

# Professional Master's Degree

## Neuropsychology Research



## Professional Master's Degree Neuropsychology Research

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

Website: [www.techtitude.com/us/education/professional-master-degree/master-neuropsychology-research](http://www.techtitude.com/us/education/professional-master-degree/master-neuropsychology-research)

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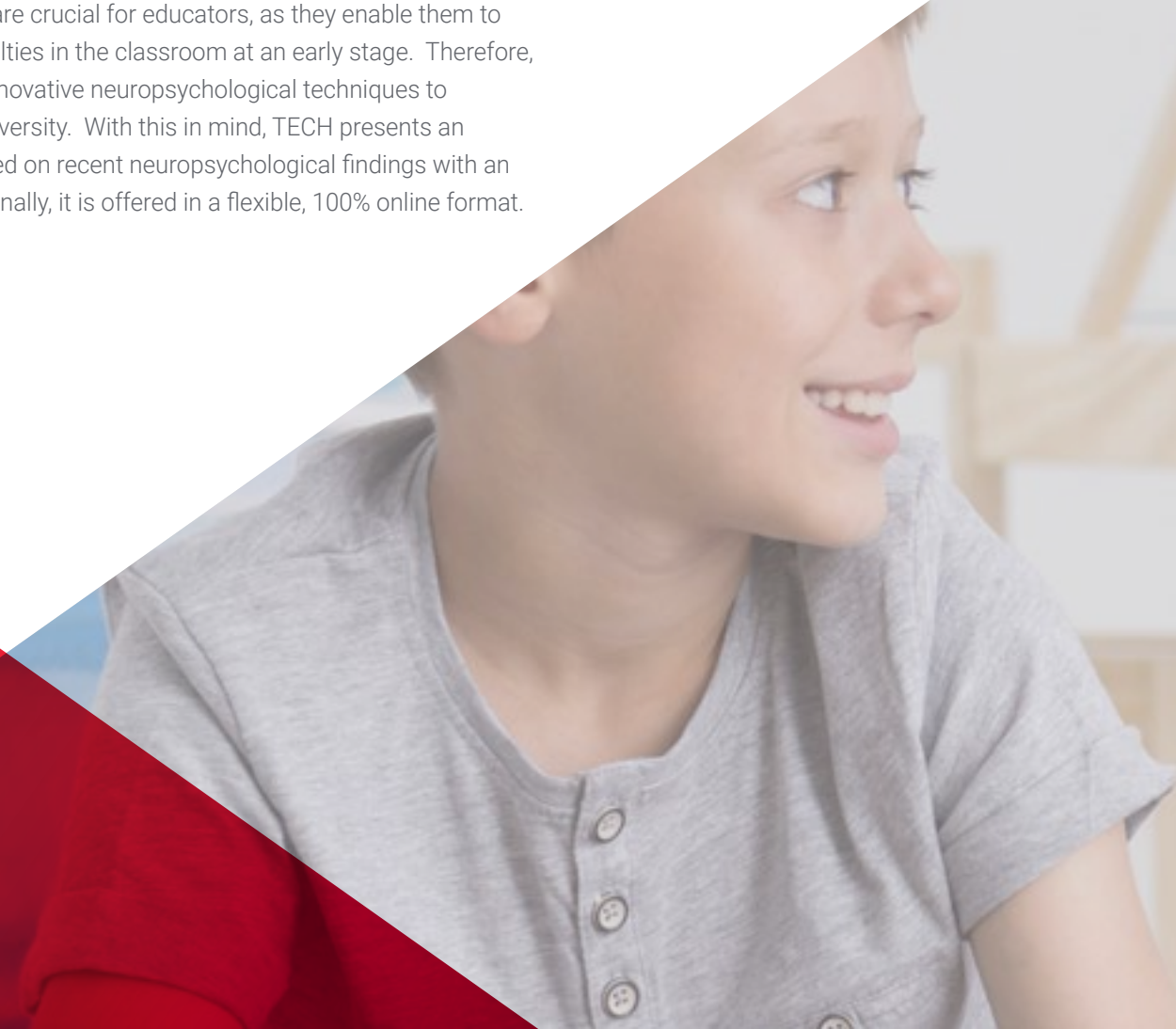
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# 01

# Introduction to the Program

In recent decades, advances in Neuropsychology have enabled a deeper understanding of the cognitive processes underlying learning. This discipline provides key evidence on how skills such as memory, attention, language, and executive functions develop. These insights are crucial for educators, as they enable them to identify and address learning difficulties in the classroom at an early stage. Therefore, experts need to master the most innovative neuropsychological techniques to optimize educational attention to diversity. With this in mind, TECH presents an exclusive university program focused on recent neuropsychological findings with an education-based approach. Additionally, it is offered in a flexible, 100% online format.



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*With this fully online Professional Master's Degree, you will design evidence-based neuropsychological strategies to address learning difficulties in the classroom.*



Understanding brain function and its direct influence on learning has opened new possibilities for tackling educational challenges from a scientific perspective. In this context, Neuropsychology emerges as a fundamental discipline to analyze, assess, and intervene in cognitive, linguistic, sensory, and emotional processes that affect academic development. Specialists in this field need to master the most sophisticated techniques to detect learning difficulties in the classroom. Only in this way can they adapt their teaching practices to meet the cognitive, emotional, and behavioral needs of students.

In response to this, TECH Global University presents this innovative Professional Master's Degree in Neuropsychology Research. The academic pathway will delve into the neuropsychological aspects of vision and hearing that are essential for language development, reading, and learning. Additionally, the syllabus will cover the fundamentals of sensory anatomy, offering numerous intervention strategies in the classroom to address visual and auditory dysfunctions. As a result, graduates will acquire the competencies needed to detect warning signs and create specific improvement programs that optimize the cognitive and communicative processes of students with difficulties.

It is worth noting that this university qualification becomes even more dynamic thanks to the multimedia capsules and the wide variety of teaching resources provided by TECH (such as specialized readings, interactive summaries, and case studies). Additionally, TECH's Relearning methodology will allow professionals to experience natural and progressive learning. In this way, experts will not need to invest long hours in studying or rely on traditional methods like memorization. In this regard, they will only require an electronic device with internet access to access the Virtual Campus.

This **Professional Master's Degree in Neuropsychology Research** contains the most complete and up-to-date university program on the market. Its most notable features are:

- ♦ The development of practical cases presented by experts in Neuropsychology Research
- ♦ Graphic, schematic, and practical contents which provide scientific and practical information on the disciplines that are essential for professional practice
- ♦ Practical exercises where the process of self-assessment can be used to improve learning
- ♦ Its special emphasis on innovative methodologies in Neuropsychology Research
- ♦ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ♦ Content that is accessible from any fixed or portable device with an Internet connection



*You will acquire advanced skills to critically interpret Neuropsychology research and evaluate its applicability in school settings"*

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*You will delve into the application of evidence-based pedagogical strategies for the early detection of cases with specific support needs”*

The teaching staff includes professionals from the field of Neuropsychology Research, who bring their work experience to this program, along with recognized specialists from leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide an immersive learning experience designed to prepare for real-life situations.

This program is designed around Problem-Based Learning, whereby the student must try to solve the different professional practice situations that arise throughout the program. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts.

*You will understand the neuropsychological foundations that explain learning, attention, and language processes in educational contexts.*

*Take advantage of all the benefits of TECH's Relearning methodology, which will allow you to organize your time and study pace.*



02

# Why Study at TECH?

TECH is the world's largest online university. With an impressive catalog of more than 14,000 university programs, available in 11 languages, it is positioned as a leader in employability, with a 99% job placement rate. In addition, it has a huge faculty of more than 6,000 professors of the highest international prestige.





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*Study at the largest online university in the world and ensure your professional success. The future begins at TECH”*

**The world's best online university, according to FORBES**

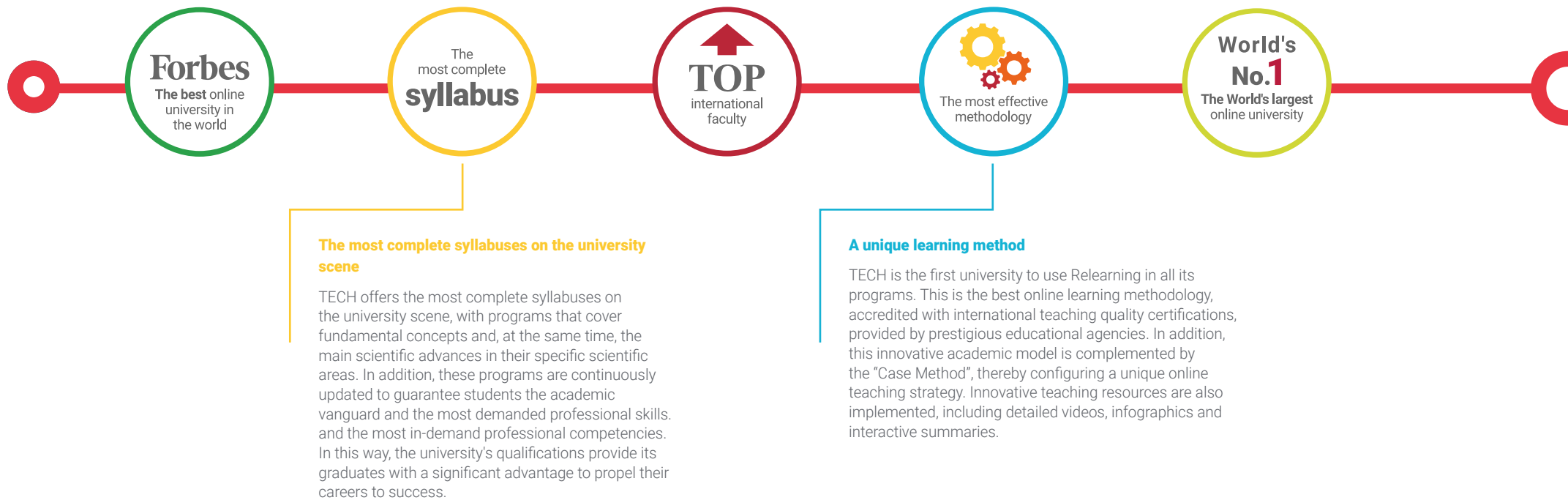
The prestigious Forbes magazine, specialized in business and finance, has highlighted TECH as "the best online university in the world" This is what they have recently stated in an article in their digital edition in which they echo the success story of this institution, "thanks to the academic offer it provides, the selection of its teaching staff, and an innovative learning method oriented to form the professionals of the future".

**The best top international faculty**

TECH's faculty is made up of more than 6,000 professors of the highest international prestige. Professors, researchers and top executives of multinational companies, including Isaiah Covington, performance coach of the Boston Celtics; Magda Romanska, principal investigator at Harvard MetaLAB; Ignacio Wistumba, chairman of the department of translational molecular pathology at MD Anderson Cancer Center; and D.W. Pine, creative director of TIME magazine, among others.

**The world's largest online university**

TECH is the world's largest online university. We are the largest educational institution, with the best and widest digital educational catalog, one hundred percent online and covering most areas of knowledge. We offer the largest selection of our own degrees and accredited online undergraduate and postgraduate degrees. In total, more than 14,000 university programs, in ten different languages, making us the largest educational institution in the world.



#### The official online university of the NBA

TECH is the official online university of the NBA. Thanks to our agreement with the biggest league in basketball, we offer our students exclusive university programs, as well as a wide variety of educational resources focused on the business of the league and other areas of the sports industry. Each program is made up of a uniquely designed syllabus and features exceptional guest hosts: professionals with a distinguished sports background who will offer their expertise on the most relevant topics.

#### Leaders in employability

TECH has become the leading university in employability. Ninety-nine percent of its students obtain jobs in the academic field they have studied within one year of completing any of the university's programs. A similar number achieve immediate career enhancement. All this thanks to a study methodology that bases its effectiveness on the acquisition of practical skills, which are absolutely necessary for professional development.



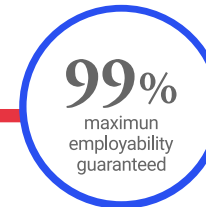
#### Google Premier Partner

The American technology giant has awarded TECH the Google Premier Partner badge. This award, which is only available to 3% of the world's companies, highlights the efficient, flexible and tailored experience that this university provides to students. The recognition not only accredits the maximum rigor, performance and investment in TECH's digital infrastructures, but also places this university as one of the world's leading technology companies.



#### The top-rated university by its students

Students have positioned TECH as the world's top-rated university on the main review websites, with a highest rating of 4.9 out of 5, obtained from more than 1,000 reviews. These results consolidate TECH as the benchmark university institution at an international level, reflecting the excellence and positive impact of its educational model.



# 03 Syllabus

The content of this university program has been designed by specialists in Educational Neuropsychology. The syllabus delves into the cognitive, sensory, and motor development of children and adolescents, addressing difficulties such as dyslexia, dyscalculia, and ADHD. Additionally, it includes strategies for assessment, intervention, and the use of ICT in school settings. Through a practical and scientific approach, graduates will be able to design effective pedagogical actions, foster critical thinking, and address diversity from a Neuropsychological perspective, enhancing academic performance and the well-being of students with specific educational support needs.





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*You will promote teaching practices grounded in neuroscientific, ethical, and methodologically sound principles”*

## Module 1. Visual and Auditory Functionality for Reading, Language, Languages and Learning

- 1.1. Vision: Functioning and Neuropsychological Bases
  - 1.1.1. Introduction
  - 1.1.2. Development of the Visual System at Birth
  - 1.1.3. Risk Factors
  - 1.1.4. Development of Other Sensory Systems During Infancy
  - 1.1.5. Influence of Vision on the Visuomotor System and its Development
  - 1.1.6. Normal and Binocular Vision
  - 1.1.7. Anatomy of Human Eyes
  - 1.1.8. Eye Functions
  - 1.1.9. Other Functions
  - 1.1.10. Visual Pathways to the Cerebral Cortex
  - 1.1.11. Elements that Favor Visual Perception
  - 1.1.12. Vision Diseases and Alterations
  - 1.1.13. Most Common Eye Disorders or Diseases: Classroom Interventions
  - 1.1.14. Computer Vision Syndrome (CVS)
  - 1.1.15. Attitudinal Observation of the Student
  - 1.1.16. Summary
  - 1.1.17. Bibliographic References
- 1.2. Visual Perception, Assessment and Intervention Programs
  - 1.2.1. Introduction
  - 1.2.2. Human Development: Development of the Sensory Systems
  - 1.2.3. Sensory Perception
  - 1.2.4. Neurodevelopment
  - 1.2.5. Description of the Perceptual Process
  - 1.2.6. Color Perception
  - 1.2.7. Perception and Visual Skills
  - 1.2.8. Evaluation of Visual Perception
  - 1.2.9. Intervention for the Improvement of Visual Perception
  - 1.2.10. Summary
  - 1.2.11. Bibliographic References
- 1.3. Tracking Eye Movements
  - 1.3.1. Introduction
  - 1.3.2. Eye Movements
  - 1.3.3. Tracking Eye Movements
  - 1.3.4. Ocular Motility Recording and Assessment
  - 1.3.5. Ocular Motility-Related Disorders
  - 1.3.6. The Visual System and Reading
  - 1.3.7. Development of Skills in Learning to Read
  - 1.3.8. Improvement and Training Programs and Activities
  - 1.3.9. Summary
  - 1.3.10. Bibliographic References
- 1.4. Saccadic Movements and Their Implication in Reading
  - 1.4.1. Introduction
  - 1.4.2. Models of the Reading Process
  - 1.4.3. Saccadic Movements and Their Relation to Reading
  - 1.4.4. How Saccadic Movements are Assessed
  - 1.4.5. The Reading Process at the Visual Level
  - 1.4.6. Visual Memory in the Reading Process
  - 1.4.7. Investigations to Study the Relationship Between Visual Memory and Reading
  - 1.4.8. Reading Difficulties
  - 1.4.9. Specialized Teachers
  - 1.4.10. Social Educators
  - 1.4.11. Summary
  - 1.4.12. Bibliographic References
- 1.5. Visual Accommodation and its Relation to Posture in the Classroom
  - 1.5.1. Introduction
  - 1.5.2. Mechanisms that Allow for Accommodation or Focus
  - 1.5.3. How is Visual Accommodation Assessed?
  - 1.5.4. Body Posture in the Classroom
  - 1.5.5. Visual Accommodation Training Programs
  - 1.5.6. Aids for Visually Impaired Students
  - 1.5.7. Summary
  - 1.5.8. Bibliographic References

- 1.6. Structure and Function of the Ear
  - 1.6.1. Introduction
  - 1.6.2. The World of Sound
  - 1.6.3. Sound and its Propagation
  - 1.6.4. The Auditory Receptors
  - 1.6.5. Ear Structure
  - 1.6.6. Development of the Hearing System at Birth
  - 1.6.7. Development of Sensory Systems during Infancy
  - 1.6.8. Influence of the Ear on Balance Development
  - 1.6.9. Ear Diseases
  - 1.6.10. Summary
  - 1.6.11. Bibliographic References
- 1.7. Auditory Perception
  - 1.1.1. Introduction
  - 1.1.2. Guidelines for Detecting Auditory Perception Problems
  - 1.1.3. The Perceptive Process
  - 1.1.4. Role of the Auditory Pathways in Perceptual Processes
  - 1.1.5. Children with Impaired Auditory Perception
  - 1.1.6. Evaluation Tests
  - 1.1.7. Summary
  - 1.1.8. Bibliographic References
- 1.8. Evaluation of Hearing and its Alterations
  - 1.8.1. Introduction
  - 1.8.2. Evaluation of the External Auditory Canal
  - 1.8.3. Otoscopy
  - 1.8.4. Air Audiometry
  - 1.8.5. Bone Conduction Hearing
  - 1.8.6. Curve of the Pain Threshold
  - 1.8.7. Tone Audiometry, Vocal Audiometry and Acoustic Audiometry
  - 1.8.8. Hearing Impairment: Degrees and Types of Hearing Loss
  - 1.8.9. Causes of Hearing Loss
  - 1.8.10. Psychobiological Aspects of Hearing Impairment
  - 1.8.11. Summary
  - 1.8.12. Bibliographic References
- 1.9. Hearing and Learning Development
  - 1.9.1. Introduction
  - 1.9.2. Development of the Human Ear
  - 1.9.3. Programs, Activities and Games for Auditory Development in Children
  - 1.9.4. Berard Method
  - 1.9.5. Tomatis Method
  - 1.9.6. Visual and Hearing Health
  - 1.9.7. Adaptations of Curricular Elements
  - 1.9.8. Summary
  - 1.9.10. Bibliographic References
- 1.10. Vision and Hearing Processes Involved in Reading
  - 1.10.1. Introduction
  - 1.10.2. Tracking Eye Movements
  - 1.10.3. The Visual System and Reading
  - 1.10.4. Dyslexia
  - 1.10.5. Color-Based Therapies for Dyslexia
  - 1.10.6. Visual Impairment Aids
  - 1.10.7. Summary
  - 1.10.8. Bibliographic References
- 1.11. Relationship Between Vision and Hearing in Language
  - 1.11.1. Introduction
  - 1.11.2. Relationship Between Vision and Hearing
  - 1.11.3. Verbal-Auditory and Visual Information Processing
  - 1.11.4. Intervention Programs for Hearing Disorders
  - 1.11.5. Guidelines for Teachers
  - 1.11.6. Summary
  - 1.11.7. Bibliographic References

## Module 2. Motor Skills, Laterality and Writing

- 2.1. Neurodevelopment and Learning
  - 2.1.1. Introduction
  - 2.1.2. Perceptual Development
  - 2.1.3. Neuropsychological Basis of Motor Development
  - 2.1.4. Laterality Development
  - 2.1.5. Interhemispheric Communication through the Corpus Callosum
  - 2.1.6. Ambidextrousness
  - 2.1.7. Summary
  - 2.1.8. Bibliographic References
- 2.2. Psychomotor Development
  - 2.2.1. Introduction
  - 2.2.2. Gross Psychomotricity
  - 2.2.3. General Dynamic Coordination: Basic Skills
  - 2.2.4. Fine Motor Skills and their Relationship with Writing
  - 2.2.5. Psychomotor Development Assessment
  - 2.2.6. Summary
  - 2.2.7. Bibliographic References
- 2.3. Neuropsychology of Motor Development
  - 2.3.1. Introduction
  - 2.3.2. Relationship between Motor and Psychism
  - 2.3.3. Disorders of Motor Development
  - 2.3.4. Coordination Acquisition Disorders
  - 2.3.5. Vestibular System Disorders
  - 2.3.6. Writing
  - 2.3.7. Summary
  - 2.3.8. Bibliographic References
- 2.4. Introduction to Laterality Development
  - 2.4.1. Introduction
  - 2.4.2. Laterality Tests
  - 2.4.3. Observation Guidelines for Teachers
  - 2.4.4. Crossed Laterality
  - 2.4.5. Types of Cross Laterality
  - 2.4.6. Relationship between Dyslexia and Laterality
  - 2.4.7. Relationship between Laterality and Attention, Memory and Hyperactivity Problems
  - 2.4.8. Summary
  - 2.4.9. Bibliographic References
- 2.5. Development of Laterality at Different Ages
  - 2.5.1. Introduction
  - 2.5.2. Laterality Definition
  - 2.5.3. Types of Laterality
  - 2.5.4. Corpus Callosum
  - 2.5.5. Cerebral Hemispheres
  - 2.5.6. Development of the Prelateral, Contralateral and Lateral Stages
  - 2.5.7. Summary
  - 2.5.8. Bibliographic References
- 2.6. Motor Disorders and Related Learning Difficulties
  - 2.6.1. Introduction
  - 2.6.2. Motor Disorders
  - 2.6.3. Learning Difficulties
  - 2.6.4. Summary
  - 2.6.5. Bibliographic References
- 2.7. Writing Process and Acquisition
  - 2.7.1. Introduction
  - 2.7.2. Reading Difficulties
  - 2.7.3. Comprehension Problems that Students May Develop
  - 2.7.4. Evolutionary Development of Writing
  - 2.7.5. History of Writing
  - 2.7.6. Neuropsychological Basis of Writing
  - 2.7.7. Teaching Written Expression
  - 2.7.8. Methods of Teaching Writing
  - 2.7.9. Writing Workshops
  - 2.7.10. Summary
  - 2.7.11. Bibliographic References



- 2.8. Dysgraphia
  - 2.8.1. Introduction
  - 2.8.2. Learning Styles
  - 2.8.3. Executive Functions Involved in Learning
  - 2.8.4. Definition of Dysgraphia and Types
  - 2.8.5. Common Indicators of Dysgraphia
  - 2.8.6. Classroom Aids for Students with Dysgraphia
  - 2.8.7. Individual Aids
  - 2.8.8. Summary
  - 2.8.9. Bibliographic References
- 2.9. Contribution of Laterality to the Development of Reading and Writing
  - 2.9.1. Introduction
  - 2.9.2. Importance of Laterality in the Learning Process
  - 2.9.3. Laterality in the Reading and Writing Processes
  - 2.9.4. Laterality and Learning Difficulties
  - 2.9.5. Summary
  - 2.9.6. Bibliographic References
- 2.10. Role of the School Psychologist and Guidance Counselors for Prevention, Development and Learning Difficulties
  - 2.10.1. Introduction
  - 2.10.2. The Guidance Department
  - 2.10.3. Intervention Programs
  - 2.10.4. Advances of Neuropsychology in Learning Difficulties
  - 2.10.5. Training the Teaching Staff
  - 2.10.6. Summary
  - 2.10.7. Bibliographic References
- 2.11. Parent Orientation
  - 2.11.1. How to Inform Parents
  - 2.11.2. Activities to Improve Academic Performance
  - 2.11.3. Activities to Improve Lateral Development
  - 2.11.4. Problem-Solving Strategies
  - 2.11.5. Summary
  - 2.11.6. Bibliographic References

- 2.12. Psychomotor Assessment and Intervention
  - 2.12.1. Introduction
  - 2.12.2. Psychomotor Development
  - 2.12.3. Psychomotor Assessment
  - 2.12.4. Psychomotor Intervention
  - 2.12.5. Summary
  - 2.12.6. Bibliographic References

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

- 3.1. The Brain's Involvement in Memory and Learning
  - 3.1.1. Introduction
  - 3.1.2. Research on the Brain
  - 3.1.3. Influence on Learning
  - 3.1.4. Early Cognitive Skills
  - 3.1.5. Environmental Enrichment
  - 3.1.6. ICT Resources for Learning
  - 3.1.7. Summary
  - 3.1.8. Bibliographic References
- 3.2. Neurobiological Principles of Memory
  - 3.2.1. Introduction
  - 3.2.2. Concept of Memory
  - 3.2.3. Neuropsychology of Memory
  - 3.2.4. Research on Memory
  - 3.2.5. Summary
  - 3.2.6. Bibliographic References
- 3.3. Basic Processes of Memory
  - 3.3.1. Encoding Processes
  - 3.3.2. Storage Processes
  - 3.3.3. Recovery Processes
  - 3.3.4. Levels of Processing
  - 3.3.5. Summary
  - 3.3.6. Bibliographic References

- 3.4. Amnesias
  - 3.4.1. Classification
  - 3.4.2. Main Amnesic Syndromes
  - 3.4.3. Other Pathologies Associated with Amnesic Syndromes
  - 3.4.4. Amnesic Syndrome and Psychogenic Amnesia
  - 3.4.5. Summary
  - 3.4.6. Bibliographic References
- 3.5. Cognitive Distortions and Alterations
  - 3.5.1. Cognitive Distortions
  - 3.5.2. Memory Distortions
  - 3.5.3. Alterations of Memory
  - 3.5.4. Summary
  - 3.5.5. Bibliographic References
- 3.6. Learning Styles
  - 3.6.1. Introduction
  - 3.6.2. Information Processing
  - 3.6.3. Access to Knowledge
  - 3.6.4. Multiple Intelligences Models
  - 3.6.5. Bloom's Taxonomy
  - 3.6.6. Summary
  - 3.6.7. Bibliographic References
- 3.7. Skills and Strategies for Learning to Think
  - 3.7.1. Introduction
  - 3.7.2. Learn to Think Program
  - 3.7.3. Instrumental Enrichment Program
  - 3.7.4. Harvard Intelligence Program
  - 3.7.5. Technology-Based Programs
  - 3.7.6. Strategies for Cooperative Work
  - 3.7.7. Summary
  - 3.7.8. Bibliographic References
- 3.8. Neurobiological Foundations Involved in Thinking
  - 3.8.1. Introduction
  - 3.8.2. Learning to Think
  - 3.8.3. Neuropsychology of Thinking and Learning
  - 3.8.4. Cognitive Theories of Thinking and Learning
  - 3.8.5. Cognition and Metacognition
  - 3.8.6. Summary
  - 3.8.7. Bibliographic References
- 3.9. Intervention in Memory, Thinking Skills and Strategies
  - 3.9.1. Introduction
  - 3.9.2. Improvement Programs
  - 3.9.3. Programs for the Acquisition of Thinking Skills
  - 3.9.4. Technology Programs
  - 3.9.5. The Guidance Department
  - 3.9.6. Summary
  - 3.9.7. Bibliographic References
- 3.10. Family Guidance
  - 3.10.1. Introduction
  - 3.10.2. Fostering Brain Development
  - 3.10.3. Early Use of Resources
  - 3.10.4. Study and Memory Guidance
  - 3.10.5. Summary
  - 3.10.6. Bibliographic References
- 3.11. Technological Tools and Resources for Improving Thinking and Memory
  - 3.11.1. Introduction
  - 3.11.2. Use of Interactive Whiteboards (IWB) in the Classroom
  - 3.11.3. Use of Tablets in the Classroom
  - 3.11.4. Augmented Reality
  - 3.11.5. Robotics
  - 3.11.6. Summary
  - 3.11.7. Bibliographic References

## 3.12. Educational Change as a Result of New Technologies

- 3.12.1. Introduction
- 3.12.2. Reasons for Change
- 3.12.3. Key Elements of Change
- 3.12.4. New Conceptions of Learning: Models
- 3.12.5. Proposals for Change
- 3.12.6. Summary
- 3.12.7. Bibliographic References

## 3.13. Study Methods for Efficient Learning with ICT

- 3.13.1. Introduction
- 3.13.2. Comprehensive Reading
- 3.13.3. Strategies for Memory Improvement
- 3.13.4. Benefits of Asking Questions
- 3.13.5. Study Techniques and Methods
- 3.13.6. Summary
- 3.13.7. Bibliographic References

**Module 4. Research Methodology I**

## 4.1. Research Methodology

- 4.1.1. Introduction
- 4.1.2. The Importance of Research Methodology
- 4.1.3. Scientific Knowledge
- 4.1.4. Research Approaches
- 4.1.5. Summary
- 4.1.6. Bibliographic References

## 4.2. Choosing the Topic to Research

- 4.2.1. Introduction
- 4.2.2. The Issue of Research
- 4.2.3. Defining the Problem
- 4.2.4. Choice of the Research Question
- 4.2.5. Research Objectives
- 4.2.6. Variables: Types
- 4.2.7. Summary
- 4.2.8. Bibliographic References

## 4.3. Research Proposal

- 4.3.1. Introduction
- 4.3.2. Research Hypothesis
- 4.3.3. Feasibility of the Research Project
- 4.3.4. Introduction and Justification of the Research
- 4.3.5. Summary
- 4.3.6. Bibliographic References

## 4.4. Theoretical Framework

- 4.4.1. Introduction
- 4.4.2. Elaboration of the Theoretical Framework
- 4.4.3. Resources Used
- 4.4.4. APA Standards
- 4.4.5. Summary
- 4.4.6. Bibliographic References

## 4.5. Bibliography

- 4.5.1. Introduction
- 4.5.2. Importance of Bibliographic References
- 4.5.3. How to Reference According to APA Standards
- 4.5.4. Format of Annexes: Tables and Figures
- 4.5.5. Bibliography Managers: What Are They and How to Use Them
- 4.5.6. Summary
- 4.5.7. Bibliographic References

## 4.6. Methodological Framework

- 4.6.1. Introduction
- 4.6.2. Roadmap
- 4.6.3. Sections to Be Included in the Methodological Framework
- 4.6.4. The Population
- 4.6.5. The Sample
- 4.6.6. Variables
- 4.6.7. Assessment Instruments
- 4.6.8. Procedure
- 4.6.9. Summary
- 4.6.10. Bibliographic References

- 4.7. Research Designs
  - 4.7.1. Introduction
  - 4.7.2. Types of Designs
  - 4.7.3. Characteristics of the Designs Used in Psychology
  - 4.7.4. Research Designs Used in Education
  - 4.7.5. Research Designs Used in Education Neuropsychology
  - 4.7.6. Summary
  - 4.7.7. Bibliographic References
- 4.8. Quantitative Research
  - 4.8.1. Introduction
  - 4.8.2. Designing Randomized Groups
  - 4.8.3. Designing Randomized Groups with Blocks
  - 4.8.4. Other Designs used in Psychology
  - 4.8.5. Statistical Techniques in Quantitative Research
  - 4.8.6. Summary
  - 4.8.7. Bibliographic References
- 4.9. Quantitative Research
  - 4.9.1. Introduction
  - 4.9.2. Unifactorial Intrasubject Designs
  - 4.9.3. Techniques for Controlling the Effects of Intrasubject Designs
  - 4.9.4. Statistical Techniques
  - 4.9.5. Summary
  - 4.9.6. Bibliographic References
- 4.10. Results
  - 4.10.1. Introduction
  - 4.10.2. How to Gather Data
  - 4.10.3. How to Analyze Data
  - 4.10.4. Statistical Programs
  - 4.10.5. Summary
  - 4.10.6. Bibliographic References
- 4.11. Descriptive Statistics
  - 4.11.1. Introduction
  - 4.11.2. Research Variables
  - 4.11.3. Quantitative Analyses
  - 4.11.4. Qualitative Analyses
  - 4.11.5. Resources that Can Be Used
  - 4.11.6. Summary
  - 4.11.7. Bibliographic References
- 4.12. Hypothesis Contrast
  - 4.12.1. Introduction
  - 4.12.2. Statistical Hypotheses
  - 4.12.3. How to Interpret Significance (p-value)
  - 4.12.4. Criteria for Analyzing Parametric and Non-Parametric Tests
  - 4.12.5. Summary
  - 4.12.6. Bibliographic References
- 4.13. Correlational Statistics and Independence Analysis
  - 4.13.1. Introduction
  - 4.13.2. Pearson Correlation
  - 4.13.3. Spearman's Correlation and Chi-Square
  - 4.13.4. Results
  - 4.13.5. Summary
  - 4.13.6. Bibliographic References
- 4.14. Group Comparison Statistics
  - 4.14.1. Introduction
  - 4.14.2. Mann-Whitney T-Test and Mann-Whitney U-Test
  - 4.14.3. T-Test and Wilcoxon Signed Ranges
  - 4.14.4. The Results
  - 4.14.5. Summary
  - 4.14.6. Bibliographic References



- 4.15. Discussion and Conclusions
  - 4.15.1. Introduction
  - 4.15.2. What is Discussion
  - 4.15.3. Organization of the Discussion
  - 4.15.4. Conclusions
  - 4.15.5. Limitations and Outlook
  - 4.15.6. Summary
  - 4.15.7. Bibliographic References

- 4.16. Elaboration of the Professional Masters Degree Final Project
  - 4.16.1. Introduction
  - 4.16.2. Front Page and Contents
  - 4.16.3. Introduction and Justification
  - 4.16.4. Theoretical Framework
  - 4.16.5. Methodological Framework
  - 4.16.6. The Results
  - 4.16.7. Intervention Program
  - 4.16.8. Discussion and Conclusions
  - 4.16.9. Summary
  - 4.16.10. Bibliographic References

## Module 5. Neurolinguistic Processes, Difficulties and Intervention Programs

- 5.1. Neurobiological Basis Involved in Language
  - 5.1.1. Introduction
  - 5.1.2. Language Definitions
  - 5.1.3. Historical Background
  - 5.1.4. Summary
  - 5.1.5. Bibliographic References
- 5.2. Language Development
  - 5.2.1. Introduction
  - 5.2.2. Appearance of Language
  - 5.2.3. Acquisition of Language
  - 5.2.4. Summary
  - 5.2.5. Bibliographic References

- 5.3. Neuropsychological Approaches to Language
  - 5.3.1. Introduction
  - 5.3.2. Brain Processes of Language
  - 5.3.3. Brain Areas Involved
  - 5.3.4. Neurolinguistic processes
  - 5.3.5. Brain Centers Involved in Comprehension
  - 5.3.6. Summary
  - 5.3.7. Bibliographic References
- 5.4. Neuropsychology of Language Comprehension
  - 5.4.1. Introduction
  - 5.4.2. Brain Areas Involved in Comprehension
  - 5.4.3. Sounds
  - 5.4.4. Syntactic Structures for Linguistic Comprehension
  - 5.4.5. Semantic Processes and Meaningful Learning
  - 5.4.6. Reading Comprehension
  - 5.4.7. Summary
  - 5.4.8. Bibliographic References
- 5.5. Communication Through Language
  - 5.5.1. Introduction
  - 5.5.2. Language as a Tool for Communication
  - 5.5.3. Evolution of Language
  - 5.5.4. Social Communication
  - 5.5.5. Summary
  - 5.5.6. Bibliographic References
- 5.6. Language Disorders
  - 5.6.1. Introduction
  - 5.6.2. Speech and Language Disorders
  - 5.6.3. Professionals Involved in the Treatment
  - 5.6.4. Classroom Implications
  - 5.6.5. Summary
  - 5.6.6. Bibliographic References

- 5.7. Aphasia
  - 5.7.1. Introduction
  - 5.7.2. Types of Aphasia
  - 5.7.3. Diagnosis
  - 5.7.4. Evaluation
  - 5.7.5. Summary
  - 5.7.6. Bibliographic References
- 5.8. Language Stimulation
  - 5.8.1. Introduction
  - 5.8.2. Importance of Language Stimulation
  - 5.8.3. Phonetic-Phonological Stimulation
  - 5.8.4. Lexical-Semantic Stimulation
  - 5.8.5. Morphosyntactic Stimulation
  - 5.8.6. Pragmatic Stimulation
  - 5.8.7. Summary
  - 5.8.8. Bibliographic References
- 5.9. Reading and Writing Disorders
  - 5.9.1. Introduction
  - 5.9.2. Delayed Reading
  - 5.9.3. Dyslexia
  - 5.9.4. Dysorthographia
  - 5.9.5. Dysgraphia
  - 5.9.6. Dyslalia
  - 5.9.7. Treatment of Reading and Writing Disorders
  - 5.9.8. Summary
  - 5.9.9. Bibliographic References
- 5.10. Evaluation and Diagnosis of Language Difficulties
  - 5.10.1. Introduction
  - 5.10.2. Language Assessment
  - 5.10.3. Language Assessment Procedures
  - 5.10.4. Psychological Tests for Assessing Language
  - 5.10.5. Summary
  - 5.10.6. Bibliographic References



- 5.11. Intervention in Language Disorders
  - 5.11.1. Introduction
  - 5.11.2. Implementation of Improvement Programs
  - 5.11.3. Improvement Programs
  - 5.11.4. Improvement Programs Using New Technologies
  - 5.11.5. Summary
  - 5.11.6. Bibliographic References
- 5.12. Incidence of Language Difficulties on Academic Performance
  - 5.12.1. Introduction
  - 5.12.2. Linguistic Processes
  - 5.12.3. Incidence of Language Disorders
  - 5.12.4. Relationship Between Hearing and Language
  - 5.12.5. Summary
  - 5.12.6. Bibliographic References
- 5.13. Guidance for Parents and Teachers
  - 5.13.1. Introduction
  - 5.13.2. Language Stimulation
  - 5.13.3. Reading Stimulation
  - 5.13.4. Summary
  - 5.13.5. Bibliographic References

## Module 6. Research Methodology II

- 6.1. Research in the Educational Environment
  - 6.1.1. Introduction
  - 6.1.2. Research Characteristics
  - 6.1.3. Research in the Classroom
  - 6.1.4. Keys Needed for Research
  - 6.1.5. Examples
  - 6.1.6. Summary
  - 6.1.7. Bibliographic References

- 6.2. Neuropsychological Research
  - 6.2.1. Introduction
  - 6.2.2. Educational Neuropsychological Research
  - 6.2.3. Knowledge and the Scientific Method
  - 6.2.4. Types of Approaches
  - 6.2.5. Research Stages
  - 6.2.6. Summary
  - 6.2.7. Bibliographic References
- 6.3. Reliability and Validity
  - 6.3.1. Introduction
  - 6.3.2. Reliability and Validity in Research
  - 6.3.3. Reliability and Validity in Assessment
  - 6.3.4. Summary
  - 6.3.5. Bibliographic References
- 6.4. Controlling Variables in Research
  - 6.4.1. Introduction
  - 6.4.2. Choosing Variables
  - 6.4.3. Controlling Variables
  - 6.4.4. Sample Selection
  - 6.4.5. Summary
  - 6.4.6. Bibliographic References
- 6.5. The Quantitative Research Approach
  - 6.5.1. Introduction
  - 6.5.2. Characteristics
  - 6.5.3. Stages
  - 6.5.4. Assessment Tools
  - 6.5.5. Summary
  - 6.5.6. Bibliographic References
- 6.6. Qualitative Research Approach I
  - 6.6.1. Introduction
  - 6.6.2. Systematic Observation
  - 6.6.3. Research Stages
  - 6.6.4. Sampling Techniques
  - 6.6.5. Quality Control

- 6.6.6. Statistical Techniques
- 6.6.7. Summary
- 6.6.8. Bibliographic References
- 6.7. Qualitative Research Approach II
  - 6.7.1. Introduction
  - 6.7.2. The Survey
  - 6.7.3. Sampling Techniques
  - 6.7.4. Survey Stages
  - 6.7.5. Research Designs
  - 6.7.6. Statistical Techniques
  - 6.7.7. Summary
  - 6.7.8. Bibliographic References
- 6.8. Qualitative Research Approach III
  - 6.8.1. Introduction
  - 6.8.2. Types of Interviews and Characteristics
  - 6.8.3. Preparing the Interview
  - 6.8.4. Group Interviews
  - 6.8.5. Statistical Techniques
  - 6.8.6. Summary
  - 6.8.7. Bibliographic References
- 6.9. Single Case Designs
  - 6.9.1. Introduction
  - 6.9.2. Characteristics
  - 6.9.3. Types
  - 6.9.4. Statistical Techniques
  - 6.9.5. Summary
  - 6.9.6. Bibliographic References
- 6.10. Research-Action
  - 6.10.1. Introduction
  - 6.10.2. Objectives of Research-Action
  - 6.10.3. Characteristics
  - 6.10.4. Phases
  - 6.10.5. Myths
- 6.10.6. Examples
- 6.10.7. Summary
- 6.10.8. Bibliographic References
- 6.11. Gathering Information for Research
  - 6.11.1. Introduction
  - 6.11.2. Information Collection Techniques
  - 6.11.3. Assessing Research
  - 6.11.4. Evaluation
  - 6.11.5. Result Interpretation
  - 6.11.6. Summary
  - 6.11.7. Bibliographic References
- 6.12. Data Management in Research
  - 6.12.1. Introduction
  - 6.12.2. Databases
  - 6.12.3. Data in Excel
  - 6.12.4. Data in SPSS
  - 6.12.5. Summary
  - 6.12.6. Bibliographic References
- 6.13. Spreading Results in Neuropsychology
  - 6.13.1. Introduction
  - 6.13.2. Publications
  - 6.13.3. Specialized Journals
  - 6.13.4. Summary
  - 6.13.5. Bibliographic References
- 6.14. Scientific Journals
  - 6.14.1. Introduction
  - 6.14.2. Characteristics
  - 6.14.3. Types of Journals
  - 6.14.4. Quality Indicators
  - 6.14.5. Submitting Articles

- 6.14.6. Summary
- 6.14.7. Bibliographic References
- 6.15. The Scientific Article
  - 6.15.1. Introduction
  - 6.15.2. Types and Characteristics
  - 6.15.3. Structure
  - 6.15.4. Quality Indicator
  - 6.15.5. Summary
  - 6.15.6. Bibliographic References
- 6.16. Scientific Conferences
  - 6.16.1. Introduction
  - 6.16.2. The Importance of Conferences
  - 6.16.3. Scientific Committees
  - 6.16.4. Oral Communications
  - 6.16.5. The Scientific Poster
  - 6.16.6. Summary
  - 6.16.7. Bibliographic 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. Bibliographic References

- 7.2. Types of Multiple Intelligences
  - 7.2.1. Introduction
  - 7.2.2. Types of Intelligence
  - 7.2.3. Summary
  - 7.2.4. Bibliographic 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. Bibliographic 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. Bibliographic 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. Bibliographic 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. Bibliographic 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. Bibliographic 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. Bibliographic 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. Bibliographic References
- 7.10. Identification and Diagnosis of High Capacities
  - 7.10.1. Introduction
  - 7.10.2. Main Characteristics
  - 7.10.3. How to Identify Far High-Capacity Individuals
  - 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. Bibliographic 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. Gender Differences
  - 7.11.7. Educational Needs
  - 7.11.8. Summary
  - 7.11.9. Bibliographic 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. Bibliographic 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. Bibliographic 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. Bibliographic 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. Bibliographic 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. Bibliographic References

- 8.2. Conceptualization of Dyslexia
  - 8.2.1. Introduction
  - 8.2.2. Definition
  - 8.2.3. Neuropsychological Bases
  - 8.2.4. Characteristics
  - 8.2.5. Subtypes
  - 8.2.6. Summary
  - 8.2.7. Bibliographic References
- 8.3. Neuropsychological Assessment of Dyslexia
  - 8.3.1. Introduction
  - 8.3.2. Diagnostic Criteria for Dyslexia
  - 8.3.3. How to Assess
  - 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. Bibliographic 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. Bibliographic References
- 8.5. Conceptualization of Dyscalculia
  - 8.5.1. Introduction
  - 8.5.2. Definition of Dyscalculia
  - 8.5.3. Characteristics
  - 8.5.4. Neurophysiological Basis
  - 8.5.5. Summary
  - 8.5.6. Bibliographic References

- 8.6. Neuropsychological Assessment of Dyscalculia
  - 8.6.1. Introduction
  - 8.6.2. Objectives of Evaluation
  - 8.6.3. How to Assess
  - 8.6.4. Report
  - 8.6.5. Diagnosis
  - 8.6.6. Summary
  - 8.6.7. Bibliographic 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. Bibliographic References
- 8.8. Conceptualization of ADHD
  - 8.8.1. Introduction
  - 8.8.2. ADHD Definition
  - 8.8.3. Neuropsychological Bases
  - 8.8.4. Characteristics of Children with ADHD
  - 8.8.5. Subtypes
  - 8.8.6. Summary
  - 8.8.7. Bibliographic References
- 8.9. Neuropsychological Assessment of ADHD
  - 8.9.1. Introduction
  - 8.9.2. Objectives of Evaluation
  - 8.9.3. How to Assess
  - 8.9.4. Report
  - 8.9.5. Diagnosis
  - 8.9.6. Summary
  - 8.9.7. Bibliographic References



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- 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. Bibliographic References
  - 8.11. Comorbidity in Neurodevelopmental Disorders
    - 8.11.1. Introduction
    - 8.11.2. Neurodevelopmental 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. Bibliographic 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. Bibliographic 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. Bibliographic References

04

# Teaching Objectives

This program has been designed to equip the specialist with key tools in neuropsychology applied to the educational environment. In this way, graduates will acquire the competencies to assess, intervene, and enhance learning processes, considering attention to diversity, neurological development, and specific difficulties such as dyslexia or ADHD. Furthermore, the program will delve into the use of ICT and active methodologies to improve academic performance. All of this is with a practical and current approach that will allow you to implement evidence-based interventions from child and adolescent neuropsychology.

“

*You will stand out for your ethical commitment to research practice, respect for diversity, and the improvement of educational processes.*





### General Objectives

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- ♦ Enable professionals to practice neuropsychology in the development of children and adolescents
- ♦ Learn how to carry out specific programs to improve school performance
- ♦ Access the forms and processes of neuropsychology research 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



*You will have access to the multimedia resource library and the entire syllabus from day one. No fixed schedules!”*







## Specific Objectives

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### Module 1. Visual and Auditory Functionality for Reading, Language, Languages and Learning

- ♦ Learn about the characteristics and development of the visual organs
- ♦ Understand the risk factors
- ♦ Learn how to detect, assess, and intervene in the classroom with students having visual problems
- ♦ Learn about vision training programs related to reading
- ♦ Study saccadic models
- ♦ Learn about the characteristics and development of the auditory organs
- ♦ Understand the risk factors
- ♦ Acquire the ability to work on improving hearing
- ♦ Understand the psychobiological aspects of hearing impairments
- ♦ Develop the necessary skills to make curricular adaptations in this area

### Module 2. Motor Skills, Laterality and Writing

- ♦ Learn knowledge related to the basic processes of the central nervous system
- ♦ Understand the specifics of motor and somatosensory development
- ♦ Identify and distinguish motor difficulties that may influence academic performance
- ♦ Learn about stimulation programs for improving motor difficulties

### **Module 3. Memory Processes, Skills, and ICT**

- ♦ Explore and understand the characteristics and functioning of memory processes in the specific area of learning
- ♦ Understand how the brain influences memory and learning, based on neuroscientific research
- ♦ Explore how early skills and the environment affect memory and learning
- ♦ Analyze how technologies, such as ICT, can improve memory and learning processes in educational settings

### **Module 4. Research Methodology I**

- ♦ Develop a complete research method, from topic selection to proposal and development
- ♦ Learn to conduct quantitative research and analyze results

### **Module 5. Neurolinguistic Processes, Difficulties and Intervention Programs**

- ♦ Develop an understanding of the neurobiological aspects involved in language development
- ♦ Study the neuropsychological foundations of language and the possibilities for working on and developing it
- ♦ Analyze and understand language comprehension processes, sounds, and reading comprehension
- ♦ Learn how to assess, diagnose, and intervene in language difficulties





#### **Module 6. Research Methodology II**

- ♦ Learn to develop hypothesis testing and interpretation
- ♦ Study the use of correlational statistics and group comparison and be able to apply them in research

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

- ♦ Learn all aspects related to the theory of multiple intelligences and its assessment
- ♦ Understand the neuropsychological foundations of creativity and its development in the educational context

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

- ♦ Acquire the necessary knowledge to detect and intervene in the classroom with cases of dyscalculia, dyslexia, and ADHD
- ♦ Understand the potential of neurotechnology applied to dyslexia, ADHD, and dyscalculia



05

# Study Methodology

TECH is the world's first university to combine the **case study** methodology with **Relearning**, a 100% online learning system based on guided repetition.

This disruptive pedagogical strategy has been conceived to offer professionals the opportunity to update their knowledge and develop their skills in an intensive and rigorous way. A learning model that places students at the center of the educational process giving them the leading role, adapting to their needs and leaving aside more conventional methodologies.



“

*TECH will prepare you to face new challenges in uncertain environments and achieve success in your career”*

## The student: the priority of all TECH programs

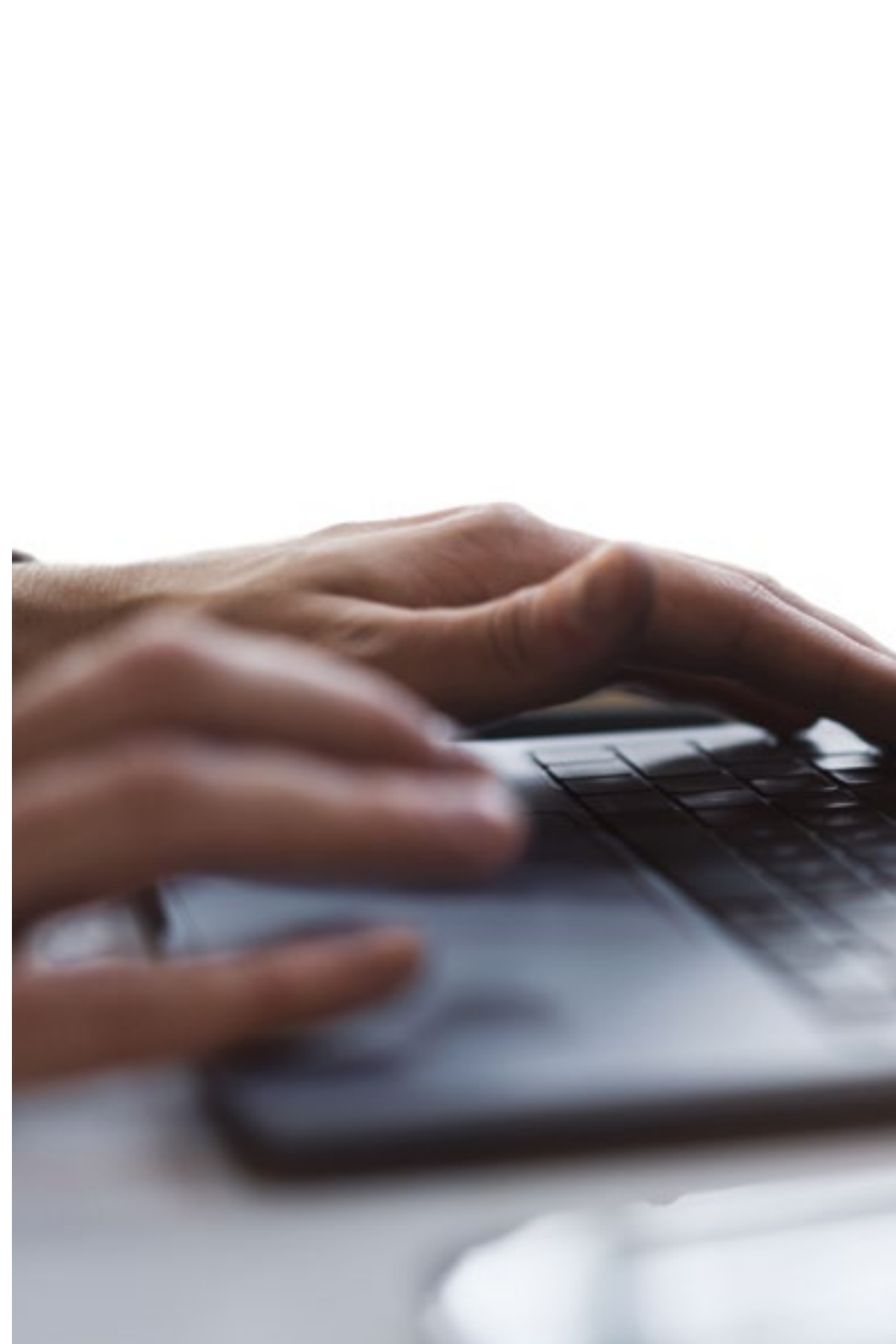
In TECH's study methodology, the student is the main protagonist.

The teaching tools of each program have been selected taking into account the demands of time, availability and academic rigor that, today, not only students demand but also the most competitive positions in the market.

With TECH's asynchronous educational model, it is students who choose the time they dedicate to study, how they decide to establish their routines, and all this from the comfort of the electronic device of their choice. The student will not have to participate in live classes, which in many cases they will not be able to attend. The learning activities will be done when it is convenient for them. They can always decide when and from where they want to study.

“

*At TECH you will NOT have live classes  
(which you might not be able to attend)”*





### The most comprehensive study plans at the international level

TECH is distinguished by offering the most complete academic itineraries on the university scene. This comprehensiveness is achieved through the creation of syllabi that not only cover the essential knowledge, but also the most recent innovations in each area.

By being constantly up to date, these programs allow students to keep up with market changes and acquire the skills most valued by employers. In this way, those who complete their studies at TECH receive a comprehensive education that provides them with a notable competitive advantage to further their careers.

And what's more, they will be able to do so from any device, pc, tablet or smartphone.

“*TECH's model is asynchronous, so it allows you to study with your pc, tablet or your smartphone wherever you want, whenever you want and for as long as you want*”

## Case Studies and Case Method

The case method has been the learning system most used by the world's best business schools. Developed in 1912 so that law students would not only learn the law based on theoretical content, its function was also to present them with real complex situations. In this way, they could make informed decisions and value judgments about how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

With this teaching model, it is students themselves who build their professional competence through strategies such as Learning by Doing or Design Thinking, used by other renowned institutions such as Yale or Stanford.

This action-oriented method will be applied throughout the entire academic itinerary that the student undertakes with TECH. Students will be confronted with multiple real-life situations and will have to integrate knowledge, research, discuss and defend their ideas and decisions. All this with the premise of answering the question of how they would act when facing specific events of complexity in their daily work.



## Relearning Methodology

At TECH, case studies are enhanced with the best 100% online teaching method: Relearning.

This method breaks with traditional teaching techniques to put the student at the center of the equation, providing the best content in different formats. In this way, it manages to review and reiterate the key concepts of each subject and learn to apply them in a real context.

In the same line, and according to multiple scientific researches, reiteration is the best way to learn. For this reason, TECH offers between 8 and 16 repetitions of each key concept within the same lesson, presented in a different way, with the objective of ensuring that the knowledge is completely consolidated during the study process.

*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.*



## A 100% online Virtual Campus with the best teaching resources

In order to apply its methodology effectively, TECH focuses on providing graduates with teaching materials in different formats: texts, interactive videos, illustrations and knowledge maps, among others. All of them are designed by qualified teachers who focus their work on combining real cases with the resolution of complex situations through simulation, the study of contexts applied to each professional career and learning based on repetition, through audios, presentations, animations, images, etc.

The latest scientific evidence in the field of Neuroscience points to the importance of taking into account the place and context where the content is accessed before starting a new learning process. Being able to adjust these variables in a personalized way helps people to remember and store knowledge in the hippocampus to retain it in the long term. This is a model called Neurocognitive context-dependent e-learning that is consciously applied in this university qualification.

In order to facilitate tutor-student contact as much as possible, you will have a wide range of communication possibilities, both in real time and delayed (internal messaging, telephone answering service, email contact with the technical secretary, chat and videoconferences).

Likewise, this very complete Virtual Campus will allow TECH students to organize their study schedules according to their personal availability or work obligations. In this way, they will have global control of the academic content and teaching tools, based on their fast-paced professional update.



*The online study mode of this program will allow you to organize your time and learning pace, adapting it to your schedule"*

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

1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that assess real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
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.



### The university methodology top-rated by its students

The results of this innovative teaching model can be seen in the overall satisfaction levels of TECH graduates.

The students' assessment of the teaching quality, the quality of the materials, the structure of the program and its objectives is excellent. Not surprisingly, the institution became the top-rated university by its students according to the global score index, obtaining a 4.9 out of 5.

*Access the study contents from any device with an Internet connection (computer, tablet, smartphone) thanks to the fact that TECH is at the forefront of technology and teaching.*

*You will be able to learn with the advantages that come with having access to simulated learning environments and the learning by observation approach, that is, Learning from an expert.*



As such, the best educational materials, thoroughly prepared, will be available in this program:



#### 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.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.



#### Practicing Skills and Abilities

You will carry out activities to develop specific competencies and skills in each thematic field. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop within the framework of the globalization we live in.



#### Interactive Summaries

We present 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".

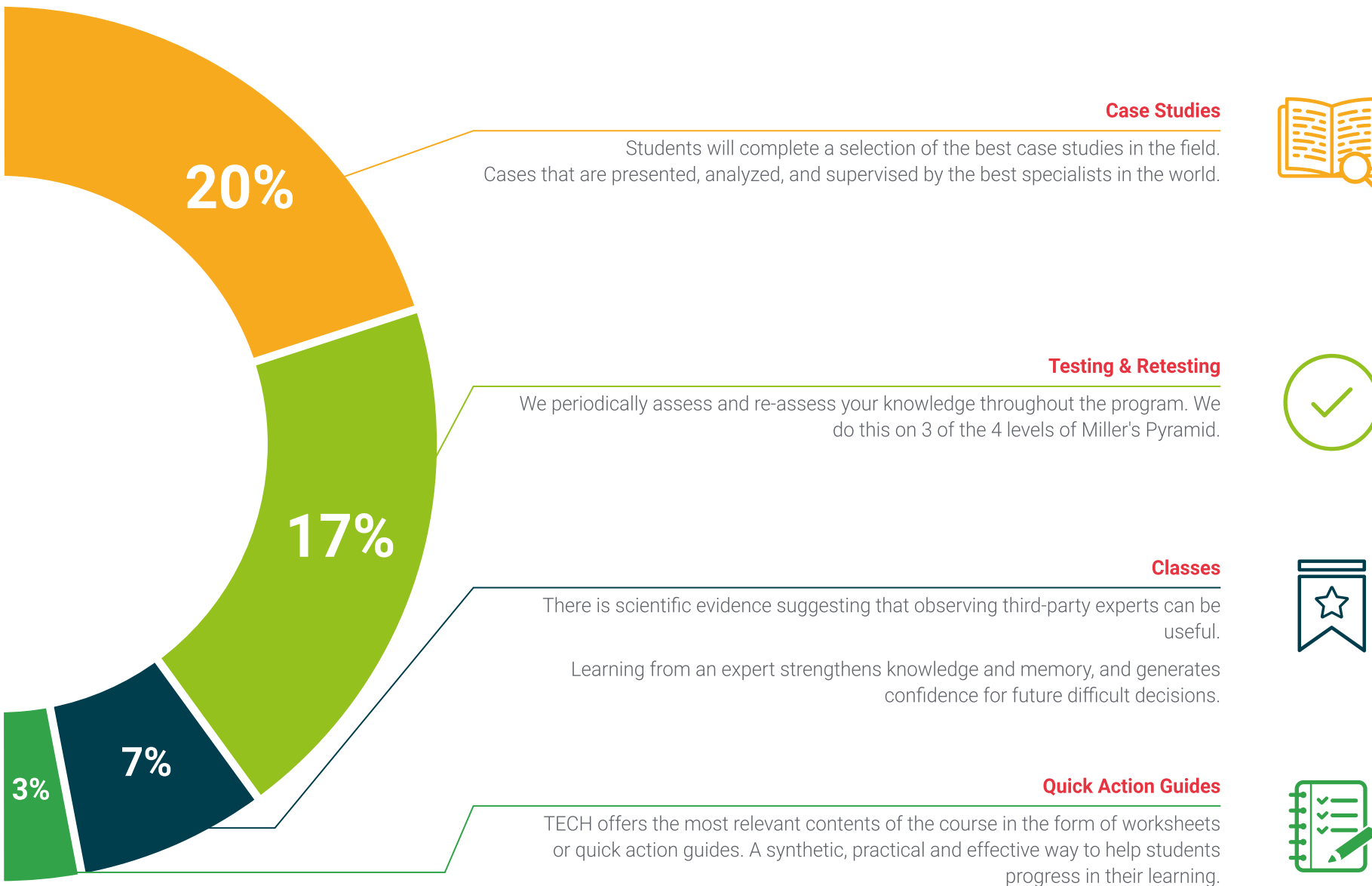


#### Additional Reading

Recent articles, consensus documents, international guides... In our virtual library you will have access to everything you need to complete your education.







06

# Teaching Staff

The teaching staff selected by TECH Global University for this program has a strong track record in the field of Neuropsychology applied to Education. Thanks to this, these experts have developed a variety of teaching resources that stand out for both their high quality and their alignment with current labor market demands. As a result, graduates will embark on an immersive experience that will significantly broaden their professional horizons.



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*You will have the support of a teaching team composed of true experts in Neuropsychology Research”*

## Management



### **Ms. Sánchez Padrón, Nuria Ester**

- ♦ General Health Psychologist at Vitaliti
- ♦ Educational Support Teacher at Radio ECCA
- ♦ Degree in Psychology from La Laguna University
- ♦ Master's Degree in General Health Psychology from the University of La Rioja
- ♦ Specialist in Psychological Care in Emergencies at the Red Cross
- ♦ Specialist in Psychological Care in Correctional Institutions





07

# Certificate

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





“

*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 **Professional Master's Degree in Neuropsychology Research** 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: **Professional Master's Degree in Neuropsychology Research**

Modality: **online**

Duration: **12 months.**

Accreditation: **60 ECTS**





## Professional Master's Degree Neuropsychology Research

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

# Professional Master's Degree

## Neuropsychology Research

