



## CONTENT ANALYSIS

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### ABSTRACT

*This article tells you about the advantages and disadvantages of content analysis and its types of sub-categories. The research function provides codes for words or phrases. It is presented here to analyze its qualitative and quantitative methods. The sub-categories and steps included in both the methods are explained in detail here. This article will be of great help to researchers in analyzing content in research work.*

**KEYWORDS:** *Content, Analysis, Quantitative, Conceptual, Qualitative, Relational*

### INTRODUCTION

The journey of basic tools or content or analysis is described as a scientific study of the material. The term content analysis is 6 years old. It is listed in 181 by the English language dictionary. Bernard Berelson published Content Analysis in the 19th Communication research. The discovery was also welcomed by media researchers as a tool and technique useful in all aspects of the social sciences. It was also adopted by some scholars for historical and political research (Holsti, 1968). This method became the choice of more and more people in the field of social sciences. After World War II a completely scientific method of material analysis was developed. Launched a project led by Harold Lasswell to evaluate enemy propaganda by the US government. Participated in the problems noted by this project. One book that emerged from this project was the 1940s (Lasswell et al. 1965). The language of politics he used is still a classic today. Timeliness This method of material analysis spreads to other branches. (Woodrum, 1984).

### TYPES OF CONTENT ANALYSIS

The pervasive analysis of the concepts can be considered the frequency of the concepts. It can be conceptualized. It is represented by pictures and words. The words are common here. It is important to have the idea that synonyms are analyzed against words. It is not necessary that where there are identical words, then they are synonymous. You should not do analysis according to any such hypothesis. Each document is independent. So you may also have related words freedom, and liberation words. On the contrary, Relation Analysis goes one step further. The relationship between the concepts in the previous text. By examining it and appearing next to the word in the relationship, it is called the relative word. Let us analyze its investigation. E.g. Determine related concepts based on what words appear in the next topic.

### (1) QUANTITATIVE OR CONCEPTUAL ANALYSIS

In this analysis, a single concept is determined and considered. It is analyzed. E.g. Exam. The standard of attendance is determined in the analysis. And its calculation is included. Which we also call the analysis of subjects. The occurrence of the selected words within the text can also be a word, a synonym. Or a concept that is unexpressed using a range of different words. Thus, identifying the second category is a bit difficult.

### CONTENT ANALYSIS METHODS OF QUANTITATIVE OR CONCEPTUAL ANALYSIS

In this method, the analysis begins with the identification of the questions. Samples are selected. Texts are requested and placed in it. Content is coded in different categories. The researcher pays attention to it by coding phrases, words, and words. Can reduce text. This is why it is also known as the selective reduction method. For example, specific words that indicate a research question. An example of quantitative or conceptual analysis would be to do many other tests. Library website and to code them for the existence of certain words.

For example, "online learning" may use the information needed to check web pages that relate to it, to check the number of keywords for answers. The researcher will not be interested in examining "online learning" and how they relate to other concepts but only in the introduction. In this analysis, the researcher checks the presence with support. The presence of positive or negative in his research questions is strong. Words used in relation to the proposed questions Once the research question has been decided, the researcher can choose the coding of the eight categories indicated (Carley, 1992).

The eight categories are as follows for coding steps.

- 1) Determine the level of analysis.
- 2) Decide how many concepts to code.
- 3) Decide whether to code for concept or frequency.



- 4) Decide how you will differentiate between the concepts.
- 5) Develop rules for coding your texts.
- 6) Decide what to do with "irrelevant" information.
- 7) Code the texts.
- 8) Analyse your results.

### 1) Determine the level of analysis

The level of analysis must first be determined. The word or phrase that chooses the coding is called the level of analysis. Researchers create code for the word to continue.

For example, the phrase "Edu7" for "online education".

### 2) Decide how many concepts to code

Once the concept is decided it decides how the other concept should be considered. It should be a pre-defined and favorable level when determining the range. It is then necessary to decide. The researcher should be allowed to select the category if he/she feels related to another category. Along with this, it should also be decided whether each word that appears in the content analysis should be coded or what qualitative aspects should be considered, and which words should be considered.

### 3) Decide whether to determine the code for frequency or for the existence of the concept.

Another important decision that the researcher has to make is to count the words. The concept of frequency or cluster of words. The word in question leads to finite if it counts frequency. Can get a perspective of the concept.

For example, "Education" is very comprehensive and offers perspective. But if we consider the words "e-learning" we understand that it is about online education.

### 4) The researcher has to decide how to distinguish between the decided concepts.

Whether the concepts are coded exactly as they appear or when they appear, the same can be recorded.

For example: "Learning" may appear as education. The researcher needs to determine if the two mean the same thing. So that both can be placed in different categories.

### 5) Develop rules for calling your texts

The process is thoughtful. After generalizing the concepts, the researcher will want to think and create different translation rules. Allows making systematic and proper arrangement of numbers and words. What exactly is it to understand coded words. For which he has coded. Developing a set of rules gives the researcher accuracy or coding.

For example, "online learning" and "offline learning" are different categories. Can't put the first under the second. Because it will break the rule. Making rules can help a person understand their relationships. The importance and relevance of their meaning and use are gained. Because of the classification schemes, they are consistent in the codification of the terms.

### 6) Decide what to do with irrelevant information

The researcher has to decide if there is any irrelevance in the findings, keep it or delete it or repeat the process. Some words are unnecessary. We have to let it go. Such as, 'and', 'no', etc. Deleting them does not affect the outcome.

### 7) Code the texts

Let's codify the word. The next step is to code. The researcher himself has to do this. Read manually and write concept events using a computer. The computer analyses the given material. And not only can code be based on information but errors can be more easily identified by the researcher. This problem is exacerbated when coding for more in-depth, implicit, where specific series preparation is required.

### 8) Analyse your results:

The researcher should draw conclusions from the data after coding, but should also first decide whether to retain or delete or re-encode information that is not coded. Once this is done conclude by looking at trends, findings, and results.

For example, one might say that technology is used in education. What has changed in education?

## QUALITATIVE OR RELATED ANALYSIS

Extension of quantitative analysis means qualitative or relative analysis. The concepts that have been identified. Exploring the relationship between them. A relative analysis is also known as semantic analysis. In other words, the focus analysis of a relationship is to look at the relationship in a meaningful way. Everyone's concepts are seen as having no natural meaning. Instead, meaning is production. Linguistics and cognitive science are the two main theoretical approaches to looking at the relationship between concepts in the text in such depth. To analyse qualitative content.

**A) Linguistic approach** to content analysis focuses on the analysis of texts. Level of the linguistic unit, usually one clause unit. One such example is Gottschalk's (1995) research. Who created a process run by himself? This process analyses each clause in the text and assigns it a numerical score based on several. Emotional / mental scales.

### B) Cognitive Science

Approaches derived from cognitive science include decision-making. Maps and mental model decision maps try to show the relationship. Beliefs, attitudes, thoughts, and information obtained by the author can be logically represented when it comes to making decisions within the text. Causal, sequential, mathematical, and inferential relationships are usually two, one study comparing these links. This is analysed as a network.

This method is further called general cognitive mapping. Cognitive scientists state that there are groups or networks of interrelated concepts. Which we call content analysis. Which is quantitative in the brain in the conscious or semantic state. These qualitative aspects form the inner mental structures. The reason is people's speculation. Gathers information around them. The mental model is more specific. Ideological entities



can be analysed numerically and graphically due to measurement approaches.

Semantic Net falls into this category:

- 1) Identification of concepts
- 2) To define the types of relationships
- 3) Coding of text based on (1) and (2)
- 4) Coding of statements
- 5) Graphically displayed and numerical analysis of the resulting map.

### **RELATIONAL ANALYSIS: AN OVERVIEW**

The basic objective of qualitative analysis is to understand and identify the concept in question and then its size. The smaller the size, the lower the results and reliability. And if there is a large size then relevant information is required. Which will be given for clarification in the result. The use of rigorous statistical techniques is very helpful in analysis and computer qualitative.

The steps for conducting qualitative or relative analysis are the following insane qualitative analysis.

- A) Identify the question.
- B) Select the sample or samples for analysis.
- C) Determine the type of analysis.
- D) Decrease text into categories and code for words or patterns.
- E) Explore the relationship between concepts. (Power, signal, and direction).
- F) Code relationships.
- G) Do statistical analysis.
- H) Make a map of the representative.

#### **A) Identify the question**

The first question to identify is. Advance planning provides guidance to the researcher throughout the process. Often provides guidance. Often the analysis becomes difficult. Because so many interpretations are possible. Content analysis for a similar observation, what information is requested from the example of previous library web pages and from the library site.

#### **B) Select samples for analysis**

Once the question has been identified, select the sample or samples for analysis. The material attached to the sample should be preserved and care should be taken not to exceed the limit. The researcher has come up with extensive and overwhelming results in the coding process. Take special care of it.

#### **C) Determine the type of analysis**

Decide what type of sample it is after the analysis work or if you want to check the types of relationships. There can be many additional categories in the analysis of relationships. There are three sub-categories of relationship analysis which are as follows.

##### **A. Affects extraction**

What will be the mental level of the writer or speaker? It is very difficult to confirm. The writer or the speaker is convinced by his behaviour. Psychological scales of numerical

value, with their corresponding sentiments, apply to their well-known ideas. The statistics are then checked.

##### **B. Proximity analysis**

A string is known as a window. Window documents are used to scan coincidences that represent a concept. The concepts are then shown a matrix from all interrelated concepts. Known as the concept matrix. This technique is also problematic. This is because the window only records clear concepts and treatments. This means it's about to be the most delusional time of the year, as well. Other techniques such as clustering, scaling, and grouping are also useful in proximity analysis.

##### **C. Cognitive mapping**

This approach attempts to go one step further than previous approaches. This relationship allows for further analysis of the two results. By presenting these relationships in terms of comparison, effective and proximal analysis work attempts to model the overall meaning of cognitive mapping in the preserved order of the main text. Text can be represented in a graphic map. Which represents relationships with concepts. He compares the semantic connections in each of the books. This helps in understanding the possible meanings of the texts. And diversify. The researcher's mental outlook becomes possible. It is necessary to review the text as the subcategory of analysis is selected. The researcher must decide whether to code for the level of analysis or to code for a set of words or phrases.

##### **D) Reduce texts to categories and codes for words or patterns**

The next step in qualitative and quantitative aspects is to determine the category. Words are to be codified. As we have to do in quantitative analysis the basic conditions are removed. Thesaurus can be used to remove the ambiguity of words when there is ambiguity in the problem in synonyms or synonyms. Use a supporting file or pre-existing thesaurus.

##### **E) Explore the relationship between concepts (strength, sign, and direction)**

Let us see the relationship between the concepts of words and their concepts after coding. These three factors are strength, sign, and contamination. Mainly the strength of the relationship can be expressed by these words as it should be, should be, maybe, maybe, except that the sign basically shows. As it is positive or negative. The bear and the bull are typical examples on the stock exchange. So the bull runs and runs. It shows positive while the bear shows negative. Thus the direction of the relationship is also an important factor here. This can be done in the programming language of the computer. The various related conditions are shown as if - then-else.

##### **F) Code Relationships**

There is a major difference between qualitative and quantitative. That the relationship between concepts or statements is coded or in other words, the relationship between words is identified and represented by symbols.



### G) Perform statistical analysis

Quantitative analysis of qualitative or related analysis data is carried out.

### H) Create a map of representation

Qualitative analysis can also be done by different theoretical approaches. Psychological modeling, decision mapping, and linguistic content analysis. The relational or qualitative analysis takes this. In addition, the statistical analysis leads to this. Representation of text in mental model i.e. mapping of text.

#### • Benefits of Content Analysis

It can be used for the purpose of interpreting texts for the development of expert systems. Showing the relationship between the two develops concepts based on rules or by the power of conjecture. Hence it can be used to understand human beings. Texts or written copies provide social shock among experts. Text can be analyzed both quantitatively and qualitatively. Understanding the relevance of the ancient culture can be understood from the analysis of the text. Inscriptions allow the proximity of that text. Which alternates between specific categories and analyzes the text form of statistics and relationships.

#### • Disadvantages of Content Analysis

A relational analysis is a matter of very high interpretation. It also has the potential to lead to inaccuracies. So far there is no sound theory in content analysis. So its accuracy may also decrease. The small form of a large concept can also give impractical losses with complex coding texts. Content analysis is criticized as a calculation of words. The context needs to be understood at the conclusion. Because of the analysed text, there can be a lot of possible interpretations.

## CONCLUSION

This paper contains the information required for content analysis. Here's a look at where content analysis started, its types, sub-categories, advantages, and disadvantages. Content analysis is very useful in the field of research. The content of the words contained in it and the qualitative and quantitative analysis contained in it also provide special research to the researcher in his research work. Eight categories in conceptual or quantitative analysis which Carley (1992) is very helpful in coding selection. The qualitative or related analysis speaks to the exploration of known concepts and has two main theoretical approaches, linguistics, and cognitive science. In addition to this, steps for conducting qualitative or related analysis also help in research function and content analysis. There are advantages and disadvantages in every case.

## REFERENCES

1. Berelson, B. (1971). *Content Analysis in Communication Research*. New York: Hafer Publishing Company.
2. Berelson, B. (1952). *Content Analysis in Communication Research*. Glencoe, Ill: Free Press.
3. Carley, K. (1992). *MECA*. Pittsburgh, PA: Carnegie Mellon University.

4. Carley, K., & Palmquist, M. (1992). *Extracting, Representing, and analysing mental models*. *Social Forces*, 70 (3), pp.601-636.
5. Gottschalk, L. A. (1995). *Content Analysis of Verbal Behavior: New Findings and clinical applications*. Hillside, NJ: Lawrence Erlbaum Associates, Inc.
6. Holsti, Ole R. (1969). *Content Analysis for the Social Sciences and Humanities*. Reading, MA: Addison-Wesley.
7. Holsti, O.R. (1968). *Content Analysis*. In G. Lindzey & E. Aronson (Eds.), *The Handbook of Social Psychology* (2nd ed.) (Pp.596-692), Vol.II, New Delhi: Amerind Publishing Co.
8. IGNOU. (2018). *unit 2 content analysis: quantitative and qualitative aspects*. Retrieved from <https://egyankosh.ac.in/handle/123456789/25621>.
9. Lasswell, H.D., Leites, N., & Associates (Eds.). (1965). *Language of politics*, Cambridge: MIT Press.
10. Woodrum, E. (1984). *Mainstreaming content analysis in social science: Methodological advantage-obstacles and solutions*, *Social Science Research*, 13(2): 1-9.