



Communication Research: from Quantitative Methodology to Qualitative Methodology

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Abstract:

This study aims to shed light on the methodological development of communication research, by addressing the attempt to understand how communication transformed from a phenomenon to a field of research into an academic specialty. Then review the quantitative methodology and how it affects communication research, and explain its advantages and limitations. Let us then focus on the qualitative methodology that effectively contributed to the development of communication research methods and provided the desired addition despite some limitations associated with it.

Keywords: communication research; quantitative methodology, qualitative methodology.

Introduction

1- Searching for communication:

The phenomenon of communication is characterized by its dual nature, as it is a historical phenomenon that has developed since the appearance of humans on Earth. It is also a subject of academic research that has developed more clearly in the modern era (Simonson & Park, 2016, p. 1). Communication is in fact a fundamental aspect of human existence and is considered a universal anthropological fact. Since ancient times, humans have engaged in various forms of communication. Whether through spoken language, through written symbols or nonverbal signals, or through new technological media, the need and ability to convey information, express emotions, and coordinate activities are integral to the human experience .

On the other hand, the study of communication as a distinct academic discipline is a relatively recent development in the history of academic studies. While individuals throughout history have undoubtedly thought about and analyzed various aspects of the communicative phenomenon, the scientific and interdisciplinary study of communication as we know it today largely emerged in the twentieth century. The field of communication studies also includes a wide range of topics, including interpersonal communication, interpersonal communication,

mass communication, public speaking, audience studies and others. Researchers in this field draw on insights from various disciplines, such as sociology, psychology, linguistics, and anthropology, to explore how communication works in different contexts and its impact on individuals and societies.

We can view communication research as a field of research and an academic discipline that seeks to study human communication to understand how people exchange information, ideas, and emotions. It includes the systematic examination and analysis of communication processes, behaviours, influences, media and different cultures. Communication researchers use different methodologies, including quantitative, qualitative, mixed methods, and others, to explore communication phenomena and draw meaningful conclusions.

2-Communication from concept to field to discipline

By the mid-1990s, the term "communication" had largely taken precedence over many other terms in the field, and an academic discipline had emerged under this umbrella classification. However, a broader examination of the study of human symbolic interaction revealed that scholarly communities have focused on other concepts such as "articulation," "journalism," "broadcasting," and "oratory," posing a challenge to the comprehensive application of the term "communication".

The move from 'speech', 'journalism', 'radio/television/film', 'broadcast' and 'speech' to the umbrella term 'communication' represents more than just a superficial change in semantics. It serves as a clear indicator of the fundamental debate about whether "communication" should be viewed restrictively as an interdisciplinary field or more broadly as an institutionalized academic discipline (Sproule, 2008, p. 163)

In the mid-twentieth century, the term "communication" gained prominence, especially after World War II, and became widely used in academic discourse. Communication was initially associated with the social sciences discipline characterized by a managerial focus, quantitative methodology, and affiliation with prestigious academic and research institutions. Through analysis of scientific publications from the mid-1920s to the mid-1950s, it was noted that "communication" gradually appeared alongside other terms such as "attitude," "public opinion," and "propaganda." However, the term was not in common use until the 1940. During the 1930, the term "communication" was not mentioned much, with only a few academic articles, some of which dealt with contact between insects and birds. Public Opinion Quarterly noted that before the early 1950, the "communication process" was not widely used in media and opinion research. The term "public opinion" remained closely associated with "propaganda" until the use of the term propaganda declined in the 1950.

The emergence of communication as a major concept is due to the academic community's desire to contribute practically and politically neutrally during times of war, initially against fascism and later against communism. This shift was evident in the research programs led by scholars such as Harold D. Lasswell and Carl Hovland. Lasswell's work at the Library of Congress, with funding from the Rockefeller Foundation, focused on improving quantitative

content analysis and its practical applications in organizational analysis and training staff in propaganda analysis. Hovland's research, within the US Army's research branch, aimed to understand and motivate American soldiers, focusing on experimental studies on the effects of communication.

The transition from wartime to postwar communication studies was marked by an increasing number of scholarly articles, reflecting a clear expansion of the field of communication. The Social Science Research Council (SSRC) has played a crucial role in facilitating interdisciplinary communication research such as psychology, sociology and political science. It is noteworthy that the 1954 General Communication Research Conference brought together scholars from these disciplines to evaluate the specific features and criteria of the study of communication. Wilbur Schramm explicitly preferred the term "field" when discussing communication, rather than "discipline." Raymond Bauer, on the other hand, referred to Schramm as a journalism specialist (representing this discipline) with a keen interest in the cybernetic model of communication (representing the broader field). This distinction reflects the debate during that period about whether communication should be considered a distinct academic field or a more comprehensive interdisciplinary field of study (Sproule, 2008, p. 167). As a result, in the wake of World War II, a well-defined field of communication emerged. The study of communication has been viewed by leading researchers as an oasis, as Schramm figuratively put it, which is sometimes visited by representatives from various social science disciplines.

The minutes of the 1954 SSRC meeting indicate that the sixteen participants were apparently unaware that their assertions might be too demanding within the boundaries of the field of study. The question is: Can communication, viewed merely as a forum for interdisciplinary exploration, effectively unite studies of institutions and channels with individual responses, with practitioners and academics in order to advance research, training and community service? This investigation, reflecting the implicit disciplinary ambitions of the study of communication, laid the foundation for a comprehensive initiative conducted across different academic platforms, turning communication into a discipline rather than a field.

Without the permanent mission of professional training, journalism schools and departments would have become a recognized disciplinary center for communication research, especially as specialists from psychology, sociology, and political science returned to their academic disciplines. However, although journalism standards were considered part of the narrowly designed study of communication according to the 1954 conference, Wilbur Schramm noted that only about one-third of accredited schools or departments actively contributed to or consumed social science scholarship in the field of communication. Journalism education, which initially focused on practical aspects, gradually incorporated communication theory. In contrast, the situation within departments of the Speech Association of America (SAA) was more complex. After the war, researchers in these departments found themselves awakening to scientific studies of human communication, a field separate from traditional speech research. Speech scholars responded by merging related terminology and emphasizing quantitative methodology, leading to a gradual shift that culminated in a 1968 conference that

recommended increased emphasis on speech-communication studies within the broader disciplinary field of “spoken symbolic interaction”.

The SAA faced challenges in reconciling the terms 'speech' and 'communication' after its 1968 conference, resulting in 'spoken communication' emerging as a hybrid term. In contrast, the National Society for the Study of Communication (NSSC), later renamed the International Communication Association (ICA), underwent a shift from an interdisciplinary approach to focusing more on quantitative communication research. ICA, characterized by statistical analysis and an emphasis on empirical research, has become increasingly associated with experimental and survey data collection.

By the 1990, communication had developed into a true discipline, with its own departments offering specialized teaching and research modules. Communication departments witnessed a boom in specializations, and graduate programs contributed to the employment of professors and researchers. While some may still view the “four fathers” of communication – Lasswell, Lewin, Lazarsfeld, and Hovland – as influential figures, a growing majority regard them as far-reaching influences in a discipline with many branches and diverse approaches.

Michael Sproule admits that we have not yet reached a final judgment about the winding path of communication as a coherent academic discipline. Despite ongoing disagreements over goals, concepts, and approaches, this discipline has managed to bring together its humanistic, socio-scientific, performance, and professional branches. At the same time, communication, as an academic requirement and discipline, continues to grow in size, recognition, and influence (Sproule, 2008, p. 175).

3- Quantitative communication research:

The history of quantitative research methods in the social sciences dates back to the time of Aristotle, as is evident in his works such as his study of “The Art of Rhetoric,” which is considered one of the first quantitative studies based on scientific foundations. Aristotle's efforts focused on systematic observation and drawing generalized conclusions about the effectiveness of certain practices in influencing discourse. Thus, quantitative approaches are defined as any approach that uses intentional, repeatable, and valid observations to explain and generalize human behavior.

Systematic observation, characterized by intentionality, replicability, and validity, forms the basis of quantitative research. Intentionality provides the focus needed to make meaningful observations. Reproducibility is essential, and requires researchers to repeat the results to reduce the possibility that the results are accidental. A conservative view insists that multiple iterations should be performed before drawing conclusions, to enhance the reliability of the results. Correctness includes that observations accurately reflect the intended phenomenon, preventing unintended deviations.

Quantitative research requires converting behavior into quantitative elements, through methods such as counting, measuring the average of survey responses, or assigning numerical values. The final characteristic is the tendency to generalize about human behavior, as most

studies use a sample to draw conclusions about the larger research population. Although generalization is imperfect, researchers seek to reduce the error associated with moving from the sample to the research population.

Quantitative research provides a distinct set of tools and approaches to collect data, enrich our understanding, and guide practical applications of knowledge. Quantitative methodology revolves around measuring variables, testing hypotheses, and clarifying relationships within a framework that highlights numerical data, data classification, objectivity, deductive reasoning, representation, and generalization of results (Scharrer & Ramasubramanian, 2021, p. 5)

The primary goal of quantitative research is to generate knowledge and enhance understanding of social reality. Social scientists, including communication researchers, use quantitative research to observe and analyze phenomena that affect individuals, including communication phenomena. The focus of social scientists is on studying people, and quantitative research serves as a means of gaining insight into specific groups of people, referred to as a sample of the research population. Using scientific research, quantitative research relies on observed or measured data to explore questions related to a sample. Quantitative research findings provide specific interpretations of what is important or influential to a sample of the research population. In addition, quantitative research provides insight into the frequency of a phenomenon and the extent to which it affects a sample of the research population. When quantitative research is carried out effectively, it allows information about the sample being studied to be generalized to the entire research community (Burrell & Gross, 2017, p. 1733)

Quantitative research in communication involves applying social science methods to test empirically based knowledge claims about human communication. This methodological approach relies on data and descriptive and inferential statistics to draw conclusions, using digital data to analyze communication phenomena. Common examples of quantitative communication research include: survey research, content analysis research, and experimental research, which are used across different communication fields such as interpersonal communication, media, technology, intercultural communication, and organizational communication.

Although a qualitative methodological approach is often viewed as more exploratory and conducive to generating new ideas, both quantitative and qualitative methodologies can serve these functions. Quantitative research is particularly valuable when phenomena can be classified as present or absent, or when they have measurable characteristics that vary in degree. The advantage of quantitative research lies in its ability to provide statistical evidence, enhance confidence in knowledge claims, and provide mechanisms for controlling random variables, thus ruling out alternative explanations (Timothy, 2009, p. 57).

Using quantitative methodology in communication research benefits and limitations

The benefits of using quantitative research methods in the field of communication are represented in several aspects:

1-Compatibility with academic traditions: The use of quantitative methods in the study of communication has a long history of use in other fields, lending the research a level of rigor and comprehensiveness. Transforming communication phenomena into quantities and measuring them gives researchers a common research language with their counterparts in related fields, enhancing interdisciplinary collaboration. For example, researchers in the field of “organizational communication” can build stronger connections with their business counterparts to foster cross-disciplinary collaboration. Also, researchers who focus on interpersonal issues in communication share a research tradition with psychologists interested in studying individuals and relationships.

2-Accuracy and clarity: The use of numbers and statistics gives researchers the ability to achieve accuracy and clarity in their comparisons. This precision is especially valuable when studying complex elements of communication, as it allows researchers to isolate variables and uncover subtleties of concepts.

3-Generalizability of results: Converting communication phenomena into quantities facilitates comparisons, which expands the scope of the research to include a large group of participants. Thus, researchers can generalize their findings to individuals who have similar characteristics to those participating in the research. This ability to broadly generalize enhances the real-world applicability and relevance of research findings.

Limitations of quantitative research:

Quantitative research, despite its clear advantages, faces some limitations that often stem from the same sources of its strengths. Because of its focus on the micro-elements of communication phenomena, quantitative research is less able to capture the complexity or depth of communication over time. The limitation of focusing on a limited number of variables at one time poses a challenge for researchers to comprehensively examine the entire communication process.

Furthermore, quantitative research has difficulties capturing communication phenomena that cannot be easily replicated or simulated in a controlled research setting. While quantitative approaches can be applied in the field, all participants must be exposed to the same stimuli and follow rigorous methodological procedures. Thus, questions about communication phenomena that occur spontaneously or intermittently may not meet the limitations of quantitative methods. The structured nature of quantitative research may not fully capture phenomena that appear naturally or intermittently.

4- Qualitative communication research:

Communication scholars acknowledge the complex nature of human interaction, especially communication processes that evolve over time. Qualitative communication research is particularly adept at capturing this complexity. The effectiveness of qualitative approaches in this context stems from their sensitivity to the social construction of meaning as well as to the experiences of individuals. Qualitative communication research primarily sheds light on the meanings and actions of participants by focusing on the communication environment, or social

context, in which communication occurs. This approach enables researchers to delve deeper into various communication phenomena in ways that other methods may not facilitate.

John Creswell and David Creswell view qualitative research as a means of exploring and understanding the meanings formed by individuals or groups due to social or human issues. The research process involves salient questions and procedures, and data is collected within the framework of the engaged and engaged researcher. The data is also analyzed inductively, that is, from partial details to general assumptions. The researcher then interprets the collected data. The hand research report has a flexible structure. Everyone who engages in this type of research relies on the inductive method, the focus on individual meaning, and the importance of recognizing the complexity of the situation (Creswell, 2009, p. 4). Qualitative research focuses on understanding experiences, exploring meanings, and building theories. Its most important values are subjectivity, inductive thinking, complexity and depth. Examples of qualitative research methods include: in-depth interviews, case studies, focus groups, ethnography, and text analysis (Erica & Srividya, 2021, p. 4)

Qualitative research works to preserve the form and content of human interaction, often in the form of text, audio or video, to then analyze its characteristics as it occurs naturally. Lindlof and Taylor describe it as research that focuses on “the performances and practices of human communication.” That is, it mainly seeks to explore the complex ways in which humans engage in communication, both verbal and non-verbal communication. Qualitative research is a journey into the depths of human communication, in order to uncover the meanings, motivations, and contexts that shape our interactions and shape our world. Qualitative researchers seek to understand communication phenomena or processes holistically, regardless of their complexity. Various qualitative methodologies, including participant observation, interviews, focus groups, narrative analysis, and ethnography, are used to study communication phenomena (Keyton, 2019, p. 244)

Discourse or symbolic interaction in qualitative communication research acts as a source of data, capturing naturally occurring speech or gestures in various forms without changing their original context. Qualitative research places subjectivity ahead of objectivity, focusing on nuances in the context of interactions. Qualitative researchers recognize that their experiences, perspectives, and biases can influence their understanding and interpretation of data. Rather than trying to eliminate these subjective influences, qualitative researchers embrace them as valuable sources of understanding. Furthermore, qualitative researchers are drawn to the concept of intersubjectivity – the shared understanding and social realization of how people jointly construct and experience social interactions. They believe that intersubjectivity is essential to understanding intersubjectivity, because it allows them to pick up on subtle cues and unspoken meanings that contribute to shared understandings (Keyton, 2019, p. 244)

Qualitative approaches share certain characteristics, such as an interest in how people understand and interpret communication processes, an emphasis on the study of communication as socially situated and self-constructed human action in real-world settings,

and a reliance on human investigators (researchers) as the primary research tool. and using text forms to code data and present results (Keyton, 2019, p. 244).

Using qualitative methodology in communication research: benefits and limitations:

We can summarize the most important benefits of using qualitative methodology in communication research in the following points :

Revealing unnoticed features of communication: Qualitative research allows documentation of aspects of communication that participants may ignore or take for granted during interaction. Researchers can uncover hidden or implicit phenomena through in-depth observation.

Access to Unique Communication Processes: Qualitative approaches provide an opportunity to explore communication processes that may be difficult to replicate in a laboratory setting or inappropriate for survey research. Researchers using qualitative approaches can immerse themselves in participants' natural communication environments, such as workplaces, to gain insight into how communication works for them.

Detailed understanding of communication phenomena: Qualitative data can provide a comprehensive and detailed picture of various aspects of communication phenomena. By having direct access to participants, researchers can use probing questions and observations to uncover subtle details that may not have been initially recognized by the participant or researcher, enriching the understanding of the communication environment or process (Keyton, 2019, pp. 254-255)

The most important limitations of using qualitative methodology in communication research are :

Difficulty in accessing all places where communication occurs: Not all areas where communication occurs are accessible. Some communication contexts, such as private discussions between parents and children about sensitive topics such as sex, may be off-limits to researchers.

Observer effect: There is a possibility of the observer effect, where individuals being observed may consciously or unconsciously change their behavior due to the presence of the researcher. This can lead to a discrepancy between what the qualitative researcher observes and what happens in the absence of observation.

Researcher interpretation: All observations in qualitative research are filtered through the interpretive lens of the researcher. The researcher's personal interpretation can lead to bias and affect the accuracy of the results.

Time consuming: Qualitative research is often time consuming. Researchers may need to limit observations to appropriate or expected times and situations. This can raise questions about the representativeness of the observations.

Challenges highlighted by Lindelöf and Taylor (2011) that some may consider limitations include:

The volume of data generated in qualitative research designs, which requires extensive reading and interpretation .

Qualitative data analysis involves making a series of decisions that can lead to multiple, plausible interpretations of the data. These decisions reflect the subjective nature of qualitative research and the role of the researcher in shaping the analysis process.

The circular nature of qualitative designs, where the researcher may not be able to identify the real research problem until the data has been well analyzed.

The need for a qualitative research report to be judged as meaningful and credible not only by the academic community but also by the people who participated in the study (i.e. the respondents).

Threats to validity in qualitative research:

Inaccurate or incomplete data: A major threat to the credibility of qualitative research is the possibility of inaccurate or incomplete data. While audio and video recordings can mitigate this problem, relying on field notes necessitates a focus on making them as accurate and comprehensive as possible .

The problem of interpretation: Using the self as a data collection tool in qualitative research poses the challenge of interpretation. Researchers must keep in mind whose interpretation of the data will be imposed, whether that is the researcher's understanding or the participants' perspective. Actively listening to participants' interpretation of the interaction and viewing it from their perspective helps counter this threat. Checking interpretations with participants, when possible, is good practice.

Threat to theoretical validity: The third threat in qualitative research is the threat to theoretical validity. This threat occurs when researchers ignore data that contradicts their assumptions. This can lead to biased or incomplete explanations that fail to understand the full complexity of the phenomenon under study.

Selection bias and interaction bias: Selection bias arises when researchers inadvertently focus on or give undue weight to certain points of data while ignoring or dismissing others. This can happen for various reasons, such as the researcher being drawn to data that confirms his or her existing beliefs or if he or she unconsciously prioritizes data that is easily accessible or understandable. Interaction bias occurs when the presence of the researcher or the research process itself influences participants' behavior or responses. This can occur when participants feel ashamed or pressured to perform in a certain way, leading to feigned or non-acting behavior (Keyton, 2019, p. 255)

Conclusion:

Qualitative methodology has undoubtedly provided a great addition to communication research, and has effectively contributed to supporting our understanding of the communication phenomenon. Although there are some limitations that reduce its effectiveness in communication research, it continues to develop significantly. The methodological debate has been going on for some time about the use of mixed methods as a new method that contributes to the study of communication phenomena. This research approach focuses on combining quantitative and qualitative methodologies. This methodology is based on pragmatic philosophical assumptions that care more about ends than means. Applying quantitative and qualitative approaches together in one study. This synergistic approach aims to enhance the overall strength of the study, transcending individual strengths in either quantitative or qualitative research (Creswell & Plano Clark, 2007)

Despite all the positives that characterize mixed methods, it may not be the best for every study. Some researchers may find that quantitative methodology or purely qualitative methodology is more appropriate for their research goals. The choice of methodology should be driven by the research questions and the most effective means of addressing them. Ultimately, the “best” methodology depends on context and should be chosen based on careful consideration of the unique requirements of each study.

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