

# Professional Master's Degree Neuropsychology and Education





## Professional Master's Degree Neuropsychology and Education

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

Website: [www.techtute.com/us/education/professional-master-degree/master-neuropsychologia-education](http://www.techtute.com/us/education/professional-master-degree/master-neuropsychologia-education)

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# 01

# Introduction

Neuropsychology in the field of education, is one of the emerging sciences that is currently gaining more traction. This behavioral neuroscience is based on the natural scientific method to approach the study of the brain. Through the combination of hypothetico-deductive and analytical-inductive methods, professionals develop therapeutic intervention in individuals with congenital or supervening brain injuries, as well as in individuals without injuries. This program is designed to give you access to the specific knowledge of this discipline in an intensive and practical way. Great value for any teacher who wants to incorporate the techniques in the classroom.





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*In-depth knowledge of neurodevelopment and its multiple implications in a comprehensive program meant to propel you to the next professional level”*

It covers a broad spectrum of intervention that requires the professional to have very specific specialization 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. This means for the professional an intense challenge of permanent updating that allows them to be at the forefront in terms of approach, intervention and monitoring of the cases that may arise in the classroom.

Throughout this program, the student will go through all the current approaches in the work of the neuropsychologist in the different challenges that their profession as a teacher poses.

The functioning of memory, language, the relationship between laterality and cognitive development, sensoriality and many other aspects, will be the topics of work and study that the student will be able to integrate in their specialization. A high-level step that will become a process of improvement, not only on a professional level, but also on a personal one.

This is one of the challenges that TECH assumes as a social commitment: to help highly qualified professionals to update and develop their personal skills, to know the relationship between motor skills and the psyche and its implications for its development.

We will not only take you through the theoretical knowledge we offer, but we will introduce you to another way of studying and learning, one which simpler, more organic, and efficient. We will work to keep you motivated and to create in you a passion for learning. Furthermore, we will push you to think and develop critical thinking.

This **Professional Master's Degree in Neuropsychology and Education** 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-assessment 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.
- ♦ Supplementary documentation databases are permanently available, even after the program.



*An educational program created for professionals who aspire for excellence, and that will enable you to acquire new skills and strategies easily and effectively”*

“ *A deep and comprehensive dive into strategies and approaches in Neuropsychology and Education* ”

Our teaching staff is made up of working professionals. In this way, we ensure that we offer you the targeted capacitive upgrade that we intend. A multidisciplinary team of trained and experienced specialists in different environments, who will develop the theoretical knowledge efficiently, but, above all, will put at the service of the program the practical knowledge derived from their own experience: one of the differential qualities of this Professional Master's Degree.

This mastery of the subject is complemented by the effectiveness of the methodology used in the design of this program. Developed by a multidisciplinary team of *E-Learning* experts, it integrates the latest advances in educational technology. In this way, you will be able to study with a variety of multimedia tools, comfortable and versatile, that will give you the operability you need in your training.

The design of this program is based on Problem-Based Learning: an approach that views learning as a highly practical process. To achieve this remotely, we will use telepractice learning, with the help of an innovative interactive video system, and *Learning from an Expert*, you will be able to acquire the knowledge as if you were actually dealing with the scenario you are learning about. A concept that will allow you 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 objective of intervention and improvement in the classroom.*

*The basic processes of cognitive development in relation to learning and school development in an intensive and comprehensive training.*



02

# Objectives

Our goal is to prepare highly qualified professionals for work experience. An objective that is complemented, moreover, in a global manner, by promoting human development that lays the foundations for a better society. This objective is focused on helping professionals reach a much higher level of expertise and control. A goal that, in just a few months, you will be able to achieve with a high intensity and precision program.







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



## General Objectives

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- Qualify professionals for the practice of neuropsychology in education in the development of children and young people
- Learn how to carry out specific programs to improve school performance
- Access the forms and processes of research in 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



*Make the most of this opportunity and take the step to get up to date on the latest developments in Neuropsychology and Education”*





## 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. Developmental Neuropsychology

- ♦ Study the neurobiological basis of development
- ♦ Explore the bases of differential cognitive functioning
- ♦ Develop educational applications of metacognitive regulation and neurobiological markers
- ♦ Learn to make a clinical diagnosis based on the knowledge learnt

### Module 3. 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 4. Visual and Auditory Functionality for Reading, Language, Languages and Learning

- ♦ Learn about the characteristics and development of the organs of sight
- ♦ Detect, evaluate and intervene in the classroom with visually impaired students
- ♦ Acquire the ability to work for the improvement of visual perception
- ♦ Become familiar with vision and reading skill training programs
- ♦ Study the saccadic models

- ♦ Develop characteristics and development of the organs of the ear
- ♦ Learn about the risk factors
- ♦ Identify ways to detect, evaluate and intervene in the classroom with hearing impaired students
- ♦ 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 impairment in developing literacy

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

- ♦ Delve into the relationship between learning and neurodevelopment in the educational field
- ♦ Study aspects related to gross and fine psychomotor skills
- ♦ Know the relationship between motor skills and the psyche and its developmental implications
- ♦ Study laterality in relation to the development of cognitive abilities
- ♦ Develop the different degrees of evolution in the evolutionary lateral stages
- ♦ Learning the different motor disorders from their impact on learning
- ♦ Unravel all aspects of the reading acquisition process
- ♦ Learn how to intervene in the possible difficulties related to learning in the classroom: dysgraphia, dyscalculia, dyslexia, etc.
- ♦ Develop intervention models for prevention, development and learning difficulties in the school environment
- ♦ Develop communication and relationship skills with fathers, mothers and families

### Module 6. Research Methodology

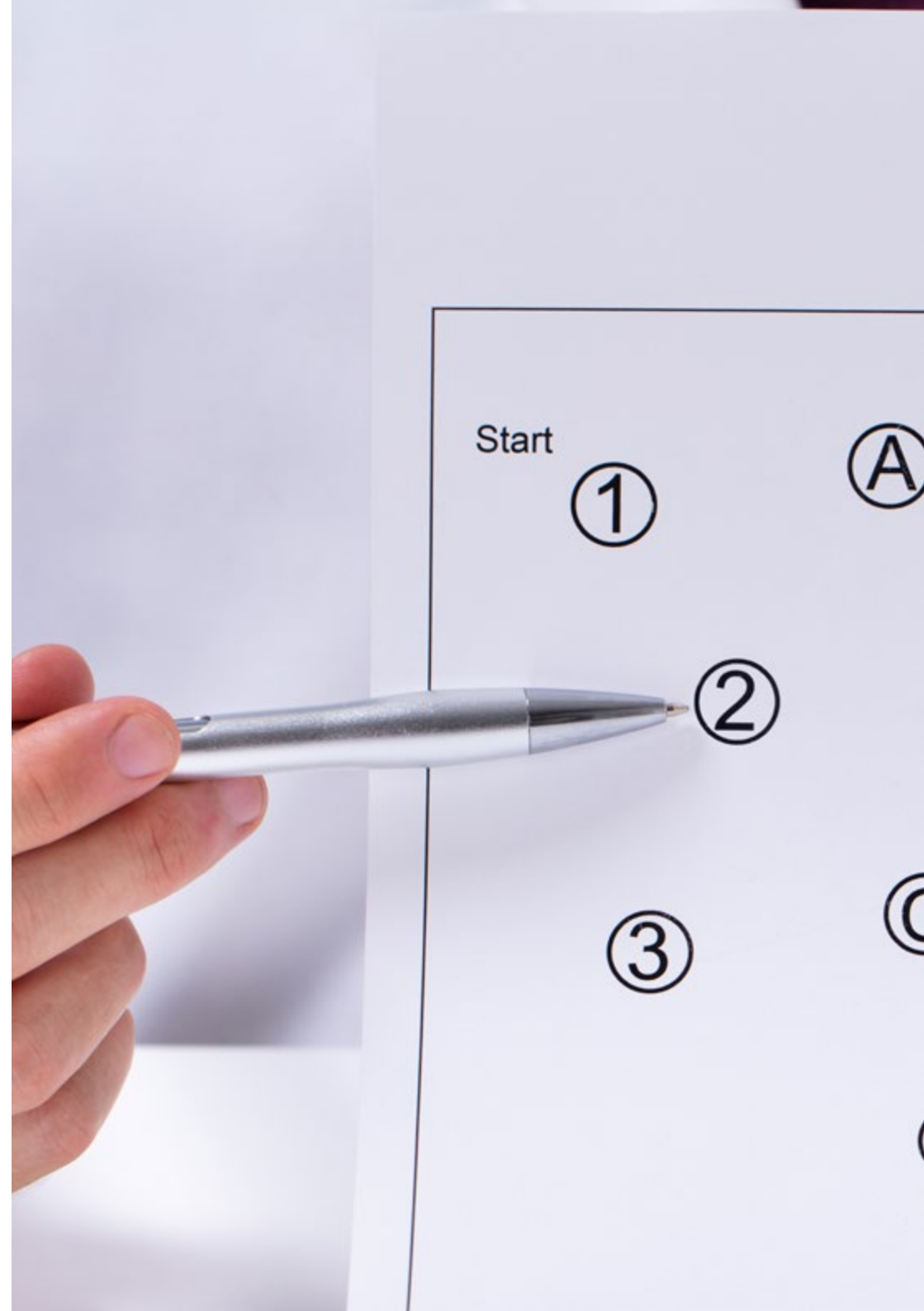
- ♦ Learn research methodology and its different approaches
- ♦ Develop a complete research method, from the choice of the topic, to the proposal and production
- ♦ Learn how to conduct quantitative research and analysis of results
- ♦ Learn descriptive statistics
- ♦ Learn how to develop a hypothesis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

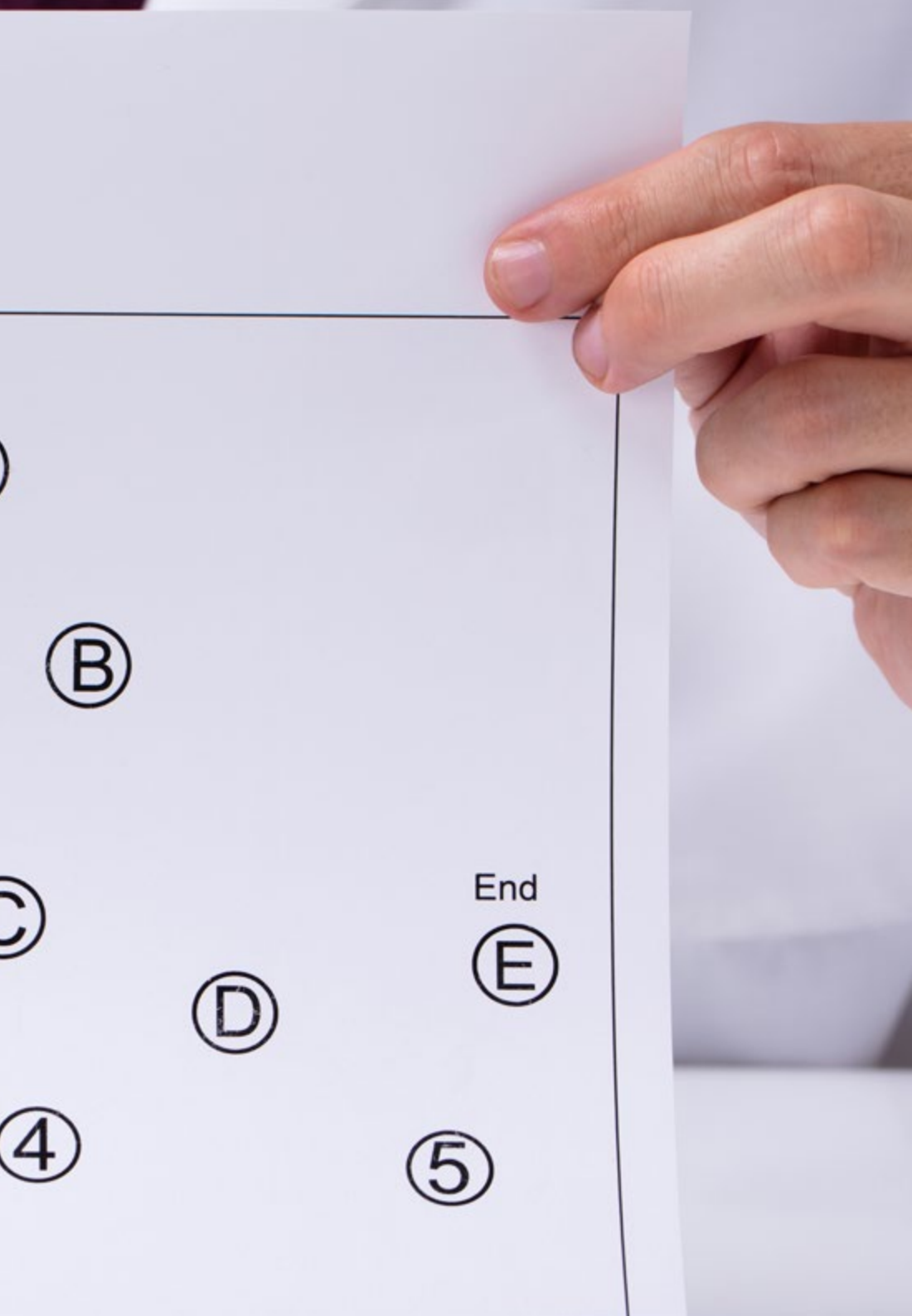
### Module 7. Multiple Intelligences, Creativity, Talent and High Capacities

- ♦ 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 ADHD
- ♦ Understand the incidence of comorbidity in this context
- ♦ Learn about the possibilities of neurotechnology applied to dyslexia, ADHD and dyscalculia





### **Module 9. 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 10. Emerging Educational Alternatives for the Management of Learning Difficulties**

- Learn about information and communication technologies and how they are linked to the management of difficulties
- Know the use of ICTs in educational centers
- Discover the benefits of chess as an educational tool
- Knowledge of the benefits of medication for the management of difficulties

03

# Competencies

Once all the contents have been studied and the objectives of the Professional Master's Degree in Neuropsychology and Education have been achieved, our students will have gained superior expertise 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 you will get from our great professionals with the necessary means and assistance. Just what TECH puts at your service”*



## General Skills

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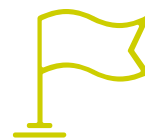
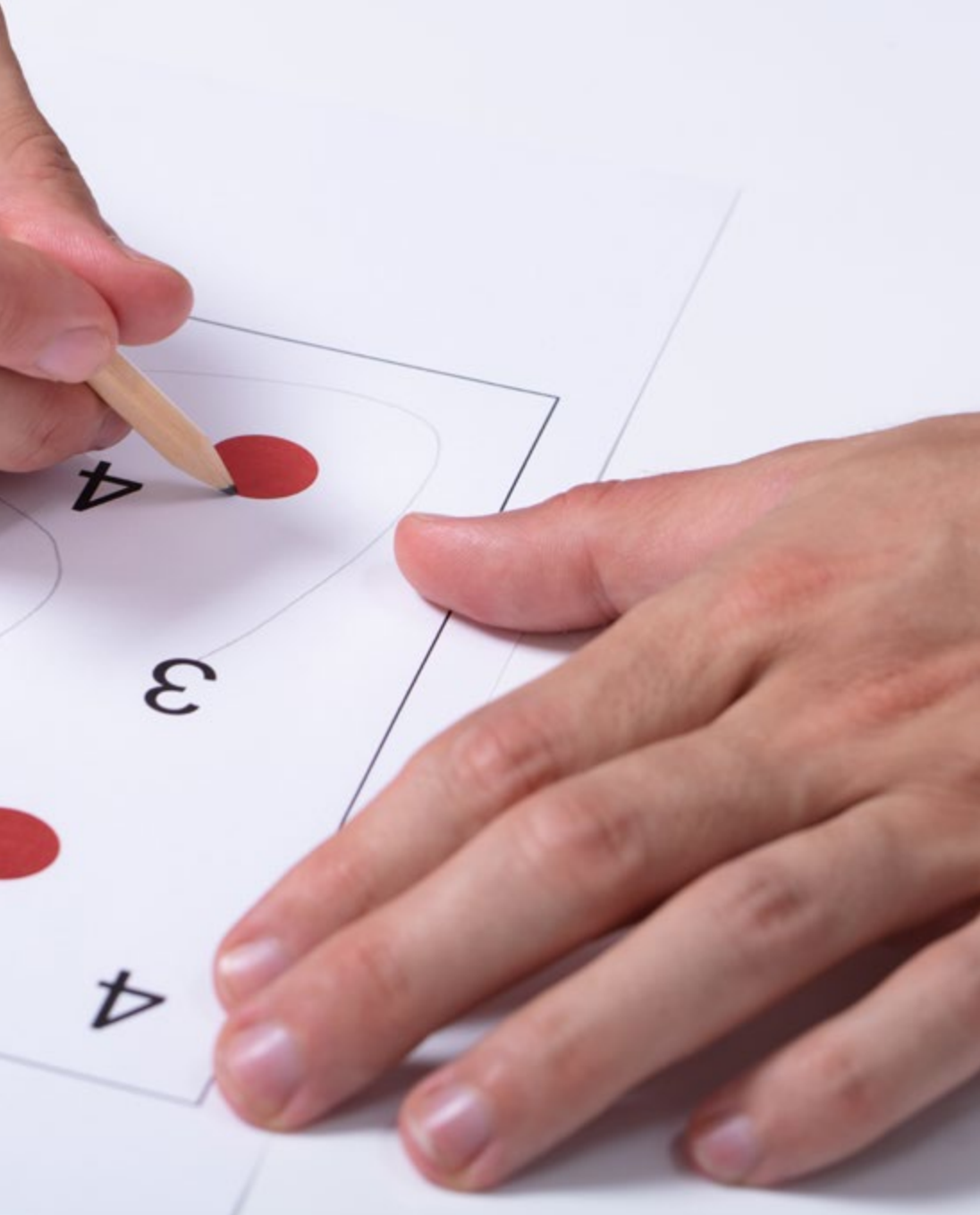
- Employ Neuropsychology in the educational environment
- Conduct programs to improve school performance
- Apply the research methods of educational neuropsychology
- Construct new ways of attending to diversity in the classroom

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*Our objective is very simple: To offer you quality specialist education, with the best teaching methods available, so you can reach new levels of 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, emotional, etc. point of view
- ♦ Use knowledge of Neuropsychology in the development of diverse intervention programs in all areas of school development
- ♦ Apply the data extracted from the analysis of neurology in clinical diagnosis, supported by specific knowledge of developmental neuropsychology
- ♦ 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
- ♦ Work with sensory difficulties in the school environment, from a neuropsychological approach based on a deep knowledge of visual and auditory functionality
- ♦ Implement brain stimulation strategies in education through the development of motor skills and laterality
- ♦ Devise, develop and analyze comprehensive research in the area of neuropsychology in the educational setting
- ♦ 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
- ♦ Perform effective assessment, diagnosis and intervention of language difficulties
- ♦ Learn about information and communication technologies and how they are linked to the management of difficulties

04

# Course Management

For our program to be of the highest quality, we are proud to work with a teaching staff of the highest level, chosen for their proven track record in the field of education. 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 teachers will put their experience and teaching skills at your disposal to offer you a stimulating and creative training process”*

## Management



### Ms. Sánchez Padrón, Nuria Ester

- ◆ Degree in Psychology, University of La Laguna
- ◆ Master's Degree in General Health Psychology, La Rioja University
- ◆ Training in Emergency Psychological Care
- ◆ Training in Psychological Care in Penitentiary Institutions
- ◆ Teaching and training experience
- ◆ Experience in educational attention to children at risk



05

# Structure and Content

The contents of this program have been developed by the different professors of this course, 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. A well-structured program that will lead to the highest standards of quality and success.

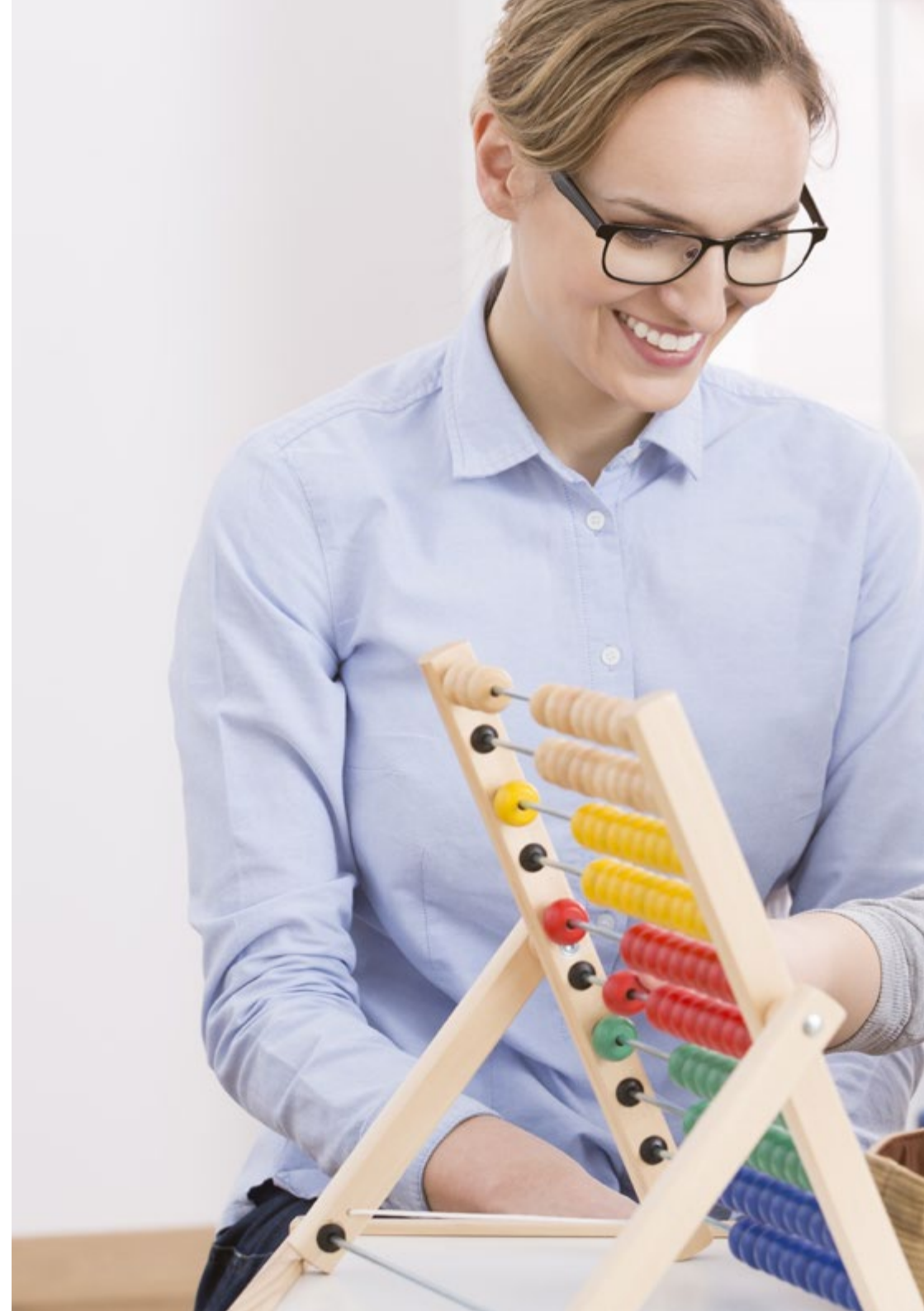


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*Through a complete albeit very well compartmentalized program, you will be able to access the most advanced knowledge of Neuropsychology and Education available today”*

## Module 1. Basis 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. The 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. Developmental Neuropsychology

- 2.1. Neuroscience
  - 2.1.1. Introduction
  - 2.1.2. Concept of Neuroscience
  - 2.1.3. Neuromyths
- 2.2. The brain: Structure and Function
  - 2.2.1. Primary Brain Structures
  - 2.2.2. Triune Model
  - 2.2.3. Bilateral Model
  - 2.2.4. Cognitive Brain and Emotional Brain
  - 2.2.5. Neurons
  - 2.2.6. What are Neurotransmitters?
- 2.3. Neuroscience and Learning
  - 2.3.1. What is learning?
  - 2.3.2. Mirror Neurons
  - 2.3.3. Levels of Learning
  - 2.3.4. Learning Styles
  - 2.3.5. Types of Learning
- 2.4. Multiple intelligences
  - 2.4.1. Definition
  - 2.4.2. Classification
  - 2.4.3. Multiple Intelligences and Neurodidactics
  - 2.4.4. Multiple Intelligences in the Classroom
  - 2.4.5. Advantages and Drawbacks in Education
- 2.5. Neuroscience - Education
  - 2.5.1. Neuroeducation
  - 2.5.2. Memory
  - 2.5.3. Emotion
  - 2.5.4. Attention
  - 2.5.5. Motivation
  - 2.5.6. Contributions of Neurodidactics to Learning Strategies

- 2.6. Neuroscience in the Classroom
  - 2.6.1. The figure of the Neuroeducator
  - 2.6.2. Neuroeducational and Neuropedagogical Importance
  - 2.6.3. Empathic Attitude and Learning
  - 2.6.4. Classroom Applications
  - 2.6.5. Classroom Organization
- 2.7. Playing and New Technologies
  - 2.7.1. Etymology of Playing
  - 2.7.2. Benefits of Playing
  - 2.7.3. Learning by Playing
  - 2.7.4. The Neurocognitive Process
  - 2.7.5. Basic Principles of Educational Games
  - 2.7.6. Neuroeducation and Board Games
  - 2.7.7. Educational Technology and Neuroscience
  - 2.7.8. Development of Executive Functions
- 2.8. Body and Brain
  - 2.8.1. The Connection between Body and Brain
  - 2.8.2. The Social Brain
  - 2.8.3. How do we prepare the Brain for Learning?
  - 2.8.4. Feeding
  - 2.8.5. Rest and Learning
- 2.9. Neuroscience for preventing School Failure
  - 2.9.1. Benefits of Neuroscience
  - 2.9.2. Elements for a Success-oriented Pedagogy
  - 2.9.3. Some suggestions for improving the Learning Process
- 2.10. Reason and Emotion
  - 2.10.1. The Binomial Reason and Emotion
  - 2.10.2. What are Emotions good for?
  - 2.10.3. Why Educate Emotions in the Classroom
  - 2.10.4. Effective Learning through Emotions

### Module 3. Neuroeducation

- 3.1. Introduction to Neuroeducation
- 3.2. Main Neuromyths
- 3.3. Attention
- 3.4. Emotion
- 3.5. Motivation
- 3.6. The Learning Process
- 3.7. Memory
- 3.8. Stimulation and Early Interventions
- 3.9. Importance of Creativity in Neuroeducation
- 3.10. Methodologies that allow the Transformation of Education in Neuroeducation

### 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 in 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. Research Methodology

- 6.1. Research Methodology
  - 6.1.1. Introduction
  - 6.1.2. The Importance of Research Methodology
  - 6.1.3. Scientific Knowledge
  - 6.1.4. Research Approaches
  - 6.1.5. Summary
  - 6.1.6. Bibliographical References
- 6.2. Choosing the Topic to Research
  - 6.2.1. Introduction
  - 6.2.2. The Issue of Research
  - 6.2.3. Defining the Problem
  - 6.2.4. Choice of the Research Question
  - 6.2.5. Research Objectives
  - 6.2.6. Variables: Types
  - 6.2.7. Summary
  - 6.2.8. Bibliographical References

- 6.3. Research Proposal
  - 6.3.1. Introduction
  - 6.3.2. Research Hypothesis
  - 6.3.3. Feasibility of the Research Project
  - 6.3.4. Introduction and Justification of the Research
  - 6.3.5. Summary
  - 6.3.6. Bibliographical References
- 6.4. Theoretical Framework
  - 6.4.1. Introduction
  - 6.4.2. Elaboration of the Theoretical Framework
  - 6.4.3. Resources Used
  - 6.4.4. APA Standards
  - 6.4.5. Summary
  - 6.4.6. Bibliographical References
- 6.5. Bibliography
  - 6.5.1. Introduction
  - 6.5.2. Importance of Bibliographic References
  - 6.5.3. How to Reference According to APA Standards?
  - 6.5.4. Format of Annexes: Tables and Figures
  - 6.5.5. Bibliography Managers: What are They and How to Use Them?
  - 6.5.6. Summary
  - 6.5.7. Bibliographical References
- 6.6. Methodological Framework
  - 6.6.1. Introduction
  - 6.6.2. Roadmap
  - 6.6.3. Sections to be Included in the Methodological Framework
  - 6.6.4. The Population
  - 6.6.5. The Sample
  - 6.6.6. Variables
  - 6.6.7. Instruments
  - 6.6.8. Procedure
  - 6.6.9. Summary
  - 6.6.10. Bibliographical References

- 6.7. Research Designs
  - 6.7.1. Introduction
  - 6.7.2. Types of Designs
  - 6.7.3. Characteristics of the Designs Used in Psychology
  - 6.7.4. Research Designs Used in Education
  - 6.7.5. Research Designs Used in Education Neuropsychology
  - 6.7.6. Summary
  - 6.7.7. Bibliographical References
- 6.8. Quantitative Research I
  - 6.8.1. Introduction
  - 6.8.2. Designing Randomized Groups
  - 6.8.3. Designing Randomized Groups with Blocks
  - 6.8.4. Other Designs used in Psychology
  - 6.8.5. Statistical Techniques in Quantitative Research
  - 6.8.6. Summary
  - 6.8.7. Bibliographical References
- 6.9. Quantitative Research II
  - 6.9.1. Introduction
  - 6.9.2. Unifactor Intrasubject Designs
  - 6.9.3. Techniques for Controlling the Effects of Intrasubject Designs
  - 6.9.4. Statistical Techniques
  - 6.9.5. Summary
  - 6.9.6. Bibliographical References
- 6.10. Results
  - 6.10.1. Introduction
  - 6.10.2. How to Gather Data?
  - 6.10.3. How to Analyze Data?
  - 6.10.4. Statistical Programs
  - 6.10.5. Summary
  - 6.10.6. Bibliographical References
- 6.11. Descriptive Statistics
  - 6.11.1. Introduction
  - 6.11.2. Research Variables
  - 6.11.3. Quantitative Analyses
  - 6.11.4. Qualitative Analyses
  - 6.11.5. Resources that Can Be Used
  - 6.11.6. Summary
  - 6.11.7. Bibliographical References
- 6.12. Hypothesis Contrast
  - 6.12.1. Introduction
  - 6.12.2. Statistical Hypotheses
  - 6.12.3. How to Interpret Significance (P-Value)?
  - 6.12.4. Criteria for Analyzing Parametric and Non-Parametric Tests
  - 6.12.5. Summary
  - 6.12.6. Bibliographical References
- 6.13. Correlational Statistics and Independence Analysis
  - 6.13.1. Introduction
  - 6.13.2. Pearson Correlation
  - 6.13.3. Spearman's Correlation and Chi-Square
  - 6.13.4. Results
  - 6.13.5. Summary
  - 6.13.6. Bibliographical References
- 6.14. Group Comparison Statistics
  - 6.14.1. Introduction
  - 6.14.2. Mann-Whitney T-Test and Mann-Whitney U-Test
  - 6.14.3. T-Test and Wilcoxon Signed Ranges
  - 6.14.4. The Results
  - 6.14.5. Summary
  - 6.14.6. Bibliographical References

- 6.15. Discussion and Conclusions
  - 6.15.1. Introduction
  - 6.15.2. What is the Discussion?
  - 6.15.3. Organization of the Discussion
  - 6.15.4. Conclusions
  - 6.15.5. Limitations and Outlook
  - 6.15.6. Summary
  - 6.15.7. Bibliographical References
- 6.16. Producing the Final Master's Degree Dissertation
  - 6.16.1. Introduction
  - 6.16.2. Front Page and Contents
  - 6.16.3. Introduction and Justification
  - 6.16.4. Theoretical Framework
  - 6.16.5. Methodological Framework
  - 6.16.6. The Results
  - 6.16.7. Intervention Program
  - 6.16.8. Discussion and Conclusions
  - 6.16.9. Summary
  - 6.16.10. Bibliographical References

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

- 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
  - 8.4.2. Neuropsychological Field
  - 8.4.3. Intervention Programs
  - 8.4.4. Summary
  - 8.4.5. Bibliographical References
- 8.5. Conceptualization of Dyscalculia
  - 8.5.1. Introduction
  - 8.5.2. Definition of Dyscalculia
  - 8.5.3. Features
  - 8.5.4. Neuropsychological Bases
  - 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 it?
  - 8.6.4. Report
  - 8.6.5. Diagnosis
  - 8.7.6. 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 it?
  - 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. Neurolinguistic Processes, Difficulties and Intervention Programs**

- 9.1. Neurobiological Basis Involved in Language
  - 9.1.1. Introduction
  - 9.1.2. Language Definitions
  - 9.1.3. Historical Background
  - 9.1.4. Summary
  - 9.1.5. Bibliographical References
- 9.2. Language Development
  - 9.2.1. Introduction
  - 9.2.2. Appearance of Language
  - 9.2.3. Acquisition of Language
  - 9.2.4. Summary
  - 9.2.5. Bibliographical References
- 9.3. Neuropsychological Approaches to Language
  - 9.3.1. Introduction
  - 9.3.2. Brain Processes of Language
  - 9.3.3. Brain Areas Involved
  - 9.3.4. Neurolinguistic Processes
  - 9.3.5. Brain Centers Involved in Comprehension
  - 9.3.6. Summary
  - 9.3.7. Bibliographical References
- 9.4. Neuropsychology of Language Comprehension
  - 9.4.1. Introduction
  - 9.4.2. Brain Areas Involved in Comprehension
  - 9.4.3. Sounds
  - 9.4.4. Syntactic Structures for Linguistic Comprehension
  - 9.4.5. Semantic Processes and Meaningful Learning
  - 9.4.6. Reading Comprehension
  - 9.4.7. Summary
  - 9.4.8. Bibliographical References
- 9.5. Communication Through Language
  - 9.5.1. Introduction
  - 9.5.2. Language as a Tool for Communication
  - 9.5.3. Evolution of Language
  - 9.5.4. Social Communication
  - 9.5.5. Summary
  - 9.5.6. Bibliographical References
- 9.6. Language Disorders
  - 9.6.1. Introduction
  - 9.6.2. Speech and Language Disorders
  - 9.6.3. Professionals Involved in the Treatment
  - 9.6.4. Classroom Implications
  - 9.6.5. Summary
  - 9.6.6. Bibliographical References
- 9.7. Aphasia
  - 9.7.1. Introduction
  - 9.7.2. Types of Aphasia
  - 9.7.3. Diagnosis
  - 9.7.4. Assessment
  - 9.7.5. Summary
  - 9.7.6. Bibliographical References
- 9.8. Language Stimulation
  - 9.8.1. Introduction
  - 9.8.2. Importance of Language Stimulation
  - 9.8.3. Phonetic-Phonological Stimulation
  - 9.8.4. Lexical-Semantic Stimulation
  - 9.8.5. Morphosyntactic Stimulation
  - 9.8.6. Pragmatic Stimulation
  - 9.8.7. Summary
  - 9.8.8. Bibliographical References

- 9.9. Reading and Writing Disorders
  - 9.9.1. Introduction
  - 9.9.2. Delayed Reading
  - 9.9.3. Dyslexia
  - 9.9.4. Dysorthographia
  - 9.9.5. Dysgraphia
  - 9.9.6. Dyslalia
  - 9.9.7. Treatment of Reading and Writing Disorders
  - 9.9.8. Summary
  - 9.9.9. Bibliographical References
- 9.10. Evaluation and Diagnosis of Language Difficulties
  - 9.10.1. Introduction
  - 9.10.2. Language Evaluation
  - 9.10.3. Language Assessment Procedures
  - 9.10.4. Psychological Tests for Assessing Language
  - 9.10.5. Summary
  - 9.10.6. Bibliographical References
- 9.11. Intervention in Language Disorders
  - 9.11.1. Introduction
  - 9.11.2. Implementation of Improvement Programs
  - 9.11.3. Improvement Programs
  - 9.11.4. Improvement Programs Using New Technologies
  - 9.11.5. Summary
  - 9.11.6. Bibliographical References
- 9.12. Incidence of Language Difficulties on Academic Performance
  - 9.12.1. Introduction
  - 9.12.2. Linguistic Processes
  - 9.12.3. Incidence of Language Disorders
  - 9.12.4. Relationship Between Hearing and Language
  - 9.12.5. Summary
  - 9.12.6. Bibliographical References

- 9.13. Guidance for Parents and Teachers
  - 9.13.1. Introduction
  - 9.13.2. Language Stimulation
  - 9.13.3. Reading Stimulation
  - 9.13.4. Summary
  - 9.13.5. Bibliographical References

## Module 10. Emerging Educational Alternatives in the Management of Learning Difficulties

- 10.1. Introduction
- 10.2. Information and Communication Technologies (ICT)
  - 10.2.1. Theoretical Fundamentals of ICT
  - 10.2.2. Historical Development of ICT
  - 10.2.3. Classification of ICT
    - 10.2.3.1. Synchronous
    - 10.2.3.2. Asynchronous
  - 10.2.4. ICT Features
  - 10.2.5. Potential of ICT in Different Contexts of Society
- 10.3. ICT in Educational Environments
  - 10.3.1. Contribution of ICT to Education in General
    - 10.3.1.1. Tradition Education and ICT Incorporation
    - 10.3.1.2. Impact of ICT in 21st Century Education
    - 10.3.1.3. Learning and Teaching With ICT: Expectations, Realities and Potential
  - 10.3.2. ICT Approaches in the Care of Learning Difficulties
    - 10.3.2.1. ICT as an Educational Resource for the Care of Learning Difficulties
      - 10.3.2.1.1. Teaching Reading
      - 10.3.2.1.2. Teaching Writing
      - 10.3.2.1.3. Teaching Mathematics
      - 10.3.2.1.4. Attention Attention Deficit Hyperactivity Disorder (ADHD)
  - 10.3.3. Role of the Teacher in the use of ICT
    - 10.3.3.1. In the Classroom
    - 10.3.3.2. Out-of-Classroom Spaces

- 10.4. Chess and its Pedagogical Value
  - 10.4.1. Brief Historical Review of Chess
  - 10.4.2. Its Playful Nature
  - 10.4.3. Pedagogical Fundamentals of Play-Science
  - 10.4.4. Chess as an Educational Tool: In the School Context and in Socially Vulnerable Environments
  - 10.4.5. Potentials of Chess in the Teaching- Learning Process of Students with Learning Difficulties
    - 10.4.5.1. Contributions of Chess in Cognitive Activity
      - 10.4.5.1.1. Attention
      - 10.4.5.1.2. Memory
      - 10.4.5.1.3. Motivation
      - 10.4.5.1.4. Managing Emotions
      - 10.4.5.1.5. Strategic Thinking
      - 10.4.5.1.6. Intelligence
      - 10.4.5.1.7. Transfer of Learning
    - 10.4.5.2. Contributions of Chess in the Context of Executive Functions
      - 10.4.5.2.1. Organisation
      - 10.4.5.2.2. Education
      - 10.4.5.2.3. Execution (Planning, Inhibitory Control, Self-Monitoring)
      - 10.4.5.2.4. Evaluation / Review
- 10.5. Chess as a Binding Element of the School-Family-Community Triad in the Management of Learning Disabilities
  - 10.5.1. Strengths in the Use of Chess in School to Promote Family Participation in the Educational Process
  - 10.5.2. Possibilities Chess Offers to Promote Participation of the Community in Schools
- 10.6. Meditation: From Spiritual Practice to its Current Expansion
  - 10.6.1. A Brief Approach to Meditation as an Educational Tool
    - 10.6.1.1. Concept of Meditation
    - 10.6.1.2. Origin of Meditation
    - 10.6.1.3. Its Expansion into Different Fields
- 10.7. Use of the Educational Potential of Meditation, for the Management of Learning Difficulties and Attention to Diversity
  - 10.7.1. Scientific Evidence of the Effects of Meditation on the Body, Brain and Interpersonal Relationships
    - 10.7.1.1. Neurological Effects: Structural, Biochemical and Functional in the Brain
    - 10.7.1.2. Psychological Effects
    - 10.7.1.3. Physical Effects
  - 10.7.2. Impact of Meditation Practice in Schoolchildren
  - 10.7.3. Impact of Meditation on Teacher's Modes of Action
  - 10.7.4. Impact of Meditation Practice in School Environment
- 10.8. Activities for the Integration of Knowledge and its Practical Application
- 10.9. Recommending Readings
- 10.10. Bibliography



*A complete program that will take you through the knowledge you need to compete among the best"*

06

# Methodology

This 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 Global University we use the Case Method

In a given situation, what should a professional do? Throughout the program students will be presented with multiple simulated cases based on real situations, where they will have to investigate, establish hypotheses and, finally, resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method.

*With TECH, educators can experience a learning methodology that is shaking the foundations of traditional universities around the world.*



*It is a technique that develops critical skills and prepares educators to make decisions, defend their arguments, and contrast opinions.*

“

*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. Educators who follow this method not only grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their knowledge.
2. The learning process is solidly focused on practical skills that allow educators to better integrate the knowledge into daily practice.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life teaching.
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 case studies with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, which represent a real revolution with respect to simply studying and analyzing cases.



*Educators 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).

With this methodology we have trained more than 85,000 educators with unprecedented success in all specialties. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

*Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to 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 specialist educators who teach the course, specifically for the course, so that the teaching content is really 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.



#### Educational Techniques and Procedures on Video

TECH introduces students to the latest techniques, with the latest educational advances, and to the forefront of Education. All this, first-hand, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as many times as you want.



#### 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 multimedia content presentation training Exclusive system 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 your 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 Professional Master's Degree in Neuropsychology and Education guarantees students, in addition to the most rigorous and up-to-date education, access to a Professional Master's Degree diploma 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 program will allow you to obtain your **Professional Master's Degree diploma in Neuropsychology and Education** 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.

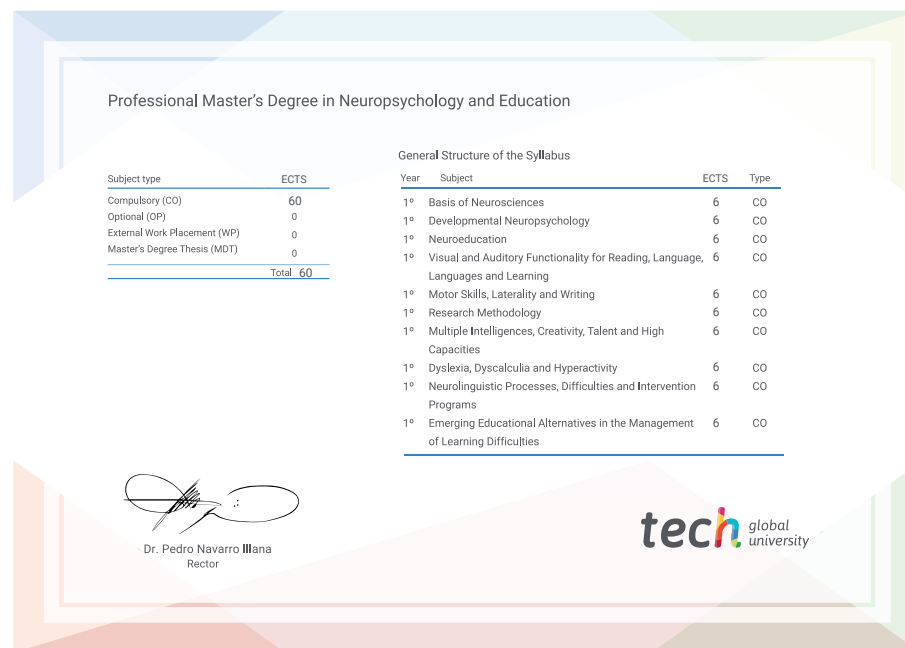
This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Professional Master's Degree in Neuropsychology and Education**

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.



## Professional Master's Degree

### Neuropsychology and Education

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

# Professional Master's Degree Neuropsychology and Education

