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Research methods and techniques employed in Communication Studies in Spain

Métodos y técnicas de investigación utilizados en los estudios sobre comunicación en España

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Abstract

In this article the results of the project "Map of Communication Research in Spanish Universities from 2007 to 2018" are presented from the perspective of the research methods and techniques employed in the main scientific practices carried out in Spain over the last ten years: R + D + i projects, scientific articles published in indexed journals, communications presented at the congresses of the Spanish Association of Communication Researchers (AE-IC) and doctoral theses in the field of Communication. The conclusions tend to corroborate the initial hypothesis, which confirms content analysis as the most widely used technique in scientific practices in the field of Communication, although, to a lesser extent, other social research techniques are also used: discourse analysis, in-depth interviews and surveys.

Palabras clave

Methods; research techniques; communication; meta-research

Resumen

Se presentan en este artículo los resultados del proyecto "Mapa de la Investigación en Comunicación en las Universidades Españolas de 2007 a 2018" desde la perspectiva de los métodos y las técnicas de investigación que se han utilizado en las principales prácticas científicas realizadas en España en los últimos 10 años: proyectos I+D+i, artículos científicos publicados en revistas indexadas, comunicaciones presentadas en los congresos de la Asociación Española de Investigadores en Comunicación (AE-IC) y tesis doctorales del ámbito de la comunicación. Las conclusiones permiten corroborar la hipótesis de partida, que confirma al análisis de contenido como la técnica más utilizada en las prácticas científicas analizadas del campo de la comunicación, aunque también se utilizan, en menor proporción, otras técnicas de investigación social: análisis del discurso, entrevistas en profundidad y encuestas.

Keywords

Métodos; técnicas de investigación; comunicación; meta-research

1. Introduction

Research methods and techniques are the procedures which researchers follow in order to obtain the necessary data when approaching the subject being studied. Their importance lies in the fact that they are a guarantee of scientific rigour. The more or less standard application of these models is what guarantees the scientific validity of research work and, consequently, of the knowledge obtained in as much as science - in the words of Mario Bunge - "is a style of thought and action" (Bunge, 1979:19).

Irrespective of the adaptation and application which each research project makes of these procedures in their different contexts, we can establish and analyse which ones are used most in research into any specific field of study, for instance, in the area of communication, as was our case. The starting point to do so is the specific research project, since "the method is not susceptible to being studied apart from the research work in which it is used" (Vasallo de Lopes, 1999:16) analyzing the methodologies used in scientific studies in Spain between 2007 and 2018. Specifically, we analyzed the methods and techniques used in the R+D+I research projects which were authorized by the Ministry of Science and Innovation regarding communication. In addition, we analyzed the methodology used in doctoral theses which were defended at Spanish communication faculties and also the main showcases for scientific research: articles published in the main indexed communication journals and the studies presented at the congresses of the Spanish Communication Researchers' Association (AE-IC) at the six congresses which were held during the period studied.

This study is part of the "Mapa de la Investigación en Comunicación en las Universidades Españolas de 2007 a 2018" project (PGC2018-093358-B-I00, *Ministry of Science and Innovation*) which provides a register and analysis of communication research practices and contributions in Spain in over the last decade (www.mapcom.es), resuming the aim of the previous project «The system of research in Spain into the social practices in communication: Project map, groups, lines, subjects of study and methods». The research contributions in the area of communication between 2007 and 2013 were analyzed, the conclusion being that the most-used methodology is document analysis, particularly those of a quantitative nature (Caffarel, Gaitán, Piñuel and Lozano, 2018). The conclusions of the previous piece of work became the main hypotheses for this one, which seeks to update the data to 2018. The theory is that communication research in Spain in the last 10 years has continued to base its methodological strategy on the use of document-based methods, in particular, content analysis, as it is the technique which researches symbolic phenomena (Krippendorff, 1980) such as those related to communication.

This piece of work aims to be a contribution to the studies which focus on the practice of scientific research in communication - a line of research in itself which boasts some tradition in Spain - where a considerable number of studies already exist such as those published in recent years: Martínez Nicolás, 2006; Almiron and Reig, 2007; Martínez Nicolás and Saperas, 2008; Fernández Quijada and Masip, 2013; Díaz Nosty and Frutos, 2016; Caffarel, Ortega, Gaitán, 2017; Rodríguez Gómez, Goyanes and Rosique, 2018; Lozano, Gaitán, Caffarel and Piñuel, 2020; and even some studies which focus on methodological features (López Rabadán and Vicente, 2011; Ferran, Guallar, Abadal and Server, 2017 or Tramullas, 2020), an area which serves as the context for this study which deals with research methods and techniques in communication.

Regarding these methods and techniques, their classification poses a problem, as there is a certain difference of opinion when it comes to these procedures. As far as that issue is concerned, the principles set out by Madeleine Grawitz (1975) for communication in social sciences have been followed:

"one cannot help but be amazed by the extreme disorder which is apparent in this field. Most authors distinguish between method and procedures. Having said that the term is used to depict a series of procedures which exist at highly differing level as regards their more or less philosophical inspiration, how abstract they are. To what extent their aim is to explain, their more or less concrete action in the stages of research and their context in time" (Grawitz, 1975: 289).

Along those lines, Echeverría (1999) suggests a classification which seeks to reflect the existing methodological pluralism and mentions: deductive and inductive methods, methods of analysis and synthesis, experimental methods, axiomatic methods, mathematical methods, methods of observation, measurement and classification, heuristic methods, the hypothesis-deduction method, computational methods and the method based on the understanding of the phenomena being studied (Echeverría, 1999:116-117). Beltrán suggests a typology which reduces the approaches to the social reality to five: the historical method, the comparative method, the critical-rational method, the quantitative and qualitative methods (Beltrán, 2000: 15-50). In each case, the classification criteria are mixed as stated by the French researcher.

In order to tackle this problem, the solution is a taxonomy which distinguishes between different levels of classification. Firstly, the methods are differentiated according to the primary sources of data. In this way,

we distinguish conversational methods - ones in which the basic strategy for data gathering is based on the oral discourse of subjects or on their response to the researcher's question. These methods can be distinguished from observational methods which are based on researchers observing what the subjects do. The former provide data about what the subjects, themselves, say allowing us to access the conceptual universe - what they think, know, feel - and also granting access to the past and the future, since subjects talk about what they have done, what they do and what they will probably do. Observational methods make it possible to access data regarding what subjects do directly through the lens of the researcher, without the interviewee setting out their interpretation or distorting things with their personal vision, focused, mainly, on researching social and communicative action, particularly that which occurs in real time.

In addition to conversational and observational methods, there are the ones based on experimentation, "what we mean by *experiment* is that part of the research in which variables are changed and the effects on others are observed" (Campbell y Stanley, 1995:9). Once the change has been carried out, the reaction of the subjects can be asked or observed, so the variation would only be a consequence of the change in the variable, although the material and ethical problems caused by manipulation in Social Sciences have led to a scarce use of experimental methods in this field.

Finally, there are the methods based on documents in which the researcher studies records containing data of interest. These records may be: written, audiovisual, digital, personal, public, private, individual, institutional.....any type of documentary record containing the data which are of interest to the researcher in their study of the subject. These records are all the more important in communication sciences since communicative phenomena may be considered document-based sources, as long as they are registered: printed or digital press, radio or TV programmes, films or series, even digital media such as posts on social networks or webs and YouTube videos.

The different conversational, observational, document-based or experimental methods may be applied in a more qualitative or quantitative way depending on the ultimate goal for which the data have been gathered and the aim of the study: grasping its "meaning", interpreting and understanding the data obtained, opting for the qualitative approach or quantifying the subject by establishing how much occurs with what frequency under what circumstances, thus choosing a quantitative approach. Depending on the stated goal, the methods will be either more quantitative or more qualitative and some techniques or others will be used, given that research techniques are "instruments which exist and which are available, waiting for each researcher to make specific use of them in a real study" (Valles, 2000:97). For that reason the research techniques which are identified by most authors (some of them dealing with communication science such as: Wimmer and Dominick (1996), Gaitán and Piñuel (1998) or Igartúa (2006)), are a taxonomy which distinguishes both the source of the data and the aim of the study. They establish that, within the group of conversational methods, researchers can use in-depth interviews or discussion groups, to name the most important group techniques, when following a qualitative strategy and surveys when the conversational method is used quantitatively. In the case of observational methods, when trying to grasp the "sense" of the social action, participant observation may be used, whereas, systematic observation may be preferred when seeking to quantify this behaviour. For document-based methods, discourse analysis - in any of its applications - would be used when attempting to analyse messages qualitatively, looking for what Barthes (1986) referred to as the "third meaning", whereas the quantitative approach of the document-based method would be content analysis. As regards experimental methods, they may use any research technique as long as there is an intervention which affects the subject and the effect of which can be asked or observed.

In both Social Sciences and Communication Sciences, qualitative or quantitative methods have been used in a fairly antagonistic way, radicalizing the research practice towards mutually exclusive positions. This mutual opposition of the two methodologies has been overcome by the current hybridization of the two and the ever-increasing tendency to use designs based on triangulation, which, at the end of the day, to quote Ibañez (1992: 136), "to find out the truth in the social sphere a double-edged tool is needed which conjugates words and numbers".

2. Methodology

This piece of work follows the methodology of the project of which it is part, creating a rigorous census of research projects, doctoral theses, research articles and studies presented at the congresses of the AEIC. To do so, a different procedure has been followed in each research practice.

To obtain the information about competitive projects, the information was requested from the Ministry of Science and Innovation which is responsible for the calls and carrying out of the projects of the "State Plan of Scientific and Technical Research and Innovation" (I+D+i), giving the information about the authors who

carry out the projects and the subsequent memorandum, then, consulting the Universities, who facilitated direct contact with the Main Researcher of the authorized projects. By choosing projects whose area of study and object are related to communication phenomena, a universe of 250 authorized projects between 2007 and 2018 was obtained.

In the case of research articles, scientific journals have been chosen first, with the top nine from the h-index from *Google Scholar* during the established period of the study being selected: *Comunicar*, *Revista Latina*, *Comunicación y Sociedad*, *Estudios del Mensaje periodístico*, *Telos*, *Zer*, *Trípodos*, *El Profesional de la información e Historia y Comunicación Social*. In addition, the different journals are significant for their high position in the acknowledged impact indexes: *El Profesional de la Información* is Q3 and *Comunicar* Q1 according to the Journal Citation Reports (JCR) for last year. Of all the articles published in the 9 journals over the 11-year period, only those which came from R+D+i projects, a total of 406, were selected.

For communications, a body of analysis has been established, made up of all studies published in the Proceedings of AE-IC congresses by authors from Spanish universities, both in the inaugural congress held in 2008 in Santiago de Compostela, and the five subsequent congresses held during the period under study: Málaga 2010, Tarragona 2012, Bilbao 2014, Madrid 2016 y Salamanca 2018. Altogether, some 850 studies have been analyzed.

For doctoral theses, we have read those which were presented at Faculties of Communication or Information Science during the period studied, the information being obtained from the Teseo database and generating a census of 2,784 doctoral theses for the period between 2007 and 2018.

Altogether 4,290 items were recorded, making up the body of this research. An analysis record was created for each of these items and even though the Mapcom project considers more variables, in this approach we only used those which explicitly referred to research methods and techniques, cross-referencing the methodological strategies with ID variables (type of contribution, year of publication, gender of main author, researcher or doctoral student) as well as relating it to the aims and subject of the study, specifically, its nature, type of study and whether it is offline or online.

In order to carry out quantitative analysis which makes it possible to have a more exact image of the use of research methods and techniques in communication analysis of the frequency and contingency tables have been drawn up, establishing research methods as the dependent variable, which is the objective set out by the current study.

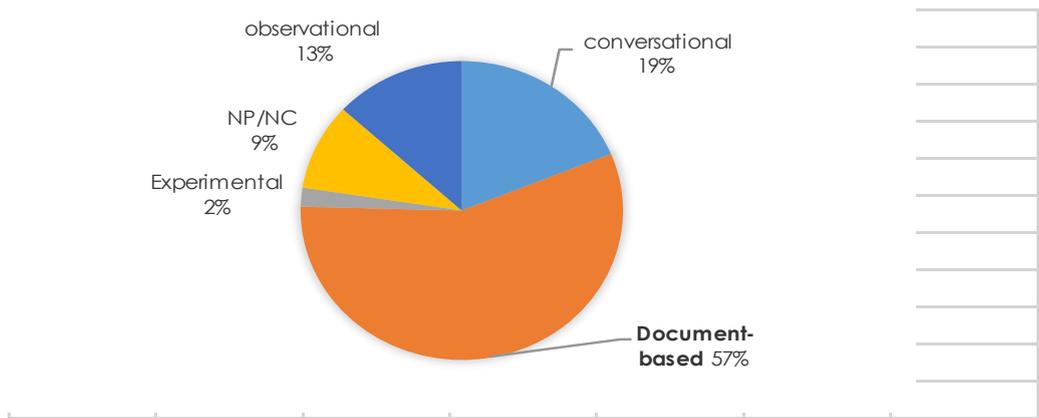
3. Results: research methods in communication

The body of the piece or work was obtained by mapping the scientific practices in the field of communication in the last 10 years, with a figure of around 4,290 studies. From the analysis of the research methods which were used, document-based ones were found to be the most-used. Graph 1 shows that, for communication, the most-used methods - more than half of research projects - were those which used documents. Naturally, these scientific practices study the communication phenomena which have been recorded and which tend to be document-based. Altogether, 2,427 research projects used data from documented sources, be they media sources: newspapers, magazines, films, radio or TV programmes, or another type of documented source.

Secondly, communication research uses the word, as its main source of data, which is always the main form of interpersonal communication. 807 studies used conversational methods, making up around 20% of the total.

On fewer occasions (565), albeit making up 13% of the total, the main method for obtaining data is observation. In considerably fewer cases - a mere 2% - the main method is experimentation. As with all social sciences, experimental methods are used relatively scarcely in research practice and, in the case of communication, on only 88 occasions.

Graph 1: Research methods in communication



Source: author's own material

3.2. Research methods by type of contribution

The distribution of the different methods as shown in the previous section, reveals data for scientific work in Spain, but the methods should be studied by the type of contribution they represent since differences can be observed. It should be pointed out that the production is not the same for all categories, rather, productivity decreases as we ascend the scientific hierarchy. As such, there are more doctoral theses than any other type of contribution - practically 65% are doctoral theses - the lowest ranking scientific study since it is the one which grants access to a research career. In second place are AE-IC congress communications, accounting for 20% of all contributions and which may be considered the second tier of scientific production. Distribution, in terms of different congresses, yields uneven figures: in 2008 in Santiago de Compostela, 191 were presented. Two years later, in Malaga, the figure dropped to 107. Tarragona in 2012 saw a new increase, reaching 181 and that number fell again to 129 in 2014 (Bilbao) and 136 in 2016 (Madrid).

At a higher level of scientific merit, we have research articles published in the following journals: *Comunicación y Sociedad* (65), *Comunicar* (16), *El profesional de la información* (112), *Estudios sobre el Mensaje Periodístico* (75), *Historia y Comunicación Social* (27), *Revista Latina de Comunicación Social* (58), *Telos* (18), *Trípodos* (17) y *Zer* (18). These articles account for nearly 10% of the total, although we only included those articles which came from a competitive project - the highest rank of research in social sciences - and which, at least in the area of communication, is the least numerous, making up only 6% of all scientific research in communication.

Analyzing the different methods according to the type of contribution, as shown in Table 1, even though document-based methods are always the most used in any scientific project in communication, they do not always feature in the same proportion. In articles, the document-based methods account for over half of the methods used in doctoral theses - 10 points more - whereas in R+D+i projects, they make up exactly half of methods used and in communication presented at AE-IC congresses, they represent 40%.

The use of other research methods also varies. Specifically, conversational methods represent 20% of the total, as shown above, however, that percentage is only applicable to R+D+i projects. In the case of research articles, the percentage is higher, albeit only 2%. In the contributions of a lower scientific standing - communications and doctoral theses - the use of conversational methods does not reach 20%. The difference with observational methods is even more significant since they are used more in research articles - almost 20% of articles, whereas projects, communications and doctoral theses score 11%, 12% and 13% respectively.

As regards experimental methods, as shown above, they are used in a very low percentage of cases - 1% of articles, 2% of communications or doctoral theses but in 5% of competitive research projects. The greater difficulty encountered when designing experiments, may be the reason for its more widespread use in projects of a higher scientific level.

There have been cases in which it has been impossible to ascertain the methodology used, either because it was not specified or because it did not refer to empirical research. This has occurred in all types of

contributions, in a proportion which ranges from 10% to 20%, less frequently in research projects and more frequently in articles for indexed journals.

Table 1: Research Methods in communication by type of contribution

	Articles	Communications	R+D+i Projects	Doctoral Theses	Total 100%
Conversational	88 22%/11%	129 15%/16%	51 20%/ 6%	539 19%/67%	807
Observational	77 19%/14%	101 12%/18%	27 11%/5%	360 13%/64%	562
Document-based	221 54%/9%	341 40%/14%	125 50%/5%	1740 62%/72%	2427
Experimental	4 1%/4,5%	20 2,3/23%	12 5%/14%	55 2%/62%	88
Not Specified	77 19%/19%	101 12%/25%	27 11%/7%	90 13%/22%	402
Total 100%	406	850	249	2784	

Source: Author's own material

Regarding the use of different methods depending on the type of contribution, considerable differences have been noted. Given the greater relative importance of doctoral theses, in all methods a greater usage is recorded in doctoral theses, more than half in over 60% of cases and reaching 70% in the case of document-based methods. However, it is significant that doctoral theses are not the category which stands out in the case of unidentified research methodology. Rather, it is in communications that this phenomenon is most common due to the fact that studies presented at AEIC congresses may not be the result of empirical studies but, rather, they may be reflections, essays or another type of scientific contribution in the area of communication.

The importance of the different methods in the different contributions must be compared to the importance of each contribution in the overall result. If doctoral theses make up 65%, communications represent 20%, articles, 9%, and projects, 6%, it can be said that the methods which stand out in doctoral theses are document-based and conversational ones, as they are far above the average, whereas communications are noteworthy, not only for an unidentified methodology but also for a use of the experimental methodology which tends to be above the average. In the case of articles, document-based methods are applied in the same proportion as articles in the overall sum of contributions - a proportion which is exceeded when considering conversational and observational techniques. In addition, there is an increasing figure for contributions which do not identify the methodology followed, whereas indexed publications stand out for the low importance of experimentation. That is the opposite of the importance registered in by research projects where experimental methods stand out at the same time maintaining a balance in the others which is in line with the contribution to the overall total scientific output in communication.

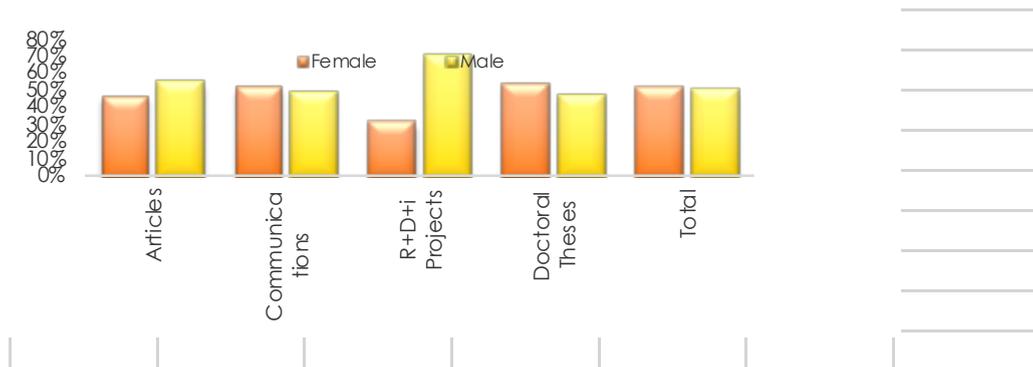
3.2. The gender of the researcher in the application of the different research methods

It is also worth asking if there is any difference in the use of the different methods based on the gender of the researcher applying the methodology. The results of this study reveal that there is no difference by gender either in overall terms for research into communication in Spain or in the use of the different research methods.

That statement allows for nuances, since a more detailed analysis of the data warns that scientific activity in the field of communication is not immune to gender discrimination either in research activity itself or the use of its methods.

While general data indicate a gender balance, an analysis by contribution indicates that the degree of balance has not yet reached 100%. The data suggest that in research into communication in Spain, as revealed by the Mapcom project, there is a gender difference which represents an indication of a "glass ceiling". The gender imbalance increases as the level of scientific contribution rises, with a notable difference in R+D+i research projects.

Graph 1: Gender difference in the scientific contributions in communication



Source: author's material

Regarding the use of research methods, despite there not being a significant difference between genders, percentage differences were noted which may reveal tendencies in their respective uses. As such, males favour the use of conversational techniques rather than observational and conversational ones, the latter being used more by females, whereas with document-based methods, there is barely any difference in their use from one gender to the other.

Table 2: Research methods by researcher gender

	Female	Male	Total 100%
Conversational	380 18%/47%	427 17%/53%	807
Observational	288 14%/71,6%	277 12,7%/68,9%	562
Document-based	1198 56,6%/49,3%	1229 56,4%/50,6%	2427
Experimental	45 2,1%/51%	43 1,9%/49%	88
Undefined	202 10%/36%	200 9%/35,5%	402
Total 100%	2113/49,2%	2176/50,7%	4289

Source: Author's own material

3.3. Research methods in communication by aims of the study

In the Mapcom research project, four aims were set out for the research which was performed, based on whether it intended to describe, explain, intervene or assess the subject being studied. Overall, the descriptive objectives were the most popular, i.e., research into communication has, as its main aim, to describe the phenomena being researched. This was the case in 54% of the cases, which allows us to state that more than half of all communication research output is descriptive. In the field of communication, 24% of research projects had as their aim to explain, making up nearly a quarter of the total. In a lower proportion were the pieces of research which sought to assess the phenomena - 11% of cases - whereas only 3% of studies were undertaken with a view to modifying the subject. It is true that assessment and intervention do not tend to be the most common aims in social sciences and that has not been the case in this study of communication sciences.

Table 3: Research methods by the aims of the research

	Description	Explanation	Assessment	Intervention
Conversational	365 -16%	243- 24%	140 - 29,5%	43 - 31%
Observational	294- 13%	173- 17%	73 - 15,4%	22 - 16%
Document-based	1539- 66,5%	556- 54%	207- 44%	46 - 33%
Experimental	11-0,4%	25-2,4%	32- 7%	21- 15%
Total 100%	2313	1023	473	139

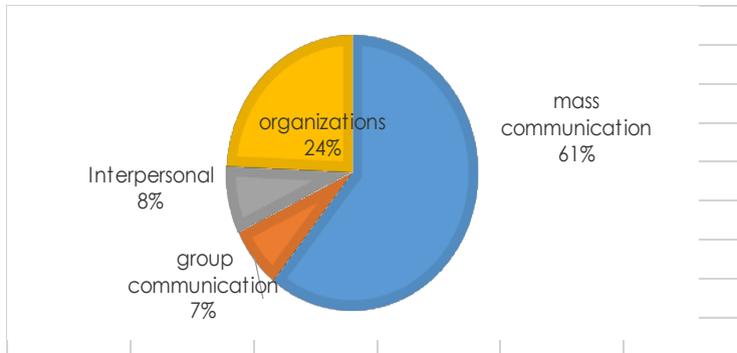
Source: author's own material

As Gauchi (2017) states “the adaption of the different studies is strongly linked to the type of research used (exploratory, descriptive, correlational or explanatory)”. The same thing happens with the study carried out, since there are differences in the use of the methods depending on the aims which have been set out - if the aim is to explain, assess or intervene, the experimental techniques will be used more, given that these methods are not used for descriptive aims. If it is a question of describing, even though conversational, observational and document-based methods may be used, the latter are used much more frequently - in over half of descriptive pieces of research - and document-based methods are used, these being the least used techniques when the aim is to explain or assess reality. In these cases, in addition to experimental methods, conversational and observational ones are also employed.

3.4. Research methods in communication by study aims

As regards the aim of the study, different communicative phenomena have been identified depending on the type of output being studied. More than 60% of research in the area of communication refers to communication by organizations and the rest, to interpersonal or group communication.

Graph 2: Type of communicative phenomena researched in the study



Source: author's own material

Despite the dominance of mass communication, which exceeds the frequency of the use of any other method as regards its use in other types of communicative subjects studies and, despite the dominance of document-based methods over other methods, making them the most-used method in the research of any communicative study subject it is possible to find a certain logic in the use of one methodology or another depending on the type of output being studied in such a way that there is a perceptible tendency in the use of experimental methods when the phenomena of mass communication or communication in organizations are being studied. At the same time, the latter phenomena are the ones which show certain differences with the use of document-based methods since, even though they are used for the study of any communicative phenomenon, they are used especially for mass communication and organizational communication.

As regards the observational and conversational methods, they are used more in interpersonal and group communication and less in mass communication and, to an even lesser extent, in the study of organizations.

Table 4: Research methods by types of communication studied

	Mass communication	Group communication	Interpersonal communication	Organizational communication
Conversational	337 – 15,5%	57 – 26,7%	56- 23,3%	122 – 18,2%
Observational	288 – 13,3%	51 – 24%	44 – 18,3%	136 – 20%
Document-based	1514 – 70%	84 – 39,4%	127 – 53%	398 – 59,5%
Experimental	36 – 1,6%	21 – 10%	13 – 5,4%	12 – 1,7%
Total 100%	2175	213	240	668

Source: Author's own material

The research context has also been taken into account - whether the subject of the study refers to offline or online phenomena. Research in communication in the last 10 years favours the study of communicative phenomena which take place in the offline context, since almost 2300 were carried out in the traditional setting, making up 53% of all research studied. Only 24% of the cases considered featured the study of

phenomena which were wholly digital, although that accounts for over 1,000 pieces, to which we must add almost 600 studies which referred to both contexts.

Table 5: Research methods when dealing with offline or online communication

	<i>Off line</i>	<i>On line</i>
Conversational	405 – 18%	247 – 24%
Observational	272 – 12%	183 – 18%
Document-based	1493 – 65%	519 – 50%
Experimental	49 – 2,2%	29 – 2,8 %
Total 100%	2290	1025

Source: author's own material

According to the results of this study, as recorded in Table 5, whether offline or online communicative phenomena are being researched, document-based methods are favoured. At the end of the day, as has been stated above, communication is documents, even digital ones. However, it is possible to highlight an even more outstanding use of document-based methods in the study of conventional communicative phenomena. At the same time, it is in digital phenomena where we can perceive a certain dominance of conversational methods and, to a lesser degree, for observational ones, even though they are not in the majority, but they are used to a greater extent than when analogical communication is being studied.

3.4. Research techniques in scientific output in communication

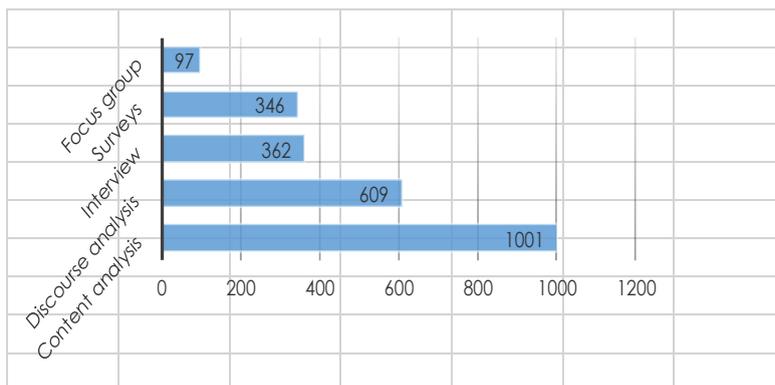
In addition to research methods, distinguishing between them by the types of sources which provide the data, the methodological designs of each piece of research may also be distinguished according to the specific research techniques used for obtaining data or the group of techniques used in each research study, since it has been discovered in the study that in 768 research projects, more than one research technique has been used, in other words, 18% of the cases use methodological triangulation with the use of various research techniques.

Specifying the research technique of the body as made up of published articles, competitive projects and doctoral theses, it has been difficult to comply with the variable, given that in the communications presented the research technique used was not specified. It can be seen from graph 4 that the most-used technique is content analysis, which was employed in more than 1,000 pieces of research of the 3,439 which were analyzed - 29% of the total. Virtually one out of every three research studies in the field of communication is carried out using content analysis.

To those 1001 cases in which content analysis, in its conventional form, was applied, we must add 609 research projects which applied discourse analysis. Using Berelson's (1952) definition of content analysis from 70 years ago "a research technique for the objective, systematic, and quantitative description of the manifest content of communication" it is possible to distinguish another way of analyzing communicative phenomena from a more qualitative perspective. In this way, discourse analysis - as opposed to content analysis - considers the context in which the text is produced, considering both the intentions of the author, the reaction of the audience, and the "development of meaning" (Neuendorf, 2004). This, more qualitative, reflection, is also clearly apparent in the study carried out: 18% of the research studies analyzed used discourse analysis.

In addition to the use of content and discourse analysis, must be added the use of the in-depth interview, in any of its types, as a technique with considerable presence in communication research. Its use, in over 10% of the 3,439 studies, is a result of how cost-effective it is. These techniques are not expensive and nor are they complicated to run. In addition, they are productive in terms of the data they generate, offering first-hand information from both the players of the communicative phenomena and the professionals or experts from the field of communication.

Graph 3: Main research techniques used in communication research



Source: Author's own material

To a lesser degree, conversational techniques of a qualitative nature - in this case, group techniques - are used. The most popular one is focus groups, with 97 research studies using this research technique, accounting for 2.8% of the cases in which the research techniques were recorded.

The conversational techniques of a quantitative nature, i.e., surveys were used more frequently. Surveys either opinion polls, attitude polls, or others - were used as a research technique on 346 occasions. Surveys, which are the main technique in other social sciences, such as sociology, do not have the same presence in communication sciences, revealing a certain methodological peculiarity, although they did make up 10% of the research work in which a technique was recorded: projects, articles and doctoral theses read in the last 10 years.

4. Discussion

There is a collection of manuals about research methods and techniques in communication for researchers to apply these procedures in their research. However, there are fewer pieces of work which analyse the specific methods used in research work in this field, possibly due to the design in the classification of methods as stated above and set out by Martínez Nicolás (2020: 398), who attributes the scarcity of these diagnoses about methods and techniques to "the divergence in the categories employed in the available studies". Be that as it may, this piece of work has sought, in conjunction with other works, to contribute to a greater knowledge of the way in which research is carried out in our area of interest.

The results of the study coincide with those of others. As such, in this study content analysis is highlighted as the main research technique in communication, since it is the most-used one, to be more precise, in 29% of output, which is the same percentage as found by Martínez Nicolás, Saperas and Carrasco (2019:59) whereas the study by Rodríguez Gómez, Goyanes and Rosique (2018: 236) showed that even though content analysis is still the most-used technique, it appears in 9.4% of cases.

Regarding the use of discourse analysis, in the study carried out by Martínez Nicolás, Saperas and Carrasco (2019) into the articles published by indexed journals in the last 25 years, those which use content analysis are "more than double those which use any other form of discourse (sociological, semiotic, argumentative, narratological, critical, etc.), employed in around 15% of texts". In this piece of research, the difference between the two document-based research techniques is not so high, since discourse analysis is used in 18% of cases, with a difference of 11 percentage points with regard to content analysis, although if only indexed journals are considered - like the research with which it is being compared - the difference is more striking, with the quantitative technique not only doubling, but more than tripling the more qualitative technique for analyzing messages. That result reveals how research methodology also differs according to the type of research being undertaken. In fact, differences are also noted in the case of doctoral theses, where there is a notable tendency towards the use of discourse analysis - half of those which use content analysis. Even though they do not have to be different research projects which use one technique or another, the high percentage of research projects which use these document-based methods together with high level of triangulation which was mentioned above show, as pointed out by Vicente (2009), a triangulation is produced between content analysis and discourse analysis, precisely the two techniques which analyse communication.

Similarly, there is a coincidence with the study by López-Rabadán and Vicente, (2011:12) when they talk about "the almost complete absence of experimental designs".

As regards the use of other techniques, the research by Martínez Nicolás, Saperas and Carrasco (2019) highlights the survey as being another of the popular techniques in the study of communicative phenomena, its use being the equivalent of that of discourse analysis - around 15% - and lower in the case of this study with 10% of cases but still higher than the figure revealed by the study conducted by Rodríguez Gómez, Goyanes and Rosique (2018: 236) which found the use of the survey to be 5.6%.

Even though the percentages differ, due to the choice of different bodies of analysis, all studies have a common pattern or guideline in the way of researching in communication, characterized by a greater use of document-based methods above any other research methods, and, in particular, content analysis as the main technique used for obtaining data, thus the methodology should be approached, in the words of Moragas:

"research into mass communication cannot invent its own method for research content and messages, however, what it can and must do is to tackle its own particular topic with the methodology of each social science" (Moragas, 1981:21).

5. Conclusions

The main conclusion of the present study, confirming the initial hypothesis and coinciding with previous studies, is the use of content analysis as the main research technique in studies in communication, at least for the ones analyzed in this piece of work. Content analysis is followed by - or, in some cases, joined by (in certain methodological designs with a high degree of methodological triangulation) - discourse analysis, which is the most qualitative strategy when analyzing texts and their contexts.

In any case, document-based methods are the most commonly used for researching communication, irrespective of the type of research being carried out, the type of communication being researched, the identity of the researcher and the specific aims of the study.

In the make-up of the map of the research methods and techniques employed in the studies into communication in the last 10 years, it has been shown that, in addition to these document-based methods, in one of every five pieces of research conversational methods have been used. The in-depth interview is the technique which is used most commonly when conversational methods are favoured although the proportion is almost the same for the quantitative technique *par excellence*: the survey. This use of the survey and dominance of content analysis indicate that, at least in Spain, quantitative methodological designs are favoured over qualitative ones when it comes to research into communication.

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