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# Quantitative Communication Research: Theories and Methods

**Instructor:** Frederic Guerrero-Solé

**Hours:** Thursdays, 14.00-17.00

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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 such as Jamovi and SPSS.

## The course in the study plan

This compulsory course belongs to the subject of *Fundamentals of communication management* of the study plan. It takes place in the first quarter of the course.

## ECTS Credits

4ECTS

## 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 the main quantitative methods for communication research are.
- Design quantitative research and integrate it into the appropriate theoretical and methodological frameworks.

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- 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.

**Sustainable development goals:** quality education; gender equality; decent work and economic growth; responsible production and consumption.

## Content

1. Introduction to 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.
4. Methods for quantitative research: (1) content analysis; (2) survey; (3) experimental methods.
5. Strategies in the process of data collection and processing.
6. Definition of variables and implementation in SPSS/Jamovi statistical software
7. 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
8. Interpretation and writing of conclusions.
9. Presentation of research results.

## Course Learning Plan

### 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 research on communication and mass communication research.

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

—Individual tutoring.

—Presentations in class.

Hours of dedication (between classroom and student work): 100h

### Course assessment

—Individual activities on quantitative research and statistics applied to mass communication research (3 x 7% of the final grade)

—Research proposal. Assignment to be developed in pairs. The aim is to propose quantitative research to improve/optimize a particular communication process of a company (20% of the grade).

—Presentation of the research proposal (10% of the final grade).

—Exam on quantitative theories and methods (35% of the final grade).

—Attendance and participation in class (14% of the final grade).

### Late Assignments

If you are unable to turn in an assignment on time because of a documented illness or family tragedy, you will not be penalized for turning in work late, provided you present your written excuse within one week of returning to class. If you must turn in work late for other reasons, 2 points will be deducted from the grade on the

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assignment for each day (each weekday, not class day) that it is turned in late. The first late day begins right after the assignment's deadline, unless another time is designated. Thus, if an assignment's deadline is at 19:00h, a student submitting his/her assignment at 19:01 will lose 2 points. This policy applies to all assignments, including the research proposal. As per the syllabus, I will not accept any assignments emailed to me. You can always upload an assignment after the due date, and I will mark it late as appropriate.

## **Plagiarism**

All written work submitted in this course is to be expressed in your own words. Text copied from a book, a website, another student's paper, your own previous work or any other source is not acceptable if not clearly quoted. In any individual or group assignment or presentation, you must indicate the sources of all borrowed texts, ideas or facts that go beyond common knowledge. Using third-party sources without being duly attributed would be considered plagiarism, be it intentional or not. **Any work written, developed, created, or inspired by artificial intelligence (AI) is considered plagiarism and will not be accepted, unless otherwise instructed.** For quoting sources you must always use the recommendations of the APA style. Penalties for plagiarism may range from a failing grade on the assignment with no make-up opportunity, to a failing overall grade in the course and notification to the BSM Dean.

## Course schedule

Week	Content
1 26/09/2024	<b>Research in communication.</b> <ul style="list-style-type: none"> <li>▪ Introduction to quantitative research and communication management.</li> <li>▪ Media and communication effects theories</li> </ul>
2 03/10/2024	<b>Introduction to Mass Media Effects:</b> agenda setting, framing, priming, hostile media effect, third-person effect. <ul style="list-style-type: none"> <li>▪ <b>Reading:</b> Save me, save them! Trash Talk Shows and the Third- Person Effect</li> <li>▪ <b>Activity 1</b></li> </ul>
3 10/10/2024	Planning research. Theoretical framework and research questions in mass communication research. <ul style="list-style-type: none"> <li>▪ Definition of <b>variables</b>, methods for <b>measuring variables</b> and <b>research questions</b>.</li> <li>▪ Social Sciences Scales</li> <li>▪ Reading: Potter, W. James (2012). Media Effects. Thousand Oaks: SAGE</li> </ul>
4 17/10/2024	<b>Methods for mass communication research:</b> <ul style="list-style-type: none"> <li>▪ Content analysis; Survey; Experimental methods A quantitative approach to Framing and priming.</li> <li>▪ <b>Discussion on Framing and Decision Making</b> (the Asian Disease)</li> <li>▪ <b>The Framing of Decisions and the Psychology of</b></li> </ul>

	<p><b>Choice</b> (Tversky &amp; Kahneman, 1981)</p> <ul style="list-style-type: none"> <li>▪ The Psychology of Preferences (Kahneman &amp; Tversky, 1981)</li> <li>▪ Priming and framing effects. A theoretical framework (Virós, Twort and Guerrero-Solé, 2020).</li> <li>▪ <b>Activity 2</b></li> </ul>
5 24/10/2024	<p><b>Variables in communication research</b></p> <ul style="list-style-type: none"> <li>▪ Variables and statistical software (SPSS, Jamovi): Testing for differences and relationships.</li> <li>▪ Fundamentals of statistical software: creation of variables, types of variables, data filtering, descriptive statistics, plots.</li> </ul>
6. 31/10/2024	<b>Tutoring session.</b>
7 07/11/2024	<p><b>Testing for differences</b></p> <ul style="list-style-type: none"> <li>▪ Introduction of the following statistical methods:</li> <li>▪ Chi squared</li> <li>▪ ANOVA</li> <li>▪ T-test.</li> <li>▪ Performing the tests, and reporting results.</li> </ul>
8. 14/11/2024	<p><b>Testing for relationships</b></p> <ul style="list-style-type: none"> <li>▪ Introduction of the following statistical methods:</li> <li>▪ Correlation.</li> <li>▪ Regression.</li> <li>▪ Performing the tests, and reporting results.</li> </ul>
9. 21/11/2024	<b>Presentation of the research proposal.</b>
10. 28/11/2024	<b>Presentation of the research proposal.</b>

11 05/12/2024	Exam.
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### 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.

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

**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>

### 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

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>

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.

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