Postgraduate Diploma Dysarthria and Hearing Impairment



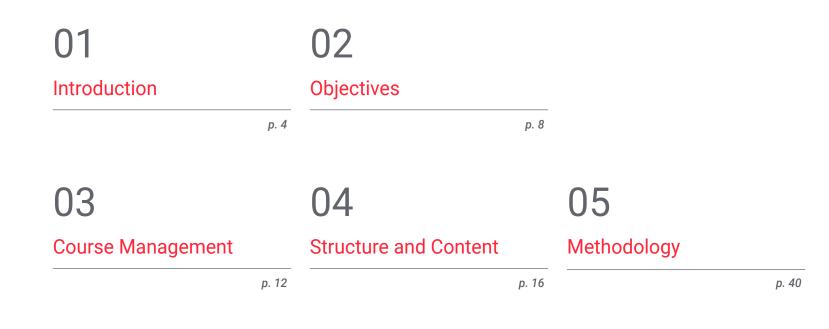


Postgraduate Diploma Dysarthria and Hearing Impairment

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Technological University
- » Schedule: at your own pace
- » Exams: online

Website: www.techtitute.com/us/education/postgraduate-diploma/postgraduate-diploma-dysarthria-hearing-impairment

Index



06 Certificate

01 Introduction

Hearing impairment and neurological disorders affecting speech articulation control are often related. When students have these conditions, it is logical that they suffer from cognitive impairment that prevents them from keeping up with the school rhythm, requiring specialized pedagogical assistance adapted to their situation. For this reason, professionals in the educational field have to understand this type of case as a casuistry that they must deal with in a diverse classroom, adapting the academic curriculum to the child's or adolescent's needs. And so that students find in a single program everything they need to get up to speed in this field and further develop their speech therapy specifications, TECH has developed this program. This is a 100% online academic experience through which they will be able to deepen in the basics of language, as well as in the characteristics of infantile and juvenile dysarthria and hearing impairment.



A multidisciplinary and intensive program with which you will work on your professional skills for teaching students with special needs, particularly Dysarthria and hearing impairment"

tech 06 | Introduction

According to a study conducted by an international association dedicated to representing families of deaf people, approximately "5 out of every 1,000 newborns are deaf to some degree". This disability affects their cognitive-behavioral development, often causing a significant delay in school activities. The same is true for those suffering from Dysarthria or any type of speech impairment caused by paralysis, weakness or incoordination of the facial musculature, generally related to the neurological system. The frequency with which these contexts appear in the educational environment is very high, so teachers must be up to date with pedagogical techniques to adapt their classes to the needs of their students, being able to offer inclusive training of the highest quality for all of them.

And so that the student can get up to date with the most innovative and effective educational bases, TECH and its team of professionals specialized in Pedagogy and Speech Therapy have developed this Postgraduate Diploma in Dysarthria and Hearing Impairment, an avant-garde and dynamic academic program adapted to the current academic context. Throughout 450 hours, students will be able to delve into the fundamentals of specialized intervention, as well as the initial considerations that must be taken into account when designing classes adapted to children with this type of special needs.

This is a 6-month academic experience , in which the student students will have access to a state-of-the-art Virtual Campus, which can be accessed from any device with Internet connection. In it students will find, in addition to the syllabus, case studies, research articles, complementary readings, news, exercises and much more material to contextualize the information and delve into each section in a personalized way. All this through a 100% online format that will allow them to combine the program with any other activity, without having to submit to strict schedules or face-to-face classes.

This **Postgraduate Diploma in Dysarthria and Hearing Impairment** contains the most complete and up-to-date educational program on the market. The most important features include:

- Case studies presented by experts in Pedagogy and Education
- The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- Practical exercises where the self-assessment process can be carried out to improve learning
- Its special emphasis on innovative methodologies
- 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 work with the most avant-garde pedagogical and logopedic material in the educational sector, which you will even be able to use in your classes once you have completed this Postgraduate Diploma"

Introduction | 07 tech

Thanka ta thia

Thanks to this program's comprehensive design, you will be able to understand the casuistry of hearing impairment, focusing on the best speech therapy assessment tools"

The program's teaching staff includes professionals from the sector who contribute their work experience to this training program, as well as renowned specialists from leading societies and prestigious universities.

Its multimedia content, developed with the latest educational technology, will allow the professional a situated and contextual learning, that is, a simulated environment that will provide an immersive training programmed to train in real situations.

The design of this program focuses on Problem-Based Learning, in which the professional will have to try to solve the different professional practice situations that will arise throughout the academic course. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.

You will have 450 hours of theoretical, practical and additional material, which has been adapted to a 100% online format and can be accessed from any device with Internet connection.

A theoretical-practical program that will allow you to update your speech therapy intervention plan through the most effective and innovative guidelines and/or family recommendations.

02 **Objectives**

The objective of this Postgraduate Diploma is none other than to provide students with all the information that will allow them to specialize in teaching children with speech or hearing impairment related problems. For this purpose, students will be provided with the best theoretical and practical material, as well as hours of extra content presented in different formats. Additionally, this program has been specifically designed so that students can work from wherever they want and at their own pace, also being able to decide the degree of depth of each section.









You will have the most extensive and innovative information in relation to infantile cerebral palsy, as well as dysphagia and the curricular adaptation required by children with this disability"

tech 10 | Objectives



General Objectives

- Provide a specialized education based on theoretical and instrumental knowledge that will enable the student to obtain skills in detection, prevention, assessment and intervention in the logopathies treated
- Develop a broad and specialized knowledge about Dysarthria and the curricular adaptation needed by children with this disability

Whatever your goals are, TECH will provide you with the most innovative academic material, so that you can achieve and surpass them with the course of this 6-month academic experience"





Specific Objectives

Module 1. Basis of Speech and Language Therapy

- Deepen in the concept of Speech Therapy and in the areas of action of the professionals of this discipline
- Acquire knowledge about the concept of language and the different aspects that composeit
- Delve into the typical development of language, knowing its stages, as well as being able to identify the warning signs of language development
- Understand and be able to classify the different language pathologies, from the different approaches currently existing
- To know the different batteries and tests available in the discipline of Speech Therapy, to be able to carry out a correct evaluation of the different areas of Language
- To be able to develop a Speech Therapy report in a clear and precise way, both for the families and for the different professionals
- To understand the importance and effectiveness of working with an interdisciplinary team, whenever necessary and favorable for the child's rehabilitation

Module 2. Dysarthria in Children and Adolescents

- Acquisition of the basic fundamentals of dysarthria in children and adolescents, both conceptual and classificatory, as well as the particularities and differences with other pathologies
- Be able to differentiate the symptomatology and characteristics of verbal apraxia and dysarthria, being able to identify both pathologies by carrying out an adequate assessment process
- Clarify the role of the speech therapist in both the assessment and intervention process, being able to apply appropriate and personalized exercises to the child

- To know the environments and contexts of development of children, being able to give adequate support in all of them and to guide the family and educational professionals in the rehabilitation process
- Know the professionals involved in the assessment and intervention of dysarthric children, and the importance of collaboration with all of them during the intervention process

Module 3. Understanding Hearing Impairments

- Assimilation of the anatomy and functionality of the organs and mechanisms involved in hearing
- Deepen in the concept of hypoacusis and the different types that exist
- Know the assessment and diagnostic tools to assess hearing loss and the importance of a multidisciplinary team to carry it out
- Be able to carry out an effective intervention in a Hypoacusia, knowing and internalizing all the phases of such intervention
- Know and understand the functioning and importance of hearing aids and cochlear implants
- Deepen in Bimodal Communication and to be able to understand its functions and their importance
- Approach the world of sign language, knowing its history, its structure and the importance of its existence
- To understand the role of the Interpreter in Sign Language (ILSE)

03 Course Management

TECH believes that having a specialized faculty in this field is essential to offer a high level academic experience. For this reason, it has selected a teaching team with expertise in Pedagogy and Speech Therapy for this Postgraduate Diploma, so that they can contribute to the program a critical, realistic and current perspective on the current situation in relation to teaching children with Dysarthria and/or hearing impairment. In addition, as they are working professionals, they are up to date with the latest and most effective techniques and guidelines, which they will share with this program's students.

Succeed with the best and acquire the knowledge and skills you need to teach at the highest level"

tech 14 | Course Management

International Guest Director

Dr. Elizabeth Anne Rosenzweig is an internationally renowned specialist dedicated to the care of children with hearing loss. As a Speech Language Expert and Certified Therapist, she has pioneered several telepractice-based early assistance strategies of broad benefit to patients and their families.

Dr. Rosenzweig's research interests have also focused on trauma support, culturally sensitive auditory-verbal practice and personal coaching. Her active scholarly work in these areas has earned her numerous awards, including Columbia University's Diversity Research Award.

Thanks to her advanced skills, she has taken on professional challenges such as the leadership of the Edward D. Mysak Communication Disorders Clinic at Columbia University. She is also known for her academic career, having served as a professor at Columbia's Teachers College and as a collaborator with the General Institute of Health Professions. On the other hand, she is an official reviewer of publications with a high impact in the scientific community such as The Journal of Early Hearing Detection and Intervention and The Journal of Deaf Studies and Deaf Education.

In addition, Dr. Rosenzweig manages and directs the AuditoryVerbalTherapy.net project, from where she offers remote therapy services to patients located in different parts of the world. She is also a speech and audiology consultant for other specialized centers located in different parts of the world. She has also focused on developing non-profit work and participating in the Listening Without Limits Project for children and professionals in Latin America. At the same time, the Alexander Graham Bell Association for the Deaf and Hard of Hearing relies on her as its vice-president.



Dra. Rosenzweig, Elizabeth Anne

- Director of the Communication Disorders Clinic at Columbia University, New York, United States
- Professor, General Hospital Institute of Health Professions, New York, United States
- Director of Private Practice AuditoryVerbalTherapy.net
- Department Head, Yeshiva University
- Attending Specialist at Teachers College, Columbia University
- Reviewer for The Journal of Deaf Studies and Deaf Education and The Journal of Early
- Hearing Detection and Intervention
- Vice-President, Alexander Graham Bell Association for the Deaf and Hard of Hearing
- Ph.D. in Education from Columbia University
- Master's Degree in Speech Therapy from Fontbonne University
- B.S. in Communication Sciences and Communication Disorders from Texas Christian University
- Member of:
- American Speech and Language Association

- American Cochlear Implant Alliance
- National Consortium for Leadership in Sensory Impairment

Thanks to TECH you will be able to learn with the best professionals in the world"

tech 16 | Course Management

Management



Ms. Vázquez Pérez, María Asunción

- Speech Therapist Specialist in Neurologopedia
- Speech therapist at Neurosens
- Speech therapist in Rehabilitation Clinic Rehasalud
- Speech Therapist at Sendas Psychology Office
- Graduate in Speech Therapy from the University of A Coruña
- Master's Degree in Neurology Therapy



Course Management | 17 tech

Professors

Ms. Mata Ares, Sandra María

- Speech Therapist Specialized in Speech Therapy Intervention in Children and Adolescents
- Speech Therapist at Sandra Comunícate Speech Therapist
- Speech therapist at Fisiosaúde
- Speech therapist at Ana Parada Multi-Purpose Center
- Speech therapist at the Psychology Health Center and Family Speech Therapy
- Diploma in Speech Therapy from the from Coruña University
- Master's Degree in Speech Therapy Intervention in Childhood and Adolescence from the University of Coruña

Ms. Rico Sánchez, Rosana

- Director and Speech Therapist at Palabras y Más Center for Speech Therapy and Pedagogy
- Speech therapist at OrientaMedia
- Speaker at specialized conferences
- Diploma in Speech Therapy from the University of Valladolid
- Degree in Psychology from UNED
- Specialist in Alternative and Augmentative Communication Systems (SAAC)

Ms. Cerezo Fernández, Ester

- Speech therapist at Paso a Paso Neurorehabilitation Clinic
- Speech therapist at the San Jeronimo Residence
- Editor of Zona Hospitalaria Magazine
- Graduate in Speech Therapy from the University of Castilla-La Mancha

04 Structure and Content

The syllabus of this Postgraduate Diploma has been designed by TECH taking into consideration the guidelines established by the teaching team, as well as the latest and most innovative information related to pedagogy and educational speech therapy for children with Dysarthria and hearing impairment. In this way, teachers will be able to delve into the characteristics of these pathologies and their educational needs, as well as the teaching guidelines adapted to them and their requirements. Thanks to this, you will be able to raise the standard of your classes to the highest level, contributing to school inclusion.

In the Virtual Campus you will find additional, high-quality material, so that you can delve into each section of the syllabus in a personalized way"

tech 20 | Structure and Content

Module 1. Basis of Speech and Language Therapy

- 1.1. Introduction to the Postgraduate Diploma and the Module
 - 1.1.1. Introduction to the Postgraduate Diploma
 - 1.1.2. Introduction to the Module
 - 1.1.3. Previous Aspects of the Language
 - 1.1.4. History of the Study of Language
 - 1.1.5. Basic Theories of Language
 - 1.1.6. Research in Language Acquisition
 - 1.1.7. Neurological Bases of Language Development.
 - 1.1.8. Perceptual Bases in Language Development
 - 1.1.9. Social and Cognitive Bases of Language 1.1.9.1. Introduction
 - 1.1.9.2. The Importance of Imitation
 - 1.1.10. Final Conclusions
- 1.2. What is Speech Therapy?
 - 1.2.1. Speech Therapy
 - 1.2.1.1. Concept of Speech Therapy
 - 1.2.1.2. Concept of Speech Therapist
 - 1.2.2. History of Speech Therapy
 - 1.2.3. Speech Therapy in the rest of the World
 - 1.2.3.1. Importance of the Speech Therapy Professional in the rest of the World
 - 1.2.4.2. What are Speech Therapists called in other countries?
 - 1.2.4.3. Is the figure of the Speech Therapist valued in other Countries?
 - 1.2.4. Forensic Speech Therapy
 - 1.2.4.1. Initial Considerations
 - 1.2.4.2. Concept of Forensic Speech Therapist
 - 1.2.4.3. The Importance of Forensic Speech Therapists
 - 1.2.5. The Hearing and Speech Teacher
 - 1.2.5.1. Concept of Hearing and Speech Teacher
 - 1.2.5.2. Areas of work of the Hearing and Speech Teacher
 - 1.2.5.3. Differences between Speech-Language Pathologist and Hearing and Speech Teacher
 - 1.2.6. Final Conclusions

- 1.3. Language, Speech, and Communication
 - 1.3.1. Preliminary Considerations
 - 1.3.2.Language, Speech, and Communication1.3.2.1. Concept of Language
 - 1.3.2.2. Concept of Speech
 - 1.3.2.3. Concept of Communication
 - 1.3.2.4. How do they differ?
 - 1.3.3. Language Dimensions
 - 1.3.3.1. Formal or Structural Dimension
 - 1.3.3.2. Functional Dimension
 - 1.3.3.3. Behavioral Dimension
 - 1.3.4. Theories that explain Language Development1.3.4.1. Preliminary Considerations1.3.4.2. Theory of Determinism: Whorf
 - 1.3.4.3. Theory of Behaviorism: Skinner
 - 1.3.4.4. Theory of Innatism: Chomsky

 - 1.3.4.5. Interactionist positions
 - 1.3.5. Cognitive Theories Explaining Language Development 1.3.5.1. Piaget
 - 1.3.5.2. Vigotsky
 - 1.3.5.3. Luria
 - 1.3.5.4. Bruner
 - 1.3.6. Influence of the Environment on Language Acquisition
 - 1.3.7. Language Components
 - 1.3.7.1. Phonetics and Phonology
 - 1.3.7.2. Semantics and Lexicon
 - 1.3.7.3. Morphosyntax
 - 1.3.7.4. Pragmatics
 - 1.3.8. Stages of Language Development1.3.8.1. Prelinguistic Stage1.3.8.2. Linguistic Stage
 - 1.3.9. Summary Table of Normative Language Development
 - 1.3.10. Final Conclusions

Structure and Content | 21 tech

Trastornos de la comunicación, del habla y del lenguaje 1.4.1. Introduction to Unit 1.4.2. Trastornos de la comunicación, del habla y del lenguaje 1.4.2.1. Concept of Communication Disorder 1.4.2.2. Concept of Speech Disorder 1.4.2.3. Concept of Language Disorder 1.4.2.4. How do they differ? 1.4.3. Communication Disorders 1.4.3.1. Preliminary Considerations 1.4.3.2. Comorbidity with other Disorders 1.4.3.3. Types of Communication Disorders 1.4.3.3.1. Social Communication Disorder 1.4.3.3.2. Unspecified Communication Disorder 1.4.4. Speech Disorders 1.4.4.1. Preliminary Considerations 1.4.4.2. Origin of Speech Disorders 1.4.4.3. Symptoms of a Speech Disorder 1.4.4.3.1. Mild delay 1.4.4.3.2. Moderate delay 1.4.4.3.3. Severe delay 1.4.4.4. Warning signs in Speech Disorders 1.4.5. Classification of Speech Disorders 1.4.5.1. Phonological Disorder or Dyslalia 1.4.5.2. Dysphemia 1.4.5.3. Dysglossia 1.4.5.4. Dysarthria 1.4.5.5. Tachyphemia 1.4.5.6. Others 1.4.6. Language Disorders 1.4.6.1. Preliminary Considerations 1.4.6.2. Origin of Language Disorders 1.4.6.3. Conditions related to Language Disorders 1.4.6.4. Warning signs in Language Development

1.4.

	1.4.7.	Types of Language Disorders
	1.4.7.	1.4.7.1. Receptive Language Difficulties
		1.4.7.2. Expressive Language Difficulties
		1.4.7.2. Expressive Language Difficulties
	1.4.8.	Classification of Language Disorders
	1.4.0.	
		1.4.8.1. From the Clinical Approach
		1.4.8.2. From the Educational Approach
		1.4.8.3. From the Psycholinguistic Approach
	1.4.0	1.4.8.4. From the Axiological point of view
	1.4.9.	What skills are affected in a Language Disorder?
		1.4.9.1. Social Skills
		1.4.9.2. Academic Problems
		1.4.9.3. Other affected skills
	1.4.10.	Types of Language Disorders
		1.4.10.1. TEL
		1.4.10.2. Aphasia
		1.4.10.3. Dyslexia
		1.4.10.4. Attention Deficit Hyperactivity Disorder (ADHD)
		1.4.10.5. Others
	1.4.11.	Comparative Table of Typical Development and Developmental Disturbances.
1.5.	Logope	dic Evaluation Instruments
	1.5.1.	Introduction to Unit
	1.5.2.	Aspects to be Highlighted during the Logopedic Evaluation
		1.5.2.1. Fundamental considerations
	1.5.3.	Evaluation of Orofacial Motor Skills: The Stomatognathic System
	1.5.4.	Speech Therapy Evaluation Areas, Regarding Language, Speech, and Communication:
		1.5.4.1. Anamnesis (family interview)
		1.5.4.2. Evaluation of the Preverbal Stage
		1.5.4.3. Assessment of Phonetics and Phonology
		1.5.4.4. Assessment of Morphology
		1.5.4.5. Syntax Evaluation
		1.5.4.6. Evaluation of Semantics

1.5.4.7. Evaluation of Pragmatics

tech 22 | Structure and Content

1.5.5.	General Classification of the Most Commonly Used Tests in Speech Assessment
	1.5.5.1. Developmental Scales: Introduction
	1.5.5.2. Oral Language Assessment Tests: Introduction
	1.5.5.3. Test for the Assessment of Reading and Writing: Introduction
1.5.6.	Developmental Scales
	1.5.6.1. Brunet-Lézine Developmental Scale
	1.5.6.2. Battelle Developmental Inventory
	1.5.6.3. Portage Guide
	1.5.6.4. Haizea-Llevant
	1.5.6.5. Bayley Scale of Child Development
	1.5.6.6. McCarthy Scale (Scale of Aptitudes and Psychomotor Skills for Children)
1.5.7.	Oral Language Assessment Test
	1.5.7.1. BLOC
	1.5.7.2. Monfort Induced Phonological Register
	1.5.7.3. ITPA
	1.5.7.4. PLON-R
	1.5.7.5. PEABODY
	1.5.7.6. RFI
	1.5.7.7. ALS-R
	1.5.7.8. EDAF
	1.5.7.9. CELF 4
	1.5.7.10. BOEHM
	1.5.7.11. TSA
	1.5.7.12. CEG
	1.5.7.13. ELCE
1.5.8.	Test for Reading and Writing Assessment
	1.5.8.1. PROLEC-R
	1.5.8.2. PROLEC-SE
	1.5.8.3. PROESC
	1.5.8.4. TALE
1.5.9.	Summary Table of the Different Tests
1.5.10.	Final Conclusions

- 1.6. Components That Must be Included in a Speech-Language Pathology Report
 - 1.6.1. Introduction to Unit
 - 1.6.2. The Reason for the Appraisal 1.6.2.1. Request or Referral by the Family 1.6.2.2. Request or Referral by School or External Center 1.6.3. Medical History 1.6.3.1. Anamnesis with the Family 1.6.3.2. Meeting with the Educational Center 1.6.3.3. Meeting with Other Professionals 1.6.4. The Patient's Medical and Academic History 1.6.4.1. Medical History 1.6.4.1.1. Evolutionary Development 1.6.4.2. Academic History 1.6.5 Situation of the Different Contexts 1.6.5.1. Situation of the Family Context 1.6.5.2. Situation of the Social Context 1.6.5.3. Situation of the School Context 1.6.6. Professional Assessments 1.6.6.1. Assessment by the Speech Therapist 1.6.6.2. Assessments by other Professionals 1.6.6.2.1. Assessment by the Occupational Therapist 1.6.6.2.2. Teacher Assessment 1.6.6.2.3. Psychologist's Assessment Psychologist's Assessment 1.6.6.2.4. Other Assessments 1.6.7. Results of the Assessments 1.6.7.1. Logopedic Evaluation Results 1.6.7.2. Results of the other Evaluations 1.6.8. Clinical Judgment and/or Conclusions 1.6.8.1. Speech-Language Pathologist's Judgment 1.6.8.2. Judgment of Other Professionals 1.6.8.3. Judgment in Common with the Other Professionals

Structure and Content | 23 tech



1.6.9.	Speech Therapy Intervention Plan
	1.6.9.1. Objectives to Intervene
	1.6.9.2. Intervention Program
	1.6.9.3. Guidelines and/or Recommendations for the Family
1610	Why is it so Important to Carry Out a Speech Therapy Report?
1.0.10.	1.6.10.1. Preliminary Considerations
	1.6.10.2. Areas where a Speech Therapy Report can be Key
Chanach	
	Therapy Intervention Program
1.7.1.	Introduction
	1.7.1.1. The need to elaborate a Speech Therapy Intervention Program
1.7.2.	What is a Speech Therapy Intervention Program?
	1.7.2.1. Concept of the Intervention Program
	1.7.2.2. Intervention Program Fundamentals
	1.7.2.3. Speech Therapy Intervention Program Considerations
1.7.3.	Fundamental Aspects for the Elaboration of a Speech Therapy Intervention
	Program
	1.7.3.1. Characteristics of the Child
1.7.4.	Planning of the Speech Therapy Intervention
	1.7.4.1. Methodology of Intervention to be Carried Out
	1.7.4.2. Factors to Take Into Account in the Planning of the Intervention
	1.7.4.2.1. Extracurricular Activities
	1.7.4.2.2. Chronological and Corrected Age of the Child
	1.7.4.2.3. Number of Sessions per Week
	1.7.4.2.4. Collaboration on the Part of the Family
	1.7.4.2.5. Economic Situation of the Family
1.7.5.	Objectives of the Speech Therapy Intervention Program
1.7.0.	1.7.5.1. Constal Objectives of the Speech Therapy Intervention Program

1.7.5.1. General Objectives of the Speech Therapy Intervention Program 1.7.5.2. Specific Objectives of the Speech Therapy Intervention Program

tech 24 | Structure and Content

- 1.7.6. Areas of Speech Therapy Intervention and Techniques for its Intervention
 - 1.7.6.1. Voice
 - 1.7.6.2. Speech
 - 1.7.6.3. Prosody
 - 1.7.6.4. Language
 - 1.7.6.5. Reading
 - 1.7.6.6. Writing
 - 1.7.6.7. Orofacial
 - 1.7.6.8. Communication. 1.7.6.9. Hearing
 - 1.7.6.10. Breathing
- 1.7.7. Materials and Resources for Speech Therapy Intervention
 - 1.7.7.1. Proposition of Materials of Own Manufacture and Indispensable in a Speech Therapy Room
 - 1.7.7.2. Proposition of Indispensable Materials on the Market for a Speech Therapy Room
 - 1.7.7.3. Indispensable Technological Resources for Speech Therapy Intervention
- 1.7.8. Methods of Speech Therapy Intervention
 - 1.7.8.1. Introduction
 - 1.7.8.2. Types of Intervention Methods
 - 1.7.8.2.1. Phonological Methods
 - 1.7.8.2.2. Clinical Intervention Methods
 - 1.7.8.2.3. Semantic Methods
 - 1.7.8.2.4. Behavioral-Logopedic Methods
 - 1.7.8.2.5. Pragmatic Methods
 - 1.7.8.2.6. Medical Methods
 - 1.7.8.2.7. Others
 - 1.7.8.3. Choice of the Most Appropriate Method of Intervention for Each Subject
- 1.7.9. The Interdisciplinary Team

- 1.7.9.1. Introduction
- 1.7.9.2. Professionals Who Collaborate Directly with the Speech Therapist
 1.7.9.2.1. for Psychologists
 1.7.9.2.2. Occupational Therapists
 1.7.9.2.3. Professors
 1.7.9.2.4. Hearing and Speech Teachers
 - 1.7.9.2.5. Others
- 1.7.9.3. The Work of these Professionals in Speech-Language Pathology Intervention
- 1.7.10. Final Conclusions
- 1.8. Augmentative and Alternative Communication Systems (AACS)
 - 1.8.1. Introduction to Unit
 - 1.8.2. What are AACS?
 - 1.8.2.1. Augmentative Communication System Concept
 - 1.8.2.2. Alternative Communication System Concept
 - 1.8.2.3. Similarities and Differences
 - 1.8.2.4. Advantages of AACS
 - 1.8.2.5. Disadvantages: of AACS
 - 1.8.2.6. How do AACS arise?
 - 1.8.3.Principles: of AACS1.8.3.1. General Principles
 - 1.8.3.2. False myths about AACS
 - 1.8.4. How to Know the Most Suitable AACS?
 - 1.8.5. Communication Support Products1.8.5.1. Basic Support Products1.8.5.2. Technological Support Products
 - 1.8.6. Strategies and Support Products for Access
 1.8.6.1. Direct Selection
 1.8.6.2. Mouse Selection
 1.8.6.3. Dependent Scanning or Sweeping
 1.8.6.4. Coded Selection
 - 1.8.7. Types of AACS

Structure and Content | 25 tech

1.8.7.1. Sign Language

1.8.7.2. The Complemented Word

1.8.7.3. PECs

1.8.7.4. Bimodal Communication

1.8.7.5. Bliss System

- 1.8.7.6. Communicators
- 1.8.7.7. Minspeak
- 1.8.7.8. Schaeffer System
- 1.8.8. How to Promote the Success of the AACS Intervention?
- 1.8.9. Technical Aids Adapted to Each Person
 - 1.8.9.1. Communicators
 - 1.8.9.2. Pushbuttons
 - 1.8.9.3. Virtual Keypads
 - 1.8.9.4. Adapted Mice
 - 1.8.9.5. Data Input Devices
- 1.8.10. AACS Resources and Technologies
 - 1.8.10.1. AraBoard Builder
 - 1.8.10.2. Talk up
 - 1.8.10.3. #lamVisual
 - 1.8.10.4. SPQR
 - 1.8.10.5. Dictapicto
 - 1.8.10.6. AraWord
 - 1.8.10.7. Picto Selector
- 1.9. The family as Part of the Intervention and Support for the Child
 - 1.9.1. Introduction

 $1.9.1.1. \ensuremath{\text{The Importance of the Family in the Correct Development of the child}$

- 1.9.2. Consequences in the Family Context of a Child with Atypical Development 1.9.2.1. Difficulties Present in the Immediate Environment
- 1.9.3. Communication Problems in the Immediate Environment1.9.3.1. Communicative Barriers Encountered by the Subject at Home
- 1.9.4. Speech Therapy intervention aimed at the Family-Centered Intervention

		Model
		1.9.4.1. Concept of Family Centered Intervention
		1.9.4.2. How to carry out the Family Centered Intervention?
		1.9.4.3. The importance of the Family-Centered Model
	1.9.5.	Integration of the family in the Speech-Language Pathology Intervention
		1.9.5.1. How to Integrate the Family into the Intervention
		1.9.5.2. Guidelines for the Professional
	1.9.6.	Advantages of family integration in all contexts of the subject
		1.9.6.1. Advantages of coordination with Educational Professionals
		1.9.6.2. Advantages of coordination with Health Professionals
	1.9.7.	Recommendations for the Family Environment
	1.2.7.	1.9.7.1. Recommendations to Facilitate Oral Communication
		1.9.7.2. Recommendations for a Good Relationship in the Family
		Environment
	1.9.8.	The Family as a Key Part in the Generalization of the Established Objectives
		1.9.8.1. The Importance of the Family in Generalization
		1.9.8.2. Recommendations to facilitate Generalization
	1.9.9.	How do I communicate with my child?
	1.9.9.	1.9.9.1. Modifications in the child's family environment
		1.9.9.2. Advice and Recommendations from the child
	1 0 1 0	1.9.9.3. The Importance of keeping a Record Sheet
1 1 0		Final Conclusions
1.10.	Child De	evelopment in the School context

- 1.10.1. Introduction to Unit
- 1.10.2. The Involvement of the School center during the Speech Therapy Intervention

1.10.2.1. The Influence of the School Center in the child's development

1.10.2.2. The Importance of the Center in the Speech Therapy Intervention

tech 26 | Structure and Content

1.10.3. School Supports 1.10.3.1. Concept of School Support 1.10.3.2. Who provides School Support in the Center? 1.10.3.2.1. Hearing and Speech Teacher 1.10.3.2.2. Therapeutic Pedagogy Teacher (PT) 1.10.3.2.3. Counselor 1.10.4. Coordination with the Professionals of the Educational Center 1.10.4.1. Educational Professionals with whom the Speech-Language Pathologist coordinates with 1.10.4.2. Basis for Coordination 1.10.4.3. The Importance of Coordination in the child's Development 1.10.5. Consequences of the Child with Special Educational Needs in the classroom 1.10.5.1. How the Child Communicates with Teachers and Students? 1.10.5.2. Psychological Consequences 1.10.6. School Needs of the child 1.10.6.1. Taking Educational Needs into account in Intervention 1.10.6.2. Who determines the child's Educational Needs? 1.10.6.3. How Are They Established? 1.10.7. Methodological bases for Classroom Intervention. 1.10.7.1. Strategies to favor the child's Integration 1.10.8. Curricular Adaptation 1.10.8.1. Concept of Curricular Adaptation 1.10.8.2. Professionals who Apply it 1.10.8.3. How does it benefit the child with Special Educational Needs? 1.10.9. Final Conclusions

Module 2. The Infantile-juvenile Dysarthria

- 2.1. Initial Considerations
 - 2.1.1. Introduction to the Module 2.1.1.1. Module Presentation
 - 2.1.2. Module Objectives
 - 2.1.3. History of Dysarthrias

2.1.4.	Prognosis of Dysarthrias in Infantile and Juvenile Ages 2.1.4.1. The Prognosis of Child Development in children with Dysarthrias 2.1.4.1.1. Language Development in children with Dysarthria 2.1.4.1.2. Speech Development in children with Dysarthria
2.1.5.	Early Care in Dysarthria
	2.1.5.1. What is Early Care?
	2.1.5.2. How does Early Care help Dysarthria?
	2.1.5.3. The importance of Early Care in Dysarthria Intervention
2.1.6.	Prevention of Dysarthria
	2.1.6.1. How Can it be Prevented?
	2.1.6.2. Are there any Prevention Programs?
2.1.7.	Neurology in Dysarthria
	2.1.7.1. Neurological Implications in Dysarthria
	2.1.7.1.1. Cranial Nerves and Speech Production
	2.1.7.1.2. Cranial Nerves Involved in Phonorespiratory Coordination
	2.1.7.1.3. Motor Integration of the Brain related to Speech
2.1.8.	Dysarthria vs. Apraxia
	2.1.8.1. Introduction to Unit
	2.1.8.2. Apraxia of Speech
	2.1.8.2.1. Concept of Verbal Apraxia
	2.1.8.2.2. Characteristics of Verbal Apraxia
	2.1.8.3. Difference between Dysarthria and Verbal Apraxia
	2.1.8.3.1. Classification Table
	2.1.8.4. Relationship between Dysarthria and Verbal Apraxia
	2.1.8.4.1. Is there a relationship between both Disorders?
	2.1.8.4.2. Similarities between both Disorders
2.1.9.	Dysarthria and Dyslalia
	2.1.9.1. What are Dyslalias? (Short Review)
	2.1.9.2. Difference between Dysarthria and Dyslalias
	2.1.9.3. Similarities between both Disorders
2.1.10.	Aphasia and Dysarthria
	2.1.10.1. What is Aphasia? (In Brief)

- 2.1.10.2. Difference between Dysarthria and Infantile Aphasia
- 2.1.10.3. Similarities between Dysarthria and Infantile Aphasia

Structure and Content | 27 tech

2.2. General Characteristics of Dysarthria 2.2.1. Conceptualization 2.2.1.1. Concept of Dysarthria 2.2.1.2. Symptomatology of Dysarthrias 2.2.2. General Characteristics of Dysarthrias 2.2.3. Classification of Dysarthrias according to the site of the Lesion Caused. 2.2.3.1. Dysarthria due to Disorders of the Upper Motor Neuron 2.2.3.1.1. Speech Characteristics 2.2.3.1.2. Dysarthria due to Lower Motor Neuron Disorders 2.2.3.1.2.1. Speech Characteristics 2.2.3.1.3. Dysarthria due to Cerebellar Disorders 2.2.3.1.3.1. Speech Characteristics 2.2.3.1.4. Dysarthria due to Extrapyramidal Disorders 2.2.3.1.4.1. Speech Characteristics 2.2.3.1.5. Dysarthria due to Disorders of Multiple Motor Systems 2.2.3.1.5.1. Speech Characteristics 2.2.4. Classification according to Symptoms 2.2.4.1. Spastic Dysarthria 2.2.4.1.1. Speech Characteristics 2.2.4.2. Flaccid Dysarthria 2.2.4.2.1. Speech Characteristics 2.2.4.3. Ataxic Dysarthria 2.2.4.3.1. Speech Characteristics 2.2.4.4. Dyskinetic Dysarthria 2.2.4.4.1. Speech Characteristics 2.2.4.5. Mixed Dysarthria 2.2.4.5.1. Speech Characteristics 2.2.4.6. Spastic Dysarthria 2.2.4.6.1. Speech Characteristics 2.2.5. Classification according to the Articulatory Intake 2.2.5.1. Generalized Dysarthria 2.2.5.2. Dysarthric State 2.2.5.3. Dysarthric Remnants

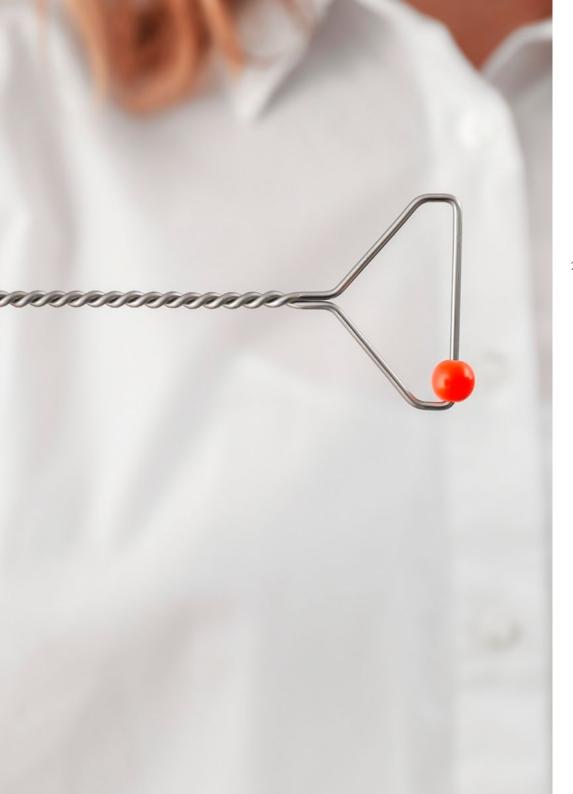
- 2.2.6. Etiology of Infantile-juvenile Dysarthria 2.2.6.1. Brain Lesion 2.2.6.2. Brain Tumor 2.2.6.3. Brain Tumor 2.2.6.4. Cerebral Accident 2.2.6.5. Other Causes 2.2.6.6. Medication 2.2.7. Prevalence of Infantile-juvenile Dysarthria 2.2.7.1. Current Prevalence of Dysarthria 2.2.7.2. Changes in Prevalence over the years 2.2.8. Language Characteristics in Dysarthria 2.2.8.1. Are there Language difficulties in children with Dysarthria? 2.2.8.2. Characteristics of the Alterations 2.2.9. Speech Characteristics in Dysarthria 2.2.9.1. Are there Language Abnormalities in Children with Dysarthria? 2.2.9.2 Characteristics of the Alterations 2.2.10. Semiology of Dysarthria 2.2.10.1. How to detect Dysarthria? 2.2.10.2. Relevant Signs and Symptoms of Dysarthria 2.3. Classification of Dysarthria 2.3.1. Other Disorders in Children with Dysarthria 2.3.1.1. Motor Disturbances 2.3.1.2. Physiological Alterations 2.3.1.3. Communicative Disturbances 2.3.1.4. Alterations in Social Relations 2.3.2. Infantile Cerebral Palsy 2.3.2.1. Concept of Cerebral Palsy 2.3.2.2. Dysarthria in Infantile Cerebral Palsy 2.3.2.2.1. .Consequences of Dysarthria in Acquired Brain Injury 2.3.2.3. Dysphagia 2.3.2.3.1. Concept of Dysphagia 2.3.2.3.2. Dysarthria in relation to Dysphagia
 - 2.3.2.3.3. Consequences of Dysarthria in Acquired Brain Injury

tech 28 | Structure and Content

2.4.

2.3.3.	Acquired Brain Injury
	2.3.3.1. Concept of Acquired Brain Injury
	2.3.3.2. Dysarthria in relation to Acquired Brain Injury
	2.3.3.2.1. Consequences of Dysarthria in Acquired Brain Injury
2.3.4.	Multiple Sclerosis
	2.3.4.1. Concept of Multiple Sclerosis
	2.3.4.2. Dysarthria in Multiple Sclerosis
	2.3.4.2.1. Consequences of Dysarthria in Acquired Brain Injury
2.3.5.	Acquired Brain Injury in Children
	2.3.5.1. Concept of Acquired Brain Injury in children
	2.3.5.2. Dysarthria in Infantile Acquired Brain Injury
	2.3.5.2.1. Consequences of Dysarthria in Acquired Brain Injury
2.3.6.	Psychological Consequences in Dysarthric children
	2.3.6.1. How does Dysarthria Affect the Psychological Development of the
	Child?
	2.3.6.2. Psychological Aspects Affected
2.3.7.	Social Consequences in Dysarthric children
	2.3.7.1. Does it Affect the Social Development of Dysarthric Children?
2.3.8.	Consequences on Communicative Interactions in Dysarthric children
	2.3.8.1. How does Dysarthria affect Communication?
	2.3.8.2. Communicative Aspects Affected
2.3.9.	Social Consequences in Dysarthric children
0.0.1.0	2.3.9.1. How does Dysarthria affect Social Relationships?
2.3.10.	Economic Consequences
	2.3.10.1. Professional Intervention and the economic cost to the family
	lassifications of Dysarthria in infantile and juvenile ages
2.4.1.	Speech-Language evaluation and its importance in children with Dysarthria
	2.4.1.1. Why should the Speech-Language Pathologist evaluate cases of Dysarthria?
	2.4.1.2. Why evaluate cases of Dysarthria by the Speech-Language Pathologist?
2.4.2.	Clinical Speech Therapy Evaluation
<u> </u>	

2.4.3.	Evaluation and Diagnostic process
	2.4.3.1. Medical History
	2.4.3.2. Document Analysis. 2.4.3.3. Interviewing Family Members
2.4.4.	Direct Exploration
	2.4.4.1. Neurophysiological Examination
	2.4.4.2. Exploration of the Trigeminal Nerve
	2.4.4.3. Exploration of the Accessory Nerve
	2.4.4.4. Examination of the Glossopharyngeal Nerve
	2.4.4.5. Examination of the Facial Nerve
	2.4.4.5.1. Exploration of the Hypoglossal Nerve
	2.4.4.5.2. Exploration of the Accessory Nerve
2.4.5.	Perceptual Exploration
	2.4.5.1. Breathing Exploration
	2.4.5.2. Resonance
	2.4.5.3. Oral Motor Control
	2.4.5.4. Articulation
2.4.6.	Other Aspects to be Evaluated
	2.4.6.1. Intelligibility
	2.4.6.2. Automatic Speech
	2.4.6.3. Reading
	2.4.6.4. Prosody
	2.4.6.5. Intelligibility/severity Scan
2.4.7.	Assessment of the Dysarthric child in the family context
	2.4.7.1. Persons to be interviewed for the evaluation of the family context
	2.4.7.2. Relevant aspects in the interview
	2.4.7.2.1. Some Important Questions to Ask in the Family Interview
	2.4.7.3. Importance of the evaluation in the family context
2.4.8.	Evaluation of the Dysarthric child in the school context
	2.4.8.1. Professionals to Interview in the School Context
	2.4.8.1.1. The Tutor
	2.4.8.1.2. The Hearing and Language Teacher
	2.4.8.1.3. The School Counselor
	2.4.8.2. The Importance of School Assessment in children with Dysarthria.
2.4.9.	Assessment of Dysarthric children by other health professionals



Structure and Content | 29 tech

- 2.4.9.1. The Importance of Joint Assessment 2.4.9.2. Neurological Evaluation 2.4.9.3. Physiotherapeutic Evaluation 2.4.9.4. Otolaryngological Assessment 2.4.9.5. Psychological Assessment. 2.4.10. Differential Diagnosis 2.4.10.1. How to make the Differential Diagnosis in children with Dysarthria? 2.4.10.2. Considerations in Establishing the Differential Diagnosis 2.5. Characteristics of Dysarthrias 2.5.1. The Importance of Intervention in Juvenile Dysarthria 2.5.1.1. Consequences in children affected by Dysarthria 2.5.1.2. Evolution of Dysarthria through Intervention 2.5.2. Goals of Intervention for children with Dysarthria 2.5.2.1. General Goals in Dysarthria 2.5.2.1.1. Psychological Goals 2.5.2.1.2. Motor Goal 2.5.3. Intervention Methods 2.5.4. Steps to be carried out during the Intervention 2.5.4.1. Agree on the Intervention Model 2.5.4.2. Establish the Sequencing and timing of the Intervention 2.5.5. The child as the Main Subject during the Intervention 2.5.5.1. Supporting the child's skills in Intervention 2.5.6. General Intervention Considerations 2.5.6.1. The importance of motivational involvement in Intervention 2.5.6.2. Affectivity during the Intervention 2.5.7. Proposal of Activities for Speech Therapy Intervention 2.5.7.1. Psychological Activities 2.5.7.2. Motor Activities 2.5.8. The importance of the joint rehabilitation process 2.5.8.1. Professionals involved in Dysarthrias 2.5.8.1.1. Physiotherapist 2.5.8.1.2. Psychologist
 - 2.5.9. Alternative and Augmentative Communication Systems as Support for

tech 30 | Structure and Content

Intervention

- 2.5.9.1. How can these systems help Intervention with children with Dysarthria?
- 2.5.9.2. Choice of system type: Augmentative or Alternative?
- 2.5.9.3. Settings in Which its Use will be Established
- 2.5.10. How to Establish the end of Treatment?2.5.10.1. Criteria for Indicating the end of Rehabilitation
 - 2.5.10.2. Fulfillment of Rehabilitation Objectives
- 2.6. Evaluation of Dysarthrias
 - 2.6.1. Speech Therapy Interventions in Dysarthrias
 - 2.6.1.1.Importance of Speech Therapy Intervention in Child and Adolescent Dysarthrias
 - 2.6.1.2. What does Speech Therapy Intervention in Dysarthria consist of?
 - 2.6.1.3. Objectives of the Speech Therapy Intervention

2.6.1.3.1. General Objectives of the Speech Therapy Intervention Program

2.6.1.3.2. Specific Objectives of the Speech Therapy Intervention Program

- 2.6.2. Swallowing Therapy in Dysarthria
 - 2.6.2.1. Swallowing Difficulties in cases of Dysarthria
 - 2.6.2.2. What does Swallowing Therapy consist of?
 - 2.6.2.3. Importance of the Therapy
- 2.6.3. Postural and Body Therapy in Dysarthria2.6.3.1. Body Posture Difficulties in cases of Dysarthria2.6.3.2. What does Postural and Body Therapy consist of?2.6.3.3. The Importance of Therapy
- 2.6.4. Orofacial Therapy in Dysarthria2.6.4.1. Orofacial difficulties in cases of Dysarthria2.6.4.2. What does Orofacial Therapy consist of?2.6.4.3. The Importance of Therapy
- 2.6.5. Breathing Therapy and Phonorespiratory Coordination in Dysarthria2.6.5.1. Difficulties in Phonorespiratory Coordination in cases of Dysarthria2.6.5.2. What does Therapy consist of?
 - 2.6.5.3. The Importance of Therapy
- 2.6.6. Articulation Therapy in Dysarthria

- 2.6.6.1. Difficulties in Articulation in cases of Dysarthria 2.6.6.2. What does Therapy consist of? 2.6.6.3. The Importance of Therapy 2.6.7. Speech Therapy in Dysarthria 2.6.7.1. Phonatory Difficulties in cases of Dysarthria 2.6.7.2. What does Therapy consist of? 2.6.7.3. The Importance of Therapy 2.6.8. Resonance Therapy in Dysarthria 2.6.8.1. Difficulties in Resonance in cases of Dysarthria 2.6.8.2. What does Therapy consist of? 2.6.8.3. The Importance of Therapy 2.6.9. Vocal Therapy in Dysarthria 2.6.9.1. Difficulties in Voice in cases of Dysarthria 2.6.9.2. What does Therapy consist of? 2.6.9.3. The Importance of Therapy 2.6.10. Prosody and Fluency Therapy 2.6.10.1. Difficulties in Prosody and Fluency in cases of Dysarthria 2.6.10.2. What does Therapy consist of? 2.6.10.3. The Importance of Therapy 2.7. Speech Therapy Exploration in Dysarthrias 2.7.1. Introduction 2.7.1.1. Importance of developing a Speech Therapy Intervention Program for a child with Dysarthria. 2.7.2. Initial Considerations for the Development of a Speech-Language Intervention Program 2.7.2.1. Characteristics of Dysarthric children
 - 2.7.3. Decisions for the planning of Speech Therapy Intervention2.7.3.1. Method of Intervention to be performed2.7.3.2. Consensus for the Sequencing of the Intervention Sessions: Aspects

Structure and Content | 31 tech

to Consider

- 2.7.3.2.1. Chronological Age
- 2.7.3.2.2. The child's Extracurricular Activities
- 2.7.3.2.3. Schedules
- 2.7.3.3. Establishing lines of Intervention
- 2.7.4. Objectives of the Speech Therapy Intervention Program for Dysarthria2.7.4.1. General Objectives of the Speech Therapy Intervention Program2.7.4.2. Specific Objectives of the Speech Therapy Intervention Program
- 2.7.5. Areas of Speech Therapy Intervention in Dysarthrias and Proposed Activities
 - 2.7.5.1. Orofacial
 - 2.7.5.2. Voice
 - 2.7.5.3. Prosody
 - 2.7.5.4. Speech
 - 2.7.5.5. Language
 - 2.7.5.6. Breathing
- 2.7.6. Materials and Resources for Speech Therapy Intervention
 - 2.7.6.1. Proposal of Materials on the market for use in Speech Therapy Intervention with an outline of the Material and its uses
 - 2.7.6.2. Images of the Materials previously proposed
- 2.7.7. Technological Resources and Didactic Materials for Speech Therapy Intervention
 - 2.7.7.1. Software Programs for Intervention
 - 2.7.7.1.1. PRAAT Program
- 2.7.8. Intervention Methods for Intervention in Dysarthria Intervention
 - 2.7.8.1. Types of Intervention Methods
 - 2.7.8.1.1. Medical Methods
 - 2.7.8.1.2. Clinical Intervention Methods
 - 2.7.8.1.3. Instrumental Methods
 - 2.7.8.1.4. Pragmatic Methods
 - 2.7.8.1.5. Behavioral-Logopedic Methods
 - 2.7.8.2. Choice of the appropriate Method of Intervention for the case
- 2.7.9. Techniques of Speech Therapy Intervention and Proposed Activities

2.7.9.1. Breathing 2.7.9.1.1. Proposed Activities 2.7.9.2. Phonation 2.7.9.2.1. Proposed Activities 2.7.9.3. Articulation 2.7.9.3.1. Proposed Activities 2.7.9.4. Resonance 2.7.9.4.1. Proposed Activities 2.7.9.5. Speech Rate 2.7.9.5.1. Proposed Activities 2.7.9.6. Accent and Intonation 2.7.9.6.1. Proposed Activities 2.7.10. Alternative and/or Augmentative Communication Systems as a Method of Intervention in Cases of Dysarthria 2.7.10.1. What are AACS? 2.7.10.2. How can AACS help Intervention with children with Dysarthria? 2.7.10.3. How can about AACS help Communication children with Dysarthria? 2.7.10.4. Choice of a System Method according to the child's needs 2.7.10.4.1. Considerations for establishing a Communication System 2.7.10.5. How To Use Communication Systems in Different Child Development Settings? Speech Therapy Interventions in Dysarthrias 2.8.1. Introduction to the unit in the Development of the Dysarthric child 2.8.2. The Consequences of the Dysarthric child in the family context 2.8.2.1. How is the Child Affected by Difficulties in the Home Environment? 2.8.3. Communication Difficulties in the Dysarthric child's Home Environment. 2.8.1.1. What Barriers do they Encounter in the Home Environment? 2.8.4. The Importance of Professional Intervention in the Family Environment and the Family-centered Intervention Model 2.8.4.1. The importance of the family in the development of the Dysphemic child. 2.8.4.2. How to Carry Out Family-centered Intervention in Cases of Dysarthric Children? 2.8.5. Family Integration in Speech Therapy and School Intervention for Children

2.8.

tech 32 | Structure and Content

With Dysarthria

- 2.8.5.1. Aspects to Consider in Order to Integrate the Family in the Intervention
- 2.8.6. Benefits of integrating the family in the Professional and School Intervention2.8.6.1. Coordination with Health Professionals and the benefits2.6.6.2. Coordination with Educational Professionals and the benefits
- 2.8.7. Advice for the Family Environment
 - 2.8.7.1. Tips to facilitate oral Communication in the Dysarthric child
 - 2.8.7.2. Guidelines for the Relationship at home with the Dysarthric child
- 2.8.8. Psychological Support for the family
 - 2.8.8.1. Psychological Implications in the family with cases of children with Dysarthria
 - 2.8.8.2. Why Provide Psychological Support?
- 2.8.9. The Family as a Means of Generalization in Learning2.8.9.1. The Importance of the Family for the Generalization in Learning2.8.9.2. How can the family support the child's Learning?
- 2.8.10. Communication with the child with Dysarthria2.8.10.1. Communication Strategies in the Home Environment
 - 2.8.10.2. Tips for better Communication
 - 2.8.10.2.1. Changes in the Environment
 - 2.8.10.2.2. Alternatives to Oral Communication
- 2.9. Proposal of Exercise for Speech Therapy Intervention in Dysarthria
 - 2.9.1. Introduction to Unit
 - 2.9.1.1. The period of Childhood schooling in relation to the prevalence of Infantile-juvenile Dysarthria
 - 2.9.2. The Importance of the involvement of the school during the Intervention period
 - 2.9.2.1. The school as a means of Development of the Dysarthric child 2.9.2.2. The influence of the School on Child Development
 - 2.9.3. School Support, Who Offers Support to the Child at School and How?2.9.3.1. The Hearing and Language Teacher
 - 2.9.3.2. The Guidance Counselor
 - 2.9.4. Coordination of the Rehabilitation Professionals with the Education



Structure and Content | 33 tech

Professionals

- 2.9.4.1. Who to coordinate with?
- 2.9.4.2. Steps for coordination
- 2.9.5. Consequences in the Dysarthric Child's Classroom2.9.5.1. Psychological Consequences in the Dysarthric Child2.9.5.2. Communication with Classmates
- 2.9.6. Intervention According to the Student's Needs2.9.6.1. Importance of taking into account the needs of the Student with Dysarthria. 2.9.6.2. How to Establish the Needs of the Student?2.9.6.3. Participants in the Development of the Learner's needs
- 2.9.7. Orientations

2.9.7.1. Guidance for the School in Intervention with the Child with Dysarthria

2.9.8. Objectives of the Educational Center

2.9.8.1. General Objectives of School Intervention 8.9.8.2. 2.9.8.2. Strategies to Achieve the Objectives

- 2.9.9. Methods of Intervention in the Classroom Strategies to Promote the Child's Integration
- 2.9.10. The use of SAACs in the classroom to Promote Communication2.9.10.1. How can SAACs help in the classroom with the Dysarthric Student?
- 2.10. Annexes

Module 3. Understanding Hearing Impairments

- 3.1. The Auditory System: Anatomical and Functional Bases
 - 3.1.1. Introduction to Unit
 - 3.1.1.1. Preliminary Considerations
 - 3.1.1.2. Concept of Sound
 - 3.1.1.3. Concept of Noise
 - 3.1.1.4. Concept of Sound Wave
 - 3.1.2. The External Ear
 - 3.1.2.1. Concept and Function of the External Ear
 - 3.1.2.2. Parts of the External Ear
 - 3.1.3. The Middle Ear
 - 3.1.3.1. Concept and Function of the Middle Ear

- 3.1.3.2. Parts of the Middle Ear
- 3.1.4. The Inner Ear3.1.4.1. Concept and Function of the Inner Ear3.1.4.2. Parts of the Inner Ear
- 3.1.5. Hearing Physiology
- 3.1.6. How does Natural Hearing work?3.1.6.1. Concept of Natural Hearing3.1.6.2. Mechanism of Undisturbed Hearing
- 3.2. Hearing Loss
 - 3.2.1. Hearing Loss
 - 3.2.1.1. Concept of Hearing Loss
 - 3.2.1.2. Symptoms of Hearing Loss
 - 3.2.2. Classification of Hearing Loss According to Where the Lesion is Located3.2.2.1. Transmission or Conduction Hearing Loss3.2.2.2. Perceptual or Sensorineural Hearing Losses
 - 3.2.3. Classification of Hearing Loss according to the degree of Hearing Loss
 3.2.3.1. Light or Mild Hearing Loss
 3.2.3.2. Medium Hearing Loss
 3.2.3.3. Severe Hearing Loss
 3.2.3.4. Profound Hearing Loss
 - 3.2.4. Classification of Hearing Loss according to Age of Onset3.2.4.1. Prelocution Hearing Loss3.2.4.2. Perlocution Hearing Loss3.2.4.3. Postlocution Hearing Loss
 - 3.2.5. Classification of Hearing Loss according to its Etiology

3.2.5.1. Accidental Hearing Loss

3.2.5.2. Hearing Loss due to the consumption of Ototoxic Substances

- 3.2.5.3. Genetic origin Hearing Loss
- 3.2.5.4. Other Possible Causes
- 3.2.6. Risk factors for Hearing Loss 3.2.6.1. Aging

tech 34 | Structure and Content

3.2.6.2. Loud Noises

- 3.2.6.3. Hereditary Factor
- 3.2.6.4. Recreational Sports
- 3.2.6.5. Others
- 3.2.7. Prevalence of Hearing Loss 3.2.7.1. Preliminary Considerations
 - 3.2.7.2. Prevalence of Hearing Loss in the rest of the Countries
- 3.2.8. Comorbidity of Hearing Loss
 - 3.2.8.1. Comorbidity in Hearing Loss
 - 3.2.8.2. Associated Disorders
- 3.2.9. Comparison of the intensity of the most frequent Sounds3.2.9.1. Sound Levels of frequent noises
- 3.2.10. Hearing Prevention
 - 3.2.10.1. Preliminary Considerations
 - 3.2.10.2. The Importance of Prevention
 - 3.2.10.3. Preventive Methods for Hearing Care
- 3.3. Audiology and Audiometry
- 3.4. Hearing Aids
 - 3.4.1. Preliminary Considerations
 - 3.4.2. History of Hearing Aids
 - 3.4.3. What are Hearing Aids?
 - 3.4.3.1. Concept of Hearing Aid
 - 3.4.3.2. How does a Hearing Aid work?
 - 3.4.3.3. Description of the Device
 - 3.4.4. Hearing Aid fitting and fitting Requirements
 - 3.4.4.1. Preliminary Considerations
 - 3.4.4.2. Hearing Aid Fitting Requirements
 - 3.4.4.3. How is a Hearing Aid fitted?
 - 3.4.5. When is it not advisable to fit a Hearing Aid?3.4.5.1. Preliminary Considerations3.4.5.2. Aspects that influence the Professional's Final Decision
 - 3.4.6. The Success and Failure of Hearing Aid fitting3.4.6.1. Factors influencing the success of Hearing Aid fitting

- 3.4.6.2. Factors influencing the failure of Hearing Aid fitting
- 3.4.7. Analysis of the Evidence on Effectiveness, Safety, and Ethical Aspects of the Hearing Aid
 3.4.7.1. Hearing Aid Effectiveness
 3.4.7.2. Hearing Aid Safety
 - 3.4.7.3. Ethical Aspects of the Hearing Aid
- 3.4.8. Indications and Contraindications of Hearing Aids
 3.4.8.1. Preliminary Considerations
 3.4.8.2. Hearing Aid Indications
 3.4.8.3. Hearing Aid Contraindications
- 3.4.9. Current Hearing Aid Models3.4.9.1. Introduction3.4.9.2. The different current Hearing Aid Models
- 3.4.10. Final Conclusions
- 3.5. Cochlear implants
 - 3.5.1. Introduction to Unit
 - 3.5.2. History of Cochlear Implantation
 - 3.5.3. What are Cochlear Implants? 3.5.3.1. Concept of Cochlear Implant
 - 3.5.3.2. How Does a Cochlear Implant Work
 - 3.5.3.3. Description of the Device
 - 3.5.4.Requirements for Cochlear Implant Placement3.5.4.1. Preliminary Considerations
 - 3.5.4.2. Physical Requirements to be met by the user
 - 3.5.4.3. Psychological Requirements to be met by the user
 - 3.5.5. Implementation of Cochlear Implant
 - 3.5.5.1. The Surgery
 - 3.5.5.2. Implant Programming
 - 3.5.5.3. Professionals involved in the Surgery and in the Implant Programming
 - 3.5.6. When is it not advisable to place a Cochlear Implant?3.5.6.1. Preliminary Considerations

Structure and Content | 35 tech

3.5.6.2. Aspects that influence the Professional's Final Decision 3.5.7. Success and Failure of Cochlear Implantation 3.5.7.1. Factors influencing the success of Cochlear Implant placement 3.5.7.2. Factors influencing Cochlear Implant placement failure 3.5.8. Analysis of the Evidence on Effectiveness, Safety, and Ethical Aspects of Cochlear Implantation 3.5.8.1. Effectiveness of Cochlear Implantation 3.5.8.2. Safety of Cochlear Implantation 3.5.8.3. Ethical Aspects of Cochlear Implantation 3.5.9. Indications and Contraindications of Cochlear Implantation 3.5.9.1. Preliminary Considerations 3.5.9.2. Indications of Cochlear Implantation 3.5.9.3. Contraindications of Cochlear Implantation 3.5.10. Final Conclusions Speech Therapy Evaluation instruments in Hearing Impairments 3.6. 3.6.1. Introduction to Unit 3.6.2. Elements to take into account during the Evaluation 3.6.2.1. Level of Care 3.6.2.2. Imitation 3.6.2.3. Visual Perception 3.6.2.4. Mode of Communication 3.6.2.5. Hearing 3.6.2.5.1. Reaction to unexpected Sounds 3.6.2.5.2. Sound Detection What sounds do you hear? 3.6.2.5.3. Identification and Recognition of Environmental and Speech Sounds 3.6.3. Audiometry and the Audiogram 3.6.3.1. Preliminary Considerations 3.6.3.2. Concept of Audiometry 3.6.3.3. Concept of Audiogram 3.6.3.4. The function of Audiometry and the Audiogram 3.6.4. First part of the evaluation: Anamnesis 3.6.4.1. General Development of the Patient

3.6.4.2. Type and degree of Hearing Loss 3.6.4.3. Timing of onset of Hearing Loss 3.6.4.4. Existence of Associated Pathologies 3.6.4.5. Mode of Communication 3.6.4.6. Use or Absence of Hearing Aids 3.6.4.6.1. Date of Fitting 3.6.4.6.2. Other Aspects 3.6.5. Second part of the Evaluation: Otorhinolaryngologist and Prosthetist 3.6.5.1. Preliminary Considerations 3.6.5.2. Otolaryngologist's Report 3.6.5.2.1. Analysis of the Objective Tests 3.6.5.2.2. Analysis of the Subjective Tests 3.6.5.3. Prosthetist's Report 3.6.6 Second Part of the Evaluation: Standardized Tests/Exams 3.6.6.1. Preliminary Considerations 3.6.6.2. Speech Audiometry 3.6.6.2.1. Ling Test 3.6.6.2.2. Name Test 3.6.6.2.3. Early Speech Perception Test (ESP). 3.6.6.2.4. Distinguishing Features Test 3.6.6.2.5. Vowel Identification Test 3.6.6.2.6. Consonant Identification Test 3.6.6.2.7. Monosyllable Recognition Test 3.6.6.2.8. Bisyllable Recognition Test 3.6.6.2.9. Phrase Recognition Test 3.6.6.2.9.1. Open-choice Sentence Test with Support 3.6.6.2.9.2. Test of Open-choice Sentences without Support 3.6.6.3. Oral Language Test/Tests 36631 PLON-R

tech 36 | Structure and Content

- 3.6.6.3.2. Reynell Scale of Language Development 3.6.6.3.3. ITPA 3.6.6.3.4. ELCE 3.6.6.3.5. Monfort Induced Phonological Register 3.6.6.3.6. MacArthur 3.6.6.3.7. Boehm's Test of basic concepts 3.6.6.3.8. BLOC 3.6.7. Elements to be included in a Speech Therapy Report on Hearing Impairment
- 3.6.7.1. Preliminary Considerations
 - 3.6.7.2. Important and Basic Elements
 - 3.6.7.3. Importance of the Speech Therapy Report in Auditory Rehabilitation
- 3.6.8. Evaluation of the Hearing-Impaired child in the school context 3.6.8.1. Professionals to be Interviewed
 - 3.6.8.1.1. Tutor

 - 3.6.8.1.2. Professors
 - 3.6.8.1.3. Hearing and Speech Teacher
 - 3.6.8.1.4. Others
- 3.6.9. Early Detection
 - 3.6.9.1. Preliminary Considerations
 - 3.6.9.2. The importance of Early Diagnosis
 - 3.6.9.3. Why is a Speech Therapy Evaluation more effective when the child is younger?
- 3.5.10. Final Conclusions
- 3.7. Speech-language Pathologist's role in Hearing Impairment Intervention
 - 3.7.1. Introduction to Unit
 - 3.7.1.1. Methodological Approaches, according to Perier's classification (1987)
 - 3.7.1.2. Oral Monolingual Methods
 - 3.7.1.3. Bilingual Methods
 - 3.7.1.4. Mixed Methods
 - 3.7.2. Are there any differences between Rehabilitation after a Hearing Aid or Cochlear Implant?
 - 3.7.3. Post-implant intervention in Prelingually Hearing-impaired children
 - 3.7.4. Post-implant Intervention in Postlocution children 3.7.4.1. Introduction to Unit





Structure and Content | 37 tech

	3.7.4.2. Phases of Auditory Rehabilitation
	3.7.4.2.1. Sound Detection Phase
	3.7.4.2.2. Discrimination Phase
	3.7.4.2.3. Identification Phase
	3.7.4.2.4. Recognition Phase
	3.7.4.2.5. Comprehension Phase
3.7.5.	Useful Activities for Rehabilitation
	3.7.5.1. Activities for the Detection Phase
	3.7.5.2. Activities for the Discrimination Phase
	3.7.5.3. Activities for the Identification Phase
	3.7.5.4. Activities for the Recognition Phase
	3.7.5.5. Activities for the Comprehension Phase
3.7.6.	Role of the family in the Rehabilitation Process
	3.7.6.1. Guidelines for families
	3.7.6.2. Is the Presence of the Parents in the Sessions Advisable?
3.7.7.	The Importance of an Interdisciplinary Team during the Intervention
	3.7.7.1. Preliminary Considerations
	3.7.7.2. Why the Interdisciplinary Team is so important
	3.7.7.3. The Professionals involved in Rehabilitation
3.7.8.	Strategies for the School Environment
	3.7.8.1. Preliminary Considerations
	3.7.8.2. Communication Strategies
	3.7.8.3. Methodological Strategies
	3.7.8.4. Strategies for Text Adaptation
3.7.9.	Materials and Resources adapted to the Speech Therapy Intervention in Audiology
	3.7.9.1. Self-made useful Materials
	3.7.9.2. Commercially available Material
	3.7.9.3. Useful Technological Resources
3.7.10.	Final Conclusions
Dimode	Communication

3.8. Bimodal Communication

tech 38 | Structure and Content

- 3.8.1. Introduction to Unit
- 3.8.2. What does Bimodal Communication consist of? 3.8.2.1. Concept
 - 3.8.2.2. Functions
- 3.8.3. Elements of Bimodal Communication 3.8.3.1. Preliminary Considerations
 - 3.8.3.2. Elements of Bimodal Communication
 - 3.8.3.2.1. Pantomimic Gestures
 - 3.8.3.2.2. Elements of Sign Language
 - 3.8.3.2.3. Natural Gestures
 - 3.8.3.2.4. "Idiosyncratic" Gestures
 - 3.8.3.2.5. Other Elements
- 3.8.4. Objectives and Advantages of the use of Bimodal Communication3.8.4.1. Preliminary Considerations
 - 3.8.4.2. Advantages of Bimodal Communication
 - 3.8.4.2.1. Regarding the Word at the Reception
 - 3.8.4.2.2. Regarding the Word in Expression
 - 3.8.4.3. Advantages of Bimodal Communication over other Augmentative and Alternative Communication Systems
- 3.8.5. When should we consider using Bimodal Communication?
 - 3.8.5.1. Preliminary Considerations
 - 3.8.5.2. Factors to Consider
 - 3.8.5.3. Professionals making the Decision
 - 3.8.5.4. The Importance of the Role of the Family
- 3.8.6.The Facilitating Effect of Bimodal Communication3.8.6.1. Preliminary Considerations
 - 3.8.6.2. The Indirect Effect
 - 3.8.6.3. The Direct Effect
- 3.8.7. Bimodal Communication in the different Language Areas3.8.7.1. Preliminary Considerations3.8.7.2. Bimodal Communication and Comprehension
 - 3.8.7.3. Bimodal Communication and Expression
- 3.8.8. Forms of Implementation of Bimodal Communication
- 3.8.9. Programs aimed at learning and implementing the Bimodal System

3.8.9.1. Preliminary Considerations 3.8.9.2. Introduction to Bimodal Communication supported by Clic and NeoBook Authoring Tools 3.8.9.3. Bimodal 2000 3.8.10. Final Conclusions 3.9. The figure of the Interpreter of Sign Language (ILSE) 3.9.1. Introduction to Unit 3.9.2. History of Interpretation 3.9.2.1. History of Oral Language Interpreting 3.9.2.2. History of Sign Language Interpreting 3.9.2.3. Sign Language Interpreting as a Profession 3.9.3. The Interpreter of Sign Language (ILSE) 3.9.3.1. Concept 3.9.3.2. ILSE Professional Profile 3.9.3.2.1. Personal Characteristics 3.9.3.2.2. Intellectual Characteristics 3.9.3.2.3. Ethical Characteristics 3.9.3.2.4. General Knowledge 3.9.3.3. The Indispensable Role of the Sign Language Interpreter 3.9.3.4. Professionalism in Interpreting 3.9.4. Interpreting Methods 3.9.4.1. Characteristics of Interpreting 3.9.4.2. The purpose of Interpretation 3.9.4.3. Interpreting as a Communicative and Cultural Interaction 3.9.4.4. Types of Interpretation: 3.9.4.4.1. Consecutive Interpretation 3.9.4.4.2. Simultaneous Interpretation 3.9.4.4.3. Interpreting in a telephone call 3.9.4.4.4. Interpreting Written Texts

Structure and Content | 39 tech



3.9.5.	Components of the Interpretation Process	
	3.9.5.1. Message	
	3.9.5.2. Perception	
	3.9.5.3. Linking Systems	
	3.9.5.4. Comprehension	
	3.9.5.5. Interpretation	
	3.9.5.6. Assessment	
	3.9.5.7. Human Resources Involved	
3.9.6.	List of the Elements of the Interpretation Mechanism	
	3.9.6.1. Moser's Hypothetical Model of Simultaneous Interpretation	
	3.9.6.2. Colonomos' Model of Interpreting Work	
	3.9.6.3. Cokely's Interpretation Process Model	
3.9.7.	Interpretation Techniques	
	3.9.7.1. Concentration and Attention	
	3.9.7.2. Memory	
	3.9.7.3. Note Taking	
	3.9.7.4. Verbal Fluency and Mental Agility	
	3.9.7.5. Resources for Lexical Building	
3.9.8.	ILSE Fields of Action	
	3.9.8.1. Services in General	
	3.9.8.2. Specific Services	
	3.9.8.3. Organization of ILS services in other European Countries	
3.9.9.	Ethical Standards	
	3.9.9.1. The ILSE Code of Ethics	
	3.9.9.2. Fundamental Principles	
	3.9.9.3. Other Ethical Principles	
3.9.10.	Sign Language Interpreter Associations	
	3.9.10.1. ILS Associations in Europe	
	3.9.10.2. ILS Associations in the rest of the World	

05 **Methodology**

This training program offers 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.

Methodology | 41 tech

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"

tech 42 | Methodology

At TECH Education School 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. 66

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.



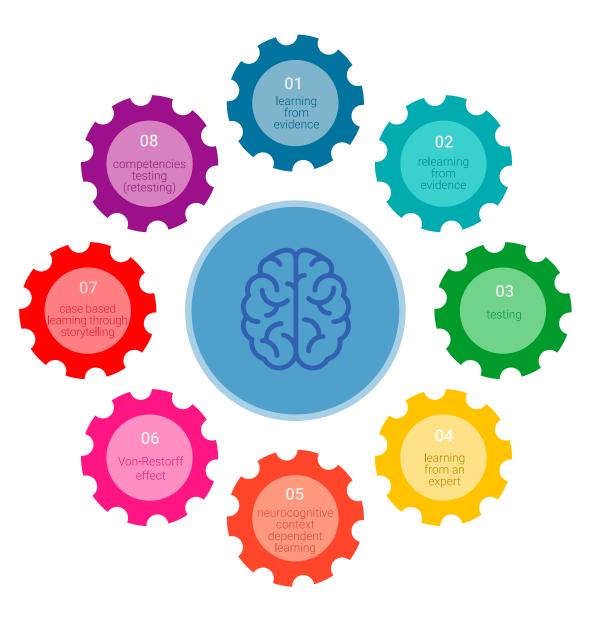
tech 44 | Methodology

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.



Methodology | 45 tech

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.



tech 46 | Methodology

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.

20%

15%

3%

15%

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.

Methodology | 47 tech



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.

20%

7%

3%

17%



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.

06 **Certificate**

The Postgraduate Diploma in Dysarthria and Hearing Impairment guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Technological University.

66

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

tech 50 | Certificate

This **Postgraduate Diploma in Dysarthria and Hearing Impairment** contains the most complete and up-to-date program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Diploma** issued by **TECH Technological University** via tracked delivery*.

The diploma issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Diploma, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: Postgraduate Diploma in Dysarthria and Hearing Impairment



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

technological university Postgraduate Diploma Dysarthria and Hearing Impairment » Modality: online » Duration: 6 months » Certificate: TECH Technological University » Schedule: at your own pace » Exams: online

Postgraduate Diploma Dysarthria and Hearing Impairment

