



# Postgraduate Diploma

Dysarthria and Hearing Impairment for Physicians

» Modality: online

» Duration: 6 months

» Certificate: TECH Global University

» Accreditation: 18 ECTS

» Schedule: at your own pace

» Exams: online

Website:\_www.techtitute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-dysarthria-hearing-impairment-physicians

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### tech 06 | Introduction

Understanding the special and specific educational needs arising from both dysarthria and hearing loss, how to identify them, assess the most adaptive support systems, and design a personalized and direct intervention, combined with socio-family intervention, are all key aspects of any speech therapy re-education process.

Bringing the contributions of Medicine, Audiology, and Neuropsychology into daily practice in classrooms and rehabilitation centers ensures that all involved agents become familiar with prosthetic resources and access systems. The responsibility for making the necessary adaptations is shared, with speech therapy specialists—both clinical and educational—guiding and mediating in this diversity of contexts.

This program is designed by speech therapists with extensive knowledge and experience in their respective fields, specifically in brain damage and perceptual-auditory disorders.

The goal of this program is for you, upon completion, to be capable of developing complete intervention programs for the various disorders discussed here. For this, the disorders are addressed specifically and exhaustively, not only from the speech therapy perspective but also with multidisciplinary input.

This program will provide you with the knowledge and resources needed to identify, evaluate, and intervene in these disorders, taking into account the social, family, and emotional dimensions that surround speech disorders caused by these highly visible conditions.

This **Postgraduate Diploma in Dysarthria and Hearing Impairment for Physicians** contains the most complete and up-to-date scientific program on the market. Its most notable features are:

- Development of practical cases presented by experts in dysarthria and hearing impairment Its graphic, schematic, and eminently practical content is designed to provide scientific and practical information on the essential disciplines for professional practice
- Latest developments in dysarthria and hearing impairment
- It contains practical exercises where the process of self-evaluation can be carried out to improve learning.
- With special emphasis on innovative methodologies in Dysarthria and Hearing Impairment
- All of this will be complemented by 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





This Postgraduate Diploma could be the best investment you make when selecting a professional development program for two reasons: not only will you update your knowledge in Dysarthria and Hearing Impairment for Physicians, but you will also earn a diploma from TECH Global University"

The program includes faculty members who are professionals in this field, bringing their practical experience into the training, as well as recognized specialists from leading societies and prestigious universities.

Thanks to its multimedia content, developed with the latest educational technology, professionals will benefit from situated and contextual learning—simulated environments designed to provide immersive learning experiences that prepare them for real-life situations.

The design of this program is based on problem-based learning, through which the student must work to solve various professional practice situations presented throughout the Postgraduate Diploma. For this, the student will be supported by an innovative interactive video system created by recognized experts in the field of applying educational coaching in the classroom, with extensive teaching experience.

A program created to be versatile and flexible, allowing you to balance your personal or professional life with the best online education.

Join the forefront of this field with a competitive master's program in terms of quality and prestige: a unique opportunity to distinguish yourself as a professional.



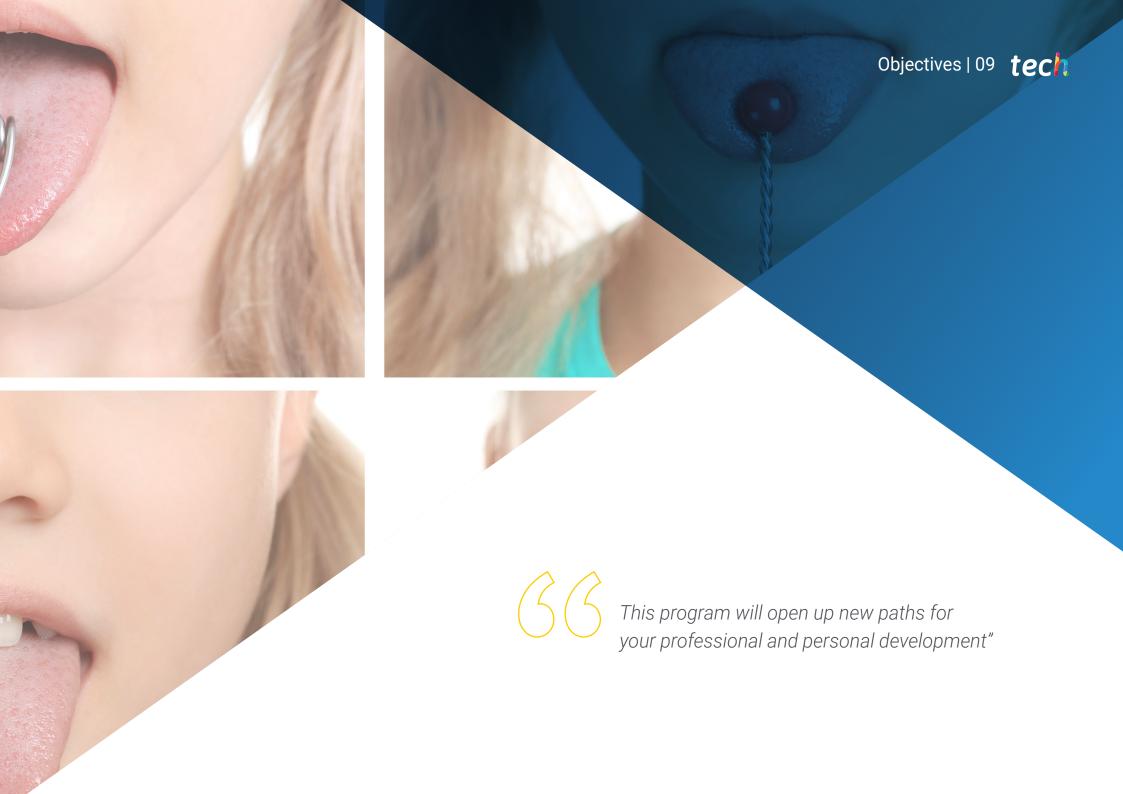
# 02 Objectives

The Postgraduate Diploma in Dysarthria and Hearing Impairment for Physicians will provide you with the essential knowledge to give a boost to your work. With the necessary programming and development tools to implement the most efficient way of working and adjusted to the real needs of the children.









# tech 10 | Objectives



### **General Objectives**

- Provide specialized training based on theoretical and instrumental knowledge, enabling competencies in the detection, prevention, assessment, and intervention of the treated speech disorders
- Consolidate basic knowledge of the intervention process in the classroom and other spaces based on the latest technological advances that facilitate access to information and the curriculum for these students.
- Update and develop specific knowledge on the characteristics of these disorders in order to refine the differential and proactive diagnosis that sets the guidelines for intervention
- Raise awareness in the educational community of the need for educational inclusion and holistic intervention models with the participation of all members of the community
- Learn about educational experiences and good practices in speech therapy and psychosocial intervention that promote the personal, socio-family and educational adaptation of students with these educational needs



Take advantage of the opportunity and take the step to update yourself on the latest advancements in Dysarthria and Hearing Impairment for Physicians"



### **Specific Objectives**

#### Module 1

- Delve into 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 compose it
- 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
- Learn about 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
- Be able to develop a Speech Therapy report in a clear and precise way, both for the families and for the different professionals
- Understand the importance and effectiveness of working with an interdisciplinary team, whenever necessary and favorable for the child's rehabilitation

#### Module 2

- 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 symptoms and characteristics of verbal apraxia and dysarthria Identify both conditions by carrying out an appropriate evaluation process



- Clarify the role of the speech therapist in both the assessment and intervention processes, being able to apply appropriate and personalized exercises for the child
- Get 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

- Assimilation of the anatomy and functionality of the organs and mechanisms involved in hearing
- Deepening of 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
- Learn and understand the functioning and importance of Hearing Aids and Cochlear Implants
- Gain an in-depth understanding about the 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
- Understand the role of the Interpreter in Sign Language (ILSE)

#### Module 4

 Learn about the area of knowledge and work of child and adolescent psychology: object of study, areas of action, etc

- Become aware of the characteristics that a professional working with children and adolescents should have or enhance
- Acquire the basic knowledge necessary for the detection and referral of possible Psychological Problems in children and adolescents that may disturb the child's well-being and interfere in the Speech Therapy rehabilitation and to reflect on them
- Get to know the possible implications that different psychological problems (emotional, cognitive, and behavioral) may have on speech therapy rehabilitation
- Acquire knowledge related to attentional processes, as well as their influence on Language and intervention strategies to be carried out at the Speech Therapy level together with other professionals
- Delve into the subject of Executive Functions and to know their implications in the area of Language, as well as to acquire strategies to intervene on them at a Speech Therapy level together with other professionals
- Acquire knowledge on how to intervene at the level of Social Skills in children and adolescents, as well as to deepen in some concepts related to them, and to obtain specific strategies to enhance them
- Know different Behavior Modification strategies that are useful in consultation to achieve both the initiation, development, and generalization of appropriate behaviors, as well as the reduction or elimination of inappropriate behaviors
- Delve into the concept of motivation and to acquire strategies to promote it in consultation
- · Acquire knowledge related to School failure in children and adolescents
- Know the main study habits and techniques that can help to improve the performance of children and adolescents from a Speech Therapy and Psychological point of view





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### Management



#### Ms. Vázquez Pérez, Maria Asunción

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

### Faculty

### Ms. Fernández, Ester Cerezo

- Speech Therapist at the Neurorehabilitation Clinic Paso a Paso
- Expert in Myofunctional Therapy by Euroinnova Business School

### Ms. Mata Ares, Sandra María

- Speech Therapist Specialized in Speech Therapy Intervention in Children and Adolescents
- Speech Therapist at Sandra Comunicate Speech Therapist
- Master's Degree in Speech Therapy Intervention in Childhood and Adolescence from the University of A Coruña
- Graduate in Speech Therapy from the University of A Coruña

### Ms. Rico Sánchez, Rosana

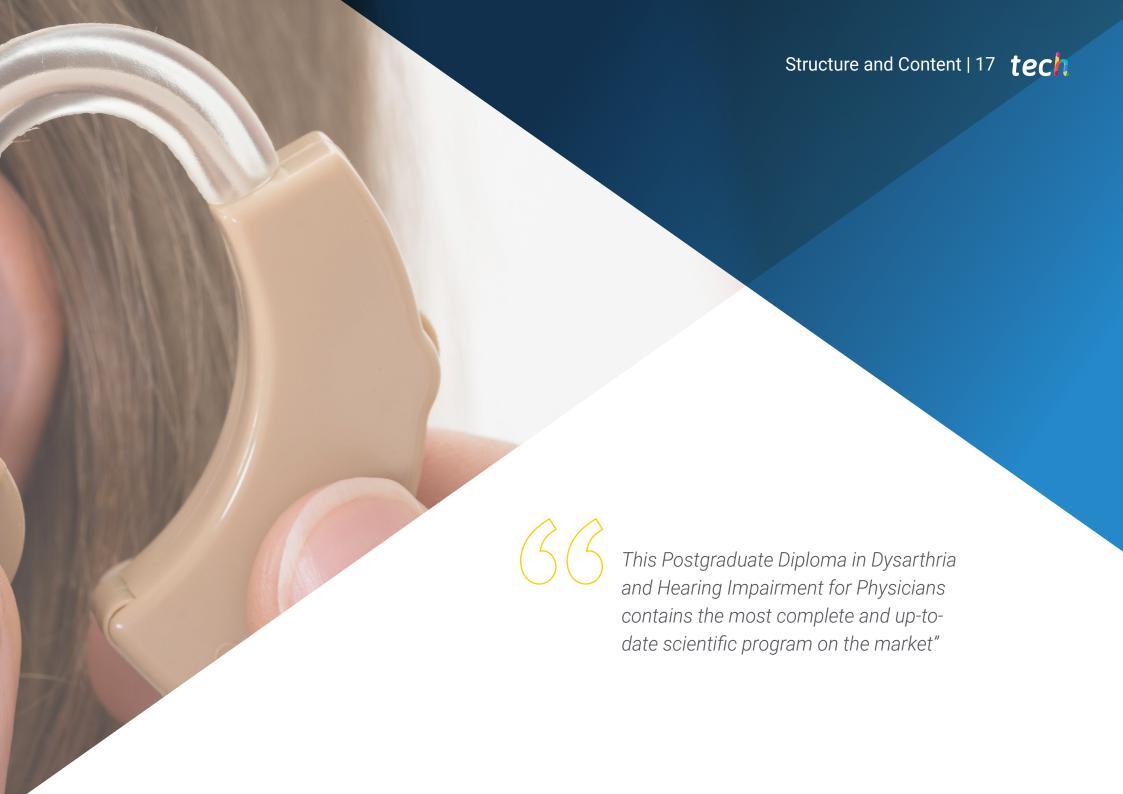
- Speech therapist at OrientaMedia
- Degree in Psychology from the National University of Distance Education (UNED)
- Specialist in Alternative and/or Augmentative Communication Systems (SAAC)

### Ms. Vázquez Pérez, Maria Asunción

- 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







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### Module 1. Foundations of Speech and Language Therapy

- 1.1. Introduction to the Program and the Modules
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  - 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
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    - 1.1.9.2. The Importance of Imitation
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  - 1.2.2. History of Speech Therapy
  - 1.2.3. Speech Therapy in the rest of the World
    - 1.2.4.1. Importance of the Speech Therapy Professional in the rest of the World
    - 1.2.3.2. What Are Speech Therapists Called in Other Countries?
    - 1.2.3.3. Is the Speech Therapist Valued in Other Countries?
  - 1.2.4. Functions of the Speech-Language Pathologist
    - 1.2.4.2. The Reality of Speech Therapy
  - 1.2.5. Areas of Intervention of the Speech Therapist
    - 1.2.5.2. The Reality of the Speech-Language Pathologist's areas of intervention
  - 1.2.6. Forensic Speech Therapy
    - 1.2.6.1. Initial Considerations
    - 1.2.6.2. Concept of Forensic Speech Therapist
    - 1.2.6.3. The Importance of Forensic Speech Therapists

- 1.2.7. Hearing and Speech Teachers
  - 1.2.7.1. Hearing and Speech Teacher Concept
  - 1.2.7.2. Work Areas of Hearing and Speech Teachers
  - 1.2.7.3. Differences between Speech-Language Pathologist and Hearing and Speech Teachers
- 1.2.8. Final Conclusions
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  - 1.3.2. Language, Speech, and Communication
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    - 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
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    - 1.3.3.2. Functional Dimension
    - 1.3.3.3. Behavioral Dimension
  - 1.3.4. Theories that explain Language Development
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    - 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
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    - 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
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	1.4.5.2. Dysphemia
	1.4.5.3. Dysglossia
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		1.4.6.3. Conditions related to Language Disorders
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  - 1.6.8.1. Speech-Language Pathologist's Judgment
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  - 1.6.9.2. Intervention Program
  - 1.6.9.3. Guidelines and/or Recommendations for the Family
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- 1.8.7.2. The Complemented Word
- 1.8.7.3. PECs
- 1.8.7.4. Bimodal Communication
- 1.8.7.5. Bliss System
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- 1.8.7.7. Minspeak
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  - 1.8.9.2. Pushbuttons
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  - 1.8.9.5. Data Input Devices
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	1.10.1.	Introduction to the 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
	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
		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 Sets the Educational Needs of the Child?
		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.	Curriculum 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 Children with Special Educational Needs
	1.10.9.	Final Conclusions

### Module 2. Dysarthria in Children and Adolescents

2.1	Initial	Consid	erations

- 2.1.1. Introduction to the Module
  - 2.1.1.1. Introduction to the Module
- 2.1.2. Module Objectives
- 2.1.3. History of Dysarthrias
- 2.1.4. Prognosis of Dysarthrias in Childhood and Adolescence
  - 2.1.4.1. Prognosis of Child Development in Children with Dysarthria
    - 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 Intervention in Dysarthria
  - 2.1.5.1. What is Early Intervention?
  - 2.1.5.2. How Does Early Intervention Help in Dysarthria?
  - 2.1.5.3. The Importance of Early Intervention in Dysarthria Treatment
- 2.1.6. Prevention of Dysarthrias
  - 2.1.6.1. How Can Dysarthria Be Prevented?
  - 2.1.6.2. Are There 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 in the Brain Related to Speech
- 2.1.8. Dysarthria vs. Apraxia
  - 2.1.8.1. Introduction to the Unit
  - 2.1.8.2. Apraxia of Speech
    - 2.1.8.2.1. Concept of Apraxia of Speech
    - 2.1.8.2.2. Characteristics of Apraxia of Speech
  - 2.1.8.3. Difference between Dysarthria and Apraxia of Speech
    - 2.1.8.3.1. Classification Table
  - 2.1.8.4. Relationship between Dysarthria and Apraxia of Speech
    - 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 Dyslalia
	2.1.9.3. Similarities Between Both Disorders
2.1.10	Aphasia and Dysarthria
	2.1.10.1. What is Aphasia? (small definition)
	2.1.10.2. Difference Between Dysarthria and Childhood Aphasia
	2.1.10.3. Similarities Between Dysarthria and Childhood Aphasia
General	Characteristics of Dysarthria
2.2.1.	Conceptualization
	2.2.1.1. Concept of Dysarthria
	2.2.1.2. Symptoms of Dysarthria
2.2.2.	General Characteristics of Dysarthrias
2.2.3.	Classification of Dysarthria According to the Site of Injury
	2.2.3.1. Dysarthria from Upper Motor Neuron Disorders
	2.2.3.1.1. Speech Characteristics
	2.2.3.1.2. Dysarthria from 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 Based on 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. 1.2.4.4. Dyskinetic Dysarthria

2.2.4.4.1. Speech Characteristics

2.2.

	2.2.4.5. Mixed Dysartnria
	2.2.4.5.1. Speech Characteristics
	2.2.4.6. Spastic Dysarthria
	2.2.4.6.1. Speech Characteristics
2.2.5.	Classification Based on Articulatory Involvement
	2.2.5.1. Generalized Dysarthria
	2.2.5.2. Dysarthric State
	2.2.5.3. Residual Dysarthria
2.2.6.	Etiology of Pediatric Dysarthria
	2.2.6.1. Cerebral Injury
	2.2.6.2. Brain Tumor
	2.2.6.3. Brain Tumor
	2.2.6.4. Cerebrovascular Accident
	2.2.6.5. Other Causes
	2.2.6.6. Medications
2.2.7.	Prevalence of Dysarthria in Children and Adolescents
	2.2.7.1. Current Prevalence of Dysarthria
	2.2.7.2. Changes in Prevalence Over Time
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 Speech Production Alterations 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
Classifi	cation of Dysarthria
2.3.1.0	ther Disorders in Children with Dysarthria
	2.3.1.1. Motor Alterations
	2.3.1.2. Physiological Alterations
	2.3.1.3. Communicative Disturbances

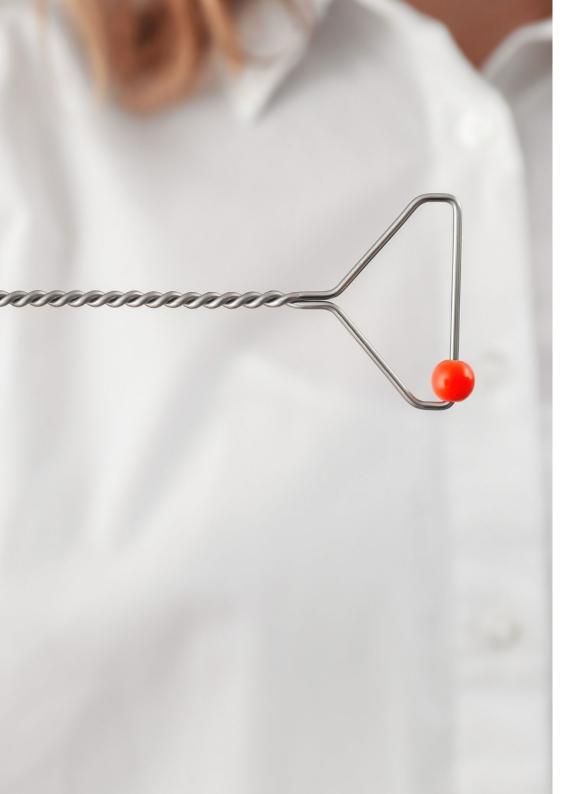
2.3.1.4. Alterations in Social Relationships

2.3.

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2.3.2.	Cerebral Palsy in Children	2.4. Ot	her Classifications of Dysarthria in Children and Adolescents
	2.3.2.1. Concept of Cerebral Palsy	2.	4.1. Speech Therapy Evaluation and Its Importance in Children with Dysarthria
	2.3.2.2. Dysarthria in Cerebral Palsy		2.4.1.1. Why Should Dysarthria Cases Be Evaluated by a Speech Therapist?
	2.3.2.2.1 .Consequences of Dysarthria in Acquired Brain Injury		2.4.1.2. What Is the Purpose of Evaluating Dysarthria Cases by a Speech
	2.3.2.3. Dysphagia		Therapist?
	2.3.2.3.1. Concept of Dysphagia	2.	4.2. Clinical Speech Therapy Evaluation
	2.3.2.3.2. Dysarthria and Dysphagia	2.	4.3. Evaluation and Diagnostic process
	2.3.2.3.3. Consequences of Dysarthria in Acquired Brain Injury		2.4.3.1. Medical History
2.3.3.	Acquired Brain Injury		2.4.3.2. Documentary Analysis
	2.3.3.1. Concept of Acquired Brain Injury		2.4.3.3. Family Interview
	2.3.3.2. Dysarthria in Acquired Brain Injury	2.	4.4. Direct Exploration
	2.3.3.2.1 Consequences of Dysarthria in Acquired Brain Injury		2.4.4.1. Neurophysiological Examination
2.3.4.	Multiple Sclerosis		2.4.4.2. Trigeminal Nerve Examination
	2.3.4.1. Concept of Multiple Sclerosis		2.4.4.3. Accessory Nerve Examination
	2.3.4.2. Dysarthria in Multiple Sclerosis		2.4.4.4. Glossopharyngeal Nerve Examination
	2.3.4.2.1. Consequences of Dysarthria in Acquired Brain Injury		2.4.4.5. Facial Nerve Examination
2.3.5.	Acquired Brain Injury in Children		2.4.4.5.1. Hypoglossal Nerve Examination
	2.3.5.1. Concept of Acquired Brain Injury in Children		2.4.4.5.2. Accessory Nerve Examination
	2.3.5.2. Dysarthria in Acquired Brain Injury in Children	2.	4.5. Perceptive Exploration
	2.3.5.2.1. Consequences of Dysarthria in Acquired Brain Injury		2.4.5.1. Breathing Examination
2.3.6.	Psychological Consequences in Children with Dysarthria		2.4.5.2. Resonance
	2.3.6.1. How Does Dysarthria Affect Child Development Psychologically?		2.4.5.3. Oral Motor Control
	2.3.6.2. Psychological Aspects Affected		2.4.5.4. Articulation
2.3.7.	Social Consequences in Children with Dysarthria	2.	4.6. Other Aspects to Evaluate
	2.3.7.1. Does Dysarthria Affect Social Development in Children?		2.4.6.1. Intelligibility
2.3.8.	Consequences in Communication Interactions in Children with Dysarthria		2.4.6.2. Automatic Speech
	2.3.8.1. How Does Dysarthria Affect Communication?		2.4.6.3. Reading
	2.3.8.2. Communicative Aspects Affected		2.4.6.4. Prosody
2.3.9.	Social Consequences in Children with Dysarthria		2.4.6.5. Intelligibility/Severity Examination
	2.3.9.1. How Does Dysarthria Affect Social Relationships?	2.	4.7. Evaluation of the Dysarthric Child in the Family Context
2.3.10			2.4.7.1. People to Interview for Family Context Evaluation
	2.3.10.1. Professional Intervention and Economic Cost for Families		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 Family Context Evaluation



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2.4.8. Evaluation of the [	ysarthric	Child in th	he School	Context
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- 2.4.8.1. Professionals to Interview in the School Context
  - 2.4.8.1.1. The Tutor
  - 2.4.8.1.2. The Speech and Language Teacher
  - 2.4.8.1.3. The School Counselor
- 2.4.8.2. The Importance of School Evaluation for Children with Dysarthria
- 2.4.9. Evaluation of Dysarthric Children by Other Healthcare Professionals
  - 2.4.9.1. Importance of Joint Evaluation
  - 2.4.9.2. Neurological Evaluation
  - 2.4.9.3. Physiotherapy Evaluation
  - 2.4.9.4. Otolaryngological Evaluation
  - 2.4.9.5. Psychological Evaluation
- 2.4.10 Differential Diagnosis
  - 2.4.10.1. How to Conduct 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 Dysarthria of Children and Adolescents
  - 2.5.1.1. Consequences in Children Affected by Dysarthria
  - 2.5.1.2. Evolution of Dysarthria Through Intervention
- 2.5.2. Objectives of Intervention in Children with Dysarthria
  - 2.5.2.1. General Goals in Dysarthria
    - 2.5.2.1.1. Psychological Objectives
    - 2.5.2.1.2. Motor Objectives
- 2.5.3. Methods of Intervention
- 2.5.4. Steps to Take During Intervention
  - 2.5.4.1. Agree on the Intervention Model
  - 2.5.4.2. Establish Sequencing and Timing of the Intervention

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2.6.

2.5.5. The Child as the Primary Subject During Intervention

	2.5.5.1. Support the Child's Skills During Intervention
2.5.6.	General Considerations in Intervention
	2.5.6.1. The Importance of Motivation in Intervention
	2.5.6.2. Affection During Intervention
2.5.7.	Suggested Activities
	for Speech Therapy Intervention
	2.5.7.1. Psychological Activities
	2.5.7.2. Motor Activities
2.5.8.	The Importance of Joint Rehabilitation Process
	2.5.8.1. Professionals Involved in Dysarthria
	2.5.8.1.1. Physiotherapist
	2.5.8.1.2. Psychologist
2.5.9.	Augmentative and Alternative Communication Systems as Support for Intervention
	2.5.9.1. How Can These Systems Help in the Intervention with Children with Dysarthria?
	2.5.9.2. Choice of System: Augmentative or Alternative?
	2.5.9.3. Environments in Which to Establish Their Use
2.5.10	How to Establish the End of Treatment
	2.5.10.1. Criteria for Ending Rehabilitation
	2.5.10.2. Achievement of Rehabilitation Goals
Evaluat	ion of Dysarthrias
2.6.1. S	peech Therapy in Dysarthria
	2.6.1.1 Importance of Speech Therapy Intervention in Child and Adolescent with Dysarthrias
	2.6.1.2. What Does Speech Therapy for Dysarthria Entail?
	2.6.1.3. Objectives of Speech Therapy Intervention
	2.6.1.3.1. General Objectives of Speech Therapy Intervention
	2.6.1.3.2. Specific Objectives of Speech Therapy Intervention

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 Entail?
	2.6.2.3. Importance of Swallowing Therapy
2.6.3.	Postural and Body Therapy in Dysarthria
	2.6.3.1. Postural Difficulties in Cases of Dysarthria
	2.6.3.2. What Does Postural and Body Therapy Entail?
	2.6.3.3. Importance of Postural Therapy
2.6.4.	Orofacial Therapy in Dysarthria
	2.6.4.1. Orofacial Difficulties in Cases of Dysarthria
	2.6.4.2. What Does Orofacial Therapy Entail?
	2.6.4.3. Importance of Postural Therapy
2.6.5.	Breathing and Phonorespiratory Coordination Therapy in Dysarthria
	2.6.5.1. Difficulties in Phonorespiratory Coordination in Cases of Dysarthria
	2.6.5.2. What Does the Therapy Entail?
	2.6.5.3. Importance of Postural Therapy
2.6.6.	Articulation Therapy in Dysarthria
	2.6.6.1. Articulation Difficulties in Cases of Dysarthria
	2.6.6.2. What Does the Therapy Entail?
	2.6.6.3. Importance of Postural Therapy
2.6.7.	Phonatory Therapy in Dysarthria
	2.6.7.1. Phonatory Difficulties in Cases of Dysarthria
	2.6.7.2. What Does the Therapy Entail?
	2.6.7.3. Importance of Postural Therapy
2.6.8.	Resonance Therapy in Dysarthria
	2.6.8.1. Resonance Difficulties in Cases of Dysarthria
	2.6.8.2. What Does the Therapy Entail?
	2.6.8.3. Importance of Postural Therapy

- 2.6.9. Vocal Therapy in Dysarthria
  - 2.6.9.1. Vocal Difficulties in Cases of Dysarthria
  - 2.6.9.2. What Does the Therapy Entail?
  - 2.6.9.3. Importance of Postural 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 the Therapy Entail?
  - 2.6.10.3. Importance of Postural Therapy
- 2.7. Speech Therapy Assessment in Dysarthria
  - 2.7.1. Introduction
    - 2.7.1.1. Importance of Creating a Speech Therapy Intervention Program for Children with Dysarthria
  - 2.7.2. Initial Considerations for Developing a Speech Therapy Program
    - 2.7.2.1. Characteristics of Children with Dysarthria
  - 2.7.3. Decisions for Planning Speech Therapy Intervention
    - 2.7.3.1. Intervention Method to Be Used
    - 2.7.3.2. Consensus on Sequencing Therapy Sessions: Key Aspects to Consider
      - 2.7.3.2.1. Chronological Age
      - 2.7.3.2.2. Child's Extracurricular Activities
      - 2.7.3.2.3. Scheduling
    - 2.7.3.3. Establishing Intervention Guidelines
  - 2.7.4. Objectives of the Speech Therapy Program for Dysarthria Cases
    - 2.7.4.1. General Objectives of Speech Therapy Intervention
    - 2.7.4.2. Specific Objectives of Speech Therapy Intervention
  - 2.7.5. Areas of Speech Therapy Intervention in Dysarthria and Suggested 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. Suggested Materials on the Market for Speech Therapy Intervention with Description and Uses
  - 2.7.6.2. Images of the Suggested Materials
- 2.7.7. Technological Educational Resources and Materials for Speech Therapy Intervention
  - 2.7.7.1. Software Programs for Intervention
    - 2.7.7.1.1. PRAAT Program
- 2.7.8. Methods of Intervention in Dysarthria
  - 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-Speech Therapy Methods
  - 2.7.8.2. Choosing the Right Intervention Method for the Case
- 2.7.9. Speech Therapy Techniques and Suggested Activities
  - 2.7.9.1. Breathing
    - 2.7.9.1.1. Suggested Activities
  - 2.7.9.2. Phonation
    - 2.7.9.2.1. Suggested Activities
  - 2.7.9.3. Articulation
    - 2.7.9.3.1. Suggested Activities
  - 2.7.9.4. Resonance
    - 2.7.9.4.1. Suggested Activities
  - 2.7.9.5. Speech Rate
    - 2.7.9.5.1. Suggested Activities
  - 2.7.9.6. Accent and Intonation
    - 2.7.9.6.1. Suggested Activities

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- 2.7.10 Augmentative and Alternative Communication Systems (AAC) as a Method of Intervention in Dysarthria
  - 2.7.10.1. What Are AAC Systems?
  - 2.7.10.2. How Can AAC Systems Help in Intervention for Children with Dysarthria?
  - 2.7.10.3. How Can AAC Systems Assist in Communication for Children with Dysarthria?
  - 2.7.10.4. Choosing an Appropriate AAC Method Based on the Child's Needs
    - 2.7.10.4.1. Considerations for Establishing a Communication System
  - 2.7.10.5. Using Communication Systems in Different Developmental Environments of the Child
- 2.8. Speech Therapy Intervention in Dysarthria
  - 2.8.1. Introduction to the Unit in the Development of the Dysarthric Child
  - 2.8.2. Consequences of Dysarthria in the Family Context
    2.8.2.1. How Do the Difficulties Affect the Child in the Home Environment?
  - 2.8.3. Communication Difficulties in the Home of the Dysarthric Child 2.8.3.1 What Barriers Are Present in the Home Environment?
  - 2.8.4. The Importance of Professional Intervention in the Family Environment and the Family-Centered Intervention Model
    - $2.8.4.1. \, \text{The Importance}$  of Family in the Development of the Dysarthric Child
    - $2.8.4.2.\ How\ to\ Perform\ Family-Centered\ Intervention\ for\ Children\ with\ Dysarthria$
  - 2.8.5. Integrating the Family into Speech Therapy and School Intervention for Children with Dysarthria
    - 2.8.5.1. Aspects to Consider When Integrating the Family into Intervention
  - 2.8.6. Benefits of Family Integration in Professional and School Intervention2.8.6.1. Coordination with Healthcare Professionals and Its Benefits2.6.6.2. Coordination with Educational Professionals and Its Benefits
  - 2.8.7. Advice for the Family Environment
    - $2.8.7.1.\ Tips\ for\ Facilitating\ Oral\ Communication\ with\ the\ Dysarthric\ Child$
    - 2.8.7.2. Guidelines for Interacting with the Dysarthric Child at Home



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2.8.8.	Psychological Support for the Family					
	2.8.8.1. Psychological Implications for Families with Children with Dysarthria					
	2.8.8.2. Why Provide Psychological Support?					
2.8.9. T	he Family as a Means of Generalization in Learning					
	2.8.9.1. The Importance of the Family for the Generalization in Learning					
	2.8.9.2. How Can Families Support the Child's Learnings?					
2.8.10	Communication with the Children with Dysarthria					
	2.8.10.1. 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					
Propos	ed Exercises for Speech Therapy Intervention in Dysarthria					
2.9.1.	Introduction to the Unit					
	2.9.1.1. The Period of Childhood Schooling in Relation to the Prevalence of Dysarthria in Children and Adolescents					
2.9.2.	The Importance of School Involvement During the Intervention Period					
	2.9.2.1. The School as a Developmental Environment for the Children with Dysarthria					
	2.9.2.2. Influence of the School on Child Development					
2.9.3.	School Support: Who and How Supports the Child at School?					
	2.9.3.1. The Speech and Language Teacher					
	2.9.3.2. The School Counselor					
2.9.4.	Coordination Between Rehabilitation Professionals and Educational Professionals					
	2.9.4.1. Who Should Be Coordinated?					
	2.9.4.2. Steps for Coordination					
2.9.5.	Consequences in the Classroom for the Dysarthric Child					
	2.9.5.1. Psychological Consequences in the Dysarthric Child					
	2 9 5 2 Communication with Classmates					

2.9.

2.9.6.	Intervention Based on the Student's Needs
	2.9.6.1. Importance of Considering the Needs of Students with Dysarthria
	2.9.6.2. How to Establish the Student's Needs
	2.9.6.3. Participants in Establishing the Student's Needs
2.9.7. 0	Guidelines
	2.9.7.1. Guidelines for Schools for Intervention with Children with Dysarthria
2.9.8.	Educational Center Objectives
	2.9.8.1. General Objectives of School Intervention
	2.9.8.2. Strategies to Achieve the Objectives
2.9.9.	Methods of Intervention in the Classroom to Promote the Integration of the Dysarthric Child
2.9.10.	Using AAC Systems in the Classroom to Enhance Communication
	2.9.10.1. How Can AAC Help in the Classroom with Dysarthric Students?
2.10. Annexes	
2.10.1.	Dysarthria Guides
	2.10.1.1. Guide to Managing Dysarthria: Guidelines for People with Speech Issues
	2.10.1.2. Guide for Educational Attention for Students with Oral and Written Language Disorders
2.10.2.	Table 1. Dimensions Used in the Dysarthria Study at Mayo Clinic
2.10.3.	Table 2. Classification of Dysarthrias Based on Dimensions Used in Mayo Clinic Study
2.10.4.	Example of Interview for Clinical Speech Evaluation
2.10.5.	Text for Reading Assessment: "Grandpa"
2.10.6.	Websites for Dysarthria Information
	2.10.6.1. MAYO CLINIC Website
	2.10.6.2. Speech Therapy Space
	2.10.6.2.1. Link to the Website
	2.10.6.3. American Speech-Language Hearing Association
	2.10.6.3.1. Link to the Website

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	2.10.7.	Journals for information about Dysarthria	3.2.	Hearing	g Loss
		2.10.7.1 Journal of Speech Therapy and Audiology. Elsselvier		3.2.1.	Hearing Loss
		2.10.7.1.1. Link to the Website			3.2.1.1. Concept of Hearing Loss
		2.10.7.2. CEFAC Journal			3.2.1.2. Symptoms of Hearing Loss
		2.10.7.2.1. Link to the Website		3.2.2.	Classification of Hearing Loss According to Where the Lesion is Located
		2.10.7.3. Brazilian Society of Phonoaudiology Journal			3.2.2.1. Transmission or Conduction Hearing Loss
		2.10.7.3.1. Link to the Website			3.2.2.2. Perceptual or Sensorineural Hearing Losses
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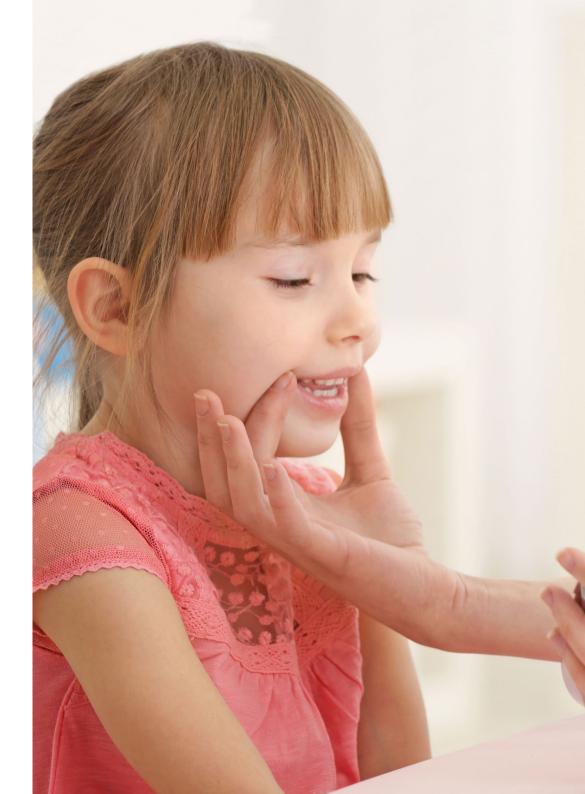
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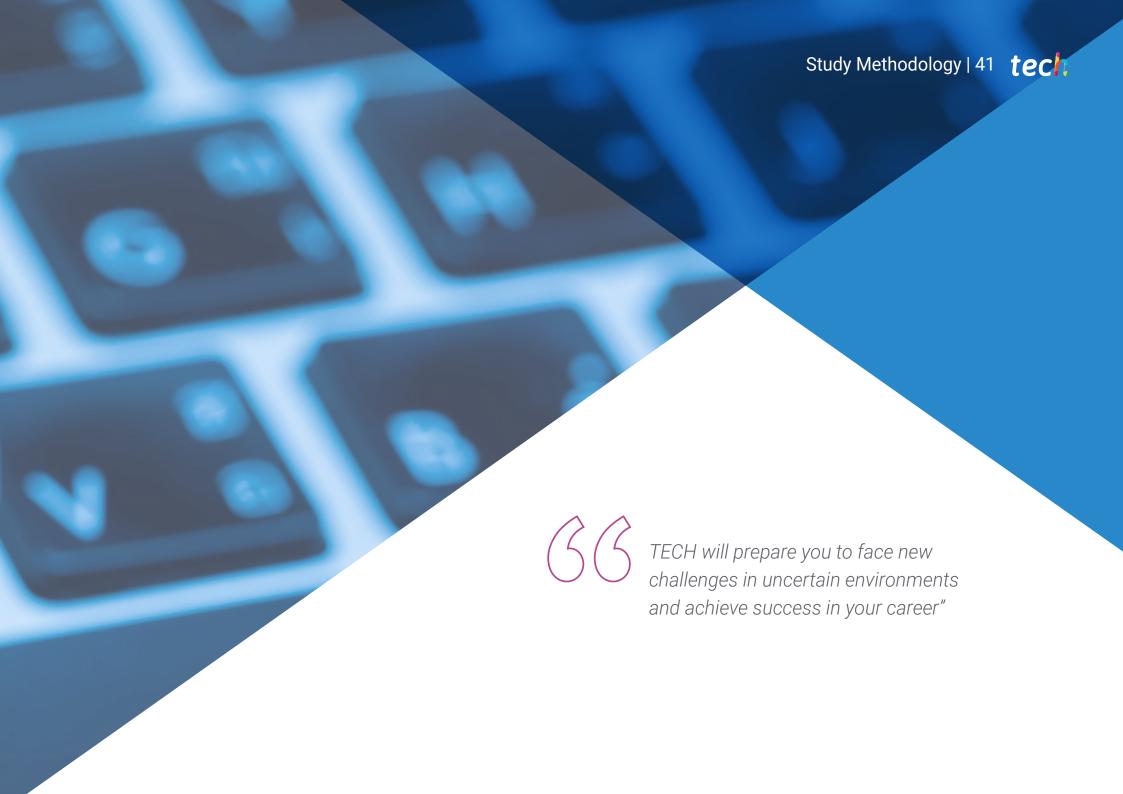




Make the most of this opportunity to surround yourself with expert professionals and learn from their work methodology"





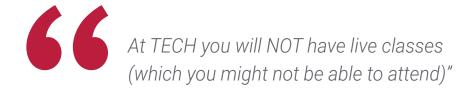


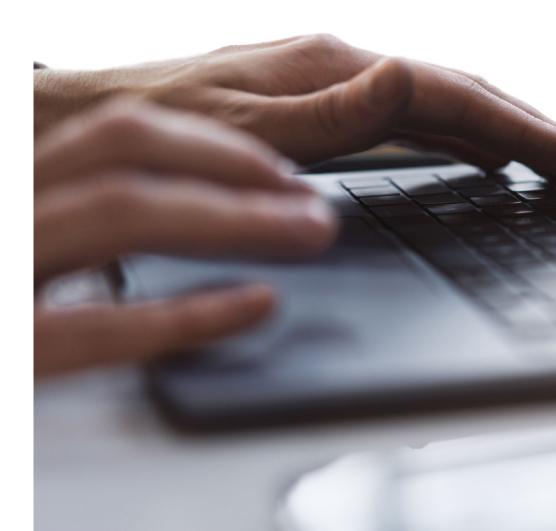
## The student: the priority of all TECH programs

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.







## 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"

# tech 44 | Study Methodology

#### 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.



# tech 46 | Study Methodology

### 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.

## Study Methodology | 47 tech

## 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**

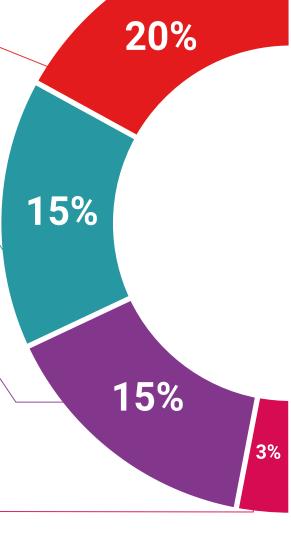
You will carry out activities to develop specific competencies and skills in each thematic field. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop within the framework of the globalization we live in.



#### **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.

# Study Methodology | 49 tech



Students will complete a selection of the best case studies in the field. Cases that are presented, analyzed, and supervised by the best specialists in the world.



#### **Testing & Retesting**

We periodically assess and re-assess your knowledge throughout the program. We do this on 3 of the 4 levels of Miller's Pyramid.



#### Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

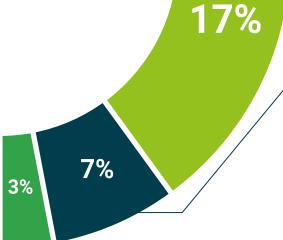




#### **Quick Action Guides**

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.









# tech 50 | Certificate

This private qualification will allow you to obtain a **Postgraduate Diploma in Dysarthria** and **Hearing Impairment for Physicians** 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: Postgraduate Diploma in Dysarthria and Hearing Impairment for Physicians

Modality: online

Duration: 6 months

Accreditation: 18 ECTS



Mr./Ms. \_\_\_\_\_\_, with identification document \_\_\_\_\_ has successfully passed and obtained the title of:

#### Postgraduate Diploma in Dysarthria and Hearing Impairment for Physicians

This is a private qualification of 540 hours of duration equivalent to 18 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024



health confidence people education information tutors guarantee accreditation teaching institutions technology learning



# Postgraduate Diploma Dysarthria and Hearing Impairment for Physicians

- » Modality: online
- » Duration: 6 months.
- » Certificate: TECH Global University
- » Accreditation: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

