



**ACTION RESEARCH**  
SESSION 5.4  
**QUALITATIVE DATA  
ANALYSIS**



# Objectives

At the end of the session, teachers should be able to:

- 1 describe the steps to be followed in qualitative data analysis;
- 2 perform qualitative analysis on data provided by developing themes from them and sorting responses accordingly; and
- 3 prepare a summary table showing themes with frequencies and percentages of mention.



# Key Understandings

- 1 Qualitative data analysis deals with the scrutiny of descriptive, narrative, nonnumerical data such as those obtained from interview transcripts, observation notes, audio and video recordings, images, and textual documents.
- 2 The first step in qualitative analysis is the drawing out of themes from a preliminary inspection of qualitative data or responses.
- 3 Qualitative analysis is carried out by assigning each qualitative data or response with a theme as category.
- 4 A summary table accompanied by a bar graph showing frequencies and percentages of research participants mentioning each theme completes the qualitative analysis.
- 5 Direct quotes from participants should also be included to illustrate responses given for each theme.

# Materials

- laptop
- LCD projector
- 3 small boxes
- 5 sheets of manila paper
- marking pens (5 pieces)
- masking tape
- scissors
- 3 sets of 16 words or phrases as listed for the task under *Activity*; should be written in small strips of paper
- poster (or MS PowerPoint slide) on the suggested categorization as shown under *Activity*
- copies of qualitative data on “Reasons for Absence” for the task under *Application*



## TIME ALLOTMENT

120 minutes/2 hours

# References

**Nichols, A.H. 2018.** “Analyze Qualitative Data.” *Evaluation Toolkit*. The Pell Institute for the Study in Higher Education Policy and Pathways to College Network (website). Accessed May 12, 2018. <http://toolkit.pellinstitute.org/evaluation-guide/analyze/analyze-qualitative-data/>.

**Sutton, Jane and Zubin Austin. 2015** “Qualitative Research: Data Collection, Analysis, and Management.” *Canadian Journal of Hospital Pharmacy* 68, no.3 (May-June): 226-231 Accessed May 12, 2018. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4485510/>.

# Introduction

Begin the learning session by saying: “Good \_\_\_\_\_, everyone. I am \_\_\_\_\_, your facilitator for today’s LAC session. We will be continuing our discussion on data analysis for Action Research. Our focus will be qualitative data analysis and its three aspects. We will also talk about the steps in analyzing qualitative data, more specifically, developing themes, sorting responses according to themes generated, and preparing a summary table on the results of the analysis.”

## Activity (10 minutes)

Lead the participants in doing this pre-discussion activity on classifying words and phrases into categories. Observe the following instructions.

- 1 Ask the participants to count off from 1 to 3 to be able to divide them into three groups. Let the participants with the same numbers be seated together.
- 2 Give each group a box that contains the following words and phrases written in small strips of paper. Ask them to think of general categories for the words and phrases that are similar or related in idea. Have them classify the words and phrases accordingly.

### List of words and phrases

bullying	graphic organizer
portfolio	performance task
think-pair-share	daily lesson log
daily lesson plan	absenteeism
K-W-L chart	quarterly test
tardiness	role playing
seatwork	school form 1 (SF-1)
noise	instructional materials

- 3 Distribute one manila paper and one marking pen to each group as you go around and look at their progress. Prepare also masking tape for the groups to be able to post their output. Have them write down the categories and the corresponding words and phrases in columns on the manila paper. Give them 15 minutes to do this.

The following is a suggested categorization of the words and phrases.

Classroom Problems	Assessment Strategies	Teaching Strategies	Teacher's Deliverables
bullying	portfolio	think-pair-share	daily lesson plan
absenteeism	performance task	role playing	daily lesson log
tardiness	seatwork	K-W-L chart	school form 1 (SF-1)
noise	quarterly test	graphic organizer	instructional materials

- 4 When the groups are done with their work, ask them to put up their posters on the board in front of the room.

### Analysis (10 minutes)

Lead the processing of the result of the activity by asking the participants the following suggested guide questions.

- 1 What was the first thing that you did to accomplish the task?
- 2 How did you come up with the categories?
- 3 Were there words or phrases that you found difficult to classify? Why? What did you do with these difficult words or phrases?
- 4 How did you make sure that every word and phrase was categorized?
- 5 What can you say about the different categories that the different groups developed? (*Allow the participants to look at the output and give their comments.*)
- 6 Which classification do you think is the most suitable?

Say: "Now, let me show you the recommended categories for the given words and phrases." Reveal the suggested categories with the corresponding words and phrases. Continue by saying: "Our short activity is similar to how we analyze qualitative data. I will be sharing the proper and easy way of doing this."

## Abstraction (40 minutes)

### UNDERSTANDING QUALITATIVE DATA ANALYSIS

As mentioned in the last LAC session on data collection, we need to carefully choose how we implement our Action Research and how we collect data because these have serious implications on data analysis and interpretation. This is a timely reminder as we discuss *qualitative data analysis*. Methods used for collecting qualitative data can take a long time, particularly if the information have to be gathered in the field or outside the classroom and/or the school. The same goes for qualitative data analysis; researchers who choose to collect qualitative data have to be ready to spend a good amount of time in data analysis.

Novice Action Researchers often assume that qualitative data analysis is much *easier* than statistical data analysis. In fact, it is the opposite. Preparing qualitative data for analysis can take much longer than numerical data coding in MS Excel. Qualitative data analysis actually begins as the researcher collects data. The researcher continually reflects and analyzes and adjusts research methods in the course of data collection. Pieces of data ought to be carefully *labeled* and *organized* to ease the ongoing process of analysis. *Verbatim transcription* is also required.

Qualitative data analysis involves examining, categorizing, and tabulating descriptive or narrative responses and information. The whole process can be considered as “recombining” qualitative evidence in order to address the research question that initiated the study.

The process of qualitative data analysis entails the use of *analytical* and *logical reasoning* in examining each qualitative response or data. This form of analysis is suitable for experiments where the Action Researcher prefers to collect qualitative data instead of numerical data or where qualitative information are collected to *complement* or *supplement* numerical data. Like quantitative data, qualitative data collected from various sources using different collection methods are assembled, reviewed, and then analyzed to summarize findings and draw conclusions.

We can describe the analysis of qualitative data as consisting of the following five (5) steps.

- 1 The qualitative data are prepared for analysis.
- 2 Data or responses are read thoroughly to get to know them.
- 3 From the preliminary study of the data, categories or themes are developed.
- 4 Responses are classified according to the categories or themes.
- 5 Data are tallied then a summary table is prepared with frequencies and percentages for the categories or themes. Specific responses are also selection to serve as examples of how research participants expressed each category or theme.

### PREPARING QUALITATIVE DATA FOR ANALYSIS

Before proceeding to the task of analyzing, qualitative data must first be properly *identified*. Identification numbers can be assigned to each participant and/or

document. Demographic data about participants should also be noted as part of the description of the sample. Then, data collected from interviews and observations must be *transcribed*. It is good practice to begin the transcription immediately after data collection. Because some interview and observation notes may not be clearly written. If these would be transcribed on the same day that these are collected, such vague notes may still be clarified. The use of word processor in encoding the transcriptions is suggested because it facilitates data analysis. Below is an example of a MS Word file that contains hypothetical data.

Q. Ano ang karanasan mo sa mga graphic organizer (GO) na ginamit ng iyong guro?

ID	RESPONSE
01	Maganda, mas lalo kong naintindihan ang lesson
02	Naging malinaw ang tinuturo ng teacher dahil sa GO
03	Na-imagine ko tuloy kung ano ang connection ng mga terms sa isa't-isa
04	Mas natutunan ko ang lesson dahil sa binigay na GO ni teacher
05	Ok lang, pareho lang ng nakasulat sa libro kaso lang pinaikli at nilagay sa isang diagram
06	Minemorize ko na lang ang figure at yun ang nakatulong na maalala ko ang lesson
07	Bale parang nagka-idea na kami sa lesson dahil sa GO
08	Medyo nalito ako sa GO kasi iba yung ginamit na words kaysa sa book
09	Nakatulong ang GO para maihanda ang isip ko sa ituturo ni teacher
10	Mas na-focus ako sa GO kaysa sa explanation ng teacher

## GETTING TO KNOW THE QUALITATIVE DATA

As you prepare and organize the responses for qualitative data analysis, you also get to know your data. This means that you get to read them well in order to have a good grasp of what each response means and what each statement conveys.

Being familiar with the data helps in the process of organizing them. Qualitative data analysis implies *dividing* responses into chunks or segments that are later compiled for a meaningful discussion. As you review the data and mentally process them, you discover repetitive or recurring responses. This requires thorough examination of the messages that are expressed in every response. Some of these messages are clearly articulated; sometimes these are hidden in euphemisms. It is the task of the researcher to sift through the words and find the essence of the statements.

Thus, *chunking* or *slicing* responses into bite sizes is an essential foundation for the next phase of qualitative data analysis, which is the labeling of chunks or segments. The labels then become the categories.

## DEVELOPING THEMES FROM PRELIMINARY INSPECTION

From the initial reading of responses and chunking of them into segments, you can already think of proper general categories. This process of examining data and finding the major ideas or thoughts that are apparent is called *open-coding*. An initial examination of a sampling of responses will reveal general patterns. Extracting patterns is called *theming*. Technically, theming refers to the “drawing together of codes from one or more transcripts to present the findings of qualitative research in a coherent and meaningful way” (Sutton & Austin 2015). It is important to engage in theming as soon as possible so that you can focus on these patterns or themes as they appear in subsequent data collected. These themes comprise the system of categorization that will be used to group data that provide *similar* types of information.

It is suggested that the coding scheme consists of three (3) to five (5) themes. Three (3) themes give the researcher something to talk about as findings. More than five (5) themes may be difficult and cumbersome to discuss. If this is the case, the researcher may have to rethink the categories and develop broader ones.

The table below shows the themes that can be derived from the preliminary set of data on graphic organizers given above.

Q. Ano ang karanasan mo sa mga graphic organizer na ginamit ng iyong guro?					
<table border="1"><thead><tr><th>THEMES</th></tr></thead><tbody><tr><td>Preparation for lesson (PL)</td></tr><tr><td>Clarification of lesson (CL)</td></tr><tr><td>Increase of student comprehension (SC)</td></tr><tr><td>Negative: confusion (N)</td></tr></tbody></table>	THEMES	Preparation for lesson (PL)	Clarification of lesson (CL)	Increase of student comprehension (SC)	Negative: confusion (N)
THEMES					
Preparation for lesson (PL)					
Clarification of lesson (CL)					
Increase of student comprehension (SC)					
Negative: confusion (N)					

When you think you may have extracted the major themes based on the initial reading of the data, review what you came up with. Look for interrelations among them. Return to the research question and examine if the themes you derived will provide the answer. The research question will guide you in deciding whether a theme should



be retained or re-formulated. It will also enable you to identify a theme that is not appropriate, which should then be eliminated.

Remember that not everything that a respondent or participant says or does have to be included in the analysis. Only those responses that are pertinent to the research question should be examined and categorized. This is similar to the outliers in quantitative data analysis. It is sometimes advisable to eliminate outliers because these will unnecessarily skew the analysis.

## CLASSIFYING RESPONSES ACCORDING TO THEMES

Having identified three to five major themes from the data, the researcher now has to return to each response and assign each to one of them. One way of facilitating this phase is to mark key words in the responses that would serve as guide in classifying them according to themes. Some researchers simply underline or circle the key words in each response. Others use letter or number codes or labels for themes as markers on responses. A few researchers use color-coding. With the use of highlighter pens of different colors, the researcher may shade the same key words with the same colors. This is an easier way of assigning responses to particular themes.

It might happen that a response will include two or more themes. Therefore, parts or segments of a response may belong to different themes. This explains why the total frequency across themes sometimes *exceeds* the sample size  $n$ .

In case some responses do *not* fit any of the themes, there are two things that can be done: the themes either have to be *revised* to *accommodate* these responses or the researcher has to create a “catch all” category *Others*.

As you categorize responses according to themes, you must focus on the analysis and not be sidetracked by those that are not related or necessary for the research question. Identify these irrelevant responses and disregard them. For example, if the interview question asked respondents to describe their experiences with graphic organizers and one interviewee talks about the teacher’s treatment of students, it is better to eliminate the response from the data set. In other words, you may also have to go through the process of filtering the data you collected.

Some researchers, however, might mention receiving such an irrelevant response as part of the findings or the reflection at the conclusion of the Action Research as a way of giving a complete report on the study.



Below is an example of the classification of responses according to the themes.

Q. Ano ang karanasan mo sa mga graphic organizer na ginamit ng iyong guro?

THEMES and RESPONSES	
1 <i>Preparation for lesson</i>	<ul style="list-style-type: none"><li><input type="checkbox"/> Bale parang nagka-idea na kami sa lesson dahil sa GO (07)</li><li><input type="checkbox"/> Nakatulong ang GO para maihanda ang isip ko sa ituturo ni teacher (09)</li></ul>
2 <i>Clarification of lesson</i>	<ul style="list-style-type: none"><li><input type="checkbox"/> Naging malinaw ang tinuturo ng teacher dahil sa GO (02)</li><li><input type="checkbox"/> Ok lang, pareho lang ng nakasulat sa libro kaso lang pinaikli at nilagay sa isang diagram (05)</li></ul>
3 <i>Increase in student's comprehension</i>	<ul style="list-style-type: none"><li><input type="checkbox"/> Maganda, mas lalo kong naintindihan ang lesson (01)</li><li><input type="checkbox"/> Na-imagine ko tuloy kung ano ang connection ng mga terms sa isa't-isa (03)</li><li><input type="checkbox"/> Mas natutunan ko ang lesson dahil sa binigay na GO ni teacher (04)</li><li><input type="checkbox"/> Minemorize ko na lang ang figure at yun ang nakatulong na maalala ko ang lesson (06)</li><li><input type="checkbox"/> Mas naalala ko ang nakalagay sa GO kaysa sa explanation ng teacher (10)</li></ul>
4 <i>Confusion</i>	<ul style="list-style-type: none"><li><input type="checkbox"/> Medyo nalito ako sa GO kasi iba yung ginamit na words kaysa sa book (08)</li></ul>

A particular theme is considered essential if it occurs frequently among the responses or is mentioned several times by informants. Before finalizing the results of your analysis, review the themes and the responses classified under each of them. Make sure that the themes and the responses do provide the answer to your research question.

You may also ask a disinterested but equally competent researcher to review the themes as well as the responses arranged according to each of them. This process is called *peer debriefing*, which is a means of validating your analysis. Another way of carrying this out is by asking a fellow teacher to reanalyze the data without him or her knowing your categorization. You can then compare your themes with those developed by your peer and decide whether you want to keep the themes you have or include one or two of those that your peer has extracted from the data.

Some researchers use codes or labels for the themes to facilitate classification of responses. Labels may be in the form of terms, which are often used by participants themselves. Note the letters in parentheses in the table above such as “PL” for

preparation for lesson and “CL” for clarification of lesson. These are labels that can be used to tag responses and indicate the specific theme under which they are classified.

## SUMMARIZING THE RESULTS IN A TABLE

When responses have been organized according to themes, the next phase is to prepare the summary of the findings. It is a way of displaying the results that will make it easier for the researcher to draw conclusions. The display can be in the form of a graph, table, or matrix (Nichols 2018).

Results from the sample earlier regarding use of graphic organizer may be presented in tabular format as shown below. The table includes the themes, sample responses, frequency or number of responses given classified under themes, percentages of responses, and ranking of themes according to frequencies with rank 1 given to the theme with highest frequency.

TABLE --. Summary of Qualitative Responses

Themes	Sample Responses	Frequency	Percent (%)	Rank
1. Preparation for lesson	Nakatulong ang GO para maihanda ang isip ko sa ituturo ni teacher (09)	2	20	25
2. Clarification of lesson	Naging malinaw ang tinuturo ng teacher dahil sa GO (02)	2	20	25
3. Increase of student	Mas natutunan ko ang lesson dahil sa binigay na GO ni teacher (04)	5	50	1
4. Negative: confusion	Medyo nalito ako sa GO kasi iba yung ginamit na words kaysa sa book (08)	1	10	4



### Application (50 minutes)

Lead the participants as they apply what they have learned about the simple steps in analyzing qualitative data by doing this activity. Observe the following instructions.

- 1 Ask the participants to sit together with the same group members as they had earlier, then distribute copies of the qualitative data to be analyzed.
- 2 Have the groups analyze the given qualitative data, which are responses of Grade 6 pupils (n = 10) to the question “What is the

reason you were absent yesterday?” Come up with 2 to 3 themes and then categorize the responses according to them.

Reasons for Absence	
<ul style="list-style-type: none"><li>• Wala akong baon (01)</li><li>• Mahirap sumakay (02)</li><li>• Hindi ako nakagawa ng assignment (03)</li><li>• Maraming ginawa sa bukid (04)</li><li>• Hindi ko alam ang lesson (05)</li></ul>	<ul style="list-style-type: none"><li>• Hindi ako pinapasok ng magulang ko (06)</li><li>• Takot ako sa teacher (07)</li><li>• Wala akong ganang mag-aral (08)</li><li>• Binu-bully ako ng mga classmates ko (09)</li><li>• Maiinit at masikip ang classroom (10)</li></ul>

- 3 Ask the participants to prepare a summary of *frequency* and *percentage table* and select one sample response for each theme or category. Note that the numbers after each response is the ID number of the pupil-respondent. Give the groups 50 minutes to complete this task.
- 4 When the groups have finished classifying the responses according to themes, ask them to write their work on manila paper. Then, call on representatives from each group to share and explain their analysis using the summary table. Comment on the themes derived, the similarities and the differences observed, as well as the sample responses used.

## Closing (5 minutes)

End the learning session by saying: “Good job, everyone! We have now come to the end of our learning session for the day and the conclusion of our sessions on data analysis. Thank you for actively participating. I hope that you will find what you have learned today to be helpful in your journey as an Action Researcher and, eventually, a more effective teacher. Indeed, both teaching and research are like a journey. Do not forget that the painstaking process of analyzing data, be they quantitative or qualitative, will be rewarded by meaningful results that we can use to help us make good instructional decisions. For the last three (3) LAC sessions on Action Research, we will be discussing how to prepare research proposals and research reports. Be sure to bring your laptops with you as we will be writing drafts of Action Research proposal and/or report. Maraming salamat po at mabuhay po kayong lahat. God bless you all!”

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# BEST Basic Education Sector Transformation



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