Analysis of Qualitative Data

Data, which is expressed in subjective way or in language but not in numbers and collected through observation and interview is known as qualitative data. Generally, qualitative data are collected from open ended questions or observation. Qualitative data are to be systematized to make it understandable. Such data are analyzed using various techniques which are known as analysis of qualitative data. Analysis of qualitative data explains the fact that helps to understand the significance or importance and complexity of subject matter. There is no rigid process of analyzing the qualitative data but some steps that are followed by most of the researchers are given below:

a) **Data reduction:** Data are collected at first in large numbers. To classify the data into different classes, data is to be reduced. Thus, inter-related data should be integrated and non-related data is to be removed to reduce the data. Data can be reduced through tabulation, categorization, coding, comparison, case analysis and integration.

b) **Data display:** Data are to be presented in a certain format for the integration of data. It helps to keep data in condensed form so that data reduction and summarizing is possible. Data presentation is made preparing table, figure, diagram and comparative matrix.

c) **Drawing conclusions:** The researcher should draw conclusions from the presentation and analysis of data. The researcher should check biasness in data that shows the reliability and validity of research. Reliability can also be increased taking feedback from external experts.

Method of analyzing qualitative data

Qualitative data analysis is related to integration and classification of data and watching the trend/ behavior of the data. Thus, mainly they are described below:

- Content Analysis
- Narrative Analysis
- Thematic Analysis

Content Analysis

Content analysis is a research technique for the systematic, objective and quantitative descriptions of the content of data collected through interviews, questionnaires, schedules and other expression in written or verbal form. It is used to analyze the data obtained from case study, details from field

and open-ended questions. It Synthesizes the scattered information and data so that they can be analyzed and draw some information. For example, radio, T.V. and other seminars, meeting, etc. discuss over the quality of product or services all over the world. Thus, collection of information related to quality of product and services from published and unpublished, written and oral sources and integration of such information purposefully and making them measurable is considered as content analysis.

Features of Content Analysis

a) **Systematic:** Content analysis should be logical and systematic. Data collected for content analysis are to be classified on the basis of certain procedures or rules. Facts may be in favor of research issue or against it. Researcher should analyze the data incorporating both types of data i.e. primary and secondary.

b) **Objectivity:** Analysis of content must be purposive and unbiased. All variables of content analysis must be directed by certain method, rules and procedures. Researcher should, first of all, decide the method, rules and process for the collection and classification of data and then he/she should collect and analyze the data so as to reduce the impact of subjectivity or perception of the people.

c) **Generalizability:** The findings drawn from the content analysis should be applicable in practice. The findings should fit with a theoretical, empirical or applied context. Non-related facts developed from the content analysis are valueless or they have less value. Findings found from content analysis should be applicable to large mass of the people or organizations.

Guidelines for Content Analysis

Following factors should be considered while conducting content analysis:

a) **Clear operational definition of the units of analysis:** The units that a researcher wants to analyze must be first identified and defined clearly. Research questions must focus to such units. Such units should be operationalized. Operationalize refers to the definition of concept in a measurable way.

b) **Clear definition for the response category:** Responses obtained from the respondents must be classified into different groups and such groups must be able to present research

objectives and they must be independent to each other. Clear and appropriate classification is a pre-requisite for content analysis. Thus, if research is not able to classify properly, it will be difficult to analyze. But all the information must be incorporated while classifying the data.

c) **Analysis of material:** Every material should be thoroughly observed and analyzed before developing categories of data for content analysis. It will familiarize to the researcher with the data and information and helps to develop categories. It helps to reduce surprise data and encountering with unfit data at the time of analyzing information or data.

d) **Decision on developing categories:** First of all, researcher should decide about creation of classes of data. Such classes of data must be independent. Researcher should consider to repetition of class, number of class and size of classes. If classification contains repetition, large number and odd size of classes, it does not help to attain the purpose of research. Thus, a researcher should take decision on developing categories.

e) **Maintaining impartiality:** Persons, who is involved in data collection, should not be involved in content analysis. If the content analyst knows the purpose of study there is chances of biasness. Thus, a neutral person should be used who does not know the purpose of content analysis while analyzing the content for the research work.

f) **The validity of the content analysis should be assessed:** The validity of the results of content analysis depends on the materials analyzed. Researcher should put maximum effort to collect all the relevant materials. A content analysis of a biased sample produces biased results.

Limitations of Content Analysis

a) **Non-reliable result:** All the information may not be collected so that such information may not represent to the universe. Thus, the results obtained from content analysis may not be correct and reliable.

b) **Difficult to categorize data/material:** Main base of content analysis is classification of responses into different categories. But there is no any hard and fast rule for the classification of data. Thus, classification is a very difficult and challenging work. In the

analysis will not be correct. absence of appropriate classification, results obtained from content

c) **Difficult to get clear and appropriate information:** Clear information is essential for content analysis. Surveyor and various communication channel provide different types of information. Thus, it is very difficult to obtain clear and appropriate information.

d) **Costly:** Coding and decoding of data requires skilled manpower. Cost of skilled manpower is very high. Thus, it is costly. Because of cost factor, every organization cannot adopt content analysis.

e) **Difficult to generalize:** It is generally related to case analysis and other behavior of particular group. It is totally based on specific information obtained from specific group of people. So, the results of content analysis cannot be generalized to a large mass or population.

Steps for Conducting Content Analysis

a. Identify the essential data.

b. Develop bases for tabulation.

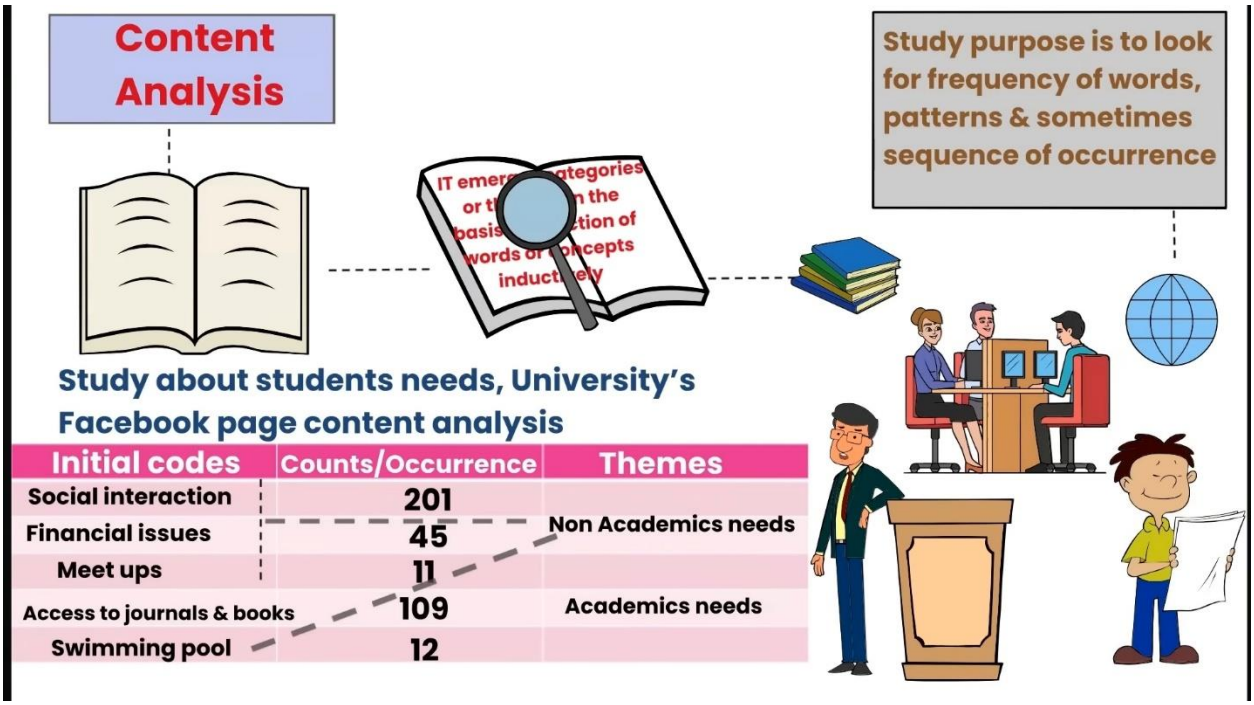
c. Develop bases for content analysis.

d. Develop the layout for the construction of design.

e. Classify various variables into various groups.

f. Establish procedures for the use of materials.

g. Prepare outline of analysis and utilizing them.



Narrative Analysis

A technique of recording and analyzing the information and subject based on the story of the respondents or people related to an event or subject matter is known as narrative analysis. In this process, researcher requests to the respondents to provide detail information related to a subject or events on the basis of observation or experience. There is no pre-determined question and respondents are not asked to give the answers of the questions. Narrative data comes from various sources. Researcher may obtain from response to open-ended question, the feedback from focus group, notes from field observation or the published reports.

Narrative analysis is widely used in the social science research. Information collected for narrative analysis helps to get information about the rational of research and analyses the various dimensions of the society and human behavior that gives information about the society and behavior of the people.

Elements of Narrative Analysis

Narrative analysis contains the following elements.

a) **Understanding their level:** In narrative analysis, people tell the stories on the basis of their experience in a subject or event. Thus, such stories widen the understanding of the people on such subjects or events.

b) **Data collection:** People exchange their stories in discussion, interview and focus group discussions. Such data can be collected from the autobiography, individual letters and diaries and personal interviews.

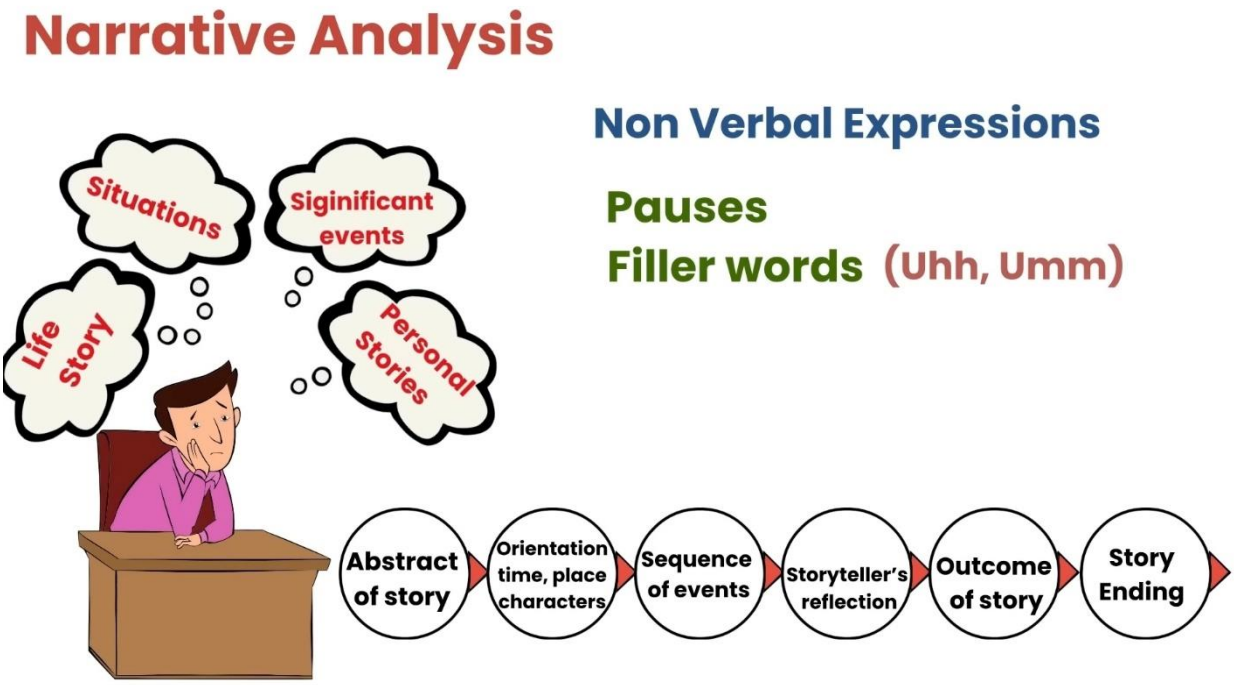
c) **Analysis:** Data is analyzed with the close study of them. It can be analyzed by writing memo or summaries of the stories. Case wise comparison can be made to the narrations of the people.

d) **People's understanding over events:** The analysis of contents, style, context and telling stories shows the people's understanding over any event or subjects, cultural context and their communities.

e) **Key actors and events:** There are obviously key events and actors in their life. They include a variety of themes like career, remoteness, relations with other, etc. It helps to know their autobiography and understand their understanding over certain people or event or subject.

Steps for Narrative Analysis

- Obtaining data
- Focusing on analysis of data obtained from autobiography, interview, focus group discussion, etc.
- Codify data using sign or symbols to the classes of data.
- Identify the relationship among the various classes.



Thematic Analysis

Theme refers to the main point or quality of a subject or event. A technique of qualitative data analysis that is used to identify the major points of data, analyze them and prepare report is known as thematic analysis. Thematic analysis is a work of searching theme of the data, event or subjects that is important for the description of the phenomena. The process involves the identification of themes through careful reading and re-reading of data, noting down initial ideas, coding interesting features of the data, relating code into theme, generating thematic map, on-going analysis to refine each of them and producing report through the continuous analysis.

Steps in Thematic analysis

1.Reviewing the previous literature: The researcher should review the previous literatures related to concerned subject or events for the thematic analysis. Such review helps to make familiar with the data. In this step, researcher should translate, read and re-read the data and develop notes for various ideas found in the literature.

2. Generating initial codes: Researcher wants to collect the necessary data only. Collection of unnecessary data increases cost and consumes more time while analyzing them. Thus, to collect

the essential data, he/she should highlight the essential information or data found in literature and prepare note of such data.

3. Searching for themes: Researcher should identify the probable information. He/ She should collect the codes and essential data based on potential themes.