

**Introduction to Scientific Methodology and to Basic Psychological Processes**

Code: 101729  
ECTS Credits: 6

Degree	Type	Year	Semester
2500893 Speech therapy	FB	1	1

## Contact

Name: Silvia Edo Izquierdo  
Email: silvia.edo@uab.cat

## Use of Languages

Principal working language: catalan (cat)  
Some groups entirely in English: No  
Some groups entirely in Catalan: Yes  
Some groups entirely in Spanish: No

## Other comments on languages

In case the student has difficulties understanding the tests in Catalan (for example, because he is an exchange student), he can request the test in Spanish as long as he does it before week 4 in writing to the coordination of the subject

## Teachers

Guillermo Parra Lorenzo  
Judith Subirana Mirete  
Lidia Ordeix Cordón  
Jaume Vives Brosa

## Prerequisites

There are no prerequisite.

## Objectives and Contextualisation

This course gives basic knowledge about documentation and scientific methodology, as well as competences for understanding and using scientific research terminology and methodology appropriately. Student will also acquire skills on identifying scientific main advances on the psychological processes linked with speech-therapist's professional development.

Student will understand, integrate and relate psychological processes' knowledge, based on autonomous learning. It will also be capable of analyzing and synthesize information acquired through different learning methodologies, using communication and information technologies when needed. These competences will give students new and efficient action perspectives, when facing professional world.

## Competences

- Act with ethical responsibility and respect for fundamental rights and duties, diversity and democratic values.
- Analyse and synthesise information.
- Demonstrate an understanding and correct use of the terminology and methodology of speech-therapy research.
- Evaluate the scientific production that supports speech therapists' professional development.
- Innovate in the methods and processes of this area of knowledge in response to the needs and wishes of society.
- Managing communication and information technologies.
- Students can apply the knowledge to their own work or vocation in a professional manner and have the powers generally demonstrated by preparing and defending arguments and solving problems within their area of study.
- Students must be capable of collecting and interpreting relevant data (usually within their area of study) in order to make statements that reflect social, scientific or ethical relevant issues.
- Take sex- or gender-based inequalities into consideration when operating within one's own area of knowledge.
- Understand, integrate and relate new knowledge deriving from autonomous learning.

## Learning Outcomes

1. Analyse a situation and identify points for improvement.
2. Analyse and synthesise.
3. Assess and judge the adequacy of the methodology used in specific research.
4. Assess and judge the results of a specific scientific research in an area of speech therapy.
5. Communicate in an inclusive manner avoiding the use of sexist or discriminatory language.
6. Correctly use the terminology and methodology characteristics of scientific research.
7. Critically analyse the principles, values and procedures that govern the exercise of the profession.
8. Explain the explicit or implicit code of practice of one's own area of knowledge.
9. Identify and assess the adequacy of scientific productions on the acquisition and development of language.
10. Identify key inputs from scientific processes related to psychological processes that support the professional development of speech therapists.
11. Managing communication and information technologies.
12. Propose new experience-based methods or alternative solutions.
13. Students can apply the knowledge to their own work or vocation in a professional manner and have the powers generally demonstrated by preparing and defending arguments and solving problems within their area of study.
14. Students must be capable of collecting and interpreting relevant data (usually within their area of study) in order to make statements that reflect social, scientific or ethical relevant issues.
15. Understand, integrate and relate new knowledge deriving from autonomous learning.
16. Weigh up the impact of any long- or short-term difficulty, harm or discrimination that could be caused to certain persons or groups by the actions or projects.

## Content

1. Scientific documentation
  - 1.1. Bibliographic Search: PsycINFO, Medline and ISI-WoK (WoS and JCR)
  - 1.2. Citation and refering norms
  - 1.3. Software for bibliography management
  - 1.4. Structure of a scientific report
2. Principles of research methodology
  - 2.1. Evidence-based practice

- 2.2. Quantitative and qualitative methodologies
- 2.3. Constructs: Operationalization and measurement
- 2.4. Types of variables
- 2.5. General view of research methods, designs and techniques in Speech Therapy
- 2.6. Selection and assignment concepts
- 2.7. Introduction to the threats to internal validity
- 2.8. Control techniques
- 2.9. Experimental one-factor designs
- 3. Conditioning and Learning
  - 3.1. Classical Conditioning: Foundations and Main Behavioral Phenomena
  - 3.2. Instrumental conditioning: Foundations and Basic Procedures
  - 3.3. Observation learning
- 4. Motivation: general features
  - 4.1. Physiological motivation
  - 4.2. Extrinsic and intrinsic motivation
  - 4.3. Cognitive motivation
- 5. Emotion
  - 5.1. General characteristics
  - 5.2. Components of the emotional response
  - 5.3. Emotional stimuli processing
  - 5.4. Emotion and cognition
- 6. Attention and Perception
  - 6.1. Physiological basis
  - 6.2. Measures of sensory sensitivity
  - 6.3. Perceptual organization
  - 6.4. Perceptual constancy and illusions
  - 6.5. Perception in context
- 7. Memory
  - 7.1. Memory model
  - 7.2. Sensory register or sensory memory
  - 7.3. Short term Memory (MCT)

#### 7.4. Long term Memory (MLT)

#### 7.5. Forgetting

### Methodology

- Lectures with ICT support and debate in large groups
- Classes with small groups (seminars / practices )
- Tutoring online of activities proposed in the virtual classroom.
- self-evaluation exercises.
- Readings and videos for complementary content.

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			
Face to face and virtual teaching with big group.	28.5	1.14	10, 6, 4, 3
Teaching face to face with small groups ( seminars / practices ).	24	0.96	9, 6, 11, 4, 3
Type: Supervised			
.	12.5	0.5	2, 9
Type: Autonomous			
Exercises of self-evaluation , readings Complementary and study of the contents of the master's.	78.5	3.14	15, 11

### Assessment

PASS: When the final weighted sum of all the evidences is equal to or greater than 5.

Those students who have done evidence with a weight of less than 40% of the final grade will be "Not assessed."

*Following criteria should be accomplished for resit:*

*a) having done evidences with a weight of at least 75%*

*b) a final score of between 3.5 and 4.9.*

*The resit test will assess those competences with unsatisfactory results. For each student, teacher will design the appropriately resit process.*

*The grade of the resit test can be "pass" or "not pass". When passing the resit test, the final course grade will be 5.*

## Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
EV2 First evaluation period- First test summary Topics 1 to 3	35%	2	0.08	10, 13, 14, 6, 4, 3
Ev1a-Ev1j reflection exercises of the virtual campus of the Seminars from 3 to 12.	25%	2.5	0.1	2, 15, 5, 8, 9, 12, 13, 14, 11
Ev3 Second avaluation period- Test summary Topics 4 to 7	40%	2	0.08	7, 2, 1, 15, 10, 6, 16

## Bibliography

### Basic bibliography

Portell, M. i Vives, J. (2014). Introducció als dissenys experimentals, quasi-experimentals i ex post facto. Sèrie Materials #229. Bellaterra: Servei de Publicacions UAB.

Myers, G.D. (2011) Psicología. (9ª Ed.). Buenos Aires: Editorial Médica Panamericana, S.A.

### Further reading

#### Topic 2

Domjan, M. (1998) Bases del aprendizaje y el condicionamiento. Jaen: del Lunar. Caps. 1, 4, 6 i 12.

#### Topic 3

Reeve, J. (1994) Motivación y Emoción. Madrid: McGraw-Hill.

#### Topic 4

Aguado, L.(2005) Emoción, afecto y motivación. Madrid: Alianza Editorial

#### Topic 5

Goldstein, B.E. (2009) Sensación y Percepción (6ª Ed). Madrid: Thomson Editores. Paraninfo. Luria, R.A. (1979) El Cerebro en Acción. Barcelona: Martínez Roca. Caps. I i II.

Manning, S.A., i Rosentock, E.H. (1971) Elaboración de escalas de actitudes y psicofísica clásica. México: Trillas. Cap. 1.

Matlin, M.W., i Foley, H.J. (1996) Sensación y Percepción. México: Prentice Hall Hispanoamericana. Cap. 2

#### Topic 6

Ruiz-Vargas, JM (2010) Manual de Psicología de la Memoria. Madrid:Editorial Síntesis.

## Software

no specific software is required