



Conceptual Overlap and Methodological Differences Between Empirical and Semiotic Content Analysis in Media and Communication Studies Readings and Analysis

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Abstract:

Researchers in media and communication studies rely on various scientific methodologies, with their selection aligned to the nature of the topic under investigation. The research problem from which the researcher begins determines the type of methodology that will frame the study and analysis. These analytical approaches range between quantitative and qualitative methods. The study of media and communication content varies depending on the objectives set by the researcher: empirical content analysis is used for quantitative study of the subject, whereas semiotic analysis—as a qualitative method—focuses on communicative content in order to interpret the meanings of signs.

Accordingly, the methodological framework differs between both types of analysis. Empirical content analysis relies on dividing content into categories and units of analysis, while semiotic analysis involves breaking the content into meaningful signs that carry hidden, implicit meanings to be interpreted by the researcher. This article aims to explore these differences in detail in order to better understand the conceptual overlap and uncover the methodological differences between empirical and semiotic content analysis in communication studies.

Keywords: Conceptual Overlap, Research Methodologies, Empirical Analysis, Semiotic Analysis, Media and Communication Content.

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1. INTRODUCTION

Researchers have examined communicative discourse at various levels, relying on a set of approaches that treat the content of texts as "discourses." However, scholars in media and communication sciences have viewed media texts as communicative content that requires a different mode of analysis than traditional discourse analysis. This distinction stems from recent communication studies that have outlined the elements of the discursive process, which in turn frame media and communicative operations.

Some researchers have focused on analyzing such content based on the quantitative approach, relying on empirical content analysis (*analyse de contenu empirique*), while others have adopted qualitative approaches to deconstruct media and communication content, emphasizing semiotic content analysis (*analyse de contenu sémiotique*). These methodological concepts often overlap, as they both refer to the segmentation and analysis of content. However, the differences between these two types of analysis lie in the methodological steps that structure the analytical process.

This idea gives rise to a research problem centered on identifying the methodological differences between empirical and semiotic content analysis in media and communication studies. The objective is to clarify the techniques and methods used to analyze media and communicative content, thereby helping researchers choose the appropriate analytical approach for the subject under study—ultimately determining the type of study to be conducted.

2. Empirical Content Analysis:

This section sheds light on the empirical content analysis used in media and communication research as a technique for analyzing media materials, starting from its scientific definition to the rules and procedural steps that guide the research process.

2.1 Definition of Empirical Content Analysis in Media Research

Content analysis in media and communication sciences aims to interpret and clarify various issues, particularly the distinction between media content and communication content. It also involves identifying the appropriate methodological approach for content analysis that aligns with the nature of the subject, thereby determining the methodological path the researcher will follow.

Thus, content analysis refers to a systematic method for analyzing the substance of a specific message. It serves as a tool for observing and analyzing the observable communication behavior among a selected group of individuals (the communicators). (رشدي, 2004, ص69).

Researcher Laurence Bardin defines content analysis in his book "Analyse de contenu", (Bardin, 2007, P137) as a set of rigorous methodologies adopted by the researcher to analyze the content of various texts. This implies that content analysis consists of a group of methodological rules that the researcher uses to deconstruct the structure of media and communication discourse. Meanwhile, Berelson (ADIMI, 1994, P 16) Empirical content analysis is defined as a research technique for the **objective**, systematic, and quantitative description of content. This means that empirical content analysis is a scientific approach that allows the researcher to analyze their research material through descriptive, systematic, and quantitative methodological stages.

For their part, Paul Henry and Serge Moscovici defined content analysis as an interconnected set of techniques, primarily used when dealing with linguistic tools. (تمار، 2007، ص9)

Maurice Angers considers it an indirect scientific investigation technique applied to written, audio, or visual materials, allowing for qualitative or quantitative analysis aimed at interpretation, understanding, or comparison.(أنجرس، 2004، ص 218)

This means that content analysis is the technique used by the researcher to access all the content of written, audio, and visual material in a scientific manner, relying on both quantitative and qualitative analysis in order to achieve various objectives such as understanding, interpreting, and comparing the analyzed content.

2.2 Steps in Empirical Content Analysis

In media and communication research, the empirical content analysis follows several procedural stages: (Adimi, Opcit, P 136)

- **Defining Categories of Analysis:** At this stage, the researcher is required to break down the content under analysis into categories, determined by the nature of the subject and the communicative medium that carries it, and these categories operate on two levels:

- **Form Categories:** These categories are represented by the formal elements through which the media or communicative content appears, as follows:

- **Space in written media:** Refers to the amount of space allocated for articles, images, and headlines in print media, or time in the case of audiovisual media.

- **Placement of the media content:** Indicates the typographical elements of the article under analysis in relation to other articles—whether it appears on the front page, inner pages, national pages, or back pages.

- **Sources of the media content:** Such as news agencies, correspondent journalists, eyewitnesses, etc.

- **Journalistic genres included in the subject:** News report, feature story, editorial, column, commentary, analytical article, etc.

○ **Content Categories:** These categories are represented by the implicit elements contained within the media content under analysis, such as the **subject category**, which defines the nature of the topic selected for analysis; the **editorial line** of the media institution, which reflects its political and ideological orientation; the **main actors** involved in the analyzed topic; and the **most frequently used keywords or terms**, which in turn highlight the significance of the topic to the sender.

• **Units of Analysis:** The units of content analysis refer to the fundamental bases from which the researcher begins to build their analysis, and they operate on two levels.

○ **Subject Unit:** These refer to the minimal units that make up the analyzed subject, and they are defined by the core idea of the topic.

○ **Measurement Unit:** They are defined as the minimal units used by the researcher to measure the content under analysis, such as the **centimeter unit** in written media, and the **second or minute unit** in audiovisual and digital media.

• **Content Analysis Form & Validity/Reliability Measures:**

In media and communication sciences, the researcher, during their empirical content analysis, relies on a **form** in which they define the categories and units of analysis used. Each category and unit is assigned specific **codes** that correspond to its type. This form is then subjected to **expert validation** to ensure its **validity**, allowing the researcher to later represent the collected data in **tables and graphical curves**, which are analyzed both **quantitatively and qualitatively** to extract final results. This process is verified through the **validity and reliability coefficients**, which are defined as follows: (تمار، مرجع سبق ذكره، ص 96)

A. Validity of the Analysis:

This refers to the extent to which the content analysis form and its guide are suitable and appropriate for studying the content intended for analysis. Validity is ensured by following these steps:

- **Form Presentation:**

It is a technical sheet briefly completed by the researcher, in which they present the research title and its central question, along with an explanation of the use of content analysis. This sheet also includes what the researcher expects from the expert reviewers.

- **Constructing the Content Analysis Form:**

After the researcher has selected the study sample and identified both the categories and units of analysis, they proceed to build the content analysis form. This form is often designed using graphic or tabular structures, which the researcher uses to record the results

of their calculations based on the analyzed content. These results are then compiled and transferred into quantitative analysis tables. This process makes each research study have its own customized form.

B. Reliability of the Analysis:

This property is ensured by establishing clear coding rules and defining category guidelines, including setting specific indicators for each category, clearly stating the method of analysis to be used, and providing **operational definitions** for each category. All of this is compiled into a **coding manual** that allows for consistent identification of categories within the messages being analyzed.

This process gives content analysis practical scientific value. Through these standardized measures, the analysis becomes **trustworthy and replicable**. In its broadest sense, **reliability** refers to a measurement tool that, when used by other researchers under the same conditions, yields the **same results**.

Reliability of the Analysis or "Coding" is one of the most crucial steps in content analysis. As a research technique, content analysis is initially influenced by the researcher's own ideas, orientations, and expectations, which has subjected it to frequent criticism—especially before the introduction of reliability measures. Therefore, the researcher must carry out this step with precision and rigor, involving experts in the researcher's field of specialization to review the process and ensure its methodological soundness.

Based on the above, it can be said that empirical content analysis represents a set of rigorous methodological steps adopted by the researcher to analyze media and communication discourse. This method continues to be applied in the digital environment, with ongoing methodological adaptations to keep pace with both content evolution and the advancement of communication technologies.

3. Semiotic Content Analysis:

Following the quantitative empirical method, this section addresses semiotic content analysis, which falls under qualitative methods. Unlike statistical methods, this analysis adopts interpretive, critical, and structural approaches.

3.1 The Concept of Semiotics

Semiology has taken on multiple definitions, emerging from various intellectual currents that converge on fundamental points while differing in specific elements unique to each school of thought. One of the most widely agreed-upon concepts regarding semiology is that it is: "the science that studies signs, signals, and symbols within social life."

This concept originates from the famous statement by Ferdinand de Saussure, who, in his book "Course in General Linguistics" (*Cours de linguistique générale*), pointed to the possibility of the emergence of a science dedicated to studying the meaning of signs within the context of social life. He termed it semiology (*la sémiologie*), which focuses on both verbal and non-verbal systems at the same time.

It is worth noting that any form of theoretical research in semiology, and its historical background, requires a return to its origins. In this regard, it is necessary to explore its dual origins: the French roots, led by Ferdinand de Saussure (De Saussure, 1995, P33), and the American roots, represented by Charles Sanders Peirce. At the same time, it is essential to reflect on its various branches, including different directions, schools of thought, approaches, and analytical foundations. Moreover, research in the field of semiology also requires tracing its origins in Arab critical heritage, considering that this heritage is a fertile ground for semiological analysis—on the one hand—and that this science is applied in various forms of communication and daily interaction. (الداية، 199، ص 53)

emiotics originated from the scientific study of physiological symptoms resulting from specific diseases or physical conditions. Hippocrates (460-377 BC), the founder of Western medical science, established semiotics as a branch of medicine concerned with the study of symptoms. In its essence, a symptom is a semeion, meaning a "sign" or "signal" that represents something beyond itself.

Hippocrates claimed that the primary task of the physician is to decode what the symptoms indicate. For example, a dark bruise, a rash, or a sore throat might each signify, respectively, a broken finger, a skin allergy, or a cold. (Sebeok, 2001, P04)

The study of signs outside the medical field attracted the attention of philosophers in the time of Aristotle (384–322 BC) and the Stoic philosophers. Aristotle defined a sign as having three dimensions:

1. The physical sign (e.g., the sound of the word "cat").
2. The referent (the actual feline creature).
3. The evoked meaning (personal/social connotations of "cat").

These three dimensions occur simultaneously, meaning that it is impossible to think of a word like "cat" (a phonetic sign composed of the sounds c-a-t) without simultaneously thinking about the type of animal it refers to (a mammal of the feline family), and without the individual simultaneously feeling the personal and social meanings attached to this reference. (Idem)

3.2 Applying Semiotic Content Analysis

In order to understand semiological analysis, we must start from the concept of methodology in scientific research, which is seen as a way of thinking and working that the researcher adopts to organize, analyze, and present their ideas (عليان، 2013، ص 33), ultimately leading to reasonable conclusions about a phenomenon or subject of study.

Semiological analysis can thus be discussed as an approach to text analysis, characterized by its focus on structural analysis. Structural analysis emphasizes the structural relationships that serve a function within a system of meaning at a specific historical moment.

This type of analysis involves identifying the units that make up a semiotic system (such as a text or a socio-cultural practice) and the structural relationships between them (such as oppositions, associations, and logical relations), as well as the relationship between parts and the whole.

This is not an exercise devoid of meaning; rather, the relationships are significant because of what they can explain, such as semantic oppositions and the meanings that are permitted or prohibited in the structure.(Chandler, 2001, "P83)

Accordingly, the researcher "Louis Hjelmslev" defines semiotic analysis as a set of techniques and steps used by the researcher to analyze a phenomenon or topic that holds significance in itself and establishes relationships with other elements. This type of analysis focuses on understanding how meanings are formed and the relationships between various symbols and signs within a specific context. (Lazar, 1991, P138)

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This means that semiotic analysis delves into the contents of media and communicative messages and discourses, as it is a qualitative and inductive critical analysis of the underlying meanings behind the signifying signs. Therefore, "Umberto Eco" described it as a game of deconstruction and reconstruction. (خنصالي، 2015، ص 173)

To understand semiological (semiotic) analysis, we must begin with the concept of methodology in scientific research, as it represents a way of thinking and working adopted by the researcher to organize, analyze, and present their ideas, ultimately reaching

reasonable conclusions about the studied phenomenon or subject. In this context, semiological analysis can be seen as an approach to text analysis, distinguished by its structural focus. Structural analysis emphasizes the structural relationships that serve specific functions within a meaning-making system at a given historical moment.

This type of analysis involves identifying the units that compose a semiotic system (such as a text or a socio-cultural practice), the structural relationships between these units (such as oppositions, associations, and logical relations), and the connection between parts and the whole. This is not a meaningless exercise, as these relationships matter for what they can explain—such as semantic oppositions and the meanings that are allowed or prohibited in a structure.

Accordingly, the researcher Louis Hjelmslev defines semiological analysis as a set of techniques and steps used by researchers to analyze a phenomenon or subject that holds meaning in itself and establishes relationships with other entities. This means that semiotic analysis delves into the content of media and communication messages, as a qualitative, inductive, and critical method to uncover the deeper meanings behind signifiers. For this reason, Umberto Eco described it as a game of deconstruction and reconstruction.

The application of semiotic analysis is based on a set of approaches and semiotic tools that are suited to the subject under study and the system it contains. It is certain that the approaches of "designation" and "implication" by Roland Barthes (Barth, 1964, P131) and the tripartite approach of Charles Sanders Peirce are suitable for analyzing all systems, as they represent the foundational basis for deconstructing the semantic structures of semiotic texts in their various forms: narrative, auditory, visual, or digital. However, there are other approaches that specialize in specific systems, such as Christian Metz's approach for semiotic analysis of cinema, Patrice Pavis's for semiotic analysis of theater, Martine Jolie's for semiotic analysis of still images, and Joulia Bonacorsi's for semiotic analysis of the web. The researcher also relies on semiotic analysis tools, including reading, interpretation, contextualization, and critique, to deconstruct their research material and extract the meanings of the various signs. (Sathvika, R., & Rajasekaran, V, 2022, P P 387-389)

At this point, it can be said that semiotic content analysis in media and communication studies aims to uncover the meanings and objectives of communicative messages. However, the methodology of analysis is qualitative, meaning that it completely forgoes statistical analysis, thus placing semiotic analysis within methodologies that focus on deep, infinite analysis.

4. CONCLUSION

In this research paper, we have addressed media and communication content analysis as a subject that attracts the attention of researchers in this field. This is due to several factors that influence these contents, which are determined by the diversity of the media that, in turn, refers to the diversity of the audience. Thus, media content becomes the element through which the sender shares their ideas with the receiver.

Therefore, we conclude that researchers in the field of media and communication must identify the content they will analyze, whether it concerns the media content published by mass and digital media (written, audiovisual, and digital messages), or communication content that goes beyond media content to include non-verbal systems such as gestures, social practices, urban spaces, food, clothing, jewelry, tattoos, artifacts, and archaeological remains. These are all forms of communication that carry communicative meanings without relying on language.

From this perspective, the researcher determines the analytical methodology they will adopt to deconstruct their research material, and at the same time, the content suitable for empirical analysis and semiotic analysis becomes clear. Both types of analysis lead the researcher to understand the components of the content within the media and communication message, either based on quantitative statistical analysis in empirical content analysis or relying on qualitative analysis for semiotic studies.

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