

## 63131 - Design of Educational Research I

### Información del Plan Docente

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|------------------|---|
| Academic Year    | 2017/18   |
| Faculty / School | 107 - Facultad de Educación   |
| Degree           | 330 - Complementos de formación Máster/Doctorado<br>573 - Master's in Lifelong Learning: Introduction to Research |
| ECTS             | 7.0   |
| Year             | 1   |
| Semester         | Annual  |
| Subject Type     | ENG/Complementos de Formación, Compulsory   |
| Module           | ---   |

### 1.General information

#### 1.1.Introduction

Research is the basis on which the generation of new data and the constant comparison and verification of existing knowledge are based. This statement involves future professionals who are working towards their professional careers, and also implies those future degrees that will include tasks linked to research and technological development.

To provide responses to research demands, knowing and making decisions on the most suitable design type, the most adequate data analysis techniques and technological instruments (statistics software) according to techniques are essential actions. This subject is about all these aspects.

Thus the intention of this subject is for students to learn it regardless of their academic background in order to acquire the knowledge and strategies needed to propose the most appropriate design to conduct the most suitable research in line with their academic and/or professional interests. Students should also be capable of identifying and using the most adequate analysis techniques according to the design type.

In order to study this subject, following it by paying attention to each block that makes it up is recommended. This is an annual subject and contains three different parts with partial tests in each block to allow constant assessments to be made. The overall work from the activities assessment section (research report) and the final self-assessment are added to this subject.

#### 1.2.Recommendations to take this course

#### 1.3.Context and importance of this course in the degree

#### 1.4.Activities and key dates

### 2.Learning goals

#### 2.1.Learning goals

To pass this subject, students should obtain the following results:

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1. Plan a research theme using methodologies that involve considerable, average and/or little (experimental, selective, observational) intervention
2. Understand the strong and weak points of the designs with considerable, average and/or little intervention used in different research methodologies
3. Suitably identify and justify the research design used in different studies
4. Calculate and justify the quality of data in research according to the parameters demanded in each research design type (reliability, validity, generalisability, etc.).
5. Justify the choice of data analysis procedures and techniques from designing research, and the research objectives, hypotheses (if applicable), variables, etc.
6. Interpret the results of the different data analysis techniques applied and draw conclusions from them.

### 2.2.Importance of learning goals

### 3.Aims of the course and competences

#### 3.1.Aims of the course

#### 3.2.Competences

### 4.Assessment (1st and 2nd call)

#### 4.1.Assessment tasks (description of tasks, marking system and assessment criteria)

### 5.Methodology, learning tasks, syllabus and resources

#### 5.1.Methodological overview

The methodology followed in this course is oriented towards achievement of the learning objectives. It is based on active participation, case studies, teamwork etc. that favors the development of communicative skills and critical thinking. A wide range of teaching and learning tasks are implemented, such as lectures, practical activities, practice sessions, autonomous work, tutorials, and academic guidance.

Further information regarding the course will be provided on the first day of class.

#### 5.2.Learning tasks

The course (7 ECTS) includes the following learning tasks:

Section 1. Experimental, quasi-experimental and selective methodology (3.5 credits)

| Formative activity | Hours | % Attendance |
|--------------------|-------|--------------|
| Lectures           | 15    | 100%         |
| Practice sessions  | 20    | 50%          |

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| Assessment | 3 | 100% |

### Section 2: Observational Methodology (2.5 credits)

| Formative activity | Hours | % Attendance |
|--------------------|-------|--------------|
| Lectures           | 10    | 100%         |
| Practice sessions  | 14    | 50%          |
| Assessment         | 2     | 100%         |

### Section 3: Quantitative data analysis (1 credit)

| Formative activity | Hours | % Attendance |
|--------------------|-------|--------------|
| Lectures           | 5     | 100%         |
| Practice sessions  | 6     | 50%          |
| Assessment         | 1     | 100%         |

### **5.3.Syllabus**

The course will address the following topics:

- Introduction to applied research design with methodologies of high, medium, and low intervention.
- Experimental and quasi-experimental designs (unifactorial, multifactorial, ex post facto ...)
- Selective designs (correlational, transverse, longitudinal, ...)
- Observational designs (diachronic, synchronic, lag-log, ...)
- Techniques of data collection in the different methodological strategies
- Techniques of analysis of basic data in the different methodological designs

### **5.4.Course planning and calendar**

For further details concerning the timetable, classroom and further information regarding this course please refer to the "Facultad de Educación" website ( <http://educacion.unizar.es/> )

### **5.5.Bibliography and recommended resources**

Recommended updated bibliography of the subject: look on the web page of the library

<http://psfunizar7.unizar.es/br13/eBuscar.php?tipo=a>