

**Course : Research Research methodology**

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**Level : Master two**

**Lecture : 5**

## **Qualitative research tools and data analysis**

### **Objectives**

In this lecture, students will be introduced to:

- qualitative tools
- the process of data analysis

#### **1. Qualitative data collection methods**

The main methods are:

The interview, the focus group, the observation, documents such as diaries, photographs, collection of narrative, journals, the think-aloud method and open questionnaires.

##### **1.2 Interviews**

**There are three main kinds of interviews:**

**The structured interview** is one in which the content and the procedures are organized in advance. This means that the sequence and wording of the questions are determined by means of a schedule and the interviewer is left with little freedom to make modifications. It is characterized by being closed. This kind of interview is used in situations where a written questionnaire would in theory be adequate except that for some reason the written format is not feasible ( for example, because of the low level of literacy among the participants or the need to tighten control as in some market surveys or opinion poll) (Dörnyei, 2007,p. 135).

**The semi-structured interview** is the most common qualitative data-gathering tool during which the person being interviewed is the expert and the interviewer the student. This kind of interview involves some open-ended questions based on the topic areas that the researcher wants to cover. The open-ended nature of the questions posed defines the topic under investigation but provides opportunities for both interviewer and interviewee to discuss some topics in detail. If the interviewee has difficulty answering a question or provides only a brief response, the interviewer can use cues or prompts to encourage the interviewee to consider the question further.

The unstructured interview is an open situation having greater flexibility and freedom. It is similar to a free-flowing conversation. No detailed interview guide is prepared in advance, although the researcher usually thinks of a few (1-6) opening questions. During the interview, the researcher may ask an occasional question for clarification and may give reinforcement feedback, but interruptions are kept to the minimum (Dorneiy, 2007 ,p.136). or an unstructured interview to be successful, the interviewer needs to establish a good rapport with the interviewee.

**A good interviewer** needs to be able to put the interviewee at ease, needs good listening skills and needs to be able to manage an interview situation to collect data that truly reflect the opinions and feelings of the interviewee concerning the chosen topic.

### **1.2.1. Preparing for the Interview and designing the interview guide**

The complete interview process involves a series of carefully designed steps after having chosen the sample. The preparation of an interview guide containing a few relevant questions is necessary. A good interview guide requires careful planning followed by piloting (Dorneiy, 2007, p. 136).

### **1.2.2. Question Types**

The first few questions can be **factual questions** (family, job) to set the tone and create initial rapport. **Content questions**: experiences and behaviours, opinions and values, feelings, knowledge, sensory information (what has someone seen, heard...), background or demographic information. These categories concern different aspects of the participants' overall view/ experience of the phenomenon and then we can get a rounded picture by including in our interview guiding questions that tap into each dimension

**Probes** may include detailed-oriented and clarification questions to increase the richness and depth of the responses. The final **closing questions**. This permits the researcher to have a final say. Simple questions such as 'Is there anything you like to add' or 'What should I have asked you that I didn't ask you?'

### **1.2.3. Recording the interview**

Some key issues of interview conduct are helpful such as:

- Recording the interview
- Starting the interview (the first few minutes are important to set the tone/ climate of the interview).
- We must show that we are interested in what the interviewee has got to say and that we are a nice, reasonable and non-threatening person.
- Before starting the recording, we need to explain again the purpose of the interview.

#### 1.2.4. Conducting the interview

- A good qualitative interview has two features: a) It flows with the various parts connecting seamlessly.
- We must remember that we are there to listen (not to speak).
- It is rich in detail; it is an area where the skillful use of various probes can make a real difference.

#### 1.3. Focus Groups

Focus groups - as the name suggests- involve a group format whereby the researcher records the responses of a small group (usually 6-12 members). The focus group is based on the collective experience of brainstorming, that is, participants thinking together, inspiring and challenging each other, and reacting to emerging issues (Dorneiy, 2007: 144).

#### 1.4. Observation

- The distinctive feature of observation as a research process is that it offers an investigator the opportunity to gather 'live' data from naturally occurring social situations. The Observation, too, can be structured, semi-structured or unstructured. The structured observation is useful for testing hypotheses while the semi-structured and unstructured provide a rich description of a situation which, in turn, can lead to subsequent generation of data. It can also be participant observation, non-participant observation, covert observation and overt observation.

##### 1.4.1. Classroom Observation

To organize the many different ways in which we can observe classrooms, two dichotomies are usually offered : '**structured** versus **unstructured**'. These are very similar to **quantitative and qualitative** distinctions in observation terms. The first one is highly structured and involves going to the class with a specific focus and with concrete observation categories, whereas the unstructured is less clear; the researcher needs to observe first what is taking place before deciding on its significance for research. The former involves completing an observation scheme, while the latter involves completing narrative field notes, often supplemented by maps or diagrams (Dorneiy, 2007, p. 179). *Schemes – similar to questionnaires- have a range of systematic categories which allow the observer to record events quickly by using tally marks (Dorneiy, p. 180). Schemes also need to be piloted.*

##### **Other methods for collecting data**

- *The think-aloud technique (introspective)*

- *Diary studies*
- *Research journals*
- *Collection of narratives*
- *Open-ended questionnaires*



<b>Diagnostic Checklist of Silent Reading</b>				
Student _____		Teacher _____		
Grade Level of Passage _____		Date _____		
Silent Reading	Observations			Comments
	1	2	3	
1. Points to individual words				
2. Runs a finger under each line				
3. Runs a finger down the page				
4. Whispers words				
5. Says words aloud				
6. Moves head while reading				
7. Holds book too close				
8. Holds book too far away				
9. Reads too slowly				
10. Reads too quickly				
11. Other notable behaviors (specify)				

### In planning observations, one has to consider the following:

- When, where, how and what to observe
- How much degree of structure is necessary in the observation
- The duration of the observation, which must be suitable for the behaviour to occur and observed
- Timing of the observation period
- The context of the observation
- The nature of the observation (structured, semi-structured, unstructured)
- The need to choose the appropriate kind of recording (Cohen *et.al.*, 2007).

### Techniques for collecting data through observation

- **Written descriptors:** the researcher can record observations of people, a situation or an environment by taking notes of what has been observed.
- **Video recording:** this frees the observer from the task of making notes

- **Artifacts:** artifacts are objects which inform us about a phenomenon under study because of their significance to the phenomenon. Examples it could be doctor's equipment in a particular clinic or artwork hung in residential care homes

## 1.5. Qualitative data analysis

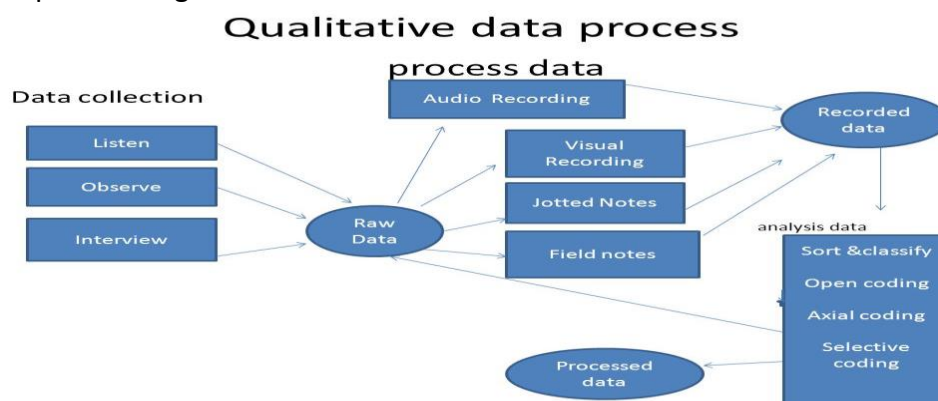
**What is meant by analysis:** after the mass of words generated by interviews or observational data, they need to be described and summarised.

- It may require the researcher to seek relationships between various themes that have been identified.
- Finally, the results are presented, generally as a descriptive and interpretive account of the data.

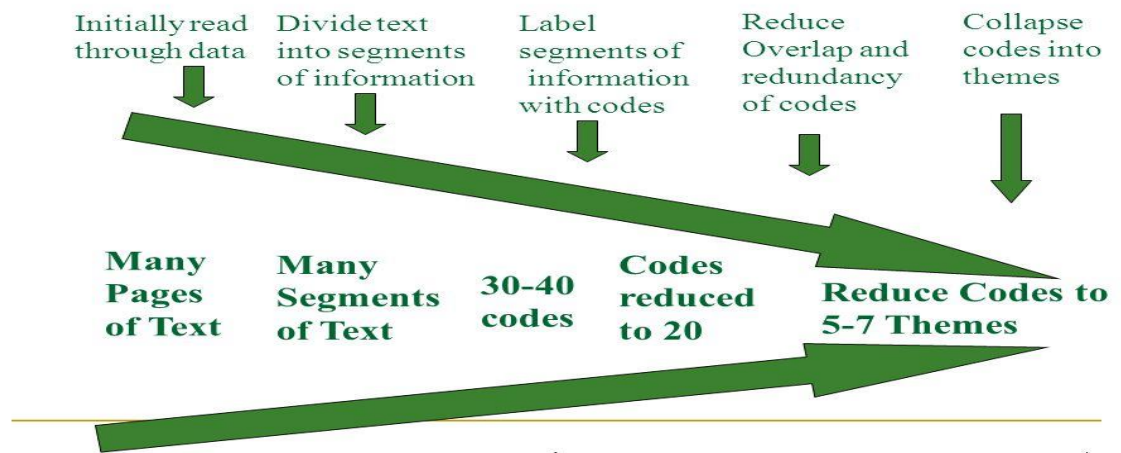
### 1.5.1 Data analysis process

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
- Organization of data: After the transcription, it is necessary to organize 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 bracketing 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



## A Visual Model of the Coding Process in Qualitative Research



Coding data is a very necessary step in qualitative data analysis; the diagram above shows that qualitative data is divided into many segments of information which are given codes, then the segments are reduced to a manageable number of themes to be analyzed.

### 1.5. 2. Computer software packages for qualitative analysis

Various packages have been developed to allow the researcher to organize and code search data such as ATLAS.ti, used for large bodies of textual, graphical and audio and video data.

MAXDA, a world-leading mixed-methods software include quantitative analysis methods and qualitative analysis. In addition to that, Taguette is a free open-source, data organization option.

The software helps in Data storage and management, data searching and retrieval, coding, developing and testing theory and writing reports; however, they cannot replace humans as they cannot think, reflect and Analyse.

Cohen, L, Manion, L & Morison, K. ( 2007). Research methods in education. New York: Routledge

Dörnyei, Z. (2007). Research methods in applied linguistics: Quantitative, qualitative & mixed methodologies. Oxford: Oxford University Press.

Mackey, A & Gass, S.M. (2005). Second language research: Method and design. London Lawrence Erlbaum, Associate Publishers, Mahwah