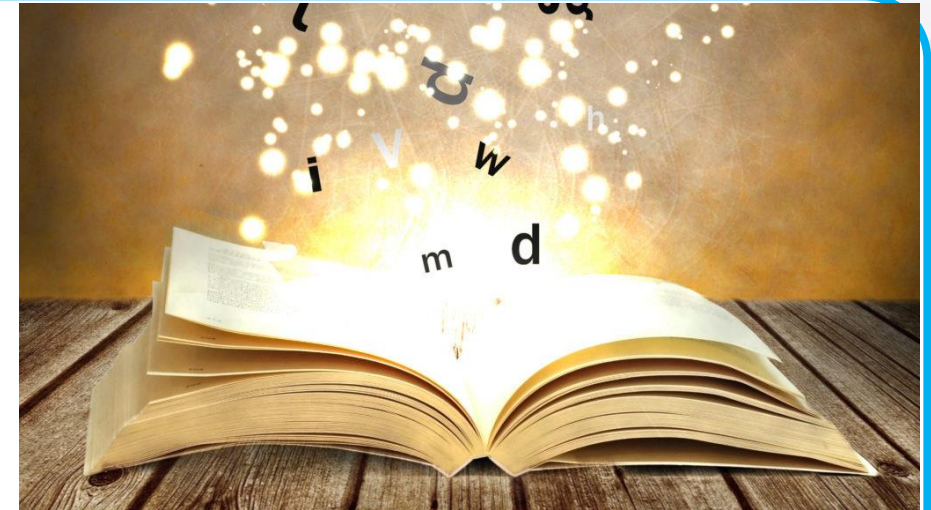
- Analyze speech and written narratives

Outcome

- Understand shared meanings and assumptions.

Example

- Discourse analysis can be a suitable tool to study social issues such as power imbalance.



Constant Comparative Analysis

Origin

- Grounded theory by Glaser and Strauss

Method

- Compare each data piece to others

Categories

- Develop directly from the data



Steps in Constant Comparative Analysis

Open Coding

- Identify initial categories

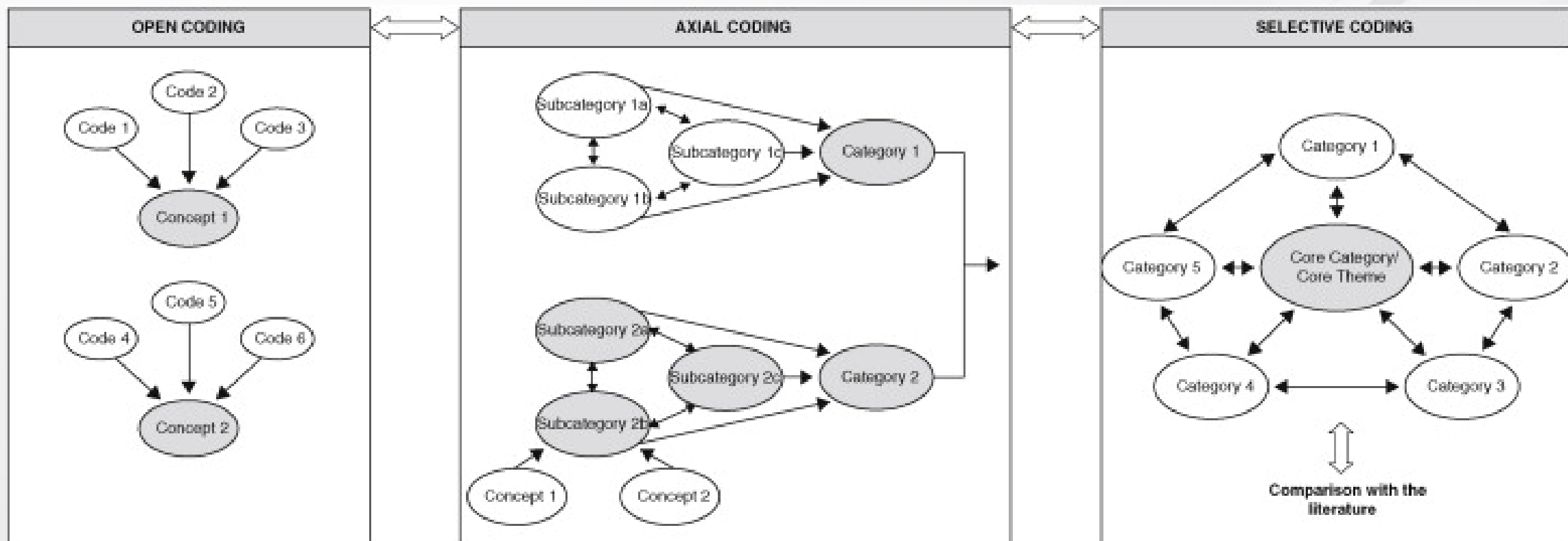
Axial Coding

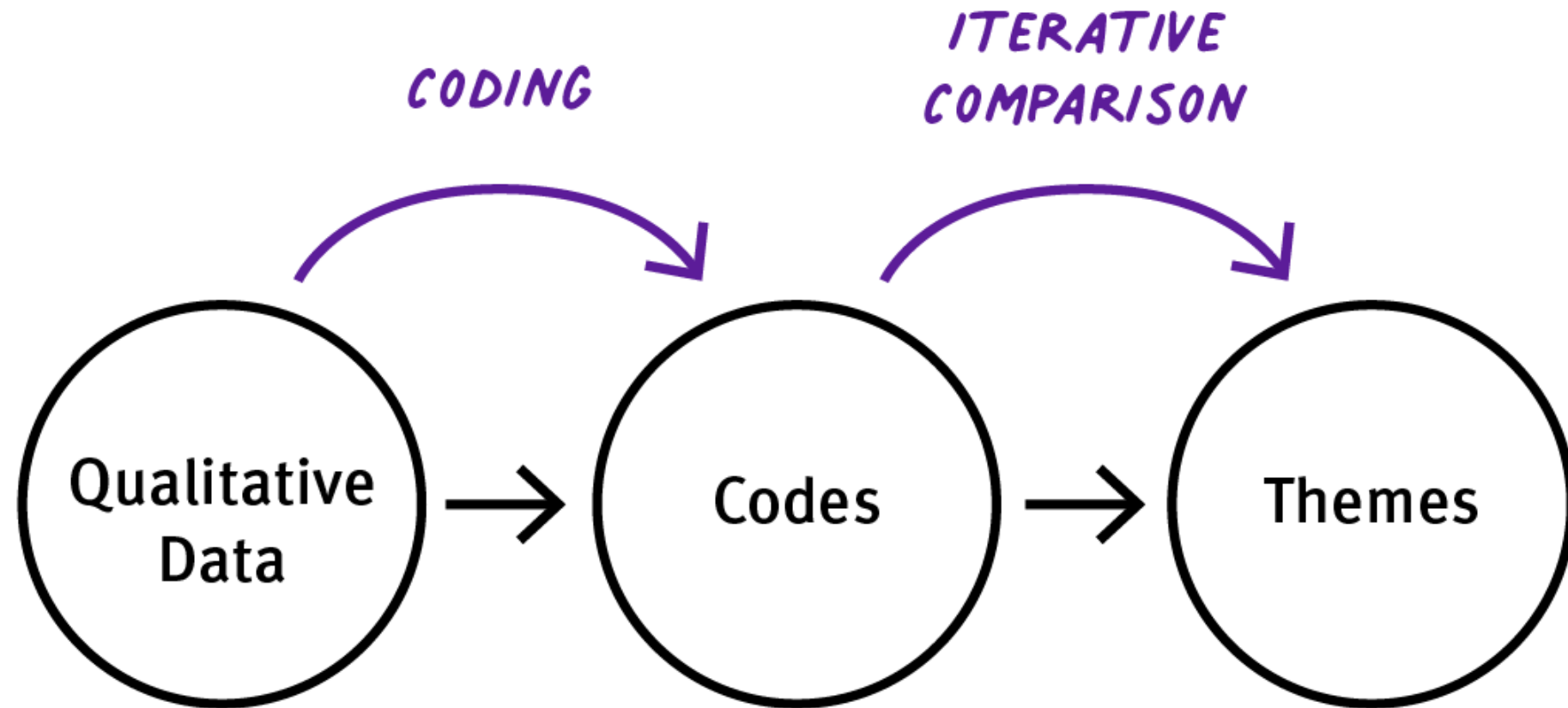
- Find links between categories

Selective Coding

- Refine categories into a theory







Purpose of Coding in Analysis

- **Build Theory:** Create new theories from data
- **Organize Data:** Manage large amounts of information
- **Explore Meanings:** Consider various interpretations
- **Balance:** Be both creative and systematic
- **Develop Concepts:** Use them to build theories

Ethical Considerations in Participant Observation

Definition

- Identifying concepts and discovering properties in data (Strauss & Corbin, 1998).

Process

- **Deconstruct data:** Break down into parts (words, sentences, paragraphs).
- **Question the data:** Ask about viewpoints, beliefs, and themes.

Purpose

- Identify discrete concepts as basic units of analysis..

Steps in Open Coding

Find Similarities

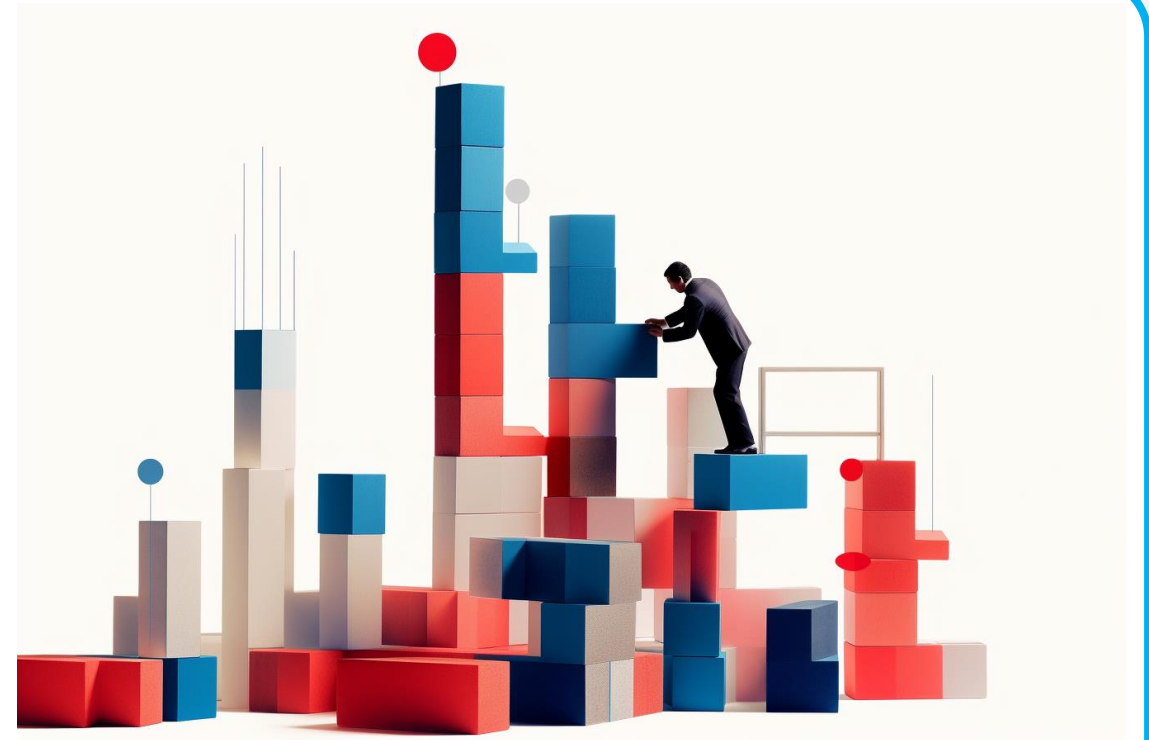
- Label similar concepts with the same name to create categories.

Define Categories

- Describe properties and dimensions.

Sort Categories

- Group similar phenomena to form the basis of the emerging theory.



Axial Coding

Definition

- Relating categories to subcategories (Strauss & Corbin, 1998).

Process

- Identify conditions causing phenomena.
- Examine context and intervening conditions.
- Determine actions and consequences.

Goal

- Develop links and working hypotheses.

Steps in Axial Coding

Check Relevance

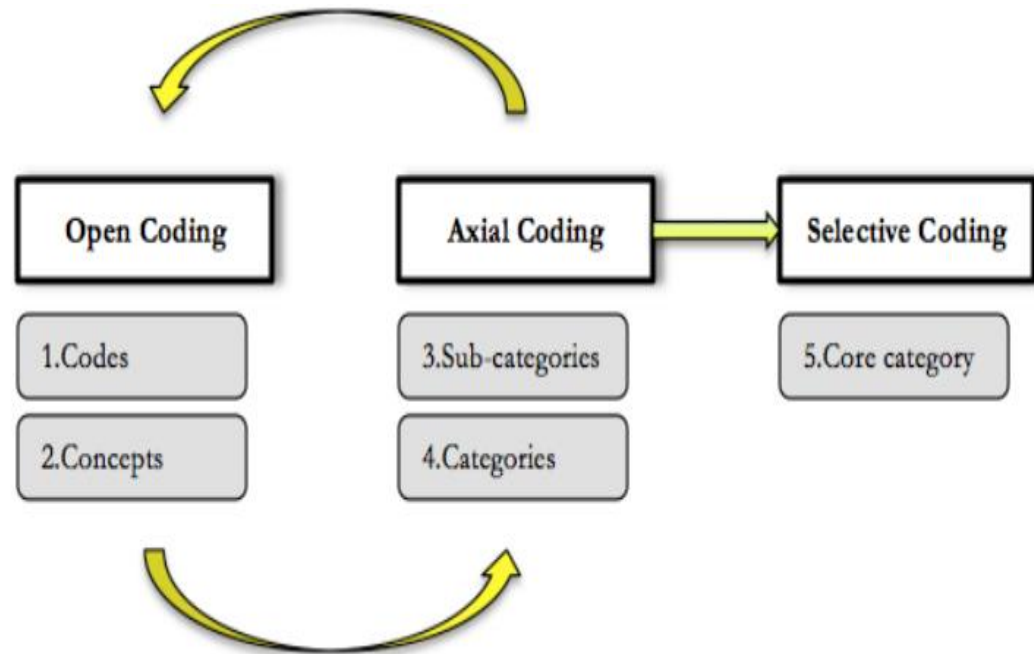
- Verify categories with data.

Find Patterns

- Look for relationships between categories.

Iterate

- Continually refer back to original data.



Example of Axial Coding

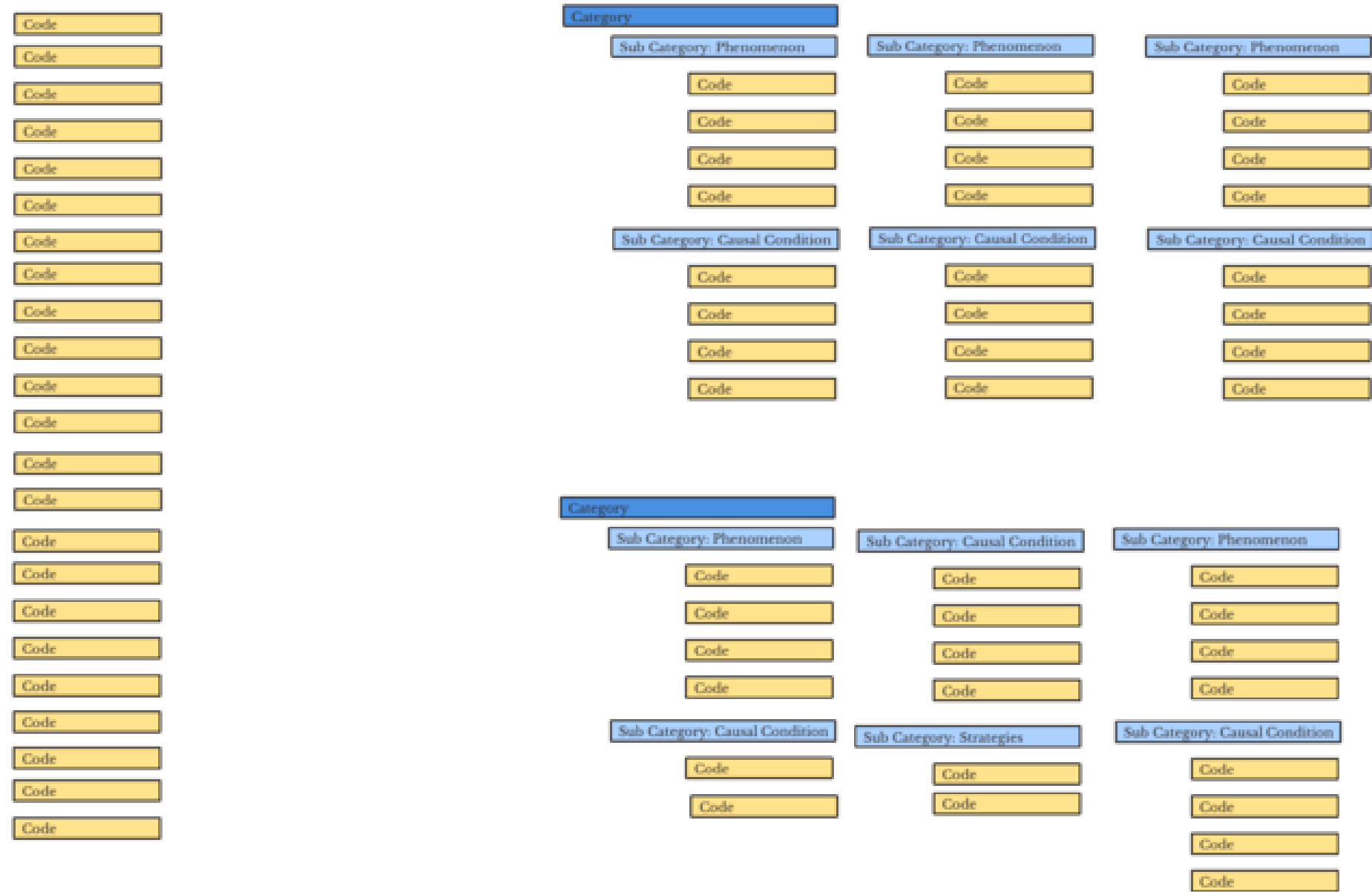
- **Study:** Interviews with New Yorkers during Covid-19 lockdown.
- **Open Codes:**
 - "Trouble sleeping"
 - "Experiencing a panic attack"
 - "Feeling disconnected"
 - "Zoom burnout"



Open Coding



After Axial Coding



Example of Axial Coding

- Subcategory 1 - Phenomenon
- Example: "Phenomenon: Anxiety"
- "Trouble sleeping"
- "Experiencing a panic attack"
- "Nervous about what's going to happen"

Selective Coding

Definition

- Integrating and refining the theory (Strauss & Corbin, 1998).

Process

- Identify core categories linking subcategories.
- Ensure theoretical saturation: No new properties or dimensions.

Goal

- Form a coherent theory from data.

Steps in Selective Coding

Central Category

- Relate all other categories to it.

Logical Evolution

- Allow categories to develop naturally.

Avoid Forcing Data

- Do not manipulate data to fit the theory.



Example on Selective Coding

- Selective Coding: Crafting the Narrative
- Selective coding is where the story unfolds. It's about weaving those core categories into a coherent theory. Here's how it unfolds:
- Selective coding involves focusing on specific categories (often the core ones) and developing a narrative around them.

Example on Selective Coding

Process

1. Choosing Core Categories: Researchers select the most critical categories identified during axial coding.
2. Storytelling: They craft a compelling narrative that explains how these categories interact. This narrative becomes the backbone of the theory.

Example on Selective Coding

3. Refinement: Researchers refine the theory by adding nuances, exceptions, and context-specific insights.

4. Constant Comparison: Throughout the process, they compare new data with the existing theory, ensuring consistency and coherence.

Example on Selective Coding

- Let's say your core categories are "trust" and "online reviews."
- Selective coding would involve constructing a theory that explains how trust influences consumers' reliance on online reviews when making purchase decisions.
- You might explore factors like source credibility, review volume, and emotional resonance.



Axial Coding and Selective Coding

Choosing Core Categories

Refinement



Memo Writing

Purpose

- Comment on emerging themes and contradictions.

Process

- Write memos attached to data.
- Use memos to refine theory.

Importance

- Keep memos distinct from data to avoid confusion.



Presenting Qualitative Findings

Challenge

- Deciding what and how to represent vast amounts of data.

Key Advice

- Do not quantify qualitative data.
- Focus on specifics, not reducing data.
- Resist the temptation to create certainty by quantification.



Options for Presenting Qualitative Data

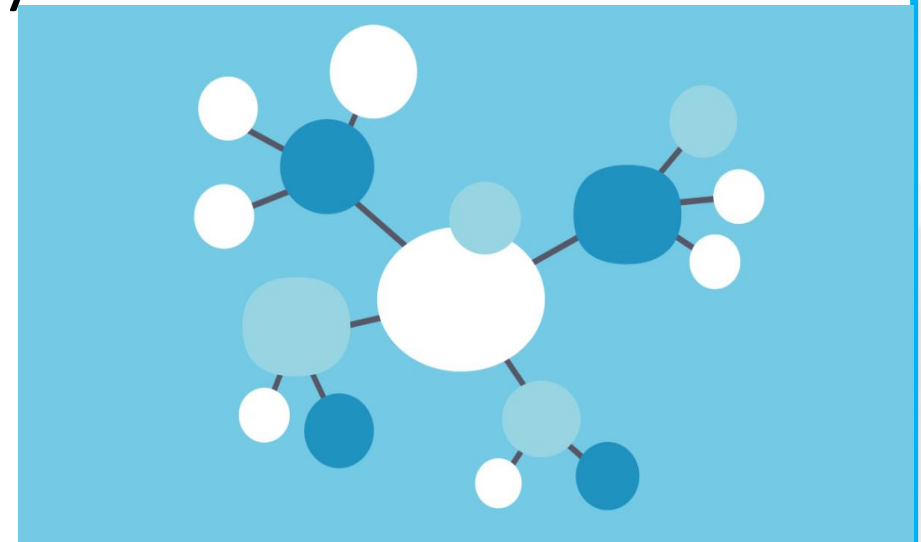
Descriptive Narrative (Story)

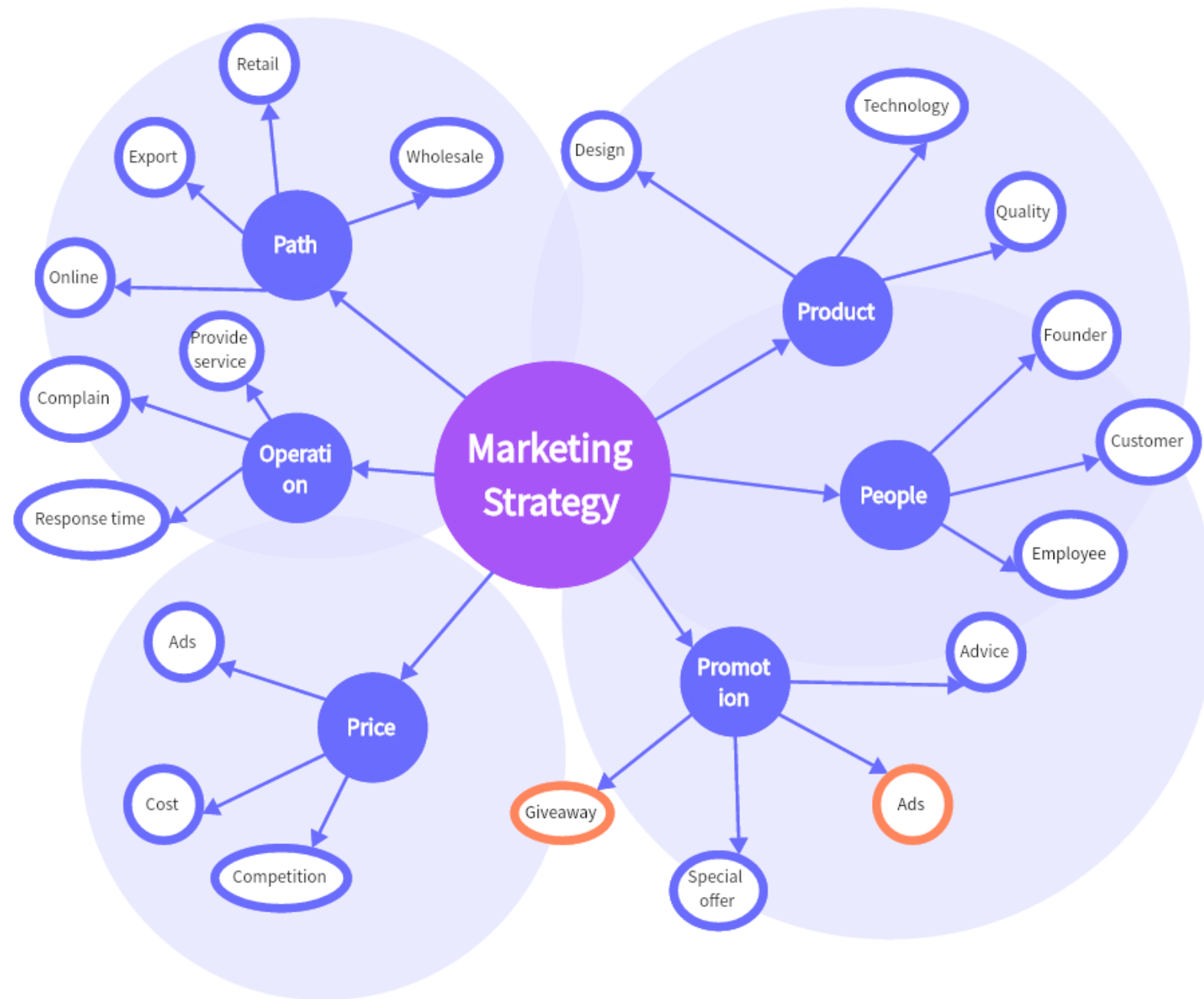
- Use detailed narrative to tell what was found.
- Written theory with supporting evidence.
- Question: “What am I going to do with all this data?”
- Response: Use descriptive narrative to organize and present findings.



Concept Mapping

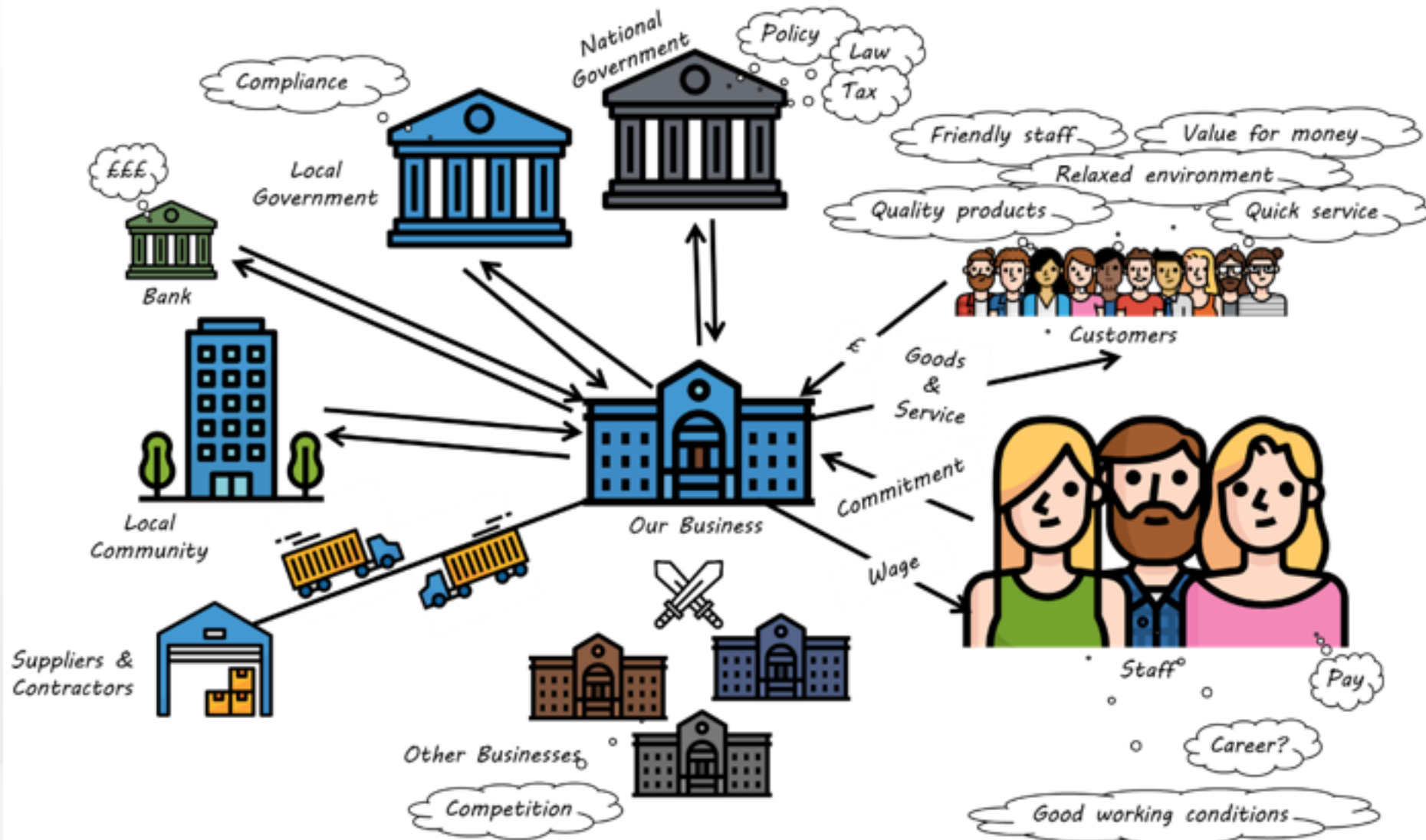
- Purpose: Show links and connections in your theory.
- Method: Create a visual map detailing relationships between concepts.
- Components:
 - Central idea or theory.
 - Related concepts and their connections.
 - Visual representation of the data's structure.





Rich Picture

- **Purpose:** Provide a clear visual demonstration of your theory.
- **Method:** Use visuals to depict complex data relationships and findings.
- **Components**
 - Visual elements representing key concepts.
 - Illustrations showing interactions and relationships.
 - Helps readers understand the theory at a glance.



Tips for Effective Presentation

- **Be Clear:** Ensure your narrative, concept map, or rich picture is understandable.
- **Stay Specific:** Focus on detailed and specific findings.
- **Use Visuals:** Enhance understanding with clear and relevant visuals.
- **Tell a Story:** Engage your audience with a compelling narrative..

Introduction to NVivo

- Developed by Lyn and Tom Richards, QSR International. Handling complex, rich qualitative data.

Features

- **Document System:** Store documents without losing context.
- **Integration:** Combine online and offline documents.
- **Text Retrieval:** Search and retrieve text.
- **Memo Writing:** Record and edit notes.
- **Indexing:** Automatically index search results.

Sample Project.nvp - NVivo 12 Plus

File Home Import Create Explore Share Concept Map Tools

Zoom Align Resize Change Connector Fill Border Color Border Width Format Text Pointer Connector Add Project Items Edit

Quick Access

- Files
- Memos
- Nodes
- Interv
- Litera
- News
- Social
- Surve
- File Class
- Externals
- Codes
- Nodes
- Sentime
- Relations
- Relations
- Cases
- Notes
- Search
- Maps
- Maps

Search Project

Nodes

Name	Files	Referen
Sense of community	3	4
Local knowledge	5	7
Local connection	13	35
Local identity	14	43
Memorable quotes	5	16
Balance	6	16
Infrastructure	11	43
Policy, management	14	38
Community change	18	62
Natural environment	24	324
Renewable energy	1	15
Environmental imp	6	26
Ecosystem services	9	13
Landscape	11	38
Water quality	13	147
Environmental cha	14	42
Habitat	17	43
Economy	25	486
Tourism	7	12

complexity of views on developm

Add Shapes

- Rectangle
- Rounded Rectangle
- Square
- Ellipse
- Circle
- Down Triangle
- Triangle
- Left Triangle

Generations Down East

Real estate development

Tourism

Jobs and cost of living

Social Development

Infrastructure

Policy, management

Natural environment

Economy

Attitude

Community change

outside influence

Laws

Residents discuss a complex set of interrelated factors in explaining their views on development

Qualitative Data Analysis with NVIVO12

Capabilities of Qualitative Software

- Categorization: Create and manage categories.
- Indexing: Flexible system for organizing data.
- Text Segmentation: Index and analyze text passages.
- Pattern Exploration: Search for patterns and test hypotheses.
- Theory Testing: Record and test emerging theories.



Thank You