



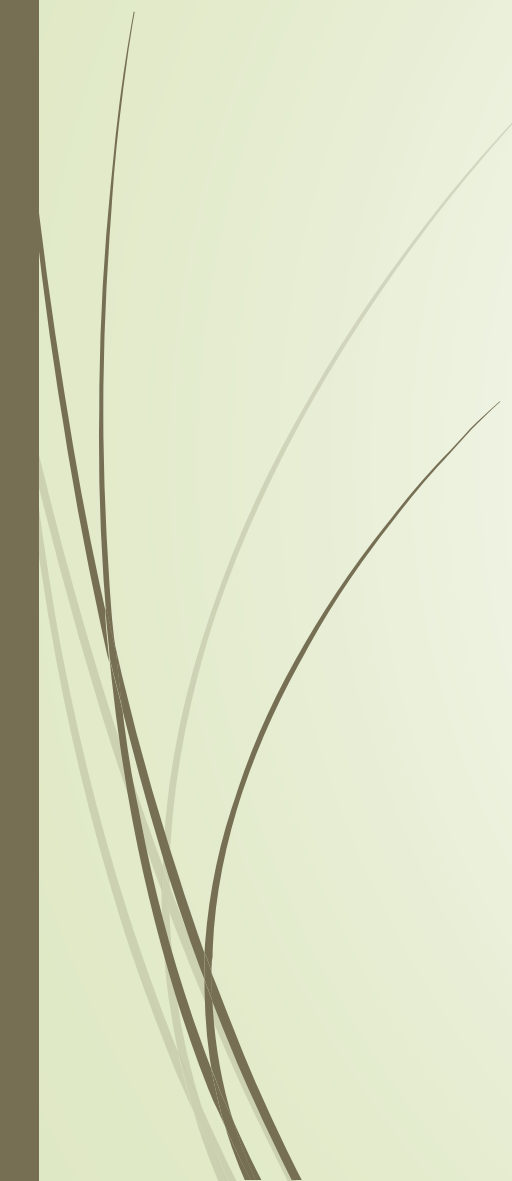
# Thematic analysis versus content analysis



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# Lecture objectives

- Definition of thematic analysis
  - When it is used;
  - Its procedures ( coding, analysis)
  - how to present the results
  - Its strengths and weaknesses;
  - Definition of content analysis
  - Its procedure
  - Strengths and weaknesses
  - Differences between thematic analysis and content analysis.
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## Introduction

Qualitative research is an **inductive** rather than a **deductive** research. The former is generally considered as hypothesis generating while the latter focuses on testing hypotheses.

Qualitative data collection is inductive in using open, non-directional measures. Qualitative data analysis is inductive by letting key categories and concepts emerge from the data (Schreir, 2012).

The interview, focus group and class observation are collection methods that are most of the time used in educational research and require from the researcher to be aware of the nature of the data and its thematic connectivity. Among the qualitative types of analyses, thematic analysis is usually used to analyze data obtained from interviews, focus groups and observations. Content analysis is another type used to analyse qualitative data

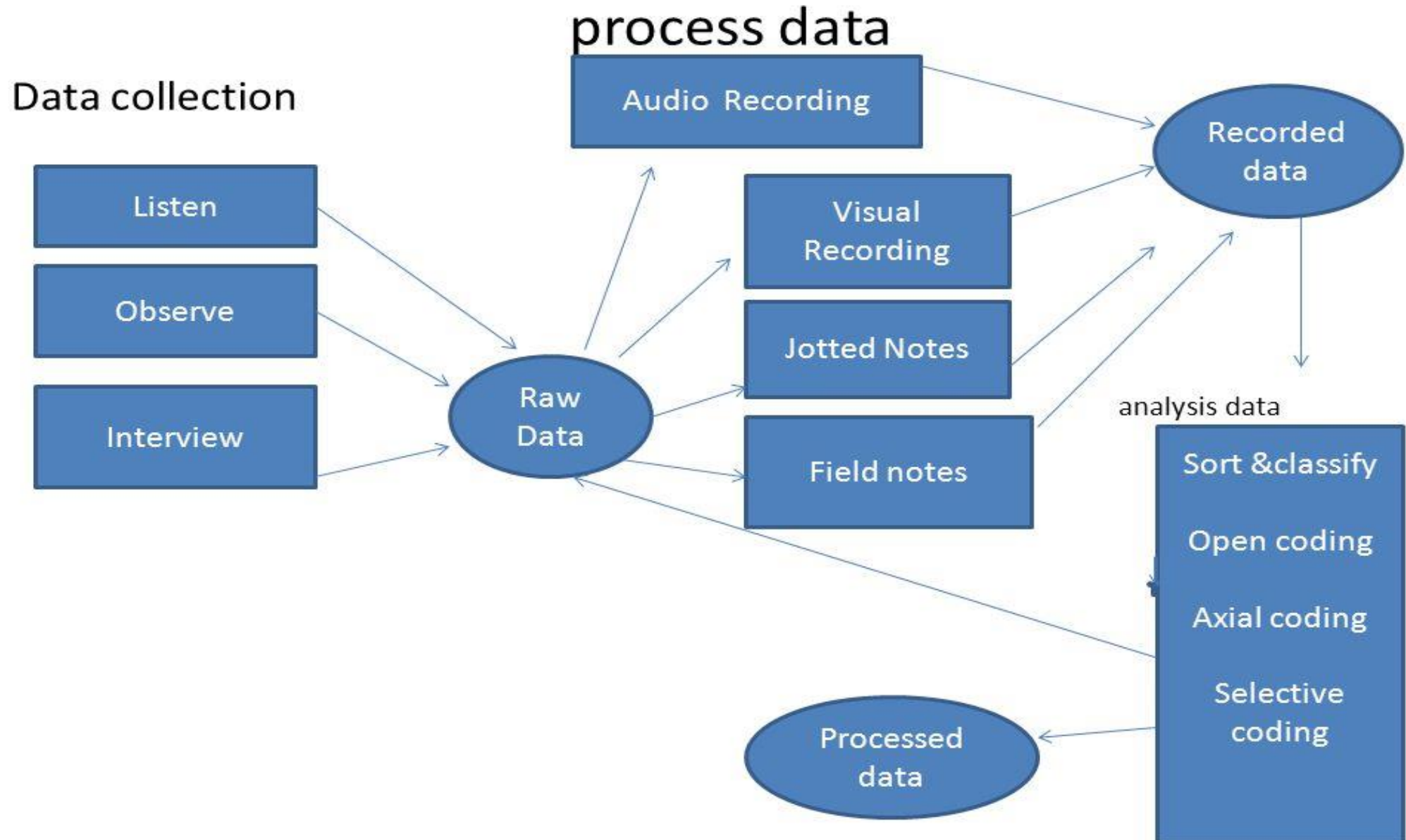
# Qualitative data analysis process

Once data are collected, it is necessary **to organize** them into **a manageable**, easily **understandable**, and **analyzable format** ( Mackey and Gass, 2016, p. 112)

The analysis of qualitative data usually goes through some or all of the following stages:

- **Familiarisation** with the data through review, reading, listening...
- **Transcription** of tape recorded material: it is the full script of an interview or a conversation, or the procedure of producing a written version of these methods.
- **Organisation of data**: after the transcription, it is necessary to organise the data into easily retrievable sections
- **Coding** (called indexing): for example, sections of text transcripts may be marked by the researcher in various ways: **underlining in a coloured pen**, **highlighting**, giving a **numerical reference**, or **bracketed with a textual code in the margin**.
- **Identification of themes**
- **Development of provisional categories**
- Exploration of relationships between categories, finding possible and plausible explanations for findings
- Report writing

# Qualitative data process





# Preparing the data for coding

- After being familiarized with the data obtained , for example from an interview , the researcher transforms the oral data into written data, ( transcription) excluding unnecessary information.
- After the transcription and cleaning of the data, the next important stage is coding referred to as “**how you define what the data you are analysing are about**” (Gibbs, 2007). It is about labelling sections / passages of texts to identify interesting features of the data.

It involves taking text data or pictures gathered during data collection, segmenting sentences (or paragraphs) or images into categories, and labeling those categories with a term, often a term based in the actual language of the participant ( Cresswell, 2014).

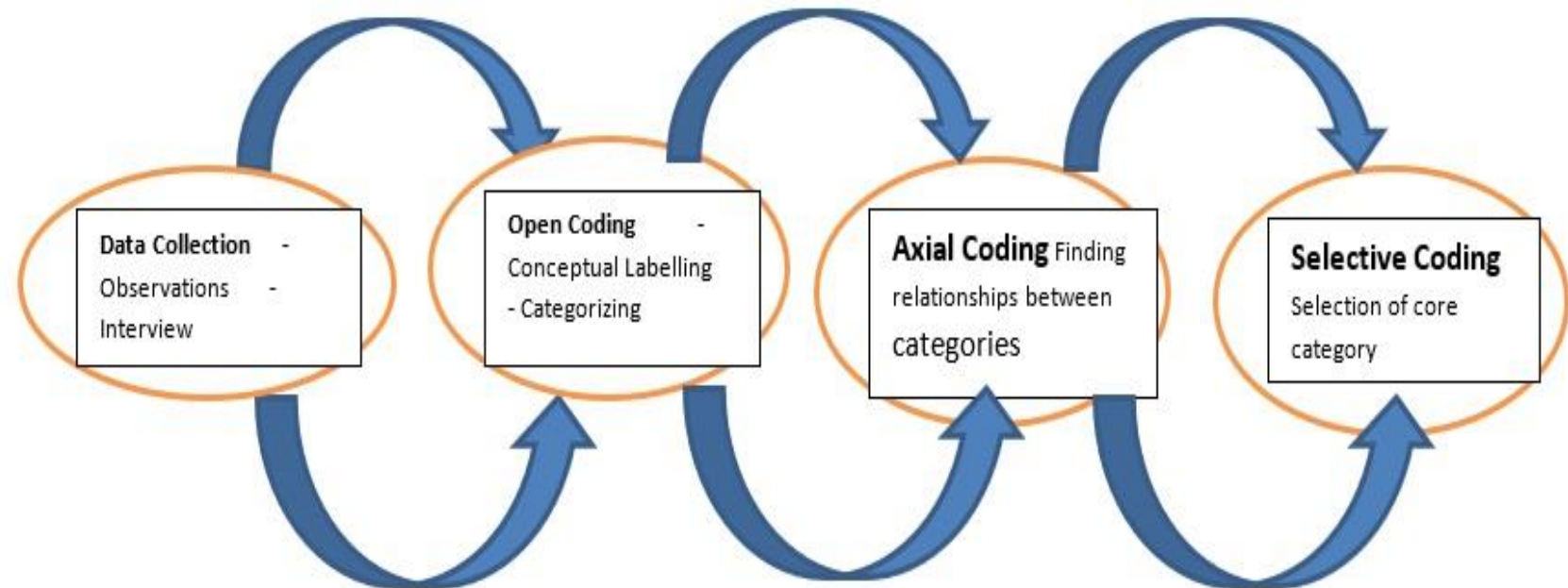
Data	Codes
<p>(Q1) Moderator: What do you think about the apparel industry in Sri Lanka? Who are the customers, competitors, suppliers and influential parties and <i>what</i> is their influence on the business and management controls of the business?</p> <p>Finance Director: Global competition and <b>GSP plus [Generalized System of Preferences]</b> and the Trans-Pacific Trade Partnership have a direct impact on our operations, and on <b>management controls</b>. More than <b>60% of Sri Lankan apparel exports are to the United States and other Western countries</b>. Our operations and controls have to focus on their <b>demands in order to survive in the market</b>. In the meantime, <b>competition in the industry is increasing from emerging countries like Laos, Cambodia and Vietnam</b>. So, our controls <b>have always to focus on reducing costs and producing products at competitive prices</b>. The economic environment of our country too is not supportive of the apparel industry because other industries such as tourism and hospitality are growing. Thus finding <b>labour for the apparel industry will be difficult in about another five years because they expect simple and understandable controls on the cash flow</b>. When designing controls, we have</p>	<p>Global statutory rules</p> <p>Customer regulatory demands</p> <p>Influence of changing market conditions</p> <p>Facing changes in the local industry</p> <p>Influence of community</p>

# Types of coding

Gibbs (2007) describes coding as the activity of identifying what your data is about. Three types of coding are used in qualitative research: **open coding**, **axial coding** and **selective coding** as seen in the figure.

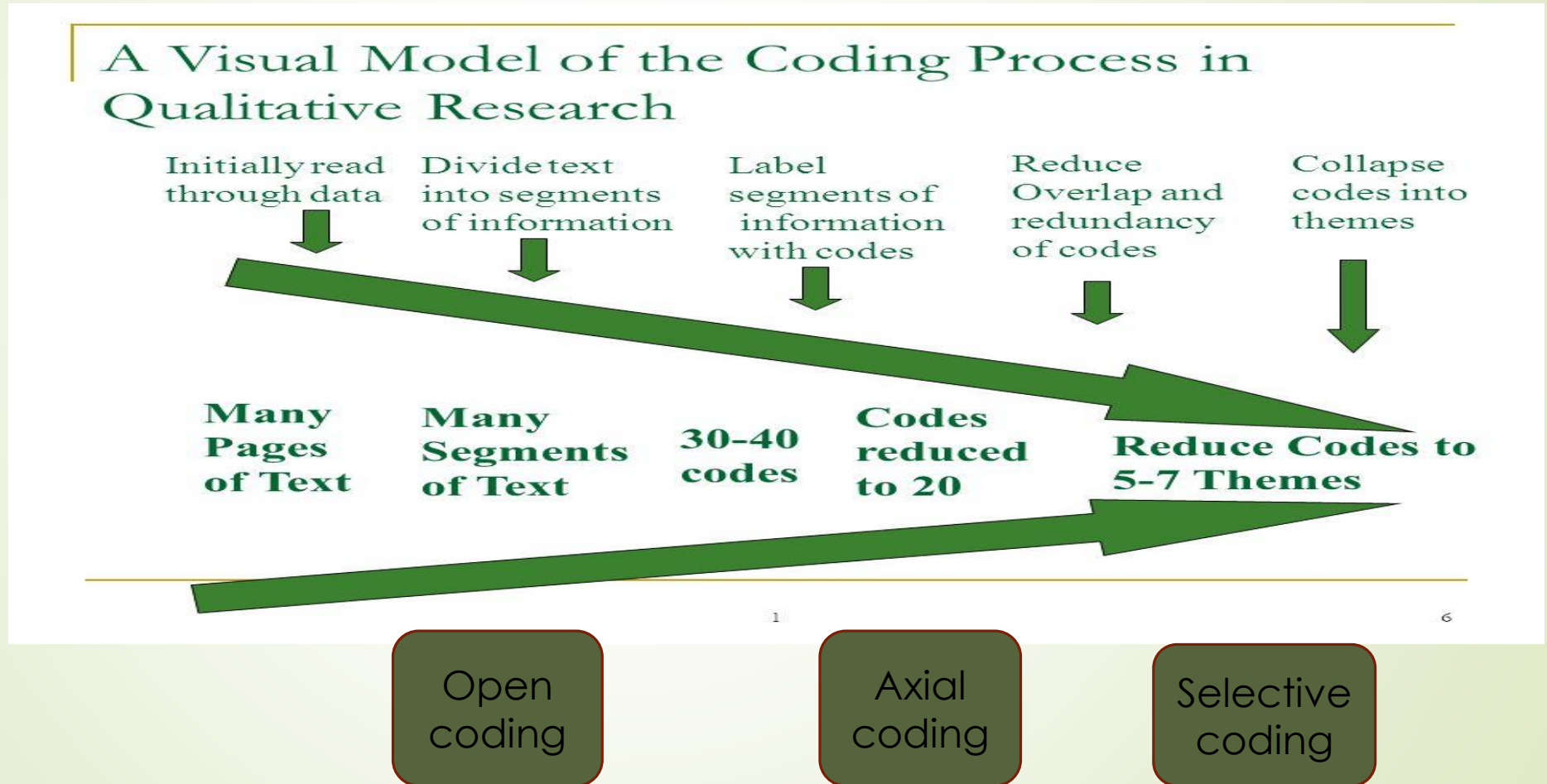
**Open coding:** the researcher breaks the text into discrete parts while **in axial coding**, he draws connection between codes.

**“Selective coding** continues the axial coding at a higher level of abstraction [through] actions that lead to an elaboration or formulation of the story of the case” (Flick, 2009, p. 310). Selective coding identifies a core category which is the central theme of the research.






# This model illustrates the coding process from open coding to selective coding





# Thematic analysis

- Thematic analysis is **the process of identifying patterns or themes within qualitative data**( Braun & Clarke (2006, p. 76).
- Thematic analysis is a method for analyzing qualitative data that entails searching across a data set to identify, analyze, and report repeated patterns (Braun and Clarke 2006).
- Its aims is to generate codes and construct themes to be used for the interpretation of the data.



Thematic analysis can be used to analyse qualitative data collected from

- Interviews,
- Focus groups
- Surveys
- Visual methods
- Observations...

# The Typical Process of Thematics analysis

- **1. Familiarising oneself with the data** (text; may be transcriptions) and identifying items of potential interest.
- **2. Generating initial codes** that identify important features of the data relevant to answering the research question(s); applying codes to the dataset (segmenting and “tagging”) consistently; collating codes across segments of the dataset .
- **3. Searching for themes**; examining the codes and collated data to identify broader patterns of meaning.
- **4. Reviewing themes**; applying the potential themes to the dataset to determine if they tell a convincing story that answers the research question(s); themes may be refined, split, combined, or discarded.
- **5. Defining and naming themes**; developing a detailed analysis of each theme
- **6. Producing a report**; weaving together the analytic narrative and data segments, relating the analysis to extant literature ( Braun & Clarke, 2006)




## How to write the results section

After the identifying of the themes, the researcher should decide on how to present the results and how to interpret them.

There is more than one approach to presenting the results. One way is **ordering the main themes** based on their **importance** and their relation to **the research questions**.

- ▶ If you choose this way, Think of the themes as the **basic headings** in an outline and then start each section with **a brief description** of that theme. Follow that with **relevant quotes**, then **discuss them**.



**Example: Suppose you collected data from teachers and students about the advantages and challenges of the use of moodle platform in teaching/ learning English through semi-structured interviews.**

► In this case, you will have more than one section:

**Section 1: Teachers opinions about the advantages of moodle** including the main themes ordered and each one described using selected extracts, then discussing/ interpreting them.

**Section 2: Students opinions about the advantages of moodle** including the main themes ordered and each one described using selected extract, then discussing/ interpreting them.

**Section 3: Teachers opinions about the challenges of moodle**, including the main themes ordered and each one described using selected extracts, then discussing/ interpreting them.

**Section four: students' opinions about the challenges of moodle** including the main themes ordered and each one described using selected extracts, then discussing/ interpreting them.

We can shift to a comparison between the two groups opinions on both the advantages and challenges of moodle.

# How can we visualize the results findings)?

There is no clear-cut answer. This depends on what we want to present, the aim and the kind of the study.

We can use tables with the themes, frequency and number of participants. However, not all the researchers agree on the use of tables or tables arguing that qualitative data are quantified.

Theme	Frequency	Number of participants
Theme 1		
Theme 2		



Other kinds of visualizations such as diagrams or charts can also be used depending on the study if they make sense.







# Strengths and weaknesses of thematic analysis

- accessible approach to researchers with little or no experience of qualitative research.
- Relatively easy and quick method to learn and do.
- It is flexible ( more than one way to interpret the meaning from the data set).
- Results are generally accessible to educated general public.
- Useful method for working with participatory research paradigm, with participants as collaborators.
- Can usefully summarize key features of a large body of data, and/or offer a 'thick description' of the data set.



# Follow up

- ▶ Can highlight similarities and differences across the data set.
- ▶ Can generate unanticipated insights.
- ▶ Allows for social as well as psychological interpretations of data ( Braun & Clarke 2006).
- ▶ Flexibility can lead to inconsistency and lack of coherence when developing themes from the research data ( Holloway & Toddres, 2003).
- ▶ Difficult to focus.
- ▶ No objection about the respondents' language.



# Content analysis

- Content analysis is a method used to analyse qualitative data ( non-numerical). It is a strategy which transform qualitative data into quantitative / numerical data.
- QCA is a method for systematically describing the meaning of qualitative material. It is done by classifying material as instances of the categories of a coding frame ( Chreier, 2012).



# Content analysis can be done on

interview transcripts,

films,

audio-recordings,

Magazine articles

Books

Advertisements

Speeches

TV programmes...






# Steps in conducting content analysis

- ▶ **Identify and collect data** ( important to capture the data needed for content analysis). Sampling is also required; this refers to the content itself.
- ▶ Determine coding categories (division of the content into categories ; to focus on those patterns that can answer the research questions).
- ▶ **Codes ( numbers) to be assigned to each category**/ Coding identifies the frequency, the direction of the content...
- ▶ **Check validity and reliability**/ the codes need to be tested to check if they measure what they are intended to measure and if the results are consistent.
- ▶ **Analyse and present the results** in an understandable report format in addition to graphs...

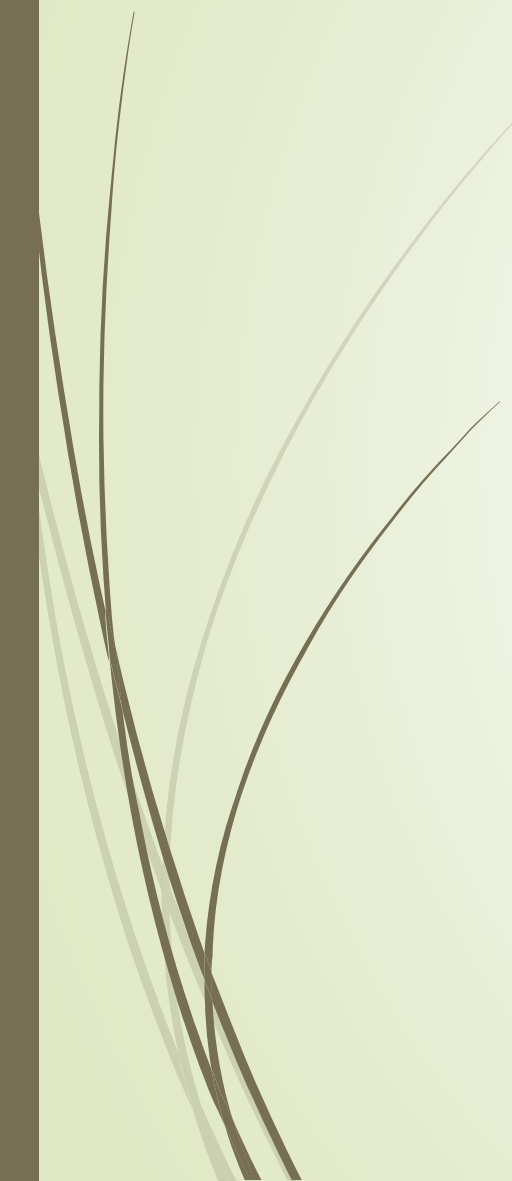


# How can we test validity and reliability in content analysis?

- ▶ After coding and analysing your data, you need another person or even two who are experienced in qualitative data analysis to also code and analyse (inter-rater reliability) so that you can compare.
- ▶ When there is conflict and consensus is not reached, you might need a third person's opinion to resolve.
- ▶ You can also get an expert in qualitative data analysis to review your coding and analysis process and the themes generated. This is called peer-debriefing. Your supervisor(s) may be the best person(s) to help you out with this.

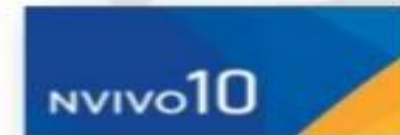


# Strengths and weaknesses of content analysis

- Cheap
  - High in reliability as it follows systematic procedures
  - Quantifies the meaning by using frequencies
  - If the coding is inaccurate, the findings are invalid
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# Qualitative Analysis Software

- Atlas.ti (<http://www.atlasti.com>)
- NVIVO (<http://www.qsrinternational.com>)
- QDA Miner (<http://provalisresearch.com>)
- Content Analysis
  - LightSide (<http://www.cs.cmu.edu/~emayfiel/side.html>)



LightSIDE: Machine Learning for Text



**CAQDAS software (computer assisted qualitative data analysis software)**





# The software helps in

- Data storage and management
- Data searching and retrieval
- Coding
- Developing and testing theory
- Writing reports

However, they cannot replace the human as they lack the capacity to think, reflect and Analyse.



**State the similarities and differences between thematic analysis and content analysis.**



## References

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