Universitat Autònoma de Barcelona

**2019/2020**

# Research Methods, Designs and Techniques Applied to the Communication and Language Disorders Area

Code: 43610
ECTS Credits: 9

| Degree | Type | Year | Semester |
|---|---|---|---|
| 4315497 Communication and Language Disorders | OB | 0 | 1 |

## Contact

Name: José María Losilla Vidal

Email: JosepMaria.Losilla@uab.cat

## Use of Languages

Principal working language: catalan (cat)

## Other comments on languages

If there are students who do not understand in the Catalan language, the teaching will be conducted in Spanish.

## Teachers

Eduardo Doval Diéguez

Jaume Vives Brosa

## Prerequisites

There are no specific prerequisites.

## Objectives and Contextualisation

The general objective of this course is to offer students the necessary knowledge and skills to carry out empirical or theoretical research in the field of communication disorders, as well as to apply the scientific method in professional practice.

The student learns to formulate relevant questions, to adequately define research objectives and hypotheses, and to discriminate which methods and research designs are most appropriate. Skills related to the management, analysis and interpretation of data are developed, as well as those related to the search, selection, critical reading and synthesis of relevant information to carry out research and act professionally. The basic concepts on design and adaptation of measuring instruments are also reviewed.

Finally, the student learn to identify and discuss the practical, methodological and technical implications of the research, as well as its repercussions on the health care services and on the progress of scientific knowledge.

## Competences

- Apply the fundamentals of bioethics and act according to the ethical code of the profession considering the cultural diversity and the limitations associated with various diseases.
- Apply the scientific method in professional practice.

- Knowing the activities necessary for the establishment, implementation and management of a company, its different legal forms and legal, accounting and tax obligations associated.
- Knowledge and understanding that provide a basis or opportunity for originality in developing and / or applying ideas, often in a research context.
- That students have the learning skills that enable them to continue studying in a way that will be largely self-directed or autonomous.
- Understand and critically analyze the law covering the professional field.

## Learning Outcomes

1. Ask relevant questions and adequately defined research objectives and hypotheses to solve problems in the context of performance.
2. Conduct a critical reading of a scientific publication on the basis of methodological quality of the research design used and the scientific practice of their results or contributions and relevance.
3. Conduct a research plan minimizing threats to validity.
4. Conduct a systematic review to summarize the best available scientific evidence.
5. Design or adapt techniques and instruments to collect information according to the standards of development of measuring instruments.
6. Discriminate what methods, quantitative, qualitative or mixed, and research designs are better suited to meet a goal or hypothesis.
7. Include in the research planning concurrent aspects of bioethics and the ethics code of the profession.
8. Knowing the different processes involved in creating a business plan.
9. Knowing the different types of businesses suitable for the practice of speech therapy.
10. Knowing the legislation and administrative procedures required for starting a business.
11. Knowledge and understanding that provide a basis or opportunity for originality in developing and / or applying ideas, often in a research context.
12. Manage, analyze and interpret the data optimally for an investigation.
13. Perform critical and comparative legislation on professional profile and analysis functions.
14. Perform critical and comparative legislation on the framework for performance analysis.
15. Selecting, evaluating their quality, procedures, techniques and more appropriate in light of the objectives or hypothesis measuring instruments.
16. That students have the learning skills that enable them to continue studying in a way that will be largely self-directed or autonomous.
17. Use the documentary to obtain relevant for the purpose of research information sources, assessment or speech therapy, selecting the most appropriate and arguing screening criteria and quality of them.
18. Write reports adapting to the standards of major scientific associations.

## Content

- Methods, designs and research techniques applied to the field of language and communication disorders.
- Skills of evaluation of methodological quality (risk of bias) and critical reading of scientific publications.
- Systematic bibliographic searches and synthesis of scientific evidence.
- Management and computerized data analysis (descriptive statistics and introduction to inference).
- Fundamentals of design and adaptation of measuring instruments.

## Methodology

Traditional teaching techniques are combined with other resources aimed at encouraging meaningful learning.

## Activities

| Title | Hours | ECTS | Learning Outcomes |
|---|---|---|---|
| Type: Directed | | | |

| | | | |
|---|---|---|---|
| Computerized practices | 12.5 | 0.5 | 5, 4, 12, 17 |
| Critical analysis and debate about cases | 13 | 0.52 | 6, 2, 18, 1, 16, 15, 11 |
| Theoretical presentation | 21.5 | 0.86 | 8, 10, 9, 6, 5, 18, 1, 12, 14, 13, 3, 15 |
| Type: Supervised | | | |
| Review of integrated problems | 4.5 | 0.18 | 6, 5, 2, 4, 18, 1, 12, 3, 15, 11, 17 |
| Tutoring | 6.75 | 0.27 | 5, 4, 12, 3, 17 |
| Type: Autonomous | | | |
| Bibliographic and documentary searches | 11.25 | 0.45 | 4, 1, 16, 11, 17 |
| Comprehensive reading of the materials proposed by the teachers | 70 | 2.8 | 8, 10, 9, 6, 5, 1, 12, 16, 14, 13, 3, 15, 11 |
| Realization of schemes, conceptual maps and summaries | 7 | 0.28 | 8, 9, 6, 4, 18, 12, 14, 3, 15 |
| Training in computer programs based on guides and tutorials | 70 | 2.8 | 5, 4, 18, 12, 17 |

## Assessment

In this course the assessment is intended to fulfil a pedagogical function and not just accreditation, and all the evidences are programmed so that they can achieve the corresponding formative return.
Below are the learning evidences that the student will have to contribute, their type and weight in the final qualification:

- Evidence 1. Individual examination (moodle and classroom). Content: Research methodlogy and critial appraisal. Up to 2,5 points.

- Evidence 2. Individual examination (moodle). Content: Scientific documentation and systematic reviews. Up to 1,5 points.

- Evidence 3. Individual classroom examination. Content: Creation and adaptation of tests and questionnaires. Up to 2,5 points.

- Evidence 4. Individual classroom examination. Content: Data analysis. Up to 3,5 points.

Assessable students: a student is considered assessable when he/she has presented evidences of learning with a weight greater than or equal to 4 points; otherwise it will appear in final grade sheets as Not Assessable (NA).
Course passed: Students has passed the course when they have obtained a minimum score of 5 points and all the proposed learning evidences have been assessed.
Resit examination: for those students that have not achieved the established criteria to pass the course and who have previously been assessed on a set of activities whose weight equals to a minimum of two thirds of the total score of the course and have obtained a minimum total score of 3.5 points.

https://www.uab.cat/web/estudiar/graus/graus/avaluacions-1345722525858.html

## Assessment Activities

| Title | Weighting | Hours | ECTS | Learning Outcomes |
|---|---|---|---|---|
| EV1 - Methodology | 2,5 points | 2 | 0.08 | 8, 10, 9, 6, 2, 4, 18, 1, 7, 16, 14, 13, 3, 11 |

| | | | | |
|---|---|---|---|---|
| EV2 - Bibliographic search | 1,5 points | 2 | 0.08 | 17 |
| EV3 - Measuring instruments | 2,5 points | 1.5 | 0.06 | 12 |
| EV4 - Data analysis | 3,5 points | 3 | 0.12 | 5, 15 |

## Bibliography


Abad, F.J., Olea, J., Ponsoda, V. y García, C. (2011). Medición en ciencias sociales y de la salud. Madrid: Síntesis.

Ato, M., Losilla, J.M., Navarro, B., Palmer, A., y Rodrigo, M.F. (2005). Modelo Lineal Generalizado. Girona: Documenta Universitaria - EAP.

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

Botella, J. y Sánchez Meca, J. (2015). Meta-análisis en ciencias sociales y de la salud. Madrid: Síntesis.

Cea D'Ancona, M.A. (2005). Métodos de encuesta. Madrid: Síntesis.

Gambara, H. (2002). Métodos de investigación en Psicología y Educación. Cuaderno de prácticas (3ª Ed.). Madrid: McGraw Hill.

León, O. i Montero, I. (2002). Métodos de investigación en Psicología y Educación (3ª ed.). Madrid: McGraw-Hill.

Losilla, J.M., Navarro, B., Palmer, A., Rodrigo, M.F. y Ato, M. (2005). Del Contraste de Hipótesis al Modelado Estadístico. Girona: Documenta Universitaria - EAP.

Losilla, J.M. y Vives, J. (2007). L'Ordinador en Psicologia. Barcelona: Universitat Autònoma de Barcelona. Servei de Publicacions.

Martínez Arias, M.R., Hernández, M.J. y Hernández, M.V. (2006). Psicometría. Madrid: Alianza Editorial, S.A.

Pardo, A., Ruiz, M.A.. y San Martín, R. (2009). Análisis de datos en ciencias sociales y de la salud I. Madrid: Síntesis.

Pardo, A.,y Ruiz, M.A.. (2012). Análisis de datos en ciencias sociales y de la salud III. Madrid: Síntesis.

Pardo, A. y San Martín, R. (2010). Análisis de datos en ciencias sociales y de la salud II. Madrid: Síntesis.

Portell, M. i Vives, J. (2013). Mètodes d'investigació.Bellaterra: Universitat Autònoma de Barcelona.

Sahughnessy, J.J, Zechmeister, E.B i ZechMesiter, J.S (2007). Métodos de investigación en Psicología (7ª Ed.). Madrid: McGraw Hill.

Silva, L.C. (2000). Diseño razonado de muestras y captación de datos para la investigación sanitaria. Madrid: Diaz de Santos.

Solanas, A., Salafranca, L., Fauquet,J. i Núñez, M.I. (2005). Estadística descriptiva en Ciencias del Comportamiento. Madrid: Thomson.