

# Applied Research: Theory and Practice

Weeks 5 and 6 – February 23-27, 2015

## Lecture

### Qualitative Data

- Data that are not easily reduced to numbers
- Data that are related to concepts, opinions, values and behaviours of people
- Data that can be broken down through the process of **classifying** or **coding**; the pieces of data are then **categorized**.

### What is Qualitative Data Analysis?

- Qualitative Data Analysis (QDA) is the range of processes and procedures whereby we move from the qualitative data that have been collected into some form of explanation, understanding or interpretation of the people and situations we are investigating. **OR**
- Data analysis is a process of breaking down data into smaller units, determining their importance, and putting pertinent units together in a more general form.

### Qualitative Data Collection

- Observation (field notes, checklist....)
- Interviews
- Documents (reports, meeting minutes)
- Focus Groups
- Tape Recorder
- Audio/Video Recording
- Photographic Data
- Questionnaires (open-ended)

## Coding

- **Coding** is a process of reducing the data into smaller groupings so they are more manageable.
- The process also helps you to begin to see relationships between categories and patterns of interaction.
- Develop a set of codes using both codes that you predefine and ones that emerge from the data.
- Predefined codes are categories and themes that you expect to see based on your prior knowledge.
- Sections of text transcripts may be marked by the researcher in various ways (underlining in a colored pen, given a numerical reference, or bracketed).
- In the early stages of analysis, most if not all sections of the text will be marked and given different 'codes' depending on their content.
- As the analysis progresses these codes will be refined or combined to form themes or categories of issues.

## Categories or Themes

- A major step in analyzing qualitative data is coding speech/ words/text into meaningful categories/themes.
- As you read and reread through the data, you can compile the data into categories or themes.
- A **theme/category** is generated when similar issues and ideas were expressed by participants.

- The **theme or category** may be labeled by a word or expression taken directly from the data or by one created by the researcher because it seems to best characterize the essence of what is being said.

### **Organize Data**

- The field work is over
- Attempt to make sense of the data as a whole
- Researcher starts with a large set of data and seeks to narrow into small groups of key data
- Organizing the materials by type: all observations, all interviews, all field notes.....

### **Exploring Data**

- The first step in data analysis is to explore the data
- Read through data and make sure all information is complete and legible before proceeding to analysis
- Obtain a general sense of the data
- Memoing - read and write memos about all field notes, observer comments to get an initial sense of the data

### **Steps in Coding Data**

1. Get a sense of the whole. Read all of the transcriptions carefully.
2. Pick one document (e.g. one interview, one field note....). Go through it, asking the question “what is this person talking about?”
3. Identifying text segments, placing a bracket around them and assigning a code word or phrase that describes the meaning of the text.

4. After coding an entire text, make a list of all the code words. Group similar codes and look for redundancy codes
5. Take the list and go back to the data. Circle specific quotes from participants that support the codes
6. Reduce the list of codes to get five to seven **themes/categories**

### **NB: Identifying Themes**

- Are there patterns that emerge?
  - Events that keep repeating themselves
  - Key phrases that participants use to describe their feelings

### **NB: Like codes, themes have labels. Types:**

- **Ordinary themes** – themes that a researcher might expect to find
- **Unexpected themes** – themes that are surprises
- **Hard-to-classify themes** – themes that contain ideas that do not easily fit into one theme or that overlap
- **Major and minor themes** – themes that represent the major ideas and the minor secondary ideas in a database

### **Summarize your Data**

- After you have coded a set of data, write a summary of what you are learning.
- Similarly, summarize the key themes that emerge.
- With your data coded and summarized you are ready to look across the various summaries and synthesize your findings across multiple data sources.

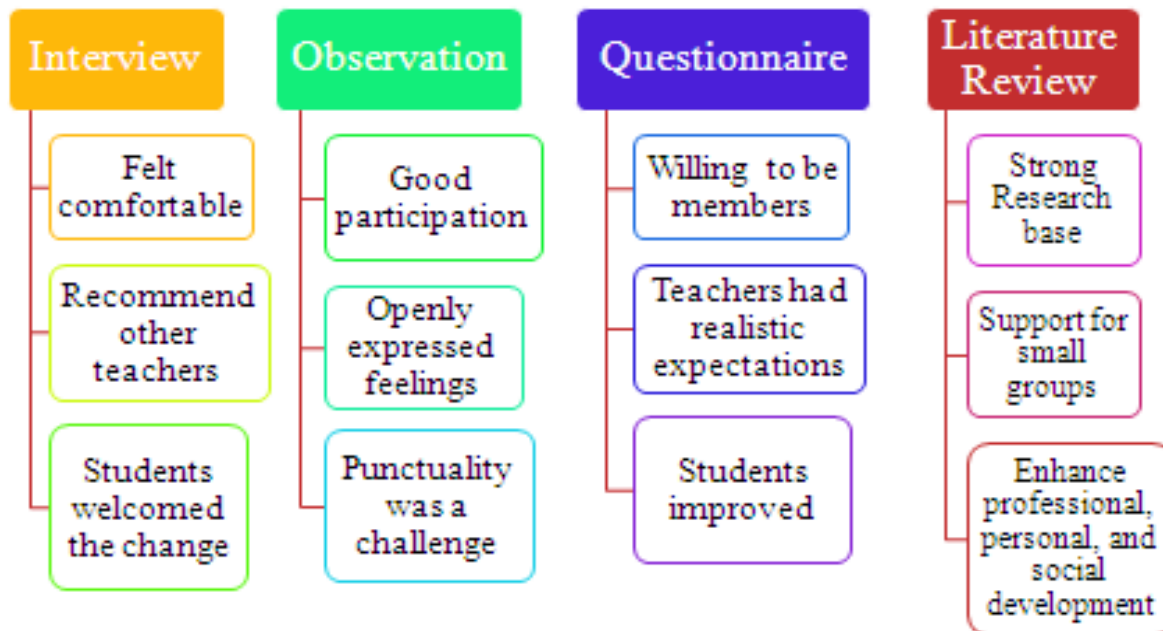
## An Example of Initial Coding

Interview Transcript	Initial Coding
<p><b>Interviewer:</b> “Can you tell me about what you like to eat?”</p> <p><b>Child:</b> I like chips, sweets. I like sweets and chocolate the most. I like apples and oranges. Oh! and pizza. I really like pizza.</p>	<p><b>Food Preferences</b></p>
<p><b>Interviewer:</b> “What do you like about those things?”</p> <p><b>Child:</b> Well, the apples and the other fruits. I just like the taste and they are healthy. We eat those in school now and my friends like them, so I eat them with my friends.</p> <p>I really like sweets and chocolate though, they are my favourites but I know they aren’t really good for you. If you eat too many they can be bad for your teeth.</p>	<p><b>Food Preferences</b></p> <p><b>Healthy Foods</b></p> <p><b>Food Choices in school</b></p> <p><b>Peer influence</b></p> <p><b>Effects of sweets and chocolate</b></p>

## An Example of Final Coding

Final Coding (category/theme)	Initial Coding Framework
<p><b>Fads and Fallacies about Foods</b></p>	<p><b>Perception of Food</b></p> <p><b>Positive notions of Food</b></p> <p><b>Negative notions of Food</b></p> <p><b>Healthy/unhealthy Foods</b></p>
<p><b>Copy Friends</b></p>	<p><b>Peer Influence</b></p> <p><b>Copying</b></p> <p><b>Food choices in school</b></p> <p><b>Food choices and preferences of friendship groups</b></p>
<p><b>Diet in Childhood</b></p>	<p><b>Diet in Childhood</b></p> <p><b>Food Preferences</b></p> <p><b>The need to be healthy as a child</b></p>
<p><b>Consequences of Food Items</b></p>	<p><b>Effects of sweets and chocolate</b></p> <p><b>Effects of junk foods</b></p> <p><b>Effects of fizzy drinks</b></p>

## Collating Data into a Table of Coded responses



## Displaying Findings

- It is important to summarize the information you have collected in an appropriate and meaningful format that you can share – **“think display”**
- Display whatever works as a practical way to encapsulate the findings of the study
- Putting your data into a visual format can also help you see new aspects of it.

1.

### Comparison and Demographic Tables

Table 1  
Table Showing the Students' Responses on the Reasons for being Absent from Classes

Girls Responses (Absenteeism)	Boys Responses (Absenteeism)
Too many chores	Caring for animals
Financial constraints	Heavy work load at home
Demands at home	Financial constraints
One parent	Poor transportation

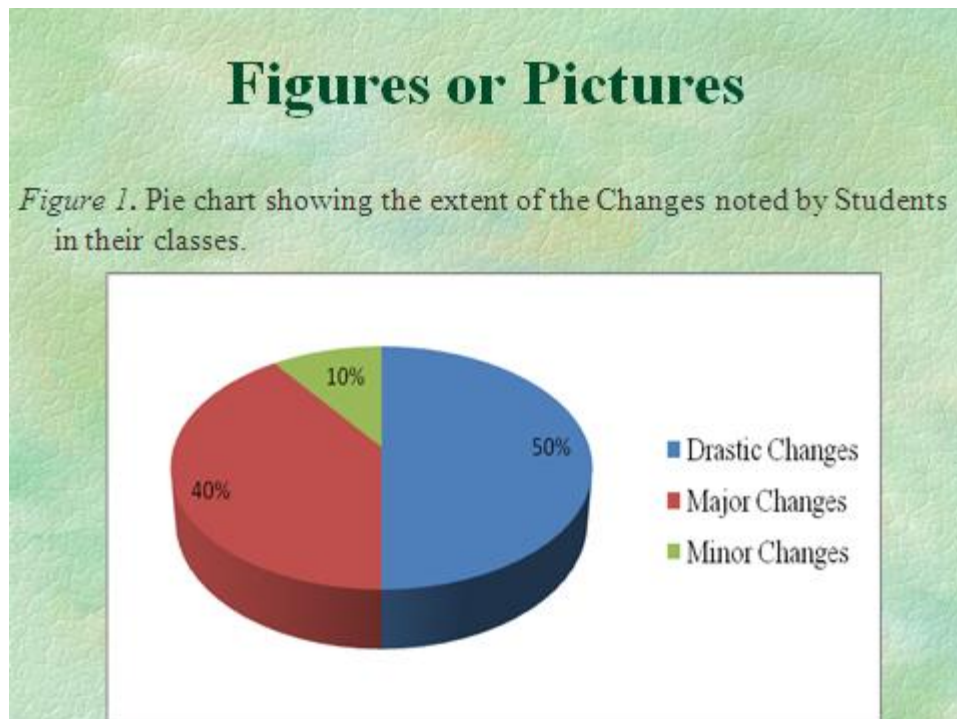
2.

## Tables

**Table 2**  
*Table Showing the Students' Responses on the Changes that were Evident in their Classes*

Changes evident	Always	Often	Seldom	Never
Classroom Management	18	2	-	-
Students Involvement	20	-	-	-
Spiritual Enrichment	10	8	2	-
Cooperative Learning	10	5	5	-
Positive Attitude to Teaching	20	-	-	-

3.

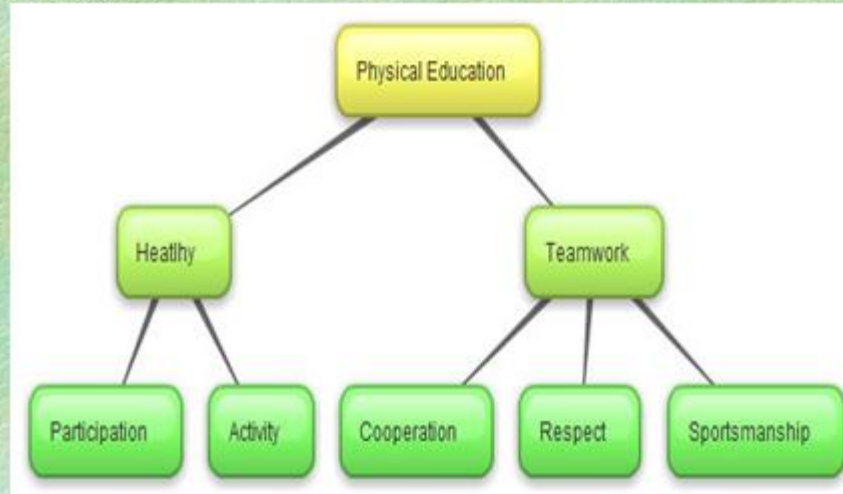




4.

## Diagrams/Maps

Figure 2. Concept map showing Students' Responses to the Importance of Physical Education classes



5.

## Written (narrative) Discussions of Findings

Based on my weekly observation of the group members it was clear that they all welcomed and embraced this initiative at the college. The participation was excellent. Four members participated in the lively discussions and each got the opportunity to share in leading the meeting. The participation and involvement of the members were very encouraging, they asked questions for clarity, added their ideas, and shared what they have been doing in their classes.

The level of zeal and enthusiasm expressed in the group were very good. The members laughed at each other and at times they wanted to go ahead of the agenda (Appendix H). The icebreaker which was a regular feature of the group meeting helped to stimulate much laughter and provided the welcome opportunity to learn more about each other. The lively discussions was an indication of the members' openness to share which resulted in some occasions the meetings would go over the allotted one hour.

Punctuality however, was a challenge, this really needed improvement. Two of the members were always late. One member expressed the need to prepare for the next class as a reason for being late, while the other member cited departmental issues to deal with before the meeting. On most occasions they were either 10 min or 15 min late. They would always tender their humblest and sincere apologies. The other group members who were on time always expressed the need to wait on the others even if it means going over the allotted time.

6.

## Dialogue that support Themes

All four teachers described their feelings/attitudes working with the group as being; very **comfortable**, very **relaxed**, very **enthused**, and a high level of **confidence** around peers. They all expressed these feelings in regards to both being in the group as well as outside of the group meeting. All four teachers again expressed the positive influence of the group members on their attitude and likewise their feelings towards the group members and even other staff members. Reference was made to the **improved communication** among members outside of the meetings, such as the sharing and using cell numbers and e-mail addresses. Based on the positive influence all four members cited the desire to **continue** to be a member of the study group. Again all four teachers indicated a **strong recommendation** for all the other teachers to be a part of a study group whether on a departmental level or in a general one that has a representative of each department.

7.

## Quotes from Interview Data or from Observations of Individuals

Selected questions on the teachers interview (Appendix C) were used to report the professional changes that were evident after the implementation of the study group. The teachers' interview indicated that all four members were willing participants in the study group. Three members cited the information shared on the structures and strategies as their greatest achievement. The other member cited the support that was evident from the information shared on the structures and strategies.

**Others:**

8. **Images**

9. **Flow Charts**