

# How to Make Content Analysis of Secondary Data in Research



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## Abstract

Content analysis is a term especially used in research for the analysis of the contents of the secondary data. However, there are different views on the term. While the term content analysis is traditionally confined to the already existing data, most of the scholars, particularly the modern ones believe it to be a wide term, and want it to be used not only for the analysis of the secondary data but also for the analysis of the primary data. In fact, both the primary and the secondary data have their own contents, and the contents of both of the types of data need to be analyzed for the sake of the scientific spirit of research.

As far as the contents of the secondary data are concerned, their analysis is essential in order to trace the research gap, objectives, hypothesis, methodology, tools etc. It helps the researcher set his mind to work in a specified direction. On the contrary, the analysis of the contents of the primary data is essential, for the researcher is likely to be at fault while collecting data, and at least some of the data are likely to be irrelevant. It is only through the analysis of the contents of the primary data that the defects can be got over and the irrelevant data can be set aside before arriving at some conclusion.

Whatever the case, content analysis is an important aspect of research, and needs to be made seriously for the sake of genuine research. Success of research depends on the collection and use of data. Hence, it is the moral duty of the researcher to analyze and reanalyze the contents until he is satisfied that the data to be used are true and near to truth.

This article which is designed on the secondary data on the theme, introduces the rationale and concept of the content analysis of existing data, describes several sources of publicly available datasets, and provides several valuable guidelines for how to make content analysis. It also throws light on the advantages of content analysis, and on the problems in the path of content analysis.

**Keywords:** Content Analysis, Relevance, Sources of Data, Nativity, Tools, Hypothesis.

## Introduction

It will not be an exaggeration to say and deduce that every research whether in the field of humanities, social or physical sciences, comprises of two types of data, namely, the primary and the secondary data. The term 'content analysis' is used in the context of the analysis of the secondary data which involves a researcher using the information that someone else has already collected for his or her own purposes. Before the issue is discussed in detail, let us be familiar with the meaning and nature of both the primary and the secondary data. Primary data is the original data that researchers collect themselves specifically for their own research work, while the secondary data is already existing data in various forms of literature like books, journals, magazines, theses etc, and is collected for a different purpose other than the one for which it is used.

Popularly taken as a research tool, content analysis is widely used to determine the presence of certain words, themes, or concepts within some given qualitative data (i.e. text). With its help, the researchers can quantify and analyze the presence, meanings and relationships of such certain words, themes, or concepts. Some of the popular sources of content analysis include interviews, open-ended questions, field research notes, conversations, books, essays, articles, dissertations, theses, discussions, newspaper headlines, speeches, media, historical documents. For the sake of analysis, the text is coded under several manageable code categories, and after it the codes are further categorized into "code

categories" to summarize data even further. It helps the researchers analyze the contents to the core and to go into the depth of the content.

Conceptual analysis and relational analysis are the two popular types of content analysis. Conceptual analysis deals with the existence and frequency of concepts in a text, while relational analysis is helpful in the development of the conceptual analysis further through examining the relationships among concepts in a text. Each of the two types of content analysis has its own importance and leads to different results, conclusions, interpretations and meanings. Hence, neither of the two can be underestimated and ignored.

#### **Conceptual Analysis**

In conceptual analysis, the researcher chooses a concept for examination and the analysis is focused on quantifying and counting its presence. The main goal of the conceptual analysis is to examine the occurrence of selected terms in the data. The method of conceptual analysis involves identification of the research question and choosing a sample or samples for analysis, codification of the text into manageable content categories for the sake of selective reduction. The general steps adopted for the purpose of conceptual analysis include- determining the level of analysis: word, word sense, phrase, sentence, themes, determining manageable code categories to be adopted for the content analysis, deciding whether to code for existence or frequency of a concept, planning how to distinguish among concepts, developing rules and preparing an effective strategy for coding the texts, tracing the irrelevant information and decide whether it should be ignored or reexamined, codification of the text manually or through software, analysis of the text and interpretation

#### **Relational Analysis**

As in the conceptual analysis, in relational analysis too, concept is chosen for examination. In it, However, relationships between concepts are explored and individual concepts are viewed as having no inherent meaning. The method adopted for the relational analysis involves identifying a research question and choosing a sample for analysis, selecting text for analysis and careful analysis of the text maintaining balance. The steps involve determining the type of analysis, types of relationships to be examined and the level of analysis, reduction of the text to categories and code for words or patterns, exploring the relationship between concepts, coding the words and analysis of the text keeping in view the degree to which two or more concepts are related, whether the concepts are positively or negatively related to each other, the types of relationship that categories exhibit, codification of the relationships, identifying variables during coding and mapping out decision.

Thus, both the conceptual and the relational content analysis need to be given importance while considering for analysis of content in research. However, each of the two needs to be handled and undertaken carefully in a way that the real objective of

analysis is eventually achieved and irrelevant information is set aside.

#### **Review of Literature**

Krippendorff, Klaus (2004) in the book *Content Analysis: An Introduction to Its Methodology* suggests the following six questions to be asked for making a legitimate content analysis-

1. Which data are analyzed?
2. How are the data defined?
3. From what population are data drawn?
4. What is the relevant context?
5. What are the boundaries of the analysis?
6. What is to be measured?

Srividya Ramasubramanian (2007) in her paper entitled *A Content Analysis of the Portrayal of India in Films Produced in the West* surveys the use of content analysis in the context of films, and reports that there were significant inter-group differences in depictions of Indian versus non-Indian scenes (N = 1016) and Indian versus non-Indian characters (N = 421) across several socio-cultural variables such as character role, occupation, poverty, religious practices, and pollution. Overall, India was consistently portrayed as backward, uncivilized, savage, and traditional. These patterns of stereotypical portrayals of India across films are discussed in the context of schema theory, social identity theory, and cultural colonization.

Alan., Bryman (2011) in *Business research methods* asserts that Content analysis is a research method for studying documents and communication artifacts, which might be texts of various formats, pictures, audio or video. Social scientists use content analysis to examine patterns in communication in a replicable and systematic manner.

Grimmer, Justin, and Brandon M. Stewart (2013) in their study *Text as data: The promise and pitfalls of automatic content analysis methods for political texts* comment that content analysis is research using the categorization and classification of speech, written text, interviews, images, or other forms of communication. In its beginnings, using the first newspapers at the end of the 19th century, analysis was done manually by measuring the number of lines and amount of space given a subject. With the rise of common computing facilities like PCs, computer-based methods of analysis are growing in popularity.

Vaismoradi, Mojtaba; Turunen, Hannele; Bondas, Terese (2013) in *Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study* observe that the further step in analysis is the distinction between dictionary-based (quantitative) approaches and qualitative approaches. Dictionary-based approaches set up a list of categories derived from the frequency list of words and control the distribution of words and their respective categories over the texts. While methods in quantitative content analysis in this way transform observations of found categories into quantitative statistical data, the qualitative content analysis focuses more on the intentionality and its implications. There are strong parallels between qualitative content analysis and thematic analysis.

Tripaldo G (2014) in the study entitled *L'analisi del contenuto e i mass media* elaborates the issue saying that practices and philosophies of content analysis vary between academic disciplines. They all involve systematic reading or observation of texts or artifacts which are assigned labels (sometimes called codes) to indicate the presence of interesting, meaningful pieces of content.

Kimberly A. Neuendorf (2016) in his book *The Content Analysis Guidebook* lays emphasis on the the issue of human coding in content analysis saying that when human coders are used in content analysis two coders should be used. Reliability of human coding is often measured using a statistical measure of inter-coder reliability or "the amount of agreement or correspondence among two or more coders".

Mariette Bengtsson (2016) in the article entitled *How to plan and perform a qualitative study using content analysis* surveys the purpose of the content analysis in research and says that the chief purpose of content analysis is to organize and elicit meaning from the data collected and to draw realistic conclusions from it. The researcher must choose whether the analysis should be of a broad surface structure (*a manifest analysis*) or of a deep structure (*a latent analysis*).

Heydarian Pashakhanlou, Arash (2017) in *Fully integrated content analysis in international relations* argues that for a combination of quantitative, qualitative, manual and computer-assisted stuff in a single study offset the weaknesses of a partial content analysis and enhance the reliability and validity of a research project.

Huma Praveen & Nayeem Showkat (2017) in their jointly written paper entitled *Content Analysis*, observe that primarily, content analysis had been used as a quantitative research method. Now, it's being used as a qualitative research technique or both. The qualitative approach of this technique has been able to address grey areas of the quantitative approach. Now, instead of being a single-method, content analysis has three different approaches; conventional, directed, or summative.

#### **Objectives of the Study**

1. To study the various aspects of research
2. To study and interpret the various aspects of research methodology
3. To concentrate and study in detail the significance of data in research
4. To go through the types of data used in various types of research
5. To take into consideration the various steps of research, arriving at the content analysis
6. To study and interpret the significance of content analysis in research
7. To trace and point out the various ways of how to make content analysis
8. To be familiar with the various methods of content analysis
9. To study what aspects of secondary data require special analysis
10. To suggest how to make content analysis effectively

#### **Hypothesis**

The following hypotheses formed the basis of the study. However, it cannot be ignored that the study was conducted considering chiefly the null hypothesis.

1. Research is the solution to the problems
2. Chief objective of research is to study the cause and effect relationship of problems
3. Research is carried on under certain specific steps
4. Data is the core of a research
5. Both primary and secondary data are important for research
6. Content analysis is a major aspect and step of research
7. Content analysis requires specific competence and presence of mind on the part of the researcher
8. Content analysis of secondary data provides a sufficient feedback about a problem to the researchers
9. Content analysis requires a specific strategy on the part of the researchers
10. Content analysis paves a proper path of research for the researcher and facilitates his path of research.

#### **Method Adopted**

The paper is a theoretical study based on the secondary data and their content analysis. The method which was adopted by the scholar is purely scientific. For the purpose interpretative method was used. The following steps were adopted for making the study and for preparing the research paper-

- Selection of topic
- Prescribing objectives
- Review of literature
- Content analysis
- Formulation of Hypothesis
- Preparing research design
- Working on the selected research design
- Drawing of findings and conclusion

#### **Findings & Conclusion**

1. Research gives solution to the understanding of a problem through the focus on the causes and effects of a problem
2. Content analysis is one of the major steps and aspects of research
3. Generally the contents of secondary data are analyzed and the term content analysis is applied to the analysis of the contents of secondary data
4. Contents of primary data too require analysis
5. Title of the study, year of the study, name of the author and co-authors, nationality of the authors, objectives of the study, hypothesis (both alternative and null), methodology, tools, sample and sample size on which the study was conducted and findings are some of the important things that are to be kept while making the content analysis
6. The chief purpose of content analysis is to organize and elicit meaning from the data collected and to draw realistic conclusions from it.
7. Majority of the scholars set aside the content analysis, and without it carry out the research

8. Generally the scholars are unaware of the process of content analysis, as a result of which they spoil the spirit of research
9. It is essential on the part of the research scholars to be familiar with the significance of content analysis of both the primary and the secondary data in various types of research.
10. Content of analysis needs to be made under certain steps
11. Content analysis facilitates the path of research for the scholars by paving a comfortable and smooth path of research for them.
12. Content analysis is a major research tool used to determine the presence of concepts within some text
13. Interviews, open-ended questions, field research notes, conversations, books, essays, articles, dissertations, theses, discussions, newspaper headlines, speeches, media, historical documents etc. are the sources of content analysis.
14. Coding of the text under several manageable code categories is an integral part of content analysis
15. Conceptual analysis and relational analysis are the two popular types of content analysis.
16. Type and nature of data, population, relevance of context, limitations and delimitations of analysis, and the special data to be analyzed are some of the concerns of content analysis
17. Content analysis is a wide term and encompasses both the analysis of documents and communication artifacts.
18. Both qualitative and quantitative approaches are applied in content analysis
19. Practices and philosophies of content analysis vary between academic disciplines.
20. With the developed technologies, content analysis is growing more and more popular.

To sum up: content analysis whether conceptual or relational is an important aspect and step of research which is popular to the researchers and researches associated with humanities, social and physical sciences. One of the most frequent uses of the content analysis is to study the changing trends in the theoretical content and methodological approaches. Researches in social sciences, communications, psychology, political science,

history, and language studies are some of the fields in which content analysis is used. However, it is most widely used in social science and mass communication research. It helps the researchers understand a wide range of themes and arrive at fruitful conclusions and findings through the minute analysis of the contents.

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