

# Master's Degree

## Research in Educational Neuropsychology



## Master's Degree

### Research in Educational Neuropsychology

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Global University
- » Credits: 60 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtitute.com/us/psychology/master-degree/master-research-educational-neuropsychology](http://www.techtitute.com/us/psychology/master-degree/master-research-educational-neuropsychology)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Skills

---

*p. 12*

04

Course Management

---

*p. 16*

05

Structure and Content

---

*p. 22*

06

Methodology

---

*p. 42*

07

Certificate

---

*p. 50*

# 01

# Introduction

Neuropsychology has become one of the professional specialties with the most notable upturn at the present time. Both in educational, professional and social fields, the approaches of this science have become essential. These developments are supported by constant advances and progress that rely mainly on research. In this program we provide you with the specific and essential knowledge in this field: a step that will enable you to carry out a complete and effective Research in Educational Neuropsychology.



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*The deep knowledge of Research in Educational Neuropsychology and its multiple implications, in a complete Master's Degree created to propel you to another professional level"*

The work in neuropsychology is complex. It covers a broad spectrum of intervention that requires the professional to have very specific training in the various branches of brain development. This discipline, deeply linked to neurology and the physiological study of the brain, is affected by the changes that the evolution of knowledge in this scientific branch achieves. For professionals, this means an intense challenge of continuous updating that allows them to be at the forefront in terms of approach, intervention and monitoring of the cases that may arise in their practice.

Throughout this program, the student will go through all the current approaches in the field of neuropsychological research, from the basic starting points to the application of conclusions and the materialization of novel interventions.

With a fundamentally practical approach, this Master's Degree will allow students to develop their own project during the specialization, becoming not only a moment of study, but also a time for acquiring experience.

A high level step that will become a process of improvement, not only on a professional level, but also on a personal level.

This challenge is one of TECH's social commitments: to help prepare highly qualified professionals and develop their personal, social and labor competencies during the course.

This challenge is one of TECH's social commitments: to help prepare highly qualified professionals and develop their personal, social and labor competencies during the course. TECH works to maintain motivation and to create a passion for learning. It also encourages thinking and the development of critical thinking.

The **Master's Degree in Research in Educational Neuropsychology** contains the most complete and up-to-date educational program on the market. The most important features include:

- ♦ The latest technology in online teaching software
- ♦ A highly visual teaching system, supported by graphic and schematic contents that are easy to assimilate and understand
- ♦ Practical cases presented by practising experts
- ♦ State-of-the-art interactive video systems
- ♦ Teaching supported by telepractice
- ♦ Continuous updating and recycling systems
- ♦ Autonomous learning: full compatibility with other occupations
- ♦ Practical exercises for self evaluation and learning verification
- ♦ Support groups and educational synergies: questions to the expert, debate and knowledge forums
- ♦ Communication with the teacher and individual reflection work
- ♦ Content that is accessible from any fixed or portable device with an Internet connection
- ♦ Complementary documentation banks permanently available, even after the course

“*A program created for professionals who aspire to excellence and that will allow them to acquire new skills and strategies in a smooth and effective way*”

“ *A deep and complete immersion in the strategies and approaches of the Neuropsychology of Education*”

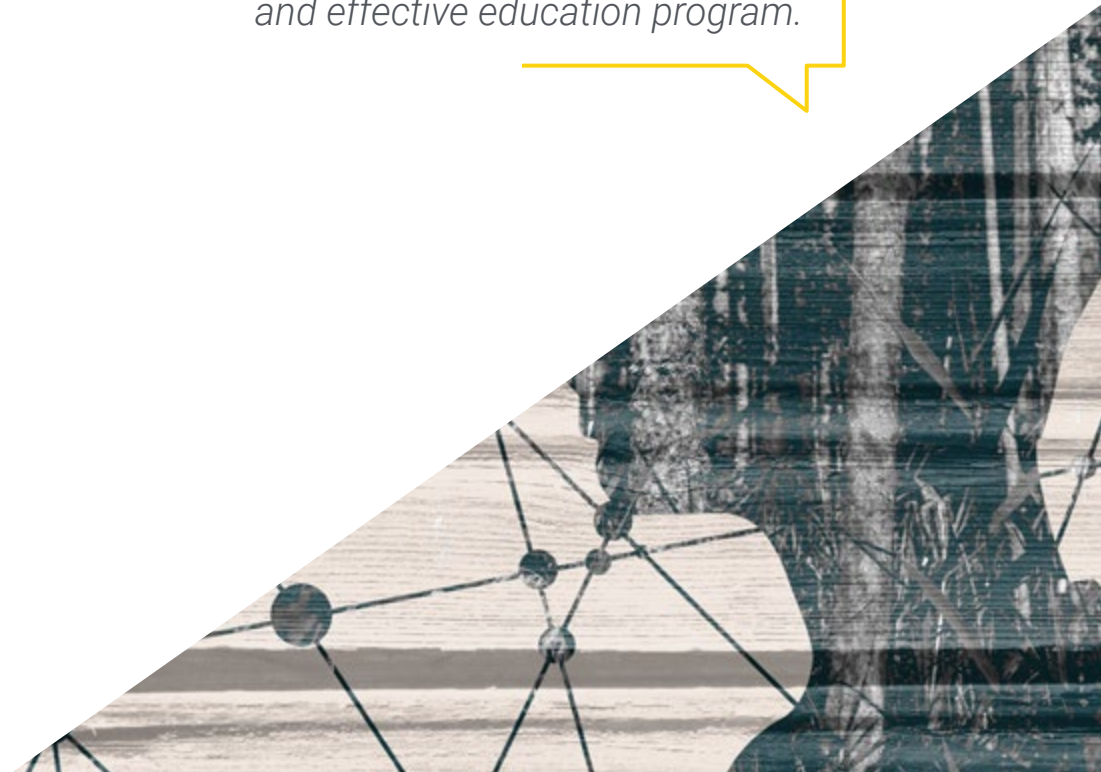
Our teaching staff is made up of working professionals. That way, TECH ensures to offer the updating objective it intends to provide. A multidisciplinary team of doctors trained and experienced in different environments, who will develop the theoretical knowledge in an efficient way, but, above all, will put at the service of the course the practical knowledge derived from their own experience: one of the differential qualities of this Master's Degree.

This mastery of the subject is complemented by the effectiveness of the methodology used in the design of this Master's Degree. Developed by a multidisciplinary team of e-learning experts, it integrates the latest advances in educational technology. In this way, the students will be able to study with a set of comfortable and versatile multimedia tools that will give them the operability they need in their training.

The design of this program is based on Problem-Based Learning: an approach that conceives learning as a highly practical process. To achieve this remotely we will use telepractice: with the help of an innovative interactive video system and Learning from an Expert, the students will be able to acquire the knowledge as if they were facing the scenario they are learning at that moment. A concept that will make it possible to integrate and fix learning in a more realistic and permanent way.

*The sensory systems of the human being studied from the neuropsychologist's point of view, with the goal for intervention and improvement.*

*The processes and developments of a complete Neuropsychology of Education Research in an intensive and effective education program.*



# 02

# Objectives

The objective is to create highly qualified professionals for work experience. An objective that is complemented, moreover, in a global manner with the promotion of human development that lays the foundations for a better society. This objective materializes by helping professionals reach a much higher level of expertise and control. A goal that in just a few months the student will be able to achieve, with a course of high intensity and precision.







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*If your goal is to improve in your profession, to acquire a qualification that will enable you to compete among the best, look no further: welcome to TECH"*



## General Objectives

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- ♦ Qualify professionals for the practice of Neuropsychology of Education in the development of children and young people
- ♦ Learn how to carry out specific programs to improve school performance
- ♦ Access to the forms and processes of Research in Educational Neuropsychology in the school environment
- ♦ Increase the capacity for work and autonomous resolution of learning processes
- ♦ Study the attention to diversity from the neuropsychological approach
- ♦ Learn about the different ways to implement enrichment systems for learning methodologies in the classroom, especially aimed at diverse students
- ♦ Analyze and integrate the knowledge necessary to foster students' school and social development



*Take the opportunity and take the step to catch up on the latest developments in Neuropsychology of Education Research”*



## Specific Objectives

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### Module 1. Basis of Neurosciences

- ♦ Study the anatomy of the brain and its relationship to learning
- ♦ Learn the brain basis of motor development
- ♦ Explore the quality of brain plasticity
- ♦ Analyze the various agents affecting child, adolescent and adult brain development

### Module 2. Neuroeducation

- ♦ Reflect on the meaning of neuroeducation
- ♦ Study the peculiarities and fundamental characteristics of the different areas of the brain associated with emotions and learning
- ♦ Learn the different forms and techniques of intervention in education

### Module 3. Memory Processes, Skills and TIC

- ♦ Explore and gain in depth knowledge of the characteristics and functioning of memory processes, in relation to the global development of the person, in the specific field of learning

### Module 4. Visual and Auditory Functionality for Reading, Language, Languages and Learning

- ♦ Learn about the characteristics and development of the organs of sight
- ♦ Learn about the risk factors
- ♦ Learn ways to detect, assess and intervene in the classroom with students with vision problems
- ♦ Acquire the ability to work for the improvement of visual perception
- ♦ Become familiar with vision and reading skill training programs

- ♦ Study the saccadic models
- ♦ Learn about the characteristics and development of the organs of the ear
- ♦ Learn ways to detect, evaluate and intervene in the classroom with students with hearing problems
- ♦ Acquire the ability to work for the improvement of hearing
- ♦ Learn the psychobiological aspects of hearing loss
- ♦ Develop the necessary skills to make curricular adaptations in this area
- ♦ Study all the implications of visual and auditory problems on literacy learning

### **Module 5. Motor Skills, Laterality and Writing**

- ♦ Learn the knowledge related to the basic processes of the central nervous system
- ♦ Know the particularities of motor and somatosensory development
- ♦ Distinguish and identify all those difficulties at the motor level that can influence academic performance
- ♦ Know the programs of stimulation and improvement of motor difficulties
- ♦ Learn how to prevent the development of difficulties in the educational environment

### **Module 6. Neurolinguistic Processes, Difficulties and Intervention Programs**

- ♦ Develop the neurobiological aspects involved in language development
- ♦ Study the neuropsychological bases of language and the possibilities of language work and development
- ♦ Analyze the processes of language comprehension, sounds and reading comprehension
- ♦ Analyze language and literacy disorders
- ♦ Learn how to assess, diagnose and intervene in language difficulties

### **Module 7. Multiple Intelligences, Creativity, Talent and High Abilities**

- ♦ Learn all aspects related to the theory of multiple intelligences and their assessment
- ♦ Learn the neuropsychological basis of creativity and its development in the educational context
- ♦ Know the possibilities of working in the area of high abilities

### **Module 8. Dyslexia, Dyscalculia and Hyperactivity**

- ♦ Incorporate the necessary knowledge to detect and intervene in the classroom in cases of dyscalculia, dyslexia and TDH
- ♦ Understand the incidence of comorbidity in this context
- ♦ Learn about the possibilities of neurotechnology applied to dyslexia, ADHD and dyscalculia

### **Module 9. Research Methodology I**

- ♦ Learn research methodology and its different approaches
- ♦ Develop a complete research method, from the choice of the topic, to the proposal and production
- ♦ Learn how to conduct quantitative research and analysis of results
- ♦ Learn descriptive statistics
- ♦ Learn how to develop a hypothesis test and interpret it
- ♦ Study the use of correlational and group comparison statistics and be able to use them in research

### **Module 10. Research Methodology II**

- ♦ Learn descriptive statistics
- ♦ Learn how to develop a hypothesis test and interpret it
- ♦ Study the use of correlational and group comparison statistics and be able to use them in research

# 03 Skills

Once all the contents have been studied and the objectives of the program in Research Educational Neuropsychology have been achieved, the professional will have superior competence and performance in this area. A comprehensive approach in a high level program that makes the difference.





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*Achieving excellence in any profession requires effort and perseverance. But, above all, the support of professionals, who will give you the boost you need, with the necessary means and assistance. Just what TECH puts at your service"*



## General Skills

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- ♦ Employ Neuropsychology in the educational environment
- ♦ Conduct programs to improve school performance
- ♦ Apply the research methods of Neuropsychology of Education
- ♦ Construct new ways of attending to diversity in the classroom

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*Our objective is very simple: to offer you quality education, with the best teaching system available today, so that you can achieve excellence in your profession"*





## Specific Skills

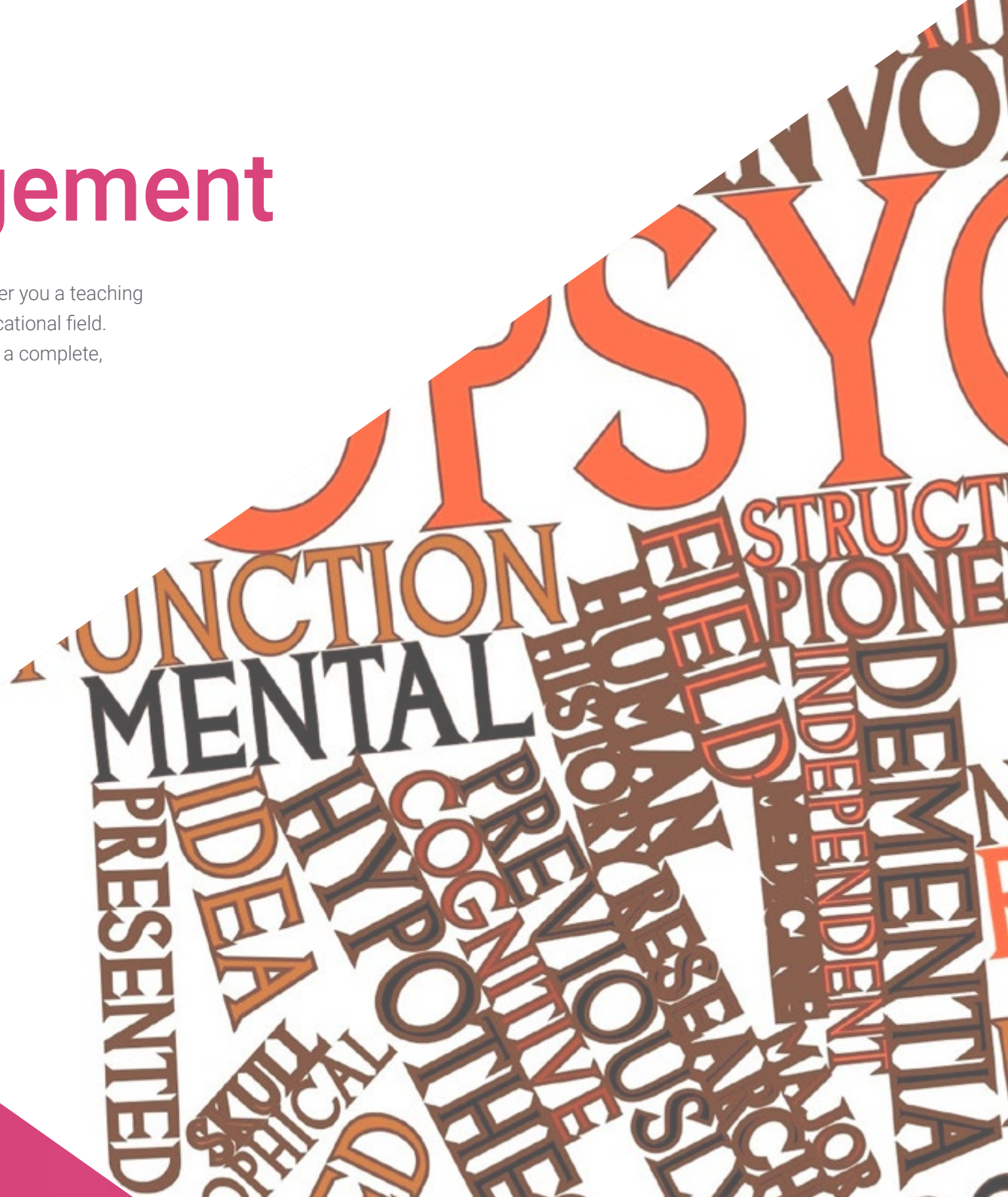
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- ♦ Recognize the anatomy of the brain and its relationship with the development of different learning processes from the motor, sensory, emotional, etc. point of view
- ♦ Use the knowledge of Neuropsychology in the development of diverse intervention programs in all areas of school development
- ♦ Put into practice the different forms of intervention in the educational area based on the data extracted from the analysis of brain functionality, in the field of emotions and learning
- ♦ Be able to work on enhancing memory development
- ♦ Have tools to work with altered memory states
- ♦ Perform effective assessment, diagnosis and intervention of language difficulties
- ♦ Identify motor difficulties in students that affect their performance
- ♦ Apply new strategies in cases of high abilities
- ♦ Be able to program taking into account multiple intelligences and the impulse of talent and creativity
- ♦ Develop efficient intervention programs for students with dyscalculia, dyslexia and hyperactivity
- ♦ Devise, develop and analyze comprehensive research in the field of Neuropsychology

04

# Course Management

Within the concept of total quality of the program, TECH is proud to offer you a teaching staff of the highest level, chosen for their proven experience in the educational field. Professionals from different areas and fields of expertise that make up a complete, multidisciplinary team. A unique opportunity to learn from the best.







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*Our professors will put their experience and teaching skills at your disposal to offer you a stimulating and creative specialization process”*

## International Guest Director

Dr. Michael Thomas is a leading figure in the field of **Cognitive Neuroscience** internationally. As such, with a focus on **cognitive variability** and **language development**, he has made key contributions to understanding how individual differences in **brain development** affect **learning** and **cognition** from infancy to adulthood.

Likewise, his commitment to interdisciplinary research has led him to direct the **Centre for Educational Neuroscience**, at University College London, where he has promoted the exchange between **Neuroscience** and **Education**, seeking to improve **educational practices** through a deeper understanding of the **brain mechanisms of learning**. In addition, through his **Developmental Neurocognition laboratory** at the **Birkbeck Centre for Brain and Cognitive Development**, which he founded, he has led innovative projects integrating **behavioral**, **neuroimaging**, **computational** and **genetic methods**.

Notably, one of the most important milestones in his career has been the co-recipient of the **Queen's Anniversary Prize for Higher Education** for his pioneering work in **Child Neuropsychology**. He has also co-edited the book "**Educational Neuroscience: Development throughout life**", which explores how advances in Neuroscience can influence the design of **educational policies**. In this sense, the text addresses crucial issues such as **individual differences** in the classroom, **cognitive enhancement** and the translation of scientific research into **pedagogical strategies**, providing **evidence-based solutions** to improve educational outcomes across the lifespan.

Dr. Michael Thomas has also been a member of several scientific societies and academic committees, such as the **British Psychological Society** and the **Association for Psychological Science**, reflecting his influence on the evolution of **Educational Neuroscience**.



## Dr. Thomas, Michael

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- ♦ Director of the Centre for Educational Neuroscience at University College London, United Kingdom
- ♦ Founder of the Developmental Neurocognition Laboratory at the Birkbeck Centre for Brain and Cognitive Development
- ♦ Co-author of the book “Educational Neuroscience: Development Across the Lifespan”
- ♦ Ph.D. in Experimental Psychology from Oxford University
- ♦ M.Sc. in Cognitive Science from the University of Birmingham
- ♦ B.A. in Psychology from the University of Exeter
- ♦ Queen’s Anniversary Prize for Higher Education
- ♦ Member of:
  - ♦ British Psychological Society
  - ♦ Association for Psychological Science
  - ♦ International Mind, Brain and Education Society

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*Thanks to TECH, you will be able to learn with the best professionals in the world”*

## Management



### Ms. Sánchez Padrón, Nuria Ester

- ◆ Degree in Psychology from the University of La Laguna
- ◆ Master's Degree in General Health Psychology from the University of La Rioja
- ◆ Training in Emergency Psychological Care
- ◆ Training in Psychological Care in Penitentiary Institutions
- ◆ Teaching and training experience
- ◆ Experience in Educational Care for Minors at Risk



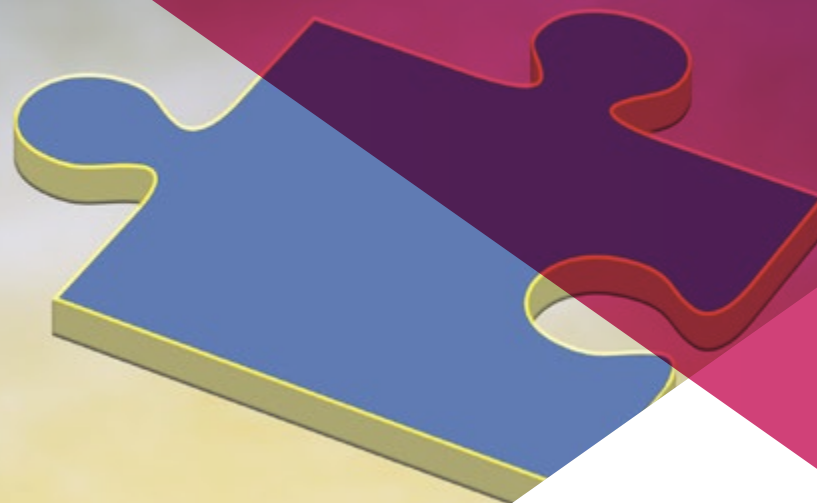
05

# Structure and Content

The contents of this specialization have been developed by the different teachers on this program with a clear purpose: to ensure that our students acquire each and every one of the necessary skills to become true experts in this field.

The content of this program will allow you to learn all aspects of the different disciplines involved in this area: a very complete and well structured program that will lead you to the highest standards of quality and success.





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*Through a complete and very well compartmentalized development, you will be able to access to the most advanced knowledge in Research in Educational Neuropsychology”*

## Module 1. Principles of Neurosciences

- 1.1. The Nervous System and Neurons
  - 1.1.1. Introduction
  - 1.1.2. Developments and Latest Approaches
- 1.2. Basic Anatomy of Learning-Related Structures
  - 1.2.1. Description
  - 1.2.2. Physiology of Learning
- 1.3. Psychological Processes Related to Learning
  - 1.3.1. Emotions and Learning
  - 1.3.2. Emotional Approaches
- 1.4. The Main Brain Structures Related to Motor Skills
  - 1.4.1. Brain and Motor Development
  - 1.4.2. Laterality and Development
- 1.5. Plastic Brain and Neuroplasticity
  - 1.5.1. Definition of Plasticity
  - 1.5.2. Neuroplasticity and Education
- 1.6. Epigenetics
  - 1.6.1. Definition and Origins
- 1.7. Effects of the Environment on Brain Development
  - 1.7.1. Current Theories
  - 1.7.2. The Influence of the Environment on Child Development
- 1.8. Changes in the Infant's Brain
  - 1.8.1. Brain Development in Infancy
  - 1.8.2. Features
- 1.9. Evolution of the Adolescent Brain
  - 1.9.1. Brain Development in Adolescence
  - 1.9.2. Features
- 1.10. The Adult Brain
  - 1.10.1. Characteristics of the Adult Brain
  - 1.10.2. The Adult Brain and Learning





## Module 2. Neuroeducation

- 2.1. Introduction to Neuroeducation
- 2.2. Main Neuromyths
- 2.3. Attention
- 2.4. Emotion
- 2.5. Motivation
- 2.6. The Learning Process
- 2.7. Memory
- 2.8. Stimulation and Early Interventions
- 2.9. Importance of Creativity in Neuroeducation
- 2.10. Methodologies that Allow the Transformation of Education into Neuroeducation

## Module 3. Memory Processes, Skills and TICS

- 3.1. Conceptual Bases of Memory
  - 3.1.1. Introduction and Objectives
  - 3.1.2. Concept and Definition of Memory
  - 3.1.3. Basic Processes of Memory
  - 3.1.4. Initial Research on Memory
  - 3.1.5. Classification of Memory
  - 3.1.6. Memory During Development
  - 3.1.7. General Strategies to Stimulate Memory
  - 3.1.8. Bibliographical References
- 3.2. Sensory Memory
  - 3.2.1. Introduction and Objectives
  - 3.2.2. Concept and Definition
  - 3.2.3. Neurobiological Foundations of Sensory Memory
  - 3.2.4. Assessing Sensory Memory
  - 3.2.5. Intervention in Educational Contexts of Sensory Memory
  - 3.2.6. Family Activities for Students From Three to Five Years of Age
  - 3.2.7. Sensory Memory Intervention Case Study
  - 3.2.8. Bibliographical References
- 3.3. Short-Term Memory
  - 3.3.1. Introduction and Objectives
  - 3.3.2. Concept and Definition of Short-Term Memory and Working Memory
  - 3.3.3. Neurobiological Principles of Short-Term and Working Memory
  - 3.3.4. Assessment of Short-Term and Working Memory
  - 3.3.5. Intervention in Educational Contexts of Short-Term Memory
  - 3.3.6. Family Activities for Students From Six to Eleven Years of Age
  - 3.3.7. Working Memory Intervention Case Study
  - 3.3.8. Bibliographical References
- 3.4. Long-Term Memory
  - 3.4.1. Introduction and Objectives
  - 3.4.2. Concept and Definition
  - 3.4.3. Neurobiological Bases of Long-Term Memory
  - 3.4.4. Assessment of Long-Term Memory
  - 3.4.5. Intervention in Educational Contexts of Long-Term Memory
  - 3.4.6. Family Activities for Students From Twelve to Eighteen Years of Age
  - 3.4.7. Long-Term Memory Intervention Case Study
- 3.5. Memory Disorders
  - 3.5.1. Introduction and Objectives
  - 3.5.2. Memory and Emotion
  - 3.5.3. Forgetfulness Theories of Forgetfulness
  - 3.5.4. Memory Distortions
  - 3.5.5. Memory Alterations: Amnesias
  - 3.5.6. Childhood Amnesia
  - 3.5.7. Other Types of Memory Alteration
  - 3.5.8. Programs to Improve Memory
  - 3.5.9. Technological Programs to Improve Memory
  - 3.5.10. Bibliographical References

- 3.6. Thinking Skills
  - 3.6.1. Introduction and Objectives
  - 3.6.2. Developing Thinking from Childhood to the Adult Age
  - 3.6.3. Basic Thought Processes
  - 3.6.4. Thinking Skills
  - 3.6.5. Critical Thinking
  - 3.6.6. Characteristics of Digital Natives
  - 3.6.7. Bibliographical References
- 3.7. Neurobiology of Thinking
  - 3.7.1. Introduction and Objectives
  - 3.7.2. Neurobiological Foundations of Thinking
  - 3.7.3. Cognitive distortions
  - 3.7.4. Neuropsychological Assessment Instruments
  - 3.7.5. Bibliographical References
- 3.8. Cognitive Intervention
  - 3.8.1. Introduction and Objectives
  - 3.8.2. Learning Strategies
  - 3.8.3. Cognitive Stimulation Techniques in Educational Contexts
  - 3.8.4. Methods for Studying at Home
  - 3.8.5. Cognitive Stimulation Activities in the Family Environment
  - 3.8.6. Learning Strategy Intervention Case Study
  - 3.8.7. Bibliographical References
- 3.9. Cognitive Thought Theories
  - 3.9.1. Introduction and Objectives
  - 3.9.2. Significant Learning Theory
  - 3.9.3. Information Processing Theory
  - 3.9.4. Genetic Theory: Constructivism
  - 3.9.5. Sociocultural Theory: Socioconstructivism
  - 3.9.6. Theory of Connectivism
  - 3.9.7. Metacognition: Learning to Think
  - 3.9.8. Programs for the Acquisition of Thinking Skills
  - 3.9.9. Technology Programs for the Improvement of Thinking Skills
  - 3.9.10. Thinking Skill Intervention Case Study
  - 3.9.11. Bibliographical References

## Module 4. Visual and Auditory Functionality for Reading, Language, Languages and Learning

- 4.1. Vision: Functioning and Neuropsychological Bases
  - 4.1.1. Introduction
  - 4.1.2. Development of the Visual System at Birth
  - 4.1.3. Risk Factors
  - 4.1.4. Development of Other Sensory Systems During Infancy
  - 4.1.5. Influence of Vision on the Visuomotor System and its Development
  - 4.1.6. Normal and Binocular Vision
  - 4.1.7. Anatomy of Human Eyes
  - 4.1.8. Eye Functions
  - 4.1.9. Other Functions
  - 4.1.10. Visual Pathways to the Cerebral Cortex
  - 4.1.11. Elements that Favor Visual Perception
  - 4.1.12. Vision Diseases and Alterations
  - 4.1.13. Most Common Eye Disorders or Diseases: Classroom Interventions
  - 4.1.14. Computer Vision Syndrome (CVS)
  - 4.1.15. Attitudinal Observation of the Student
  - 4.1.16. Summary
  - 4.1.17. Bibliographical References
- 4.2. Visual Perception, Assessment and Intervention Programs
  - 4.2.1. Introduction
  - 4.2.2. Human Development: Development of the Sensory Systems
  - 4.2.3. Sensory Perception
  - 4.2.4. Neurodevelopment
  - 4.2.5. Description of the Perceptual Process
  - 4.2.6. Color Perception
  - 4.2.7. Perception and Visual Skills
  - 4.2.8. Evaluation of Visual Perception
  - 4.2.9. Intervention for the Improvement of Visual Perception
  - 4.2.10. Summary
  - 4.2.11. Bibliographical References

- 4.3. Tracking Eye Movements
  - 4.3.1. Introduction
  - 4.3.2. Eye Movements
  - 4.3.3. Tracking Eye Movements
  - 4.3.4. Ocular Motility Recording and Assessment
  - 4.3.5. Ocular Motility-Related Disorders
  - 4.3.6. The Visual System and Reading
  - 4.3.7. Development of Skills in Learning to Read
  - 4.3.8. Improvement and Training Programs and Activities
  - 4.3.9. Summary
  - 4.3.10. Bibliographical References
- 4.4. Saccadic Movements and Their Implication in Reading
  - 4.4.1. Introduction
  - 4.4.2. Models of the Reading Process
  - 4.4.3. Saccadic Movements and Their Relation to Reading
  - 4.4.4. How are Saccadic Movements Evaluated?
  - 4.4.5. The Reading Process at the Visual Level
  - 4.4.6. Visual Memory in the Reading Process
  - 4.4.7. Investigations to Study the Relationship Between Visual Memory and Reading
  - 4.4.8. Reading Difficulties
  - 4.4.9. Specialized Teachers
  - 4.4.10. Social Educators
  - 4.4.11. Summary
  - 4.4.12. Bibliographical References
- 4.5. Visual Accommodation and its Relation to Posture in the Classroom
  - 4.5.1. Introduction
  - 4.5.2. Mechanisms that Allow for Accommodation or Focus
  - 4.5.3. How is Visual Accommodation Assessed?
  - 4.5.4. Body Posture in the Classroom
  - 4.5.5. Visual Accommodation Training Programs
  - 4.5.6. Aids for Visually Impaired Students
  - 4.5.7. Summary
  - 4.5.8. Bibliographical References
- 4.6. Structure and Function of the Ear
  - 4.6.1. Introduction
  - 4.6.2. The World of Sound
  - 4.6.3. Sound and its Propagation
  - 4.6.4. The Auditory Receptors
  - 4.6.5. Ear Structure
  - 4.6.6. Development of the Hearing System at Birth
  - 4.6.7. Development of Sensory Systems during Infancy
  - 4.6.8. Influence of the Ear on Balance Development
  - 4.6.9. Ear Diseases
  - 4.6.10. Summary
  - 4.6.11. Bibliographical References
- 4.7. Auditory Perception
  - 4.7.1. Introduction
  - 4.7.2. Guidelines for Detecting Auditory Perception Problems
  - 4.7.3. The Perceptive Process
  - 4.7.4. Role of the Auditory Pathways in Perceptual Processes
  - 4.7.5. Children with Impaired Auditory Perception
  - 4.7.6. Evaluation Tests
  - 4.7.7. Summary
  - 4.7.8. Bibliographical References
- 4.8. Evaluation of Hearing and its Alterations
  - 4.8.1. Introduction
  - 4.8.2. Evaluation of the External Auditory Canal
  - 4.8.3. Otoscopy
  - 4.8.4. Air Audiometry
  - 4.8.5. Bone Conduction Hearing
  - 4.8.6. Curve of the Pain Threshold
  - 4.8.7. Tone Audiometry, Vocal Audiometry and Acoustic Audiometry
  - 4.8.8. Hearing Impairment: Degrees and Types of Hearing Loss
  - 4.8.9. Causes of Hearing Loss
  - 4.8.10. Psychobiological Aspects of Hearing Impairment
  - 4.8.11. Summary
  - 4.8.12. Bibliographical References

- 4.9. Hearing and Learning Development
  - 4.9.1. Introduction
  - 4.9.2. Development of the Human Ear
  - 4.9.3. Programs, Activities and Games for Auditory Development in Children
  - 4.9.4. Berard Method
  - 4.9.5. Tomatis Method
  - 4.9.6. Visual and Hearing Health
  - 4.9.7. Adaptations of Curricular Elements
  - 4.9.8. Summary
  - 4.9.10. Bibliographical References
- 4.10. Vision and Hearing Processes Involved in Reading
  - 4.10.1. Introduction
  - 4.10.2. Tracking Eye Movements
  - 4.10.3. The Visual System and Reading
  - 4.10.4. Dyslexia
  - 4.10.5. Color-Based Therapies for Dyslexia
  - 4.10.6. Visual Impairment Aids
  - 4.10.7. Summary
  - 4.10.8. Bibliographical References
- 4.11. Relationship Between Vision and Hearing in Language
  - 4.11.1. Introduction
  - 4.11.2. Relationship Between Vision and Hearing
  - 4.11.3. Verbal-Auditory and Visual Information Processing
  - 4.11.4. Intervention Programs for Hearing Disorders
  - 4.11.5. Guidelines for Teachers
  - 4.11.6. Summary
  - 4.11.7. Bibliographical References

## Module 5. Motor Skills, Laterality and Writing

- 5.1. Neurodevelopment and Learning
  - 5.1.1. Introduction
  - 5.1.2. Perceptual Development
  - 5.1.3. Neuropsychological Basis of Motor Development
  - 5.1.4. Laterality Development
  - 5.1.5. Interhemispheric Communication through the Corpus Callosum
  - 5.1.6. Ambidextrousness
  - 5.1.7. Summary
  - 5.1.8. Bibliographical References
- 5.2. Psychomotor Development
  - 5.2.1. Introduction
  - 5.2.2. Gross Psychomotricity
  - 5.2.3. General Dynamic Coordination: Basic Skills
  - 5.2.4. Fine Motor Skills and their Relationship with Writing
  - 5.2.5. Psychomotor Development Assessment
  - 5.2.6. Summary
  - 5.2.7. Bibliographical References
- 5.3. Neuropsychology of Motor Development
  - 5.3.1. Introduction
  - 5.3.2. Relationship between Motor and Psychism
  - 5.3.3. Disorders of Motor Development
  - 5.3.4. Coordination Acquisition Disorders
  - 5.3.5. Vestibular System Disorders
  - 5.3.6. Writing
  - 5.3.7. Summary
  - 5.3.8. Bibliographical References

- 5.4. Introduction to Laterality Development
  - 5.4.1. Introduction
  - 5.4.2. Laterality Tests
  - 5.4.3. Observation Guidelines for Teachers
  - 5.4.4. Crossed Laterality
  - 5.4.5. Types of Cross Laterality
  - 5.4.6. Relationship between Dyslexia and Laterality
  - 5.4.7. Relationship between Laterality and Attention, Memory and Hyperactivity Problems
  - 5.4.8. Summary
  - 5.4.9. Bibliographical References
- 5.5. Development of Laterality at Different Ages
  - 5.5.1. Introduction
  - 5.5.2. Laterality Definition
  - 5.5.3. Types of Laterality
  - 5.5.4. Corpus Callosum
  - 5.5.5. Cerebral Hemispheres
  - 5.5.6. Development of the Prelateral, Contralateral and Lateral Stages
  - 5.5.7. Summary
  - 5.5.8. Bibliographical References
- 5.6. Motor Disorders and Related Learning Difficulties
  - 5.6.1. Introduction
  - 5.6.2. Motor Disorders
  - 5.6.3. Learning Difficulties
  - 5.6.4. Summary
  - 5.6.5. Bibliographical References
- 5.7. Writing Process and Acquisition
  - 5.7.1. Introduction
  - 5.7.2. Reading Difficulties
  - 5.7.3. Comprehension Problems that Students May Develop
  - 5.7.4. Evolutionary Development of Writing
  - 5.7.5. History of Writing
  - 5.7.6. Neuropsychological Basis of Writing
  - 5.7.7. Teaching Written Expression
  - 5.7.8. Methods of Teaching Writing
  - 5.7.9. Writing Workshops
  - 5.7.10. Summary
  - 5.7.11. Bibliographical References
- 5.8. Dysgraphia
  - 5.8.1. Introduction
  - 5.8.2. Learning Styles
  - 5.8.3. Executive Functions Involved in Learning
  - 5.8.4. Definition of Dysgraphia and Types
  - 5.8.5. Common Indicators of Dysgraphia
  - 5.8.6. Classroom Aids for Students with Dysgraphia
  - 5.8.7. Individual Aids
  - 5.8.8. Summary
  - 5.8.9. Bibliographical References
- 5.9. Contribution of Laterality to the Development of Reading and Writing
  - 5.9.1. Introduction
  - 5.9.2. Importance of Laterality in the Learning Process
  - 5.9.3. Laterality in the Reading and Writing Processes
  - 5.9.4. Laterality and Learning Difficulties
  - 5.9.5. Summary
  - 5.9.6. Bibliographical References

- 5.10. Role of the School Psychologist and Guidance Counselors for Prevention, Development and Learning Difficulties
  - 5.10.1. Introduction
  - 5.10.2. The Guidance Department
  - 5.10.3. Intervention Programs
  - 5.10.4. Advances of Neuropsychology in Learning Difficulties
  - 5.10.5. Training the Teaching Staff
  - 5.10.6. Summary
  - 5.10.7. Bibliographical References
- 5.11. Parent Orientation
  - 5.11.1. How to Inform Parents
  - 5.11.2. Activities to Improve Academic Performance
  - 5.11.3. Activities to Improve Lateral Development
  - 5.11.4. Problem-Solving Strategies
  - 5.11.5. Summary
  - 5.11.6. Bibliographical References
- 5.12. Psychomotor Assessment and Intervention
  - 5.12.1. Introduction
  - 5.12.2. Psychomotor Development
  - 5.12.3. Psychomotor Assessment
  - 5.12.4. Psychomotor Intervention
  - 5.12.5. Summary
  - 5.12.6. Bibliographical References



## Module 6. Neurolinguistic Processes, Difficulties and Intervention Programs

- 6.1. Neurobiological Basis Involved in Language
  - 6.1.1. Introduction
  - 6.1.2. Language Definitions
  - 6.1.3. Historical Background
  - 6.1.4. Summary
  - 6.1.5. Bibliographical References
- 6.2. Language Development
  - 6.2.1. Introduction
  - 6.2.2. Appearance of Language
  - 6.2.3. Acquisition of Language
  - 6.2.4. Summary
  - 6.2.5. Bibliographical References
- 6.3. Neuropsychological Approaches to Language
  - 6.3.1. Introduction
  - 6.3.2. Brain Processes of Language
  - 6.3.3. Brain Areas Involved
  - 6.3.4. Neurolinguistic Processes
  - 6.3.5. Brain Centers Involved in Comprehension
  - 6.3.6. Summary
  - 6.3.7. Bibliographical References
- 6.4. Neuropsychology of Language Comprehension
  - 6.4.1. Introduction
  - 6.4.2. Brain Areas Involved in Comprehension
  - 6.4.3. Sounds
  - 6.4.4. Syntactic Structures for Linguistic Comprehension
  - 6.4.5. Semantic Processes and Meaningful Learning
  - 6.4.6. Reading Comprehension
  - 6.4.7. Summary
  - 6.4.8. Bibliographical References
- 6.5. Communication Through Language
  - 6.5.1. Introduction
  - 6.5.2. Language as a Tool for Communication
  - 6.5.3. Evolution of Language
  - 6.5.4. Social Communication
  - 6.5.5. Summary
  - 6.5.6. Bibliographical References
- 6.6. Language Disorders
  - 6.6.1. Introduction
  - 6.6.2. Speech and Language Disorders
  - 6.6.3. Professionals Involved in the Treatment
  - 6.6.4. Classroom Implications
  - 6.6.5. Summary
  - 6.6.6. Bibliographical References
- 6.7. Aphasia
  - 6.7.1. Introduction
  - 6.7.2. Types of Aphasia
  - 6.7.3. Diagnosis
  - 6.7.4. Assessment
  - 6.7.5. Summary
  - 6.7.6. Bibliographical References
- 6.8. Language Stimulation
  - 6.8.1. Introduction
  - 6.8.2. Importance of Language Stimulation
  - 6.8.3. Phonetic-Phonological Stimulation
  - 6.8.4. Lexical-Semantic Stimulation
  - 6.8.5. Morphosyntactic Stimulation
  - 6.8.6. Pragmatic Stimulation
  - 6.8.7. Summary
  - 6.8.8. Bibliographical References

- 6.9. Reading and Writing Disorders
  - 6.9.1. Introduction
  - 6.9.2. Delayed Reading
  - 6.9.3. Dyslexia
  - 6.9.4. Dysorthographia
  - 6.9.5. Dysgraphia
  - 6.9.6. Dyslalia
  - 6.9.7. Treatment of Reading and Writing Disorders
  - 6.9.8. Summary
  - 6.9.9. Bibliographical References
- 6.10. Evaluation and Diagnosis of Language Difficulties
  - 6.10.1. Introduction
  - 6.10.2. Language Evaluation
  - 6.10.3. Language Assessment Procedures
  - 6.10.4. Psychological Tests for Assessing Language
  - 6.10.5. Summary
  - 6.10.6. Bibliographical References
- 6.11. Intervention in Language Disorders
  - 6.11.1. Introduction
  - 6.11.2. Implementation of Improvement Programs
  - 6.11.3. Improvement Programs
  - 6.11.4. Improvement Programs Using New Technologies
  - 6.11.5. Summary
  - 6.11.6. Bibliographical References
- 6.12. Incidence of Language Difficulties on Academic Performance
  - 6.12.1. Introduction
  - 6.12.2. Linguistic Processes
  - 6.12.3. Incidence of Language Disorders
  - 6.12.4. Relationship Between Hearing and Language
  - 6.12.5. Summary
  - 6.12.6. Bibliographical References

- 6.13. Guidance for Parents and Teachers
  - 6.13.1. Introduction
  - 6.13.2. Language Stimulation
  - 6.13.3. Reading Stimulation
  - 6.13.4. Summary
  - 6.13.5. Bibliographical References

## Module 7. Multiple Intelligences, Creativity, Talent and High Abilities

- 7.1. Theory of Multiple Intelligences
  - 7.1.1. Introduction
  - 7.1.2. Background
  - 7.1.3. Conceptualization
  - 7.1.4. Validation
  - 7.1.5. Premises and Basic Principles of Theories
  - 7.1.6. Neuropsychological and Cognitive Science
  - 7.1.7. Classification of the Theories of Multiple Intelligences
  - 7.1.8. Summary
  - 7.1.9. Bibliographical References
- 7.2. Types of Multiple Intelligences
  - 7.2.1. Introduction
  - 7.2.2. Types of Intelligence
  - 7.2.3. Summary
  - 7.2.4. Bibliographical References
- 7.3. Assessment of Multiple Intelligences
  - 7.3.1. Introduction
  - 7.3.2. Background
  - 7.3.3. Types of Assessments
  - 7.3.4. Aspects to Consider in the Assessment
  - 7.3.5. Summary
  - 7.3.6. Bibliographical References



- 7.4. Creativity
  - 7.4.1. Introduction
  - 7.4.2. Concepts and Theories of Creativity
  - 7.4.3. Approaches to the Study of Creativity
  - 7.4.4. Characteristics of Creative Thinking
  - 7.4.5. Types of Creativity
  - 7.4.6. Summary
  - 7.4.7. Bibliographical References
- 7.5. Neuropsychological Basis of Creativity
  - 7.5.1. Introduction
  - 7.5.2. Background
  - 7.5.3. Characteristics of Creative People
  - 7.5.4. Creative Products
  - 7.5.5. Neuropsychological Bases of Creativity
  - 7.5.6. Influence of the Environment and Context on Creativity
  - 7.5.7. Summary
  - 7.5.8. Bibliographical References
- 7.6. Creativity in the Educational Context
  - 7.6.1. Introduction
  - 7.6.2. Creativity in the Classroom
  - 7.6.3. Stages of the Creative Process
  - 7.6.4. How to Work on Creativity?
  - 7.6.5. Connection Between Creativity and Thinking
  - 7.6.6. Modification in the Educational Context
  - 7.6.7. Summary
  - 7.6.8. Bibliographical References
- 7.7. Methodologies for Developing Creativity
  - 7.7.1. Introduction
  - 7.7.2. Programs for Developing Creativity
  - 7.7.3. Projects for Developing Creativity
  - 7.7.4. Promoting Creativity in the Family Context
  - 7.7.5. Summary
  - 7.7.6. Bibliographical References
- 7.8. Creativity Assessment and Guidance
  - 7.8.1. Introduction
  - 7.8.2. Considerations on Assessment
  - 7.8.3. Evaluation Tests
  - 7.8.4. Subjective Assessment Tests
  - 7.8.5. Guidance on Assessment
  - 7.8.6. Summary
  - 7.8.7. Bibliographical References
- 7.9. High Capacities and Talents
  - 7.9.1. Introduction
  - 7.9.2. Relationship Between Giftedness and High Capacities
  - 7.9.3. Connection Between Heredity and Environment
  - 7.9.4. Neuropsychological Foundation
  - 7.9.5. Models of Giftedness
  - 7.9.6. Summary
  - 7.9.7. Bibliographical References
- 7.10. Identification and Diagnosis of High Capacities
  - 7.10.1. Introduction
  - 7.10.2. Main Characteristics
  - 7.10.3. How to Identify High Capacities?
  - 7.10.4. Role the Involved Agents
  - 7.10.5. Assessment Tests and Instruments
  - 7.10.6. Intervention Programs
  - 7.10.7. Summary
  - 7.10.8. Bibliographical References

- 7.11. Problems and Difficulties
  - 7.11.1. Introduction
  - 7.11.2. Problems and Difficulties in the School Environment
  - 7.11.3. Myths and Beliefs
  - 7.11.4. Desynchronies
  - 7.11.5. Differential Diagnosis
  - 7.11.6. Differences Between Genders
  - 7.11.7. Educational Needs
  - 7.11.8. Summary
  - 7.11.9. Bibliographical References
- 7.12. Connection Between Multiple Intelligences, High Capacities, Talent and Creativity
  - 7.12.1. Introduction
  - 7.12.2. Connection Between Multiple Intelligences and Creativity
  - 7.12.3. Connection Between Multiple Intelligences, High Capacities and Talents
  - 7.12.4. Differences Between Talent and High Capacities
  - 7.12.5. Creativity, High Capacities and Talent
  - 7.12.6. Summary
  - 7.12.7. Bibliographical References
- 7.13. Guiding and Developing Multiple Intelligences
  - 7.13.1. Introduction
  - 7.13.2. Advising Teachers
  - 7.13.3. Multidimensional Student Development
  - 7.13.4. Curricular Enrichment
  - 7.13.5. Strategies at Different Educational Levels
  - 7.13.6. Summary
  - 7.13.7. Bibliographical References
- 7.14. Creativity for Problem-Solving
  - 7.14.1. Introduction
  - 7.14.2. Models of the Creative Process for Problem Solving
  - 7.14.3. Creative Project Development
  - 7.14.4. Summary
  - 7.14.5. Bibliographical References

- 7.15. Educational Process and Family Support
  - 7.15.1. Introduction
  - 7.15.2. Guidelines for Teachers
  - 7.15.3. Educational Response in Children
  - 7.15.4. Educational Response in Primary Education
  - 7.15.5. Educational Response in Secondary Education
  - 7.15.6. Coordination with Families
  - 7.15.7. Program Implementation
  - 7.15.8. Summary
  - 7.15.9. Bibliographical References

## Module 8. Dyslexia, Dyscalculia and Hyperactivity

- 8.1. History of Learning Difficulties
  - 8.1.1. Introduction
  - 8.1.2. Definition of Learning Difficulties
  - 8.1.3. Historical Development
  - 8.1.4. Current Learning Difficulties
  - 8.1.5. Neuropsychology of Learning Difficulties
  - 8.1.6. Causes of Learning Difficulties
  - 8.1.7. Classification of Learning Difficulties
  - 8.1.8. Summary
  - 8.1.9. Bibliographical References
- 8.2. Conceptualization of Dyslexia
  - 8.2.1. Introduction
  - 8.2.2. Definition
  - 8.2.3. Neuropsychological Bases
  - 8.2.4. Features
  - 8.2.5. Subtypes
  - 8.2.6. Summary
  - 8.2.7. Bibliographical References

- 8.3. Neuropsychological Assessment of Dyslexia
  - 8.3.1. Introduction
  - 8.3.2. Diagnostic Criteria for Dyslexia
  - 8.3.3. How to Assess it?
  - 8.3.4. Interview with the Tutor
  - 8.3.5. Reading and Writing
  - 8.3.6. Neuropsychological Assessment
  - 8.3.7. Assessment of Other Related Aspects
  - 8.3.8. Summary
  - 8.3.9. Bibliographical References
- 8.4. Neuropsychological Intervention of Dyslexia
  - 8.4.1. Introduction
  - 8.4.2. Variables Involved
  - 8.4.3. Neuropsychological Field
  - 8.4.4. Intervention Programs
  - 8.4.5. Summary
  - 8.4.6. Bibliographical References
- 8.5. Conceptualization of Dyscalculia
  - 8.5.1. Introduction
  - 8.5.2. Definition of Dyscalculia
  - 8.5.3. Features
  - 8.5.4. Neurophysiological Basis
  - 8.5.5. Summary
  - 8.5.6. Bibliographical References
- 8.6. Neuropsychological Assessment of Dyscalculia
  - 8.6.1. Introduction
  - 8.6.2. Assessment Objectives
  - 8.6.3. How to Assess
  - 8.6.4. Report
  - 8.6.5. Diagnosis
  - 8.6.6. Summary
  - 8.6.7. Bibliographical References
- 8.7. Neuropsychological Interventions of Dyscalculia
  - 8.7.1. Introduction
  - 8.7.2. Variables Involved in the Treatment
  - 8.7.3. Neuropsychological Rehabilitation
  - 8.7.4. Intervention in Dyscalculia
  - 8.7.5. Summary
  - 8.7.6. Bibliographical References
- 8.8. Conceptualization of ADHD
  - 8.8.1. Introduction
  - 8.8.2. Definition of ADHD
  - 8.8.3. Neuropsychological Bases
  - 8.8.4. Characteristics of Children with ADHD
  - 8.8.5. Subtypes
  - 8.8.6. Summary
  - 8.8.7. Bibliographical References
- 8.9. Neuropsychological Assessment of ADHD
  - 8.9.1. Introduction
  - 8.9.2. Assessment Objectives
  - 8.9.3. How to Assess
  - 8.9.4. Report
  - 8.9.5. Diagnosis
  - 8.9.6. Summary
  - 8.9.7. Bibliographical References
- 8.10. Neuropsychological Interventions of ADHD
  - 8.10.1. Introduction
  - 8.10.2. Neuropsychological Field
  - 8.10.3. Treatment of ADHD
  - 8.10.4. Other Therapies
  - 8.10.5. Intervention Programs
  - 8.10.6. Summary
  - 8.10.7. Bibliographical References

- 8.11. Comorbidity in Neurodevelopmental Disorders
  - 8.11.1. Introduction
  - 8.11.2. Neurodevelopment Disorders
  - 8.11.3. Dyslexia and Dyscalculia
  - 8.11.4. Dyslexia and ADHD
  - 8.11.5. Dyscalculia and ADHD
  - 8.11.6. Summary
  - 8.11.7. Bibliographical References
- 8.12. Neurotechnology
  - 8.12.1. Introduction
  - 8.12.2. Applied to Dyslexia
  - 8.12.3. Applied to Dyscalculia
  - 8.12.4. Applied to ADHD
  - 8.12.5. Summary
  - 8.12.6. Bibliographical References
- 8.13. Guidance for Parents and Teachers
  - 8.13.1. Introduction
  - 8.13.2. Guidance on Dyslexia
  - 8.13.3. Guidance on Dyscalculia
  - 8.13.4. Guidance on ADHD
  - 8.13.5. Summary
  - 8.13.6. Bibliographical References



## Module 9. Research Methodology I

- 9.1. Research Methodology
  - 9.1.1. Introduction
  - 9.1.2. The Importance of Research Methodology
  - 9.1.3. Scientific Knowledge
  - 9.1.4. Research Approaches
  - 9.1.5. Summary
  - 9.1.6. Bibliographical References
- 9.2. Choosing the Topic to Research
  - 9.2.1. Introduction
  - 9.2.2. The Issue of Research
  - 9.2.3. Defining the Problem
  - 9.2.4. Choice of the Research Question
  - 9.2.5. Research Objectives
  - 9.2.6. Variables: Types
  - 9.2.7. Summary
  - 9.2.8. Bibliographical References
- 9.3. Research Proposal
  - 9.3.1. Introduction
  - 9.3.2. Research Hypothesis
  - 9.3.3. Feasibility of the Research Project
  - 9.3.4. Introduction and Justification of the Research
  - 9.3.5. Summary
  - 9.3.6. Bibliographical References
- 9.4. Theoretical Framework
  - 9.4.1. Introduction
  - 9.4.2. Elaboration of the Theoretical Framework
  - 9.4.3. Resources Used
  - 9.4.4. APA Standards
  - 9.4.5. Summary
  - 9.4.6. Bibliographical References
- 9.5. Bibliography
  - 9.5.1. Introduction
  - 9.5.2. Importance of Bibliographic References
  - 9.5.3. How to Reference According to APA Standards
  - 9.5.4. Format of Annexes: Tables and Figures
  - 9.5.5. Bibliography Managers: What are They and How to Use Them?
  - 9.5.6. Summary
  - 9.5.7. Bibliographical References
- 9.6. Methodological Framework
  - 9.6.1. Introduction
  - 9.6.2. Roadmap
  - 9.6.3. Sections to be Included in the Methodological Framework
  - 9.6.4. The Population
  - 9.6.5. The Sample
  - 9.6.6. Variables:
  - 9.6.7. Instruments
  - 9.6.8. Procedure
  - 9.6.9. Summary
  - 9.6.10. Bibliographical References
- 9.7. Research Designs
  - 9.7.1. Introduction
  - 9.7.2. Types of Designs
  - 9.7.3. Characteristics of the Designs Used in Psychology
  - 9.7.4. Research Designs Used in Education
  - 9.7.5. Research Designs Used in Educational Neuropsychology
  - 9.7.6. Summary
  - 9.7.7. Bibliographical References

- 9.8. Quantitative Research
  - 9.8.1. Introduction
  - 9.8.2. Designing Randomized Groups
  - 9.8.3. Designing Randomized Groups with Blocks
  - 9.8.4. Other Designs used in Psychology
  - 9.8.5. Statistical Techniques in Quantitative Research
  - 9.8.6. Summary
  - 9.8.7. Bibliographical References
- 9.9. Quantitative Research II
  - 9.9.1. Introduction
  - 9.9.2. Unifactorial Intrasubject Designs
  - 9.9.3. Techniques for Controlling the Effects of Intrasubject Designs
  - 9.9.4. Statistical Techniques
  - 9.9.5. Summary
  - 9.9.6. Bibliographical References
- 9.10. Results
  - 9.10.1. Introduction
  - 9.10.2. How to Gather Data?
  - 9.10.3. How to Analyze Data?
  - 9.10.4. Statistical Programs
  - 9.10.5. Summary
  - 9.10.6. Bibliographical References
- 9.11. Descriptive Statistics
  - 9.11.1. Introduction
  - 9.11.2. Research Variables
  - 9.11.3. Quantitative Analyses
  - 9.11.4. Qualitative Analyses
  - 9.11.5. Resources that Can Be Used
  - 9.11.6. Summary
  - 9.11.7. Bibliographical References
- 9.12. Hypothesis Contrast
  - 9.12.1. Introduction
  - 9.12.2. Statistical Hypotheses
  - 9.12.3. How to Interpret Significance (P-Value)?
  - 9.12.4. Criteria for Analyzing Parametric and Non-Parametric Tests
  - 9.12.5. Summary
  - 9.12.6. Bibliographical References
- 9.13. Correlational Statistics and Independence Analysis
  - 9.13.1. Introduction
  - 9.13.2. Pearson Correlation
  - 9.13.3. Spearman's Correlation and Chi-Square
  - 9.13.4. Results
  - 9.13.5. Summary
  - 9.13.6. Bibliographical References
- 9.14. Group Comparison Statistics
  - 9.14.1. Introduction
  - 9.14.2. Mann-Whitney T-Test and Mann-Whitney U-Test
  - 9.14.3. T-Test and Wilcoxon Signed Ranges
  - 9.14.4. The Results
  - 9.14.5. Summary
  - 9.14.6. Bibliographical References
- 9.15. Discussion and Conclusions
  - 9.15.1. Introduction
  - 9.15.2. What is the Discussion?
  - 9.15.3. Organization of the Discussion
  - 9.15.4. Conclusions
  - 9.15.5. Limitations and Outlook
  - 9.15.6. Summary
  - 9.15.7. Bibliographical References

- 9.16. Producing the Final Master's Degree Dissertation
  - 9.16.1. Introduction
  - 9.16.2. Front Page and Contents
  - 9.16.3. Introduction and Justification
  - 9.16.4. Theoretical Framework
  - 9.16.5. Methodological Framework
  - 9.16.6. The Results
  - 9.16.7. Intervention Program
  - 9.16.8. Discussion and Conclusions
  - 9.16.9. Summary
  - 9.16.10. Bibliographical References

## Module 10. Research Methodology II

- 10.1. Research in the Educational Environment
  - 10.1.1. Introduction
  - 10.1.2. Research Characteristics
  - 10.1.3. Research in the Classroom
  - 10.1.4. Keys Needed for Research
  - 10.1.5. Examples:
  - 10.1.6. Summary
  - 10.1.7. Bibliographical References
- 10.2. Neuropsychological Research
  - 10.2.1. Introduction
  - 10.2.2. Educational Neuropsychological Research
  - 10.2.3. Knowledge and the Scientific Method
  - 10.2.4. Types of Approaches
  - 10.2.5. Research Stages
  - 10.2.6. Summary
  - 10.2.7. Bibliographical References
- 10.3. Ethics of Research
  - 10.3.1. Introduction
  - 10.3.2. Informed Consent
  - 10.3.3. Data Protection Law
  - 10.3.4. Summary
  - 10.3.5. Bibliographical References
- 10.4. Reliability and Validity
  - 10.4.1. Introduction
  - 10.4.2. Reliability and Validity in Research
  - 10.4.3. Reliability and Validity in Assessment
  - 10.4.4. Summary
  - 10.4.5. Bibliographical References
- 10.5. Controlling Variables in Research
  - 10.5.1. Introduction
  - 10.5.2. Choosing Variables
  - 10.5.3. Controlling Variables
  - 10.5.4. Sample Selection
  - 10.5.5. Summary
  - 10.5.6. Bibliographical References
- 10.6. The Quantitative Research Approach
  - 10.6.1. Introduction
  - 10.6.2. Features
  - 10.6.3. Stages
  - 10.6.4. Assessment Tools
  - 10.6.5. Summary
  - 10.6.6. Bibliographical References

- 10.7. Qualitative Research Approach I
  - 10.7.1. Introduction
  - 10.7.2. Systematic Observation
  - 10.7.3. Research Stages
  - 10.7.4. Sampling Techniques
  - 10.7.5. Quality Control
  - 10.7.6. Statistical Techniques
  - 10.7.7. Summary
  - 10.7.8. Bibliographical References
- 10.8. Qualitative Research Approach II
  - 10.8.1. Introduction
  - 10.8.2. The Survey
  - 10.8.3. Sampling Techniques
  - 10.8.4. Survey Stages
  - 10.8.5. Research Designs
  - 10.8.6. Statistical Techniques
  - 10.8.7. Summary
  - 10.8.8. Bibliographical References
- 10.9. Qualitative Research Approach III
  - 10.9.1. Introduction
  - 10.9.2. Types of Interviews and Characteristics
  - 10.9.3. Preparing the Interview
  - 10.9.4. Group Interviews
  - 10.9.5. Statistical Techniques
  - 10.9.6. Summary
  - 10.9.7. Bibliographical References
- 10.10. Single Case Designs
  - 10.10.1. Introduction
  - 10.10.2. Features
  - 10.10.3. Types
  - 10.10.4. Statistical Techniques
  - 10.10.5. Summary
  - 10.10.6. Bibliographical References
- 10.11. Action Research
  - 10.11.1. Introduction
  - 10.11.2. Objectives of Action Research
  - 10.11.3. Features
  - 10.11.4. Phases
  - 10.11.5. Myths
  - 10.11.6. Examples:
  - 10.11.7. Summary
  - 10.11.8. Bibliographical References
- 10.12. Gathering Information for Research
  - 10.12.1. Introduction
  - 10.12.2. Techniques for Gathering Information
  - 10.12.3. Assessing Research
  - 10.12.4. Assessment
  - 10.12.5. Interpretation of Results
  - 10.12.6. Summary
  - 10.12.7. Bibliographical References
- 10.13. Data Management in Research
  - 10.13.1. Introduction
  - 10.13.2. Databases
  - 10.13.3. Data in Excel
  - 10.13.4. Data in SPSS
  - 10.13.5. Summary
  - 10.13.6. Bibliographical References
- 10.14. Spreading Results in Neuropsychology
  - 10.14.1. Introduction
  - 10.14.2. Publications
  - 10.14.3. Specialized Journals
  - 10.14.4. Summary
  - 10.14.5. Bibliographical References



- 10.15. Scientific Journals
  - 10.15.1. Introduction
  - 10.15.2. Features
  - 10.15.3. Types of Journals
  - 10.15.4. Quality Indicators
  - 10.15.5. Submitting Articles
  - 10.15.6. Summary
  - 10.15.7. Bibliographical References
- 10.16. The Scientific Article
  - 10.16.1. Introduction
  - 10.16.2. Types and Characteristics
  - 10.16.3. Structure
  - 10.16.4. Quality Indicator
  - 10.16.5. Summary
  - 10.16.6. Bibliographical References
- 10.17. Scientific Conferences
  - 10.17.1. Introduction
  - 10.17.2. The Importance of Conferences
  - 10.17.3. Scientific Committees
  - 10.17.4. Oral Communications
  - 10.17.5. The Scientific Poster
  - 10.17.6. Summary
  - 10.17.7. Bibliographical References



*A complete preparation that will take you through the necessary knowledge to compete among the best"*

06

# Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.



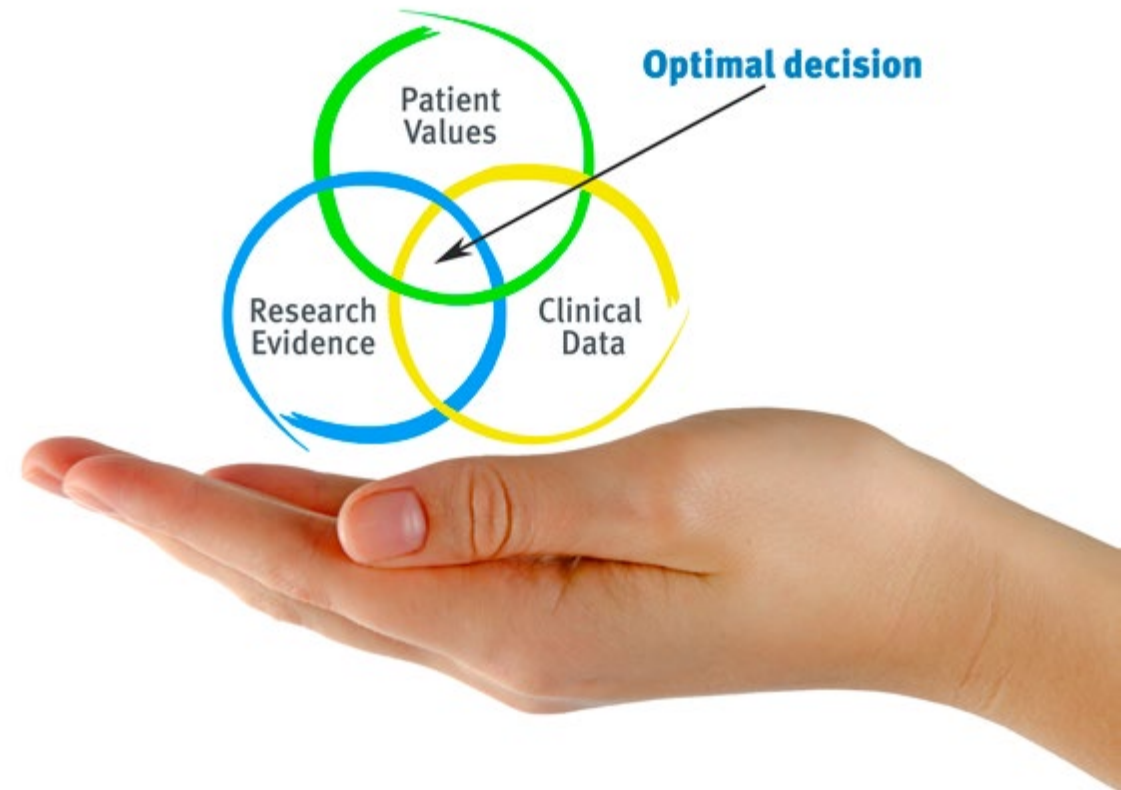
“

*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

*With TECH the psychologist experiences a way of learning that is shaking the foundations of traditional universities around the world.*



According to Dr. Gervas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, trying to recreate the real conditions in the psychologist's professional practice.

“

*Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method”*

The effectiveness of the method is justified by four fundamental achievements:

1. Psychologists who follow this method not only master the assimilation of concepts, but also develop their mental capacity by means of exercises to evaluate real situations and apply their knowledge.
2. Learning is solidly translated into practical skills that allow the psychologist to better integrate knowledge into clinical practice.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.



## Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

Our university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, which is a real revolution compared to the simple study and analysis of cases.

*The psychologist will learn through real cases and by solving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.*



At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

This methodology has trained more than 150,000 psychologists with unprecedented success in all clinical specialties. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

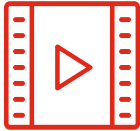
*Relearning will allow you to learn with less effort and better performance, involving you more in your training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for success.*

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by our learning system is 8.01, according to the highest international standards.



This program offers the best educational material, prepared with professionals in mind:



#### Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



#### Latest Techniques and Procedures on Video

TECH introduces students to the latest techniques, to the latest educational advances, to the forefront of current psychology. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times as you like.



#### Interactive Summaries

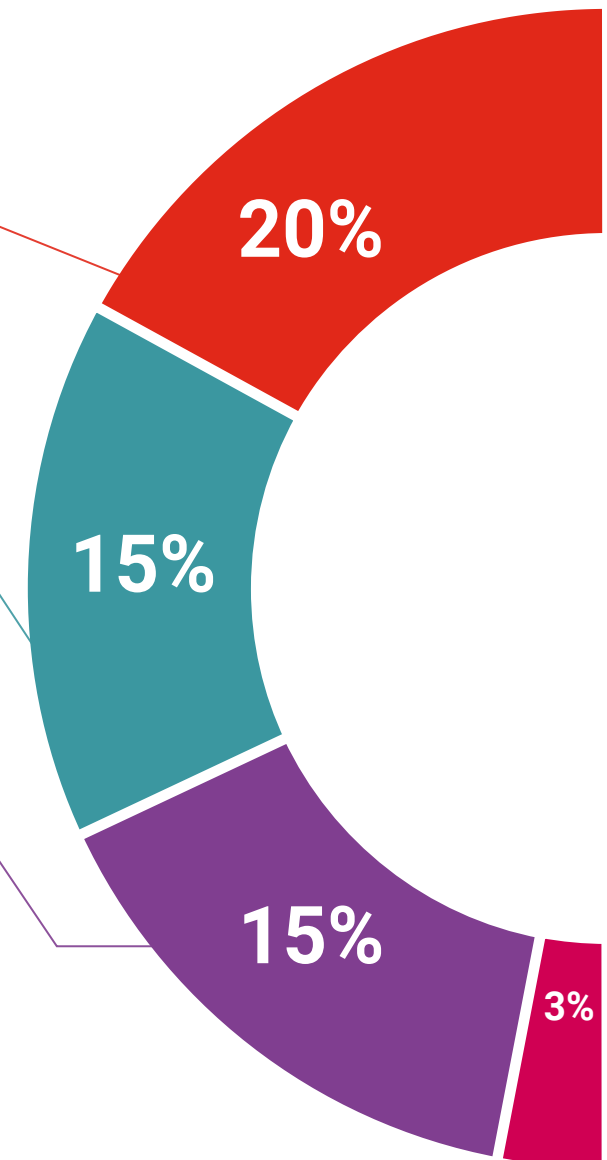
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".

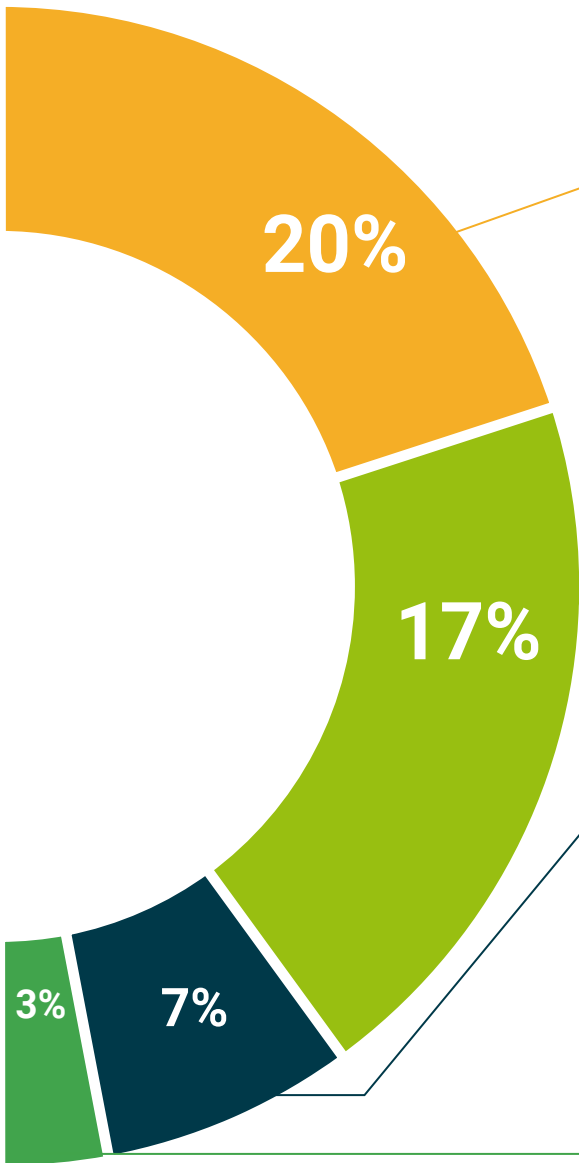


#### Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.







#### Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



#### Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



#### Classes

There is scientific evidence suggesting that observing third-party experts can be useful.  
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



#### Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.



07

# Certificate

The Master's Degree in Research in Educational Neuropsychology guarantees students, in addition to the most rigorous and up to date education, access to a Master's Degree issued by TECH Global University.



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*Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork”*

This private qualification will allow you to obtain a **Master's Degree diploma in Research in Educational Neuropsychology** endorsed by **TECH Global University**, the world's largest online university.

**TECH Global University** is an official European University publicly recognized by the Government of Andorra (**official bulletin**). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

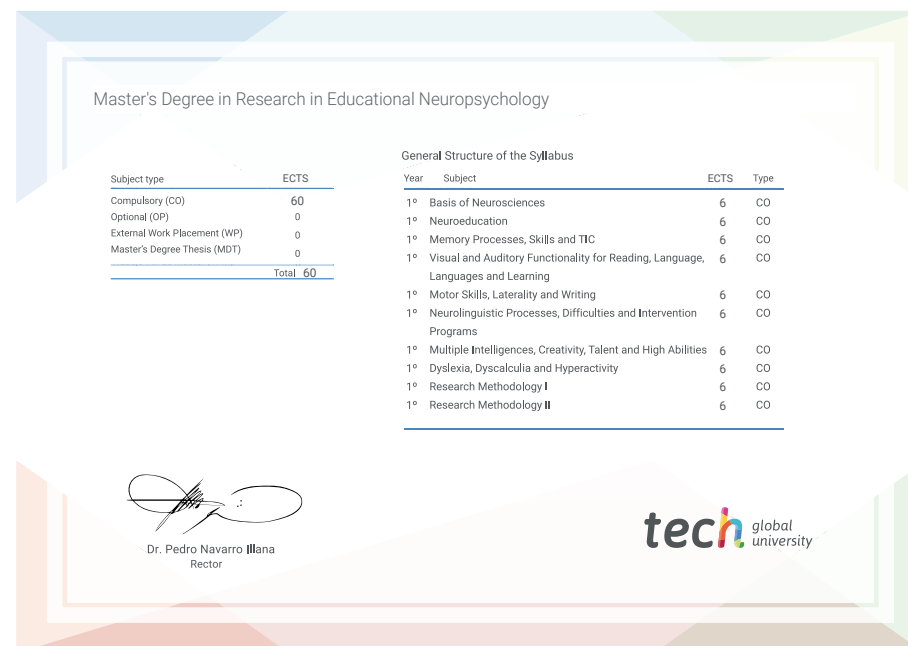
This **TECH Global University** private qualification is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Master's Degree in Research in Educational Neuropsychology**

Modality: **online**

Duration: **12 months**

Accreditation: **60 ECTS**



\*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH Global University will make the necessary arrangements to obtain it, at an additional cost.

future  
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education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present  
development language  
virtual classroom



**Master's Degree**  
Research in Educational  
Neuropsychology

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Global University
- » Credits: 60 ECTS
- » Schedule: at your own pace
- » Exams: online

Master's Degree

Research in Educational  
Neuropsychology

