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# Quantitative Communication Research: Theories and Methods

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## Course description

The purpose of this module is to introduce the students into the main theories and methods of mass communication research, as well as into tools that will enable them to conduct investigations and perform statistical analyses in the field of communication. The course is mainly focused on the statement of appropriate research questions for quantitative research, the definition of variables, the application of the appropriate statistical methods and the interpretation of the results. A second objective of the course is to introduce students to statistical software.

## ECTS Credits

4 ECTS

## Specific competences

Students should achieve the following competences:

- Know the main theories and authors of mass communication research.
- Address key questions about media and communication.
- Know what are the main quantitative methods for communication research.
- Design quantitative research and integrate it into the appropriate theoretical and methodological frameworks.
- Clearly state research questions

- Define the variables of the research.
- Use of the main methods for collecting and processing data.
- Correctly perform the statistical methods learnt, considering the research questions and the characteristics of the variables.
- Extract results and interpret them correctly.
- Discuss the application of the methods and consider their limitations.
- Use of SPSS to obtain the results required.

### Learning outcomes

- Recognize, understand and apply communication research theories and methods.
  - Recognize, understand and apply communication media effects theories and methods.
  - Understand how to use previous academic works to improve communication practices.
- Understand how to perform research to solve relevant questions and problems in the field of communication.
- Understand how quantitative methods are applied to obtain knowledge about how communication is managed.
  - Understand how statistics are applied to answer relevant for communication management research questions.
- Understand the functioning of statistical software and use it to answer to the research questions.
  - Learn how to report and interpret results and extract relevant conclusions from them.

## Content

### 1. Introduction to empirical positivist theories of research in communication.

a. A general introduction to research and to quantitative research in social sciences.

1. Why research, and why quantitative research for communication management? Changes in the paradigm of communication practices.

b. Communication research: from the paradigm of mass media society to Mass Communication Research

### 2. Introduction to quantitative mass media research

An introduction to media effects and to media effects theories: a. powerful effects: hypodermic needle, spiral of silence, agenda-setting. b. limited effects: two-step flow of communication, cognitive dissonance. c. other effects: third person effect, hostile media, framing, priming, parasocial interaction.

### 3. Planning an investigation: main phases and concepts. Basics of quantitative research in communication.

Research questions and definition of variables. Implementation in SPSS/Jamovi statistical software

4. **Methods for quantitative research:** (1) content analysis; (2) survey;

5. **Methods for quantitative research:** (3) experimental methods.

(Tutoring session)

### 6. Statistical Analysis

(1) Descriptive Statistics.

(2) Testing for differences: a. Chi squared; b. ANOVA; c. T-test

(3) Testing for relationships: a. Correlation; b. Regression

## 7. Interpretation and writing of conclusions

### Method of presentation

The teaching methodology of this module will be:

—About 90 minutes lectures in classroom per session. Presentation of the main theoretical concepts and contents.

—Debates to discuss published researches on communication and mass communication research.

—Workshops and activities to put in practice topics on statistics and SPSS or Jamovi.

—Individual tutoring.

—Presentations in class.

### Course assessment

—Individual works on quantitative research and statistics applied to mass communication research (3 x 10% of the final grade)

—Proposal of a situation/problem in communication practices that can be solved or improved by means of scientific research.

—Proposal of research questions in relation to quantitative research in communication and definition of the method.

—Proposal of the statistical methods to answer research questions, and the expected results.

—Group research on mass communication effects (50% of the final grade).

—Presentation of the group work (10% of the final grade).

—Attendance and participation in class (10% of the final grade).

**Course schedule**

Week Content

1	<p><b>Introduction to positivist theories of research in communication. Limited effects theories</b></p> <p>Reading: Lazarsfeld’s Personal Influence</p> <p>Recommended reading: Rogers, E. M. (1994). Paul F. Lazarsfeld and Mass Communication Effects.</p>
2	<p><b>Introduction to Mass Media Effects: agenda setting, framing, priming, hostile media effect, third-person effect.</b></p> <p>Reading: Save me, save them! Trash Talk Shows and the Third-Person Effect</p> <p>Readings: Potter, W. James (2012). Media Effects. Thousand Oaks : SAGE</p>
3	<p><b>Planning a research. Theoretical framework and research questions in mass communication research.</b></p> <p>Definition of variables, methods for measuring variables and research questions.</p>
4	<p><b>Methods for quantitative research:</b></p> <p>Content analysis; Survey;</p>
5	<p><b>Methods for quantitative research: Experimental methods (framing/priming)</b></p> <p>Discussion on Framing and Decision Making (the Asian Disease) The Framing of Decisions and the Psychology of Choice (Tversky &amp; Kahneman, 1981)</p> <p>The Psychology of Preferences (Kahneman &amp; Tversky, 1981)</p>

	Priming and framing effects. A theoretical framework (Virós, Twort and Guerrero-Solé, 2020)
6	Tutoring sessions
7	Testing for differences  * Students will be asked to propose contents/stimuli to test differences (framing   priming   third-person or other) and to explain the rationale of their hypotheses.
6	Variables and statistical software (SPSS, Jamovi): Testing for differences and relationships  Fundamentals of statistical software: creation of variables, types of variables, data filtering, descriptive statistics, plots.
7	<b>Testing for differences</b>  Introduction of the following statistical methods: Chi squared; ANOVA; T-test. Performing the tests, and reporting results.
8	<b>Testing for relationships</b> Introduction of the following statistical methods: a. Correlation; b. Regression. Performing the tests, and reporting results.
9	<b>Interpretation and writing of conclusions</b>
10	Presentation of the research

### Required reading

Allen, M., Titsworth, S., & Hunt S. K. (2009). Quantitative Research in Communication. London: Sage.

Berger, A. A. (2000). *Media and Communication Research Methods: An Introduction to Qualitative and Quantitative Approaches*. London: Sage.

Guerrero-Solé, Frederic; Besalú, Reinald; López-González, Hibai (2014). Save me, save them! Trash Talk Shows and the Third-Person Effect. *Communications, The European Journal of Communication Research*, 39 (2), 193-214.

Igartua, J.-J., & Cheng, L. (2009). Moderating effect of group cue while processing news on immigration: Is the framing effect a heuristic process? *Journal of Communication*, 59, 726–749. <http://doi.org/10.1111/j.1460-2466.2009.01454.x>

Potter, W. James (2012). *Media Effects*. Thousand Oaks : SAGE

Wagner, W. E. (2011). *Using IBM SPSS Statistics for Social Statistics and Research Methods*. London: Sage.

### Recommended reading

Denham, B. E. (2002), *Advanced Categorical Statistics: Issues and Applications in Communication Research*. *Journal of Communication*, 52: 162–176. doi: 10.1111/j.1460-2466.2002.tb02537.x

Katz, E., & Lazarsfeld, P. F. (1955). *Personal Influence*. New York, 792. <http://doi.org/10.2307/2088435>

Kelso Sandlin, J., & Gracyalny, M. L. (2020). Fandom, forgiveness and future support: YouTube apologies as crisis communication. *Journal of Communication Management*. <https://doi.org/10.1108/JCOM-06-2019-0096>

Kim, H. S., Yang, S., Kim, M., Hemenway, B., Ungar, L., & Cappella, J. N. (2019). An Experimental Study of Recommendation Algorithms for Tailored Health Communication. *Computational Communication Research*. <https://doi.org/10.5117/ccr2019.1.005.sukk>

Kühberger, A. (1998). The Influence of Framing on Risky Decisions: A Meta-Analysis. *Organizational Behavior and Human Decision Processes*, 75, 23–55. <http://doi.org/10.1006/obhd.1998.2781>

Petty, R. E., & Cacioppo, J. T. (1983). Central and peripheral routes to persuasion: Application to advertising. *Advertising and Consumer Psychology*, 1, 3–23.

Rogers, E. M. (1994). Paul F. Lazarsfeld and Mass Communication Effects. In Rogers E. M. (1994). *A history of communication study: A biographical approach*. New York, N.Y: The Free Press.

Scheufele, D. A., & Tewksbury, D. (2007). Framing, Agenda Setting, and Priming: The Evolution of Three Media Effects Models. *Journal of Communication*, 57(1), 9–20. <http://doi.org/10.1111/j.1460-2466.2006.00326.x>