

**Education Research II: Methodology, Instruments
and Strategies for the Collection and Analysis of
Data**

Code: 43227
ECTS Credits: 9

Degree	Type	Year	Semester
4313815 Research in Education	OB	0	A

The proposed teaching and assessment methodology that appear in the guide may be subject to changes as a result of the restrictions to face-to-face class attendance imposed by the health authorities.

Contact

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Use of Languages

Principal working language: catalan (cat)

Prerequisites

This is a mandatory module in the master's programme

Objectives and Contextualisation

This module seeks to introduce students in the methodology of research in education

Specific cognitive objectives

- Know the basic components and processes of an investigation.
- Know the theoretical-practical implications of the research
- Know the different epistemological paradigms in education
- Know the main sources of scientific information

Specific procedural objectives

- Analyze the context of educational research
- Identify the elements or components that intervene in the investigation process
- Formulate educational research problems
- Document-substantiate the research problem
- Identify and define information needs
- Manage scientific information

Specific attitudinal objectives

- Recognize the work of others and respect intellectual property

- Respect the ethical principles of the research process

Competences

- Analyse data according to its nature and present results in accordance with the research proposals.
- Collect research data coherently in accordance with the chosen method.
- Communicate and justify conclusions clearly and unambiguously to both specialist and non-specialist audiences.
- Continue the learning process, to a large extent autonomously.
- Develop professional values including ethics in educational research, in particular with respect to diversity of opinion and ways of being and doing.
- Integrate knowledge and use it to make judgements in complex situations, with incomplete information, while keeping in mind social and ethical responsibilities.
- Recognise and evaluate the potential and limitations of the instruments and strategies.
- Solve problems in new or little-known situations within broader (or multidisciplinary) contexts related to the field of study.
- Use ICT in the research process, information search and management, data analysis and the dissemination and communication of results.
- Use acquired knowledge as a basis for originality in the application of ideas, often in a research context.
- Work in teams and with teams in the same or interdisciplinary fields.

Learning Outcomes

1. Apply the emptying process information, categorization and coding it as a source of information, documentation and research indispensable means of socio-educational field.
2. Build and validate instruments consistent with the methodological option chosen.
3. Communicate and justify conclusions clearly and unambiguously to both specialist and non-specialist audiences.
4. Continue the learning process, to a large extent autonomously.
5. Critically analyze and interpret the data obtained in the investigation.
6. Decide on the appropriate tools for analysis according to the nature of the data.
7. Design strategies for gathering information to enable us to meet the objectives.
8. Develop professional values including ethics in educational research, in particular with respect to diversity of opinion and ways of being and doing.
9. Evaluate the potential and limitations of different types of analysis and the computer programs that allow it to be carried out.
10. Evaluate the potential and limitations of the different instruments and strategies for data collection.
11. Identify and select the most appropriate research strategies to solve real problem situations.
12. Integrate knowledge and use it to make judgements in complex situations, with incomplete information, while keeping in mind social and ethical responsibilities.
13. Relate results in accordance with their origin (sources and instruments).
14. Select or develop the tools for collecting information that will allow us to meet the objectives.
15. Solve problems in new or little-known situations within broader (or multidisciplinary) contexts related to the field of study.
16. Use ICT in the research process, information search and management, data analysis and the dissemination and communication of results.
17. Use acquired knowledge as a basis for originality in the application of ideas, often in a research context.
18. Use research methods, strategies and techniques and design research pertinent to the research problem in context.
19. Work in teams and with teams in the same or interdisciplinary fields.

Content

1.Methods and designs of research in education

1.1.Quantitative research

1.2. Qualitative research

1.3. Other methods: design based research and evaluation research

2. Instruments and strategies to collect information

2.1. Type of instruments: observation, interviews and questionnaires

2.2. Design, development and validation of the instruments

Methodology

The teaching methodology will be based on the following dynamics:

- Lectures
- Reading of research articles
- Analysis and discussion of those articles
- Exercise to practice in class
- Oral presentations
- Tutorials

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.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Analysis and discussion of the articles	6	0.24	1, 13, 14, 19
Exercise to practice in class	10	0.4	2, 7, 11, 12, 15, 3, 4, 17, 18
Master classes / expositions	60	2.4	9, 8
Oral Presentation	4	0.16	5, 16, 3
Type: Supervised			
Tutorials	60	2.4	9
Type: Autonomous			
Individual work and assignments	55	2.2	10, 9, 6, 12, 15, 3, 4, 14, 17
Reading of articles	30	1.2	1, 13, 19

Assessment

The evaluation of the module will be done through different activities. The final mark will be an average of the different activities. A minimum of 4 out of 10 needs to be obtained in each activity for it to count towards the final mark. A minimum of 80% of attendance must be obtained.

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Activities during the module	10% - 25%	0	0	1, 8, 7, 11, 12, 15, 3, 4, 17, 19, 18
Individual work	45% - 50%	0	0	10, 9, 2, 6, 7, 11, 12, 15, 3, 4, 14, 17, 18
Oral Presentation	25% - 30%	0	0	5, 16, 3, 13

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Software

This subject does not need specific programming