FAO

SSA Data Management and Analysis Training

Qualitative Data Analysis

Objectives

1. Have a better understanding between quantitative and qualitative data analysis

1. Be able to identify and analyze concepts and themes in qualitative data

2. Be able to interpret qualitative data by providing possible and plausible explanations of the finding

Introduction

- **Qualitative data** is a categorical measurement expressed not in terms of numbers, but rather by means of a natural language description (text/words).

- **Qualitative data analyses** seek to describe textual data in ways that capture the setting or people who produced this text on their own terms.

•**They are inductive**—the analyst identifies important categories, patterns and relationships. There are often no predefined measures or hypotheses.

•**Focus on the interrelated aspects** – of the setting, group, or person under investigation - the case

Attributes of Qualitative Data

Data

Qualitative

"It was dusty, hot and humid inside the storage rubhall"

Quantitative

Discrete

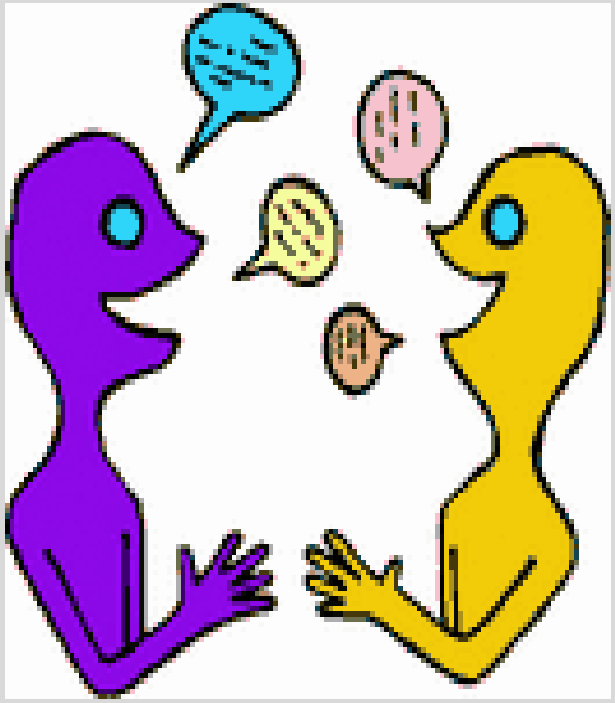
10 researchers were involved."

Continuous

5.264 tons of seed was inside the rubhall

Attributes of Qualitative Data

- **Discussion:** What are the major differences between qualitative and Quantitative Data Analysis (QDA)?



Qualitative Vs Quantitative Analysis

Qualitative

- Qualitative analysis is more concerned with meanings.
- Data can be observed but not easily measured. E.g. Colors, textures, smells, tastes, appearance, etc.

Quantitative

- Quantitative analysis uses data to provide answers which can be expressed numerically.
- Data be measured. E.g. area, weight, volume, time, price, income, ages, etc.

- Note: it is possible to convert some qualitative data into quantitative

Example: Qualitative and Quantitative data the flood plain of South Sudan

Quantitative

- ✓ Field sizes ranges from 0.5 8 acres, with an average of 2.3 acres (HH).
- ✓ The famers cultivates 2-4 different varieties (HH)
- ✓ Seed rate 5.6 kg/acre (HH)
- ✓ About 10-30 kg of seed normally hanged up on the tree branches (Observation)

Qualitative

Famers normally grow red (long maturing), white (short) varieties. White varieties are planted to escape flood while red ones are a bit tolerant to flood (FGD).

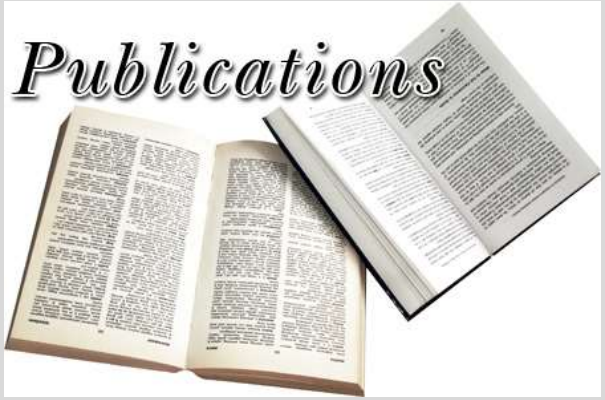
- ✓ Most sorghum fields were submerged in flood . However, the majority of the fields appeared to have red varieties (Observation) which are tolerant to flood (FGD).
- ✓ Common practice of safely storing seed is on tree branches to minimize molding (FGD).

Sources of Qualitative data

1. **In-Depth Interviews**: include both individual interviews (e.g., one-on-one) as well as "group" interviews (including focus groups).

2. **Direct Observation:** It differs from interviewing in that the observer does not actively query the respondent.

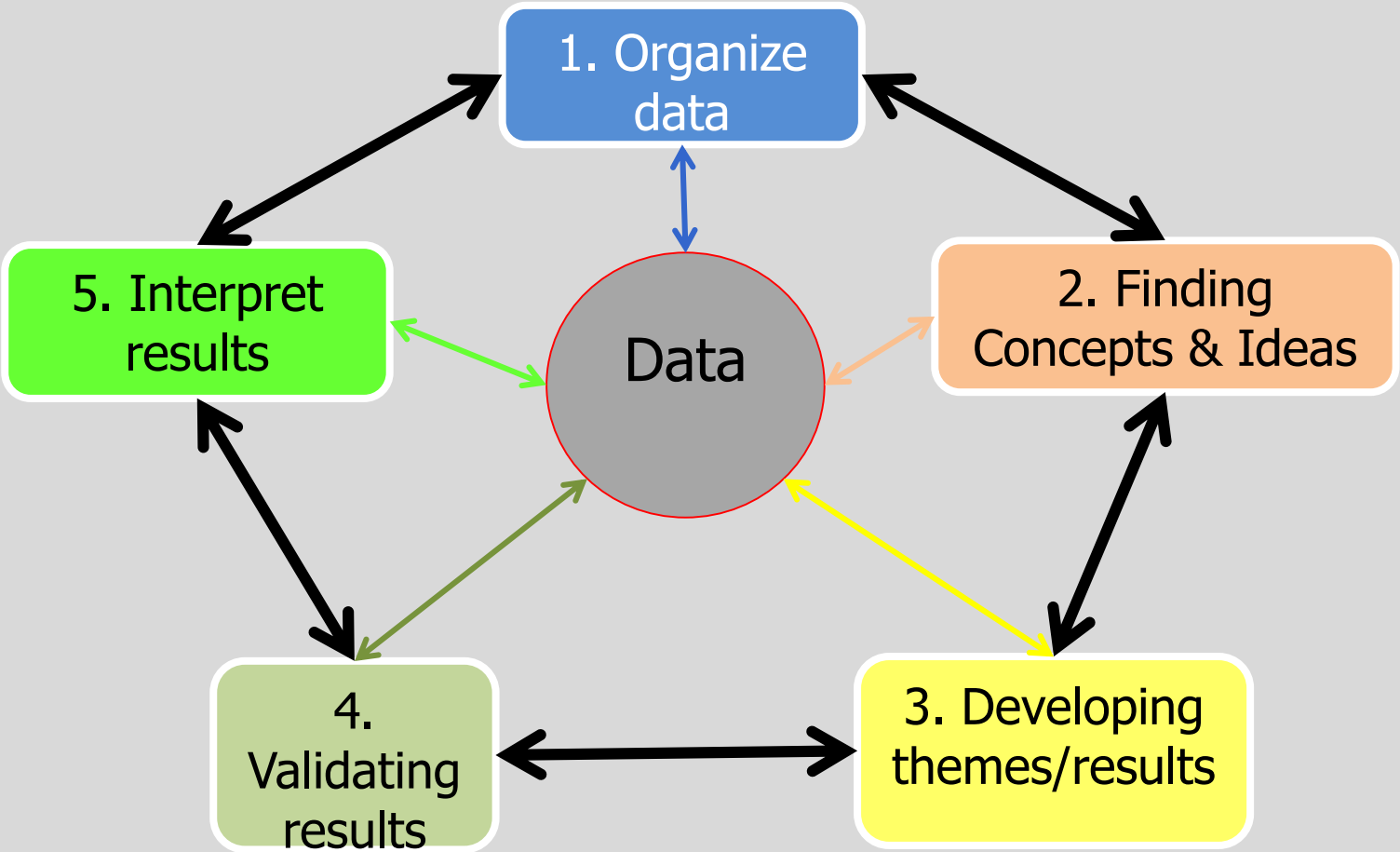
3. **Existing Documents:** It can include newsletters, magazines, books, reports, websites journals etc (2nd ary source).



Qualitative data can be recorded in a wide variety of ways including written notes, audio recording, video recording etc.

The 5 Steps in Qualitative Data Analysis

- The process of qualitative data analysis is fluid, so moving back and forth between steps is likely.

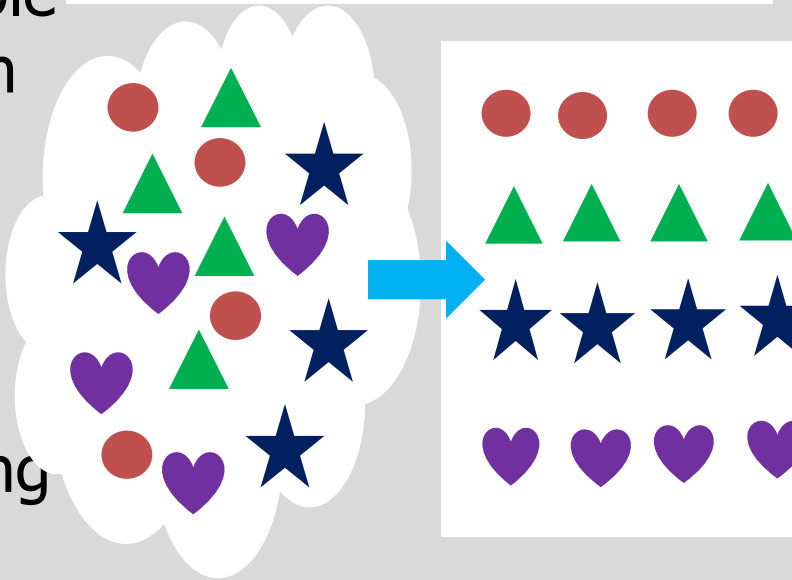


- The following steps above describe the basic elements of narrative data analysis and interpretation.

Steps Qualitative Data Analysis

Step 1. Organizing your data

- Data should be organized in a way that is easy to look at, and that allows you to go through each topic/question to pick out concepts and themes.
- **<u>Who should be involved in analysis?</u>** Preferably, multiple people be involved to be sure interpretation is not biased.
  - They should have enough time, subject/programme knowledge, and use the same systematic approach for reviewing and coding the data.



Steps Qualitative Data Analysis

Step 1. Organizing your data

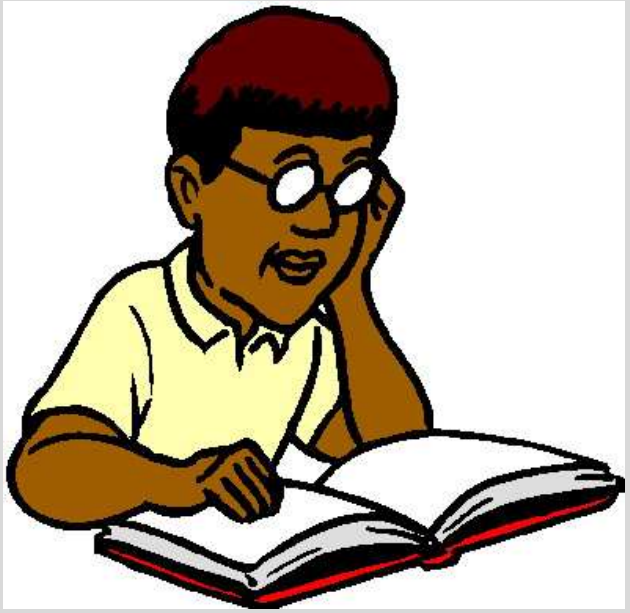
- **Tools:** Have necessary tools to analyze the data, either manually or using computer software package.

- ***Manual analysis:*** organizing, labeling, coding, summarizing data by hands.
  - Supplies needed include folders, pen/pencils, highlighters, headphone, note book.
- Computer software programs – for organizing and searching the data

Steps Qualitative Data Analysis

Step 2. Finding and Organizing Ideas and Concepts

- Good analysis depends on understanding the data. **Read and re-read the text.** If you have tape recordings, you **listen and listen and listen**.

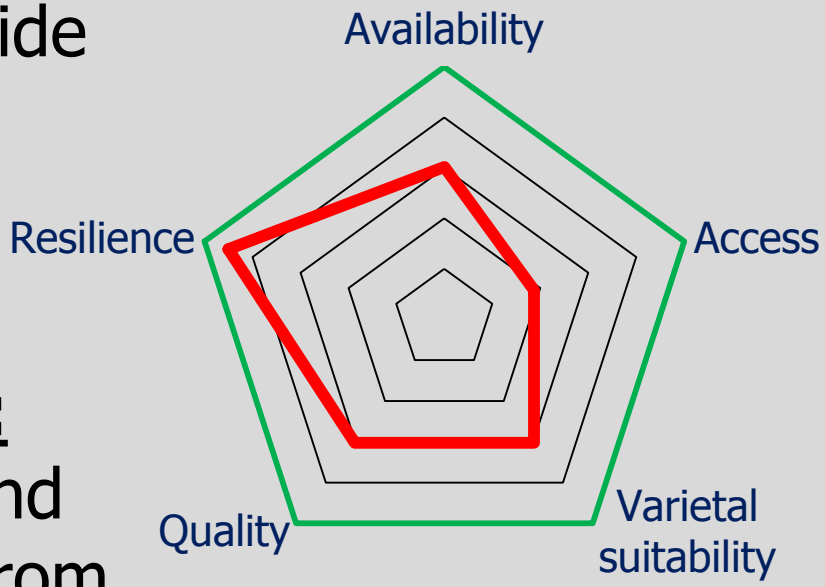


- As you go through the notes/transcript or recordings, identify salient themes or recurring ideas or language, or patterns of belief that link people and settings

Steps Qualitative Data Analysis

Step 2. Finding and Organizing Ideas and Concepts

- **<u>Thinking inside the box:</u>** The best way to review your data is to go back to your interview guide and keep focus on SSCF elements



- **<u>Thinking outside the box:</u>** Equally look at other ideas and themes that have emerged from your data (surprises).
  - Look at them in terms of how they relate to your questions and in terms of future research considerations.

Steps Qualitative Data Analysis

Step 2. Finding and Organizing Ideas and Concepts

- Focus by question or topic, time period or event. Pick out the words and expressions used frequently.

- Watch for unexpected ideas that are in line with assessment objectives.

- Focus by case, individual or group (e.g. female and male participants).

Steps Qualitative Data Analysis

Step 2. Finding and Organizing Ideas and Concepts

Coding and Categorizing data

- A code is most often a word, symbol or short phrase that symbolically assigns a summative for a portion of language-based or visual data.
- Coding helps in grouping responses into categories that bring together the similar ideas, concepts, or themes that have been discovered
- Meaningful segment of text in a transcript are assigned codes or category names.

Data	Catergories & Codes
The majority of homes normally get their sweet potato cuttings from their **own field.** However, this year most of vines that sprouted from the previous fields **were eaten up by some strange insects.** Most people had to go to and **buy from the neighboring community** which was not affected.	PM source: OSS & SN Localized pest outbreak (LPO) – acute PM availability Seed purchase form SSN

Steps Qualitative Data Analysis

Step 2. Finding and Organizing Ideas and Concepts

Quotes

- The analysis of qualitative data usually involves the selection of quotes to support the presentation of the findings.

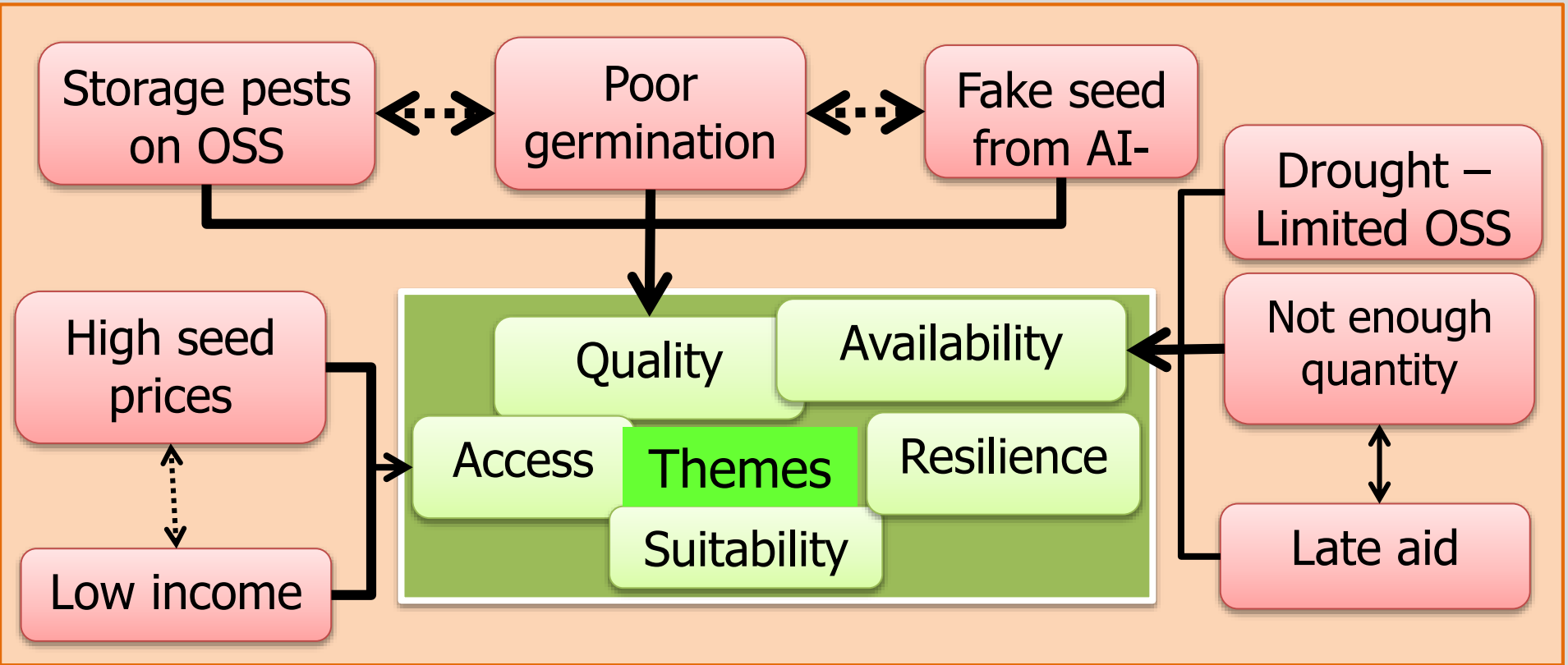
- Such quotes are usually anonymous but, if the interviewee is identified, it is common practice to let him or her see the quote and the context (the surrounding text).

Quote	Interpret
"I received 4kg of bulrush millet (KatPM3) and also 4kg of green gram N26 (Angle) from the agricultural office. This time around, they brought in seed late when **I had already planted all my fields using my own seed**. **I am keeping the seed I got for the next season.** I will refund them with what I had planted" Susan Musyoki from Kilome Sub-county.	Late seed aid. Quality concern Availability not a problem

Steps Qualitative Data Analysis

Step 3. Building Over-Arching Themes

- Each of the response categories has one or more associated themes that give a deeper meaning to the data.
- Different categories can be collapsed under one main over-arching theme.



Steps Qualitative Data Analysis

Step 4: Validating/Confirming Findings

- Validity and reliability
  - *Validity:* The accuracy with which a method measures what it is intended to measure (Schopper *et al.,* 1993) and yields data that really represents "reality" (Goodwin *et al.,* 1987).
  - ***Reliability:*** The consistency of the research findings (Kvale, 1996).

- Testing Emergent Findings and Hypotheses As themes and patterns emerge from the data, it is important to go through the data, carefully searching for negative instances (Outliers) of the patterns.

Steps Qualitative Data Analaysis

Step 4: Validating/Confirming Findings

Methods

- Triangulation: Findings are more dependable when they can be confirmed from several independent sources. Their validity is enhanced when they are confirmed by more than one "instrument" measuring the same thing.
  1. Different sources (FGD, KII, HHS)
  2. Different methods – same questions asked in different ways giving similar results.
  3. Different researchers – different people analyzing the same data set.

Steps Qualitative Data Analysis

Step 5: Interpretation (see session 5 as well)

- Finding Possible and Plausible Explanations of the Findings. So, What Did You Find?

- Some Questions
  i. Are these findings what you were expecting, based on what? the literature?
  ii. Were there any major surprises in the findings?
  iii. How are they different/similar to what is stated in the literature from other similar studies?
  iv. ?????

Steps Qualitative Data Analysis

Step 5: Interpretation

Important Sources to Answer Those Questions

- *Personal notes/observations/journal:* You've been paying attention and collecting data throughout the research process. Now this information will help you to tie themes together to get a better idea of the results you found and why you found them
- *Literature:* Go back to the literature and compare your findings. This may also help you find possible explanations for them.

- *Others Experts:* Consult others with similar experience in the field

Steps Qualitative Data Analysis

An Overview of the Final Steps

i. What are the Implications of the Findings?
ii. Why is the work (analysis) important?
iii. Why should anyone pay attention to it?
iv. What are the implications within each community?
v. How will the partners within the communities react to the findings?
vi. What ACTION are needed to address the findings?

- The findings from the research should help us not only in identifying strategies to bring about change, or to be more responsive to a community's needs, but also help us find realistic ways of implementing those strategies.

Reporting (More in the next session)

- Determine (before writing the final report) who will have access to the information and how those people/communities will be affected by it.

- Keeping in line with the foundational principles of the research project, we aim to disseminate the results carefully, sensitively, and in conjunction with those affected.

- It is important to remember that some study results are sensitive to some people and communities. So we ask ourselves, "What is the most appropriate way to let people know of the results of the study?"

- There are many options:
  - ✓ Newspaper, newsletter, mail, radio/TV or video, council meeting, focus groups, community workshops/seminars, formal report

These decisions may also have funding implications to be considered

Exercise 6.1. Analyzing FGD Recordings

- You have been involved in facilitating focus group discussions on seed security issues in West Nile Region. Your supervisor request you to provide a complete analysis of your findings.