

**COURSE DATA****DATA SUBJECT**

Code: 33321
Name: Research design in psychology
Cycle: Undergraduate Studies
ECTS Credits: 6
Academic year: 2025-26

STUDY (S)

Degree	Center	Acad. year	Period
1319 - Degree in Psychology	Facultat de Psicologia i Logopèdia	4	First quarter

SUBJECT-MATTER

Degree	Subject-matter	Character
1319 - Degree in Psychology	Research designs in psychology	COMPULSORY

COORDINATION

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SUMMARY

The subject "Research Designs in Psychology" presents in detail a group of key research strategies in the field of psychology, in order for students to know them, understand the logic behind each of them, to use them in the development of research and to read, interpret and use research published in the scientific literature in the field of psychology and related fields.

In a first step the subject reviews: the general steps to be followed when conducting any scientific investigation, the validity problems associated with the different stages of the investigation, and the classification of the multiple methodologies used in research in psychology.

In a second phase, much larger, the course presents in detail the following research methods: experimental designs, single case designs, quasi-experimental designs, ex post facto designs, survey designs, and observational designs. Next to each of the methodologies presented, the subject shows succinctly the procedures of statistical data analysis that are usually associated with each one.

In parallel with the above process, the student will practice case analysis, research design, analysis and interpretation of results from different types of research designs, and will read critically scientific information.



In sum, the aim of the course is to equip students with the minimum knowledge needed in research methodology in psychology, so that they can develop research, read scientific papers and evaluate them critically.

This subject takes into account the Sustainable Development Goals, especially number 3: "Health and well-being", number 4: "Quality education", number 5: "Gender equality", and number 10: "Reduced inequalities".

PREVIOUS KNOWLEDGE

RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

There are no specified enrollment restrictions with other subjects of the curriculum.

OTHER REQUIREMENTS

It is recommended that students have basic knowledge of Statistics (basic knowledge of descriptive and inferential statistics) and computer knowledge (basic computer use, Web surfing, office-word, excel, power point, and statistical computing package SPSS).

COMPETENCES / LEARNING OUTCOMES

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Be able to prepare oral and written reports.

Know and comply with professional ethics of Psychology.

Know the different experimental and non-experimental research designs, the procedures for the formulation and testing of hypotheses and the interpretation of the results.

Students must have the ability to gather and interpret relevant data (usually in their field of study) to make judgements that take relevant social, scientific or ethical issues into consideration.

Value the contributions made by scientific research to knowledge and professional practice.

DESCRIPTION OF CONTENTS

1. PRINCIPLES OF RESEARCH DESIGN

Definition and characteristics of scientific research.

The design of an investigation:

- Problems, hypotheses, variables.



- Research strategies and methods of data collection.

Validity of the investigation.

The research report: Structure and writing, a guide to critical reading.

Ethical issues in the management of psychological research.

2. EXPERIMENTAL RESEARCH.

Definition of experiment.

Manipulation of independent variables.

Control techniques in experimental research.

Measurement of dependent variables.

Classification of experimental research designs.

3. DATA ANALYSIS IN EXPERIMENTAL RESEARCH.

Univariate designs.

Factorial designs.

Main effects, interactions and post hoc analysis.

Effect size.

Designs with covariates.

4. QUASI-EXPERIMENTAL DESIGNS.

Introduction.

Quasi-experimental designs:

- Pretest - posttest with a group design.
- Non-equivalent control group design.
- Interrupted time series designs.



- Longitudinal and cohort designs.
- Regression discontinuity design.

Evaluation research.

Data analysis in quasi-experimental designs.

5. SINGLE CASE EXPERIMENTAL DESIGNS.

Introduction.

General Procedures.

Single-case designs:

- Basic withdrawal designs.
- Multiple baseline designs.
- Multiple treatment designs.

Evaluation of single-case designs.

6. EX POST FACTO DESIGNS.

Introduction.

Ex post facto research designs:

- Retrospective.
- Descriptive / comparative.
- Prospective.

Data analysis in ex post facto designs.

7. SURVEY RESEARCH.

Introduction.

The questionnaire.

Survey methods.

Sampling.

- Sample size.



- Representativeness of the sample.
- Sampling procedures.

Sample survey design:

- Cross-sectional.
- Longitudinal: panel, trends, and cohort study.

Data: coding, statistical analysis and interpretation.

8. OBSERVATIONAL RESEARCH.

Introduction.

Observational Methods.

Observational research design.

- Categorization: Descriptive levels, category system and response levels.
- Recording: Modalities, rules.
- Sampling: Sampling Rules.

Observational research designs: taxonomic criteria and types.

Data analysis in observational designs.

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Theoretical and practical classes	60,00
Total hours	60,00

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	45,00
Independent study and work	45,00
Preparation of lessons	0,00
Preparation for assessment activities	0,00
Resolution of case studies	0,00
Total hours	90,00

TEACHING METHODOLOGY



M4. Theoretical-practical classes supported by audiovisual media, links to different websites with content related to the subject, manuals and scientific articles, and other readings and materials.

M7. Practical sessions in a computerized classroom, seminars, and workshops focused on applied aspects, in which students work individually or in groups with the material provided (tests, articles, computers, software, and databases) to achieve a goal. An important feature is that there is a sharing session followed by a discussion about the learning objective in question. Here, students take a very active part in the learning process.

M8. Exercises on theoretical and applied aspects with self-contained materials.

EVALUATION

The result of the student evaluation is a qualification that will oscillate between 0 and 10 points. This qualification depends of the following parts both at first and second call:

System of Evaluation 1 (SE1): ESTIMATION OF THEORETICAL AND PRACTICAL CONTENTS BY MEANS OF ORAL OR WRITTEN TESTS, AND SKILL PERFORMANCE. It will represent 85% of the final qualification. It will consist of two sections: A) continuous evaluation during the scheduled period of classes, with a maximum of 15% and, B) final evaluation, with a maximum qualification of 70%, in which it will be necessary to achieve a minimum of 50% to pass the course both at first and second call. Only Section B is recoverable in second call. The score corresponding to section A will be maintained in the second call.

System of Evaluation 2 (ES2): ORAL OR WRITTEN PRESENTATION OF REPORTS ABOUT INDIVIDUAL OR GROUP WORKS, CLINICAL CASES, RESOLUTION OF PROBLEMS OR MANAGEMENT OF DIAGNOSTIC TESTS. It will add a maximum of 15% of the final qualification. It is necessary to achieve a minimum of 50% in this section to pass the course both at first and second call. This section is recoverable in second call.

Additional considerations:

1. The described sections will be added up only if the student reaches the minimum required conditions.
2. If a student do not pass some of the compulsory sections at the first call, the points of the other sections will be saved for the second call.
3. The dates to take the tests of Section A of the ES1 will be established by the teacher along the course. They can be individual or groupal evaluations about the topics included in the Syllabus (Guia Docent).
4. The qualification of the subject as well as the review of and appeal against the allotted grades will abide to what is stipulated in the Reglament d'Avaluació i Qualificació de la Universitat de València per a títols de Grau i Màster (ACGUV 108/2017 of May 30, 2017). (http://www.uv.es/graus/normatives/2017_108_reglament_avaluacio_qualificacio.pdf)

In accordance with it, the following scale of grades will be used:

- Of 0 to 4.9: fail (D)
- Of 5 to 6.9: pass (C)



- Of 7 to 8.9: remarkable (B)
- Of 9 to 10: excellent (A) or First Honors (A+)

As stated in the normative about the attribution of First Honors grades, it will follow a strict order of numerical mark. In case of a tie, the qualification will be granted to the student with the higher numerical score at Section B of the ES1. If the tie persists, the higher score at the ES2 and, finally the higher score at the Section A of the ES1 will apply. If all of them are identical, the teacher can ask for an additional test to be taken by the candidates.

5. The copy or plagiarism of any task of the evaluation will preclude the student from passing the course. Furthermore, the appropriate disciplinary measures may be applied.

6. Please be aware that, according to article 13.d) of the Statute of the University Student (RD 1791/2010, of 30 of December), a student must abstain to use or cooperate in fraudulent procedures in the tests of evaluation and works that they perform, or in official documents of the university. In the event of fraudulent practices, the Action Protocol for fraudulent practices at the University of Valencia will be applied (ACGUV 123/2020): <https://www.uv.es/sgeneral/Protocols/C83sp.pdf>

7. In individual or group tutoring sessions, the professor can ask questions in order to verify the degree of participation and achievement of the objectives of a task. Not accepting this verification would preclude the student from passing the task or activity in question.

8. The marks reached in the FIRST CALL will be incorporated to the official proceedings of the subject according to the following rules:

- If there is no qualification, the evaluation section with the highest weight, the grade will be Not Presented, regardless of the rest.
- If the score in the evaluation section with the highest weight does not reach the minimum requirements, FAIL shall be entered and the score (out of 10 points) shall be the qualification of this section.
- If the score at the evaluation section with the highest weight exceeds the minimum requirements, but there are no scores from one or more of the remaining sections, FAIL shall be entered and the numerical score (out of 10 points) will be entered.

9. At the SECOND CALL, the following rules shall apply:

- The NOT PRESENTED grade will be consigned only when the student has not completed more than one of the assessment sections, including the one with the highest weighting.
- If there are grades for all the evaluation sections and minimum requirements have not been met in any of them, FAIL will be registered and the score (out of 10 points) pertaining to the failed section will be consigned. If more than one section is not passed, the maximum score achieved in one of them will be consigned, together with the grade FAIL.
- If one or more of the minimum requirements are not exceeded and an evaluation section is missing, FAIL will be recorded and a numerical note based on 10 of the grade of the section not passed.
- If two evaluation sections are passed and there is a third part in which no evidence of evaluation has been presented, FAIL will be consigned and, as a rating, the average score will be 0.0 for the part not submitted (maximum possible: 4.9).
- If the part of greater weight is passed, but evidences are missing in one or more of the remaining sections, FAIL will be consigned. The parts will be added: a) if the sum is less than 5.0, this result will be recorded; B) if the sum is higher than 5.0, 4.9 it will be consigned.

10. If the subject has been passed in the first call, the students will not be able to attend the second call with the purpose of improving their grades.



11. The assignments, activities, or exercises submitted by students in this subject must be their own and original work. In case of using artificial intelligence (ChatGPT or others), the student must provide a statement of responsible use.

REFERENCES

Basic References:

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Maxwell, S.E., Delaney, H.D., y Kelley, K. (2018). *Designing experiments and analyzing data* (3rd Ed.). New York, NY: Routledge.

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Bono Cabré, R. y Arnau Gras, J. (2014). *Diseños de caso único en ciencias sociales y de la salud*. Madrid: Síntesis.

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Remírez, J. F. R., Jiménez, M. P. J., y Machancoses, F. H. (2014). *Pronóstico con interacción de variables categóricas*. Castellón: Publicacions de la Universitat Jaume I.

Stanovich, K. E. (2012). *How to think straight about Psychology* (10th edition). Boston: Pearson.