

Degree	Type	Year
Research in Education	OB	1

Contact

Name: Lluís Albarracín Gordo

Email: lluis.albarracin@uab.cat

Teachers

María Lourdes Martínez Mínguez

Angelina Sanchez Marti

Ingrid Noguera Fructuoso

Lluís Albarracín Gordo

Teaching groups languages

You can view this information at the [end](#) of this document.

Prerequisites

No

Objectives and Contextualisation

This unit focuses on the possibilities and limitations of ICT (Information and Communications Technology) in the service of educational research.

Learning Outcomes

1. CA06 (Competence) Adopt criteria of methodological quality for data analysis with ICT tools.
2. KA06 (Knowledge) Understand how methodological paradigms and designs condition data types and analysis.
3. SA05 (Skill) Analyse different types of data depending on their nature using ICT tools.
4. SA06 (Skill) Report a research study by selecting the most appropriate format and level for the recipients (report, article, contribution to congresses, case study, poster, video, etc.).

Content

- Information management and literacy: databases, search engines, bibliographic managers, etc.
- Data analysis: textual, visual, quantitative, qualitative, mixed methods (SPSS, Nvivo, Atlas-Ti, MaxQDA ...).
- Dissemination and popularization of science: research portals, digital magazines.
- Research Report and communication of research results.
- Writing scientific papers.
- Communication of research results and implications for practice. Hearings and protocols.

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Classroom practice: solving problems/cases/exercises.	20	0.8	
Lectures by the teacher	16	0.64	
Type: Supervised			
Analysis and discussion of articles and documentary sources	50	2	
Tutorials	30	1.2	
Type: Autonomous			
Reading articles and documentaries, case studies and information literacy	34	1.36	

TEACHING METHODOLOGY AND TRAINING ACTIVITIES:

- Lectures by the teacher.
- Reading articles and documentaries.
- Analysis and discussion of articles and documentary sources.
- Classroom practice: solving problems/cases/exercises.
- Oral presentation of work.
- Tutorials.

Guided activities

- Lectures by the teacher.
- Classroom practice: solving problems/cases/exercises.

Supervised activities

- Tutorials.

- Analysis and discussion of articles and documentary sources.

Individual activities

- Reading articles and documentaries, case studies and information literacy.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Assessment

Continuous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Activities during the development of the module and research evaluation MIII	30%	0	0	CA06, KA06, SA06
Attendance and participation in all sessions	20%	0	0	CA06, KA06, SA05, SA06
Report/individual work of MIII	50%	0	0	CA06, SA05, SA06

ASSESSMENT

- Attendance and participation in all sessions
- Activities during the development of the module
- Report/individual work of the module

Assessment will be done through these activities. The delivery date of the module development activities will be agreed with the teachers of each group. The date of handing in the report of the individual work will be May 20, 2024. The grade of the final work may be recovered only if it has been delivered in the first call and the specific instructions for improving the work are followed for each student.

The final grade is the weighted average of the planned activities. In order to apply this criterion, you must obtain at least the grade of 4, out of 10, on all the activities, performed during the development of the report. Feedback on the evaluation will be provided within 20 days of submission.

Class attendance is absolutely mandatory. To obtain a positive final evaluation, you must have attended a minimum of 80% of the classes. If a student does not meet the attendance requirement or does not submit an assessment activity, they will be classified as *Not Assessable*.

Plagiarism will imply failure in evaluation and will be communicated to the coordination of the master. The use of generative Artificial Intelligence tools to supplant the student's learning activity will involve a zero in the subject qualification.

The review of the tests will be performed individually.

Assessment activities

- Class attendance and participation in discussions.
- Report/individual work module.

SINGLE EVALUATION

It consists in the delivery of all the evaluative activities the week after the last scheduled day of the module sessions, May 20, 2024. For these students, the same conditions apply regarding class attendance, which is mandatory and in order to obtain a positive final assessment, the student must have attended a minimum of 80% of the classes.

No synthesis assessment is offered.

Bibliography

Main references:

Albarracín, L., & Årlebäck, J. B. (2025). Exploring the role of assumptions in mathematical modeling teacher training using Fermi problems. *ZDM - Mathematics Education*. <https://doi.org/10.1007/s11858-025-01677-0>

Brunet-Biarnes, M. & Albarracín, L. (2024). Exploring the negotiation processes when developing a mathematical model to solve a Fermi problem in groups. *Mathematics Education Research Journal*, 36(1), 177-198.

Cohen, L., Manion, I., Morrison, K. (2000). *Research Methods in Education* (5th edition). London and New York: Routledge, Falmer, pp 73-91.

Field, A. (2019). *Discovering statistics using SPSS (and sex and drugs and rock 'n' roll)*. SAGE Publications.

Flick, U. (2014). *La gestión de la calidad en Investigación Cualitativa*. Morata.

Gibbs, G. (2012). *El análisis de datos cualitativos en investigación cualitativa*. Morata.

Goss-Sampson, M. (2020). Statistical analysis in JASP: A guide for students. JASP. <https://doi.org/10.6084/m9.figshare.9980744>

Hamilton, L., Elliott, D., Quick, A., Smith, S., & Choplin, V. (2023). Exploring the use of AI in qualitative analysis: A comparative study of guaranteed income data. *International journal of qualitative methods*, 22, 16094069231201504.

Hernández-Sampieri, R., & Mendoza, C. (2018). *Metodología de la Investigación. Las rutas cuantitativa, cualitativa y mixta*. McGraw-Hill.

Kalpokus, N., & Radivojevic, I. (2022). Bridging the gap between methodology and qualitative data analysis software: A practical guide for educators and qualitative researchers. *Sociological Research Online*, 27(2), 313-341.

Kangiwa, B. I., Ladan, I. M., Nassarawa, H. S., Sabo, S. A., & Umar, M. A. (2024). Free and open-source software for data analysis: Leveraging the potentials of JASP, Jamovi and PSPP in Nigeria tertiary institutions. *International Journal of Multidisciplinary Research in Science, Technology and Innovation*, 3(1), 1-8.

Lopezosa, C., & Codina, L. (2023). *ChatGPT y programas CAQDAS para el análisis cualitativo de entrevistas: pasos para combinar la inteligencia artificial de OpenAI con ATLAS. ti, Nvivo y MAXQDA*.

Lopezosa, C., Codina, L., & Freixa, P. (2022). ATLAS. ti para entrevistas semiestructuradas: guía de uso para un análisis cualitativo eficaz. *DigiDoc Research Group*, 1-30.

Martínez-Garrido, C., & Murillo-Torrecilla, F. J. (2012). *Análisis de datos cuantitativos con SPSS en investigación socioeducativa*. UAM.

Pallant, J. (2020). *SPSS Survival Manual: a step by step guide to data analysis using IBM SPSS*. Routledge.

Ravitch, S.M. & Mittenfelner, N. (2016). *Qualitative Research: Bridging the Conceptual, Theoretical and Methodological*. LA: Sage Publishing.

Revuelta, F.I. & Sánchez, M.C. (2012). Programas de análisis cualitativo para la investigación en espacios virtuales de formación. http://campus.usal.es/~teoriaeducacion/rev_numero_04/n4_art_revuelta_sanchez.htm

Silver, C., & Lewins, A. (2014). *Using software in qualitative research: A step-by-step guide*. Sage.

Woods, M., Paulus, T., Atkins, D. P., & Macklin, R. (2016). Advancing qualitative research using qualitative data analysis software (QDAS)? Reviewing potential versus practice in published studies using ATLAS. ti and NVivo, 1994-2013. *Social Science Computer Review*, 34(5), 597-617.

SOFTWARE

IBM (2010). *Manual del usuario del sistema básico de IBM SPSS Statistics 19*. Document electrònic: <http://www.szit.bme.hu/~kela/SPSSStatistics%20%28E%29/Documentation/Spanish/Manuals/IBM%20SPSS%2>

Domínguez, Daniel; Beaulieu, Anne; Estalella, Adolfo; Gómez, Edgar; Schnettler, Bernt & Read, Rosie (2007). Etnografía virtual. *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*, 8(3), <http://nbn-resolving.de/urn:nbn:de:0114-fqs0703E19>

Koch, Sabine C. & Zumbach, Jörg (2002). The Use of Video Analysis Software in Behavior Observation Research: Interaction Patterns in Task-oriented Small Groups. *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*, 3(2), Art. 18; <http://nbn-resolving.de/urn:nbn:de:0114-fqs0202187>

Muñoz, J. (2003). *Análisis cualitativo de datos textuales con ATLAS/TI*. Document electrònic: <http://www.ugr.es/~textinfor/documentos/manualatlas.pdf>

Laukkanen, Mauri (2012). Comparative Causal Mapping and CMAP3 Software in Qualitative Studies [59 paragraphs]. *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*, 13(2), Art. 13, <http://nbn-resolving.de/urn:nbn:de:0114-fqs1202133>

Revuelta, F.I. y Sánchez, M.C. (2012). *Programas de análisis cualitativo para la investigación en espacios virtuales de formación*. Document electrònic: http://campus.usal.es/~teoriaeducacion/rev_numero_04/n4_art_revuelta_sanchez.htm

WEBS

<http://www.atlasti.com/index.html>

<http://www.eval.org/Resources/QDA.asp> (*Qualitative Software*. American Evaluation. Association).

<http://www.refworks.com/>

<http://biblio.universia.es/catalogos-recursos/bases-datos/>

<http://biblio.universia.es/catalogos-recursos/metabuscadors/>

<http://biblio.universia.es/catalogos-recursos/revistas-digitales/>

http://www.qsrinternational.com/other-languages_spanish.aspx

Software

Qualitative data analysis: Nvivo and Atlas.ti

Groups and Languages

Please note that this information is provisional until 30 November 2025. You can check it through this [link](#). To consult the language you will need to enter the CODE of the subject.

Name	Group	Language	Semester	Turn
(PAULm) Classroom practices (master)	1	Catalan	second semester	afternoon
(PAULm) Classroom practices (master)	2	Catalan	second semester	afternoon