

# Hybrid Professional Master's Degree

## Medical Approach to Speech, Language and Communication Disorders





## Hybrid Professional Master's Degree

### Medical Approach to Speech, Language and Communication Disorders

Course Modality: Hybrid (Online + Clinical Internship)

Duration: 12 months

Certificate: TECH Technological University

Teaching Hours: 1,620 h.

Website: [www.techtitute.com/us/medicine/hybrid-professional-master-degree/hybrid-professional-master-degree-medical-approach-speech-language-communication-disorders](http://www.techtitute.com/us/medicine/hybrid-professional-master-degree/hybrid-professional-master-degree-medical-approach-speech-language-communication-disorders)

# Index

01

Introduction

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*p. 4*

02

Why Study this Hybrid  
Professional Master's Degree?

---

*p. 8*

03

Objectives

---

*p. 12*

04

Skills

---

*p. 18*

05

Course Management

---

*p. 22*

06

Educational Plan

---

*p. 26*

07

Clinical Internship

---

*p. 80*

08

Where Can I Do the Clinical  
Internship?

---

*p. 86*

09

Methodology

---

*p. 90*

10

Certificate

---

*p. 98*

# 01

# Introduction

Disorders related to speech, language and communication affect 8% of the population, according to various studies. These types of disorders have a serious impact on the individual, who often has learning and socialization problems as a result. Hence the importance of early detection and specialized medical approach, which increasingly has more tools to manage diseases such as Hunter Syndrome and apraxia. For this reason, TECH provides the professional with a complete update in this area through a blended approach program that is composed of 1500 hours of theoretical and 100% online study, and an intensive 3-week stay in a specialized center.



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*This program will provide the specialist with a complete update, through an advanced hybrid learning system, in the approach to Speech, Language and Communication Disorders”*

For professionals who wish to update their daily clinical practice according to the latest scientific evidence, TECH has developed this 100% online program and with the opportunity to perform an internship program from a catalog of the most prestigious health centers of your choice, in terms of treatment of patients with Speech, Language and Communication disorders.

Therefore, throughout 1500 hours you will delve into the basics of Speech and Language Therapy, as well as the evaluation, diagnosis and intervention of Dyslalia, Dyslexia and other specific language disorders. Everything from the latest scientific evidence in the medical area to diagnose and treat the different Speech, Language and Communication Disorders.

Thanks to the 100% online study system offered by this program and its content that has been designed under the *Relearning* methodology, the specialist will be able to get up to date with the most cutting-edge protocols and diagnostic methods to detect the symptomatology of Verbal Apraxia, Dysphemia or Dysarthria, among other pathologies that affect the patient's communication, in order to update his daily clinical praxis.

These, among other aspects involved in the proper development of oral and written communication in the patient, will be expanded in the agenda composed of 10 modules developed by expert teachers. You will also have a unique opportunity to share your knowledge in a specialized center with the most specialized technical and human resources in a 3-week internship Program. Therefore, you will delve into the most advanced Medical Approach to Speech, Language and Communication Disorders.

This **Hybrid Professional Master's Degree in Medical Approach to Speech, Language and Communication Disorders** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ Development of more than 100 clinical cases presented by health professionals with expertise in Speech, Language and Communication Disorder therapies
- ♦ 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
- ♦ Knowledge of everything involved in the evaluation process, in order to carry out the most effective specialized intervention possible
- ♦ Development of practical activities on the most advanced diagnostic and therapeutic techniques in the patient with Speech, Language and Communication Disorder
- ♦ An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course
- ♦ Practical clinical guides on approaching different conditions
- ♦ With a special emphasis on evidence-based medicine and research methodologies in Genetic Syndromes and Other Disorders Diseases in Speech, Language and Communication
- ♦ 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
- ♦ Furthermore, you will be able to carry out a clinical internship in one of the best medical centers

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*Enjoy an intensive 3-week stay in a prestigious center and acquire new techniques to approach the patient with Speech, Language and Communication Disorders”*

In this Professional Master's Degree proposal, of a professionalizing nature and hybrid learning modality, the program is aimed at updating Health professionals who require a high level of qualification. The contents are based on the latest scientific evidence, and oriented in a didactic way to integrate theoretical knowledge in their daily practice, and the theoretical-practical elements will facilitate the updating of knowledge and allow the most appropriate approach to the patient with Speech, Language and Communication Disorder.

Thanks to its multimedia content elaborated with the latest educational technology, they will allow the health care professional to obtain a situated and contextual learning, that is to say, a simulated environment that will provide immersive learning programmed to train in real situations. This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise throughout the program. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.

*This program will allow you to classify the different language pathologies from the different approaches that exist today.*

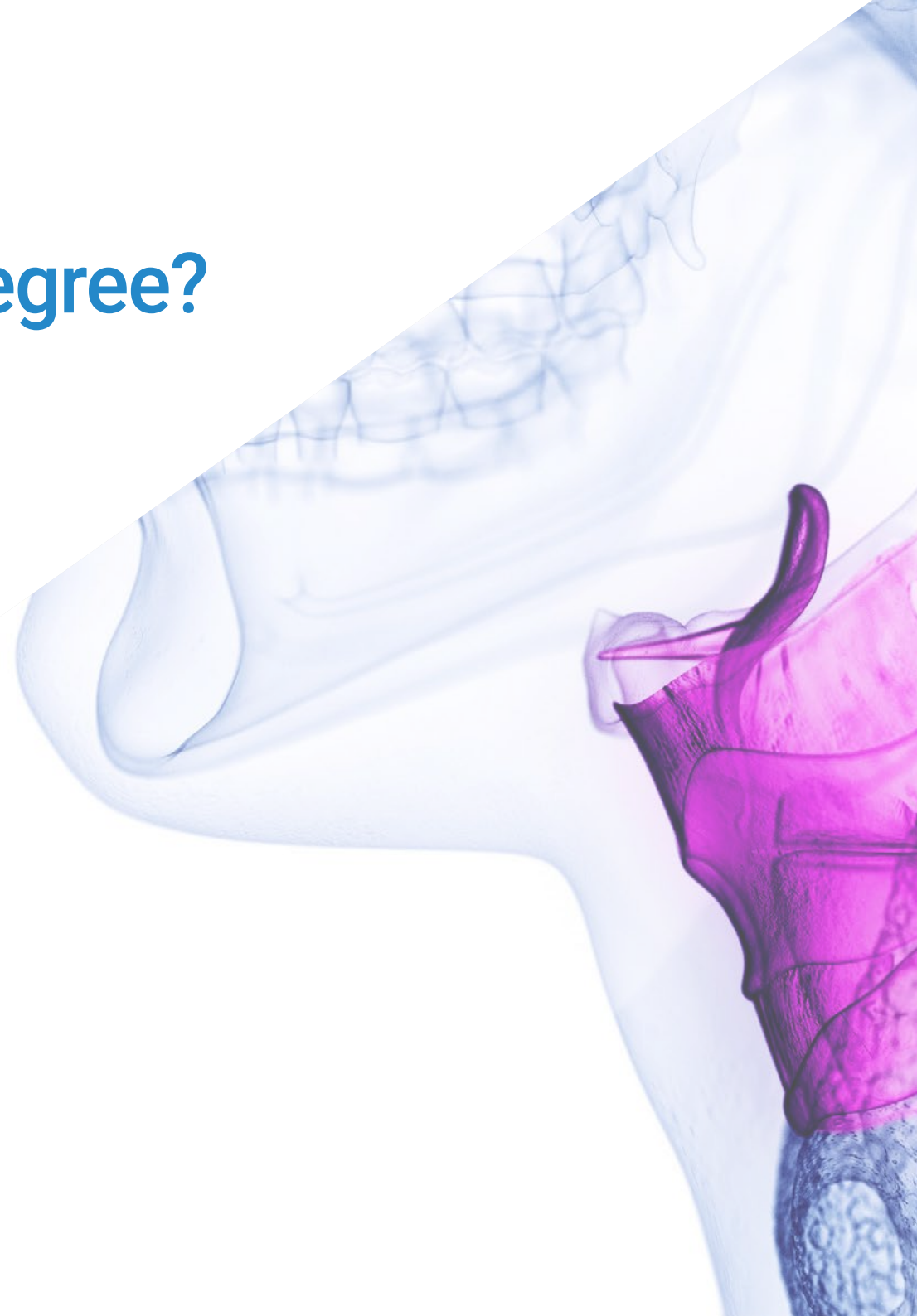
*Get trained now with an innovative training formula that only TECH could offer you. Enroll in this Hybrid Professional Master's Degree and acquire the latest techniques in the management of language disorders.*



# 02

## Why Study this Hybrid Professional Master's Degree?

Every medical professional is in constant search of methods to update their techniques and approaches. Aware of this reality and at the forefront of higher education, TECH has developed a teaching method that combines the most effective study models. In this program the professional will enjoy the combination of two effective study methods. You will advance in 100% online theory with the support of a team of expert teachers and end with an intensive face-to-face stay in a clinical center of reference in the treatment of patients with Speech, Language and Communication Disorders with the most specialized technical and human resources.







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*You will have the opportunity, thanks to this Hybrid Professional Master's Degree, to put into practice in a real professional setting the most specific diagnostic procedures and approaches for each speech disorder”*

### **1. Updating from the latest technology available**

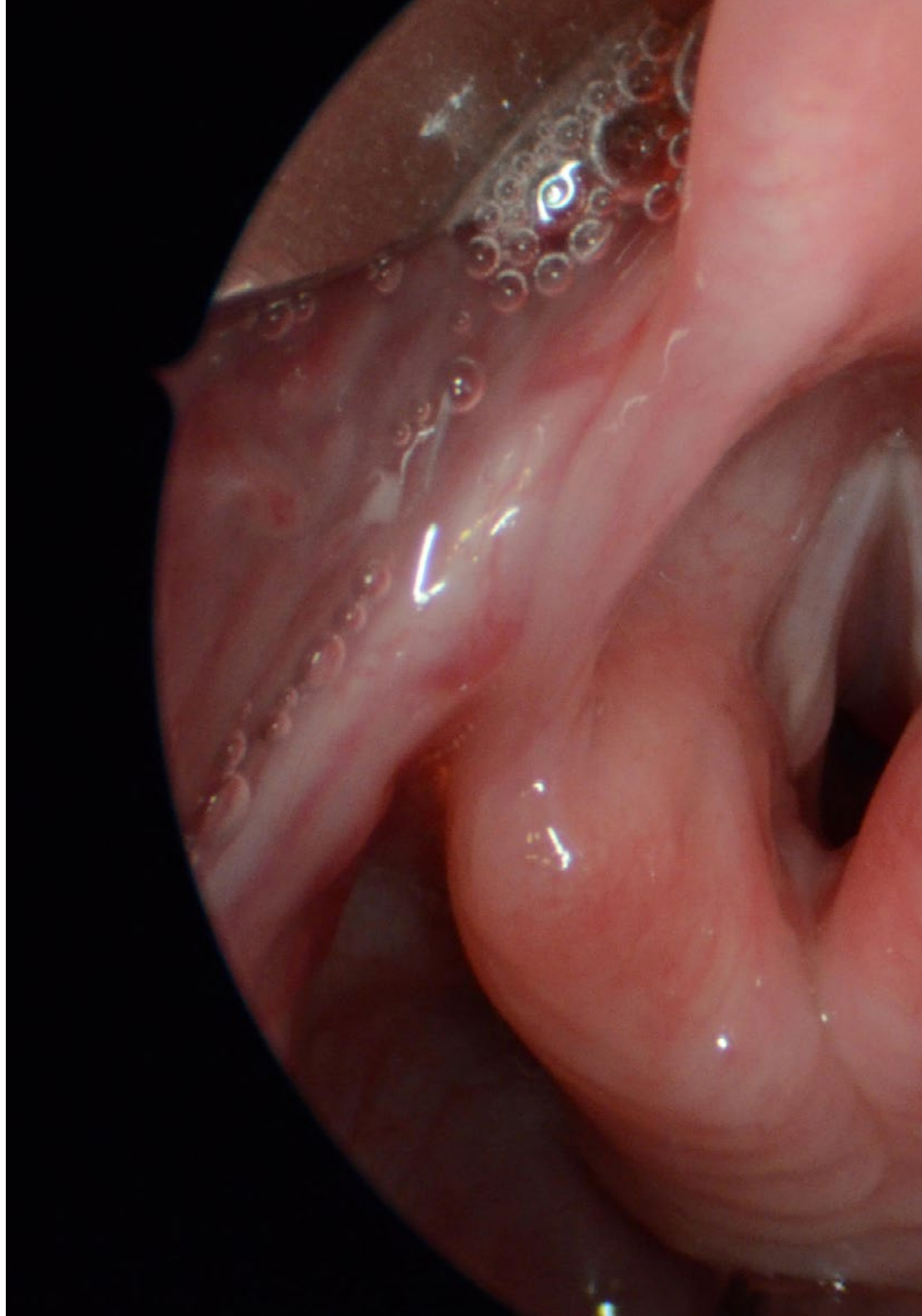
In this academic program, the physician will learn about the most innovative therapies and approaches to Speech, Language and Communication Disorders, updated according to the latest scientific evidence. This, thanks to the fact that during 3 weeks they will enter a state-of-the-art clinical environment with the latest technology.

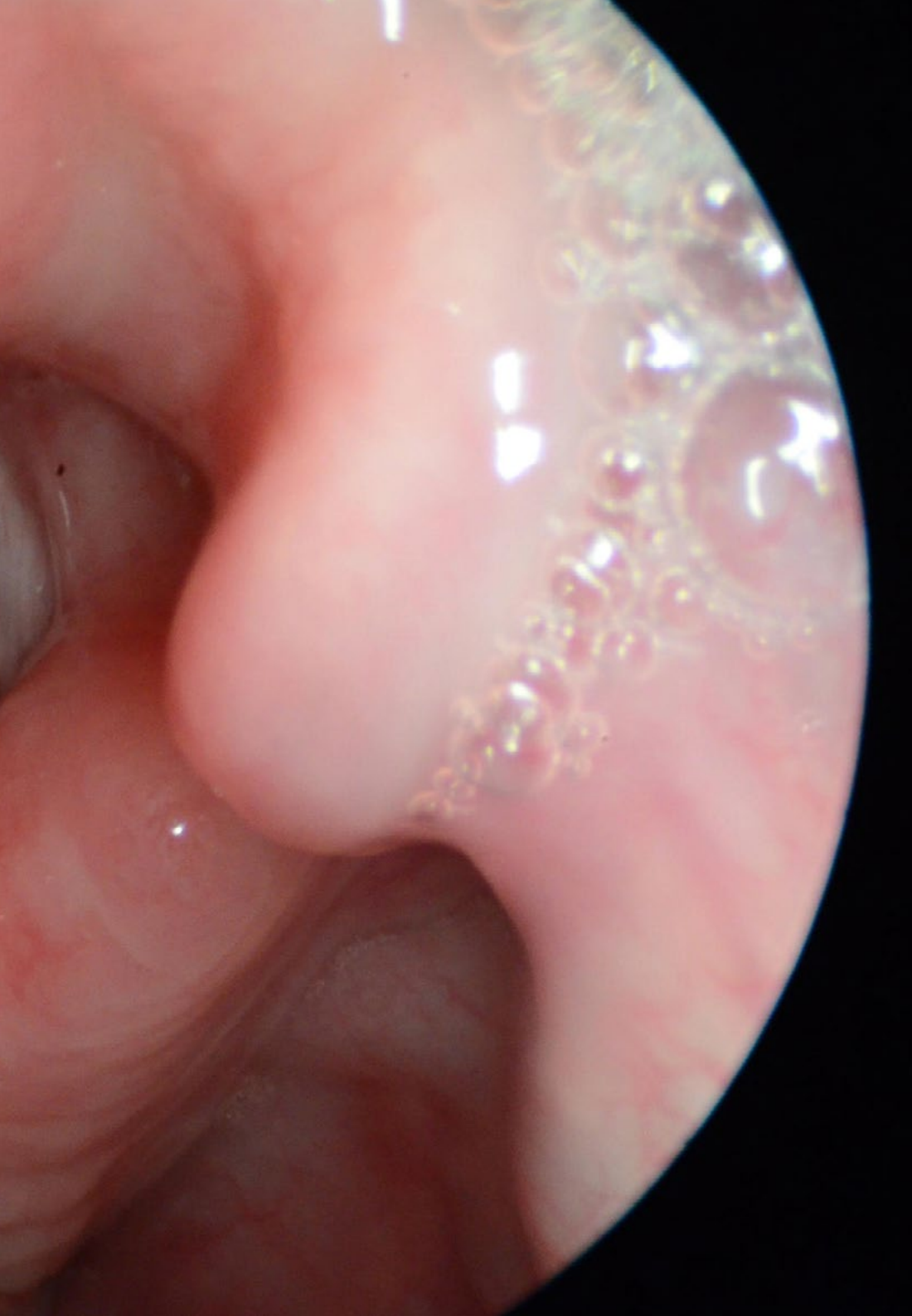
### **2. Gaining In-Depth Knowledge from the Experience of Top Specialists**

Great experts make up the teaching staff of this program. Thanks to their outstanding experience and wide professional background, they have provided a complete syllabus to study all the keys to understanding the pathologies that impede the development of language and communication in the patient. Additionally, the professional will have the guidance of a designated tutor who will provide all the academic support needed.

### **3. Entering First-Class Clinical Environments**

For the practical part TECH has exhaustively selected the centers available for the Internship Program. Thanks to this, the specialist will have guaranteed access to a prestigious clinical environment. In this way, you will be able to see the day-to-day work of a demanding, rigorous and exhaustive sector, always applying the latest theses and scientific postulates in its work methodology.





#### 4. Combining the Best Theory with State-of-the-Art Practice

This program contains a unique formula to acquire new techniques and knowledge. From the *Relearning* methodology implemented in the design of the theoretical content, to the intensive stay in a specialized center that TECH offers the student. Everything has been designed to offer state-of-the-art teaching to the specialist in a total of 1,620 hours of training.

#### 5. Expanding the Boundaries of Knowledge

Thanks to its interest in offering new academic solutions to today's professionals, with this program TECH offers the opportunity to take this Hybrid Professional Master's Degree from wherever you are. Additionally, you will have the opportunity to carry out the Internship Program not only in centers of national importance, but also internationally. A unique opportunity that will allow you to get up to date with the current medical approaches in the professional.



*You will have full practical immersion  
at the center of your choice*

# 03

## Objectives

Updating and developing specific knowledge on the characteristics of Speech, Language and Communication disorders in the individual, is one of the objectives of this hybrid program of a high academic level. In this way, the specialist will be able to apply the most advanced methods in the differential and proactive diagnosis that will set the guidelines for intervention in the most diverse cases that arise in their daily practice.





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*Update your medical procedures and apply innovative tests to detect different language disorders in children or adults”*



## General Objective

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- The general objective of this Hybrid Professional Master's Degree is that the professional acquires new techniques, as well as diagnostic and therapeutic methods to efficiently address the patient with any Speech, Language and Communication Disorder. Thanks to its innovative design, the specialist will be able to intervene in these cases with a new perspective and knowledge of the different conditions and how new technologies and scientific studies can contribute to the praxis of this type of consultations

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*With this program you will acquire the most updated resources to approach patients with Genetic Syndromes and other Speech, Language and Communication Disorders”*





## Specific Objectives

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

- ♦ To 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
- ♦ To 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, be able to carry out a correct evaluation of the different areas of the language
- ♦ 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. Dyslalias: Assessment, Diagnosis, and Intervention

- ♦ Acquisition of the aspects involved in the articulation of the phonemes used in Spanish
- ♦ Delve into the knowledge of dyslalia and the different types of classifications and subtypes that exist
- ♦ Understand and be able to apply the processes involved in the intervention, as well as to acquire the knowledge to be able to intervene and to create their own effective material for the different dyslalias that may occur
- ♦ Different dyslalias that may occur

### Module 3. Dyslexia: Assessment, Diagnosis, and Intervention

- ♦ Learn everything involved in the evaluation process, in order to be able to carry out the most effective Speech Therapy intervention possible
- ♦ Learn about the reading process from vowels and syllables to paragraphs and complex texts
- ♦ Analyze and develop techniques for a correct reading process
- ♦ Be aware and be able to involve the family in the child's intervention, so that they are a part of the process and that this collaboration is as effective as possible

### Module 4. Specific Language Disorder

- ♦ Acquire sufficient knowledge to be able to assess a Verbal Fluency Disorder
- ♦ Identify the main language disorders and their therapeutic treatment
- ♦ Know the need for an Intervention supported and supported by both the family and the team of teachers at the child's school

### Module 5. Understanding Autism

- ♦ Contact with the disorder. Identify myths and false beliefs
- ♦ Know the different areas affected, as well as the first indicators within the therapeutic process
- ♦ Promote professional competence based on a global vision of the clinical picture; multifactorial assessment
- ♦ Provide the necessary tools for an adequate specific adaptation in each case
- ♦ Broaden the vision of the field of action; professionals and family as an active role
- ♦ The role of the speech therapist as a dynamic element in the patient with autism

### **Module 6. Genetic Syndromes**

- ♦ Be able to know and identify the most frequent genetic syndromes currently in use
- ♦ In-depth knowledge about the characteristics of each of the syndromes described in the program
- ♦ Acquire optimal knowledge to carry out a correct and functional evaluation of the different symptoms that may occur
- ♦ Delve into different intervention tools, including material and resources, both manipulatives and computer devices, as well as possible adaptations to be made All this, in order to achieve an effective and efficient intervention by the professional

### **Module 7. Dysphemia and/or stuttering: Assessment, Diagnosis, and Intervention**

- ♦ Know the concept of Dysphemia, including its symptoms and classification
- ♦ Be able to differentiate between Normal Dysfluency and Verbal Fluency impairment, such as Dysphemia
- ♦ Delve into in the marking of objectives and in the depth of the intervention of a Dysphemic child, in order to be able to carry out the most efficient and effective work possible
- ♦ Understand and be aware of the need to keep a record of all the sessions and everything that happens in them

### **Module 8. The Infantile-juvenile Dysarthria**

- ♦ 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

- ♦ Know the environments and contexts of child development, being able to give adequate support in all of them and to guide the family and educational professionals in the rehabilitation process
- ♦ Be aware of 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 9. Understanding Hearing Impairments**

- ♦ 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
- ♦ Know and understand the functioning and importance of Hearing Aids and Cochlear Implants
- ♦ Delve into 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 10. Psychological knowledge of interest in the Speech-Language Pathology Field

- Understand 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
- 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 know their implications in the area of language, as well as 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 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

# 04 Skills

Upon completion of this Hybrid Professional Master's Degree, the professional will have acquired a series of updated clinical postulates in the management of speech and communication disorders. Therefore, these skills will allow them to work using the most advanced techniques, addressing infantile-juvenile dysarthria and other disorders in a specific way, taking into account the characteristics of their different patients.





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*Thanks to this program you will acquire new references for more accurate medical approaches to patients with Speech, Language and Communication Disorders, based on the latest scientific evidence”*



## General Skills

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- Delve into concepts and logopedic procedures and each and every one of the areas of action of the professionals of this discipline
- Acquire knowledge about the dimensions of Language and Speech
- Delve into the evolutionary and normative neurodevelopmental aspects
- Understand and be able to classify the different Speech and Language Pathologies
- Effectively communicate its conclusions and the ultimate reasons behind them to specialized and non-specialized audiences in a clear and unambiguous manner
- Recognize the need to maintain your professional skills and keep them up to date, with special emphasis on autonomous and continuous learning of new information
- Develop the capacity for critical analysis and research in your professional field





## Specific Skills

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- ♦ Differentiate the symptomatology and characteristics of verbal apraxia and conditions, being able to identify both pathologies by carrying out an adequate assessment process
- ♦ Keep an adequate and orderly record of the patient's signs, symptoms and evolution in order to adjust therapeutic methods
- ♦ Delve into the knowledge of logopathies and the different types of existing classifications and subtypes
- ♦ Gain knowledge of the assessment process, in order to carry out the most effective speech therapy intervention possible
- ♦ Involve the family, as well as the rest of the educational agents in the whole speech therapy process, considering the contextual and psychosocial variables
- ♦ Integrate the use of technologies, as well as the application of innovative therapies and resources from other related disciplines
- ♦ Offer adequate technical and professional health care to patients with Speech, Language and Communication Disorders, in accordance with the scientific knowledge and technological development of each moment and with the levels of quality and safety established in the applicable legal and deontological norms
- ♦ Incorporate safety principles including ergonomics, proper patient handling and mobilization work routine
- ♦ Use rigorously, safely and confidently the diagnostic aids characterized by complex technology
- ♦ Establish an effective therapeutic relationship with patients and family members to facilitate the appropriate personal coping with the patient's communication difficulties
- ♦ Communicate the results of an investigation after having analyzed, evaluated, and synthesized the data
- ♦ Manage healthcare resources with efficiency and quality criteria



*By completing this program you will acquire the new techniques you need to improve your daily practice in the medical approach to genetic syndromes that impede the development of language and correct communication in children"*

# 05

# Course Management

TECH has assembled a full team of faculty with reputable expertise in the area of Speech, Language and Communication Disorders for the design and development of this program. The conjunction of their practical skills with the latest scientific theory makes the program of outstanding quality. In this way, the specialist can be sure that they will be in front of an updated study material and with the content that will provide them with the new techniques needed for the medical approach to these disorders.



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*TECH has selected the most qualified teachers for the design and development of this Hybrid Professional Master's Degree”*

## Management



### Ms. Vázquez Pérez, Maria 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

## Professors

### Ms. López Mouriz, Patricia

- ♦ Psychologist at FÍSICO - Physiotherapy and Health
- ♦ Mediator Psychologist at Gómez ADAFAD Association
- ♦ Psychologist at Centro Orienta
- ♦ Psychologist in Psychotécnico Abrente
- ♦ Degree in Psychology from the University of Santiago de Compostela (USC)
- ♦ Master's Degree in General Health Psychology by USC
- ♦ Training in Equality, Brief Therapy and Learning Difficulties in Children

### 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
- ♦ Master's Degree in Clinical Neuropsychology by ITEAP Institute
- ♦ Expert in Myofunctional Therapy by Euroinnova Business School
- ♦ Expert in Early Childhood Care by Euroinnova Business School
- ♦ Expert in Music Therapy by Euroinnova Business School



**Ms. Berbel, Fina Mari**

- ◆ Speech Therapist Specialist in Clinical Audiology and Hearing Therapy
- ◆ Speech Therapist at the Federation of Deaf People of Alicante
- ◆ Degree in Speech Therapy from the University of Murcia
- ◆ Master's Degree in Clinical Audiology and Hearing Therapy from the University of Murcia
- ◆ Training in Spanish Sign Language Interpretation (LSE)

**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. Plana González, Andrea**

- ◆ Founder and Speech Therapist at Logrospedia
- ◆ Speech therapist at ClínicActiva and Amaco Salud
- ◆ Graduate in Speech Therapy from the University of Valladolid
- ◆ Master's Degree in Orofacial Motricity and Myofunctional Therapy from the Pontifical University of Salamanca
- ◆ Master's Degree in Vocal Therapy from the CEU Cardenal Herrera University
- ◆ University Expert in Neurorehabilitation and Early Care by CEU Cardenal Herrera University



*This academic experience will update your clinical practice using the most advanced technological resources and the most up-to-date scientific studies in the field.*

# 06

## Educational Plan

TECH has designed this syllabus hand in hand with a team of experienced specialists who have mastered the most advanced new techniques and methods to address the most common and diverse cases of Speech, Language and Communication Disorders. It will be 1500 hours of 100% online study where you will delve into 10 modules of content developed in depth so that you can advance in the incorporation of the latest medical procedures for Dyslalia, Dyslexia, Stuttering, Dysphemia, Dysarthria, Autism, among other conditions that impede the correct communication process in pediatric or adult patients.





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*This syllabus concentrates the most advanced diagnostic and therapeutic methods for the treatment of Speech, Language and Communication Disorders”*

## Module 1. Basis of Speech and Language Therapy

- 1.1. Introduction to the Master's Degree
  - 1.1.1. Introduction to the Master's Degree
  - 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 Spain
    - 1.2.3.1. Importance of the Speech Therapy professional in Spain
    - 1.2.3.2. Is the Speech Therapist valued in Spain?
  - 1.2.4. Speech Therapy in the rest of the World
    - 1.2.4.1. Importance of the Speech Therapy Professional in the rest of the World
    - 1.2.4.2. What are Speech Therapists called in other countries?
    - 1.2.4.3. Is the figure of the Speech Therapist valued in other Countries?
  - 1.2.5. Functions of the Speech-Language Pathologist
    - 1.2.5.1. Functions of the Speech Therapist according to the BOE
    - 1.2.5.2. The Reality of Speech Therapy
  - 1.2.6. Areas of Intervention of the Speech Therapist
    - 1.2.6.1. Areas of Intervention According to the BOE
    - 1.2.6.2. The Reality of the Speech-Language Pathologist's areas of intervention
- 1.2.7. Forensic Speech Therapy
  - 1.2.7.1. Initial Considerations
  - 1.2.7.2. Concept of Forensic Speech Therapist
  - 1.2.7.3. The Importance of Forensic Speech Therapists
- 1.2.8. The Hearing and Speech Teacher
  - 1.2.8.1. Concept of Hearing and Speech Teacher
  - 1.2.8.2. Areas of work of the Hearing and Speech Teacher
  - 1.2.8.3. Differences between Speech-Language Pathologist and Hearing and Speech Teacher
- 1.2.9. Professional Associations of Speech-Language Pathologists in Spain
  - 1.2.9.1. Functions of the Professional Associations
  - 1.2.9.2. The Autonomous Communities
  - 1.2.9.3. Why Join a Professional Association?
- 1.2.10. Final Conclusions
- 1.3. Language, Speech, and Communication
  - 1.3.1. Preliminary Considerations
  - 1.3.2. Language, Speech, and Communication
    - 1.3.2.1. 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 Development
    - 1.3.4.1. Preliminary Considerations
    - 1.3.4.2. 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 that explain the development of Language
    - 1.3.5.1. Piaget
    - 1.3.5.2. Vygotsky
    - 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 Development
  - 1.3.8.1. Prelinguistic Stage
  - 1.3.8.2. Linguistic Stage
- 1.3.9. Summary Table of Normative Language Development
- 1.3.10. Final Conclusions
- 1.4. Communication, Speech and Language Disorders
  - 1.4.1. Introduction to Unit
  - 1.4.2. Communication, Speech and Language Disorders
    - 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
  - 1.4.7. Types of Language Disorders
    - 1.4.7.1. Receptive Language Difficulties
    - 1.4.7.2. Expressive Language Difficulties
    - 1.4.7.3. Receptive-Expressive Language Difficulties
  - 1.4.8. Classification of Language Disorders
    - 1.4.8.1. From the Clinical Approach
    - 1.4.8.2. From the Educational Approach
    - 1.4.8.3. From the Psycholinguistic Approach
    - 1.4.8.4. 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. Logopedic 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
  - 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

- 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
    - 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
    - 1.6.10. Why is it so Important to Carry Out a Speech Therapy Report?
      - 1.6.10.1. Preliminary Considerations
      - 1.6.10.2. Areas where a Speech Therapy Report can be Key
  - 1.7. Speech 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
    - 1.7.5.1. General Objectives of the Speech Therapy Intervention Program
    - 1.7.5.2. Specific Objectives of the Speech Therapy Intervention Program
  - 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. Proposal of Self-Made and Indispensable Materials
      - 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. 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. Concept of Augmentative Communication System
    - 1.8.2.2. Concept of Alternative Communication System
    - 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 AACs
    - 1.8.3.1. 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 Products
    - 1.8.5.1. Basic Support Products
    - 1.8.5.2. 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
    - 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. #IamVisual
    - 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. 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 Environment
    - 1.9.3.1. 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 in 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
    - 1.9.7.1. 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. Modifications in the child's family environment
    - 1.9.9.2. Advice and Recommendations from the child
    - 1.9.9.3. The Importance of keeping a Record Sheet
  - 1.9.10. Final Conclusions
  - 1.10. Child Development 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
    - 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 does the Child Communicate 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. The Different Types of Education in Spain
      - 1.10.7.1. Normal School
        - 1.10.7.1.1. Concept
        - 1.10.7.1.2. How does it benefit the child with Special Educational Needs?
      - 1.10.7.2. Special Education School
        - 1.10.7.2.1. Concept
        - 1.10.7.2.2. How does it benefit the child with Special Educational Needs?
      - 1.10.7.3. Combined Education
        - 1.10.7.3.1. Concept
        - 1.10.7.3.2. How does it benefit the child with Special Educational Needs?
    - 1.10.8. Methodological bases for Classroom Intervention
      - 1.10.8.1. Strategies to favor the child's Integration
    - 1.10.9. Curricular Adaptation
      - 1.10.9.1. Concept of Curricular Adaptation
      - 1.10.9.2. Professionals who Apply it
      - 1.10.9.3. How does it benefit the child with Special Educational Needs?
    - 1.10.10. Final Conclusions
- Module 2. Dyslalias: Assessment, Diagnosis, and Intervention**
  - 2.1. Module Presentation
    - 2.1.1. Introduction
  - 2.2. Introduction to Dyslalia
    - 2.2.1. What are Phonetics and Phonology?
      - 2.2.1.1. Basic Concepts
      - 2.2.1.2. Phonemes
    - 2.2.2. Classification of Phonemes
      - 2.2.2.1. Preliminary Considerations
      - 2.2.2.2. According to the point of Articulation
      - 2.2.2.3. According to the mode of Articulation
    - 2.2.3. Speech Emission
      - 2.2.3.1. Aspects of Sound Emission
      - 2.2.3.2. Mechanisms Involved in Speech

- 2.2.4. Phonological Development
  - 2.2.4.1. The Implication of Phonological Awareness
- 2.2.5. Organs Involved in Phoneme Articulation
  - 2.2.5.1. Breathing Organs
  - 2.2.5.2. Organs of Articulation
  - 2.2.5.3. Organs of Phonation
- 2.2.6. Dyslalias
  - 2.2.6.1. Etymology of the Term
  - 2.2.6.2. Concept of Dyslalia
- 2.2.7. Adult Dyslalia
  - 2.2.7.1. Preliminary Considerations
  - 2.2.7.2. Characteristics of adult Dyslalia
  - 2.2.7.3. What is the difference between childhood Dyslalia and adult Dyslalia?
- 2.2.8. Comorbidity
  - 2.2.8.1. Comorbidity in Dyslalia
  - 2.2.8.2. Associated Disorders
- 2.2.9. Prevalence
  - 2.2.9.1. Preliminary Considerations
  - 2.2.9.2. The Prevalence of Dyslalia in the PreSchool Population
  - 2.2.9.3. The Prevalence of Dyslalia in the School Population
- 2.2.10. Final Conclusions
- 2.3. Etiology and Classification of Dyslalias
  - 2.3.1. Etiology of Dyslalias
    - 2.3.1.1. Preliminary Considerations
    - 2.3.1.2. Poor Motor Skills
    - 2.3.1.3. Respiratory Difficulties
    - 2.3.1.4. Lack of Comprehension or Auditory Discrimination
    - 2.3.1.5. Psychological Factors
    - 2.3.1.6. Environmental Factors
    - 2.3.1.7. Hereditary Factors
    - 2.3.1.8. Intellectual Factors
  - 2.3.2. Classification of Dyslalias according to Etiological Criteria
    - 2.3.2.1. Organic Dyslalias
    - 2.3.2.2. Functional Dyslalias
    - 2.3.2.3. Developmental Dyslalias
    - 2.3.2.4. Audiogenic Dyslalias
  - 2.3.3. The classification of Dyslalias according to Chronological Criteria
    - 2.3.3.1. Preliminary Considerations
    - 2.3.3.2. Speech Delay
    - 2.3.3.3. Dyslalia
  - 2.3.4. Classification of Dyslalia according to the Phonological Process involved
    - 2.3.4.1. Simplification
    - 2.3.4.2. Assimilation
    - 2.3.4.3. Syllable Structure
  - 2.3.5. Classification of Dyslalia based on Linguistic Level
    - 2.3.5.1. Phonetic Dyslalia
    - 2.3.5.2. Phonological Dyslalia
    - 2.3.5.3. Mixed Dyslalia
  - 2.3.6. Classification of Dyslalia according to the Phoneme involved
    - 2.3.6.1. Hotentotism
    - 2.3.6.2. Altered Phonemes
  - 2.3.7. Classification of Dyslalia According to the Number of Errors and Their Persistence
    - 2.3.7.1. Simple Dyslalia
    - 2.3.7.2. Multiple Dyslalias
    - 2.3.7.3. Speech Delay
  - 2.3.8. The Classification of Dyslalias according to the type of error
    - 2.3.8.1. Omission
    - 2.3.8.2. Addition/Insertion
    - 2.3.8.3. Substitution
    - 2.3.8.4. Inversions
    - 2.3.8.5. Distortion
    - 2.3.8.6. Assimilation
  - 2.3.9. Classification of Dyslalia in terms of Temporality
    - 2.3.9.1. Permanent Dyslalias
    - 2.3.9.2. Transient Dyslalias
  - 2.3.10. Final Conclusions

- 2.4. Assessment Processes for the Diagnosis and Detection of Dyslalia
  - 2.4.1. Introduction to the Structure of the Assessment Process
  - 2.4.2. Medical History
    - 2.4.2.1. Preliminary Considerations
    - 2.4.2.2. Content of the Anamnesis
    - 2.4.2.3. Aspects to emphasize of the Anamnesis
  - 2.4.3. Articulation
    - 2.4.3.1. In Spontaneous Language
    - 2.4.3.2. In Repeated Speech
    - 2.4.3.3. In Directed Language
  - 2.4.4. Motor Skills
    - 2.4.4.1. Key Elements
    - 2.4.4.2. Orofacial Motor Skills
    - 2.4.4.3. Muscle Tone
  - 2.4.5. Auditory Perception and Discrimination
    - 2.4.5.1. Sound Discrimination
    - 2.4.5.2. Phoneme Discrimination
    - 2.4.5.3. Word Discrimination
  - 2.4.6. Speech Samples
    - 2.4.6.1. Preliminary Considerations
    - 2.4.6.2. How to Collect a Speech Sample?
    - 2.4.6.3. How to make a record of the Speech Samples?
  - 2.4.7. Standardized tests for the Diagnosis of Dyslalia
    - 2.4.7.1. What are Standardized Tests?
    - 2.4.7.2. Purpose of Standardized Tests
    - 2.4.7.3. Classification
  - 2.4.8. Non-Standardized Tests for the Diagnosis of Dyslalias
    - 2.4.8.1. What are Non-Standardized Tests?
    - 2.4.8.2. Purpose of Non-Standardized Tests
    - 2.4.8.3. Classification
  - 2.4.9. Differential Diagnosis of Dyslalia
  - 2.4.10. Final Conclusions
- 2.5. User-centered Speech-Language Pathology Intervention
  - 2.5.1. Introduction to Unit
  - 2.5.2. How to set Goals during the Intervention?
    - 2.5.2.1. General Considerations
    - 2.5.2.2. Individualized or Group Intervention, which is more effective?
    - 2.5.2.3. Specific Objectives that the Speech-Language Pathologist has to Take into Account for the Intervention of Each Dyslalia
  - 2.5.3. Structure to be followed during Dyslalia Intervention
    - 2.5.3.1. Initial Considerations
    - 2.5.3.2. What is the order of Intervention for Dyslalia?
    - 2.5.3.3. In Multiple Dyslalia, which Phoneme would the Speech-Language Pathologist Start Working on and What Would Be the Reason?
  - 2.5.4. Direct intervention in children with Dyslalia
    - 2.5.4.1. Concept of Direct Intervention
    - 2.5.4.2. Who is the Focus of this Intervention?
    - 2.5.4.3. The importance of Direct Intervention for Dyslexic Children
  - 2.5.5. Indirect Intervention for children with Dyslalia
    - 2.5.5.1. Concept of Indirect Intervention
    - 2.5.5.2. Who is the Focus of this Intervention?
    - 2.5.5.3. The importance of carrying out Indirect Intervention in Dyslexic Children
  - 2.5.6. The importance of play during Rehabilitation
    - 2.5.6.1. Preliminary Considerations
    - 2.5.6.2. How to use games for Rehabilitation?
    - 2.5.6.3. Adaptation of games to children, necessary or not?
  - 2.5.7. Auditory Discrimination
    - 2.5.7.1. Preliminary Considerations
    - 2.5.7.2. Concept of Auditory Discrimination
    - 2.5.7.3. When is the Right Time During the Intervention to Include Auditory Discrimination?
  - 2.5.8. Making a Schedule
    - 2.5.8.1. What is a Schedule?
    - 2.5.8.2. Why should a Schedule be used in the Speech Therapy Intervention of the Dyslexic Child?
    - 2.5.8.3. Benefits of making a Schedule
  - 2.5.9. Requirements to Justify Discharge

- 2.5.10. Final Conclusions
- 2.6. The Family as a part of the Intervention of the Dyslalic Child
  - 2.6.1. Introduction to Unit
  - 2.6.2. Communication Problems with the Family Environment
    - 2.6.2.1. What Difficulties does the Dyslexic Child Encounter in their Family Environment to Communicate?
  - 2.6.3. Consequences of Dyslalias in the family
    - 2.6.3.1. How do Dyslalias influence the child in their home?
    - 2.6.3.2. How do Dyslalias influence the child's family?
  - 2.6.4. Family Involvement in the development of the Dyslalic child
    - 2.6.4.1. The Importance of the family in the child's Development
    - 2.6.4.2. How to Involve the Family in the Intervention?
  - 2.6.5. Recommendations for the Family Environment
    - 2.6.5.1. How to Communicate with the Dyslexic child?
    - 2.6.5.2. Tips to Benefit the Relationship in the Home
  - 2.6.6. Benefits of Involving the Family in the Intervention
    - 2.6.6.1. The Fundamental Role of the Family in Generalization
    - 2.6.6.2. Tips for Helping the Family Achieve Generalization
  - 2.6.7. The Family as the Center of the Intervention
    - 2.6.7.1. Supports That Can be Provided to the Family
    - 2.6.7.2. How to Facilitate these Aids during the Intervention?
  - 2.6.8. Family Support to the Dyslalic child
    - 2.6.8.1. Preliminary Considerations
    - 2.6.8.2. Teaching Families how to Reinforce the Dyslexic child
  - 2.6.9. Resources Available to Families
  - 2.6.10. Final Conclusions
- 2.7. The School Context as Part of the Dyslalic child's Intervention
  - 2.7.1. Introduction to Unit
  - 2.7.2. The involvement of the School during the Intervention Period
    - 2.7.2.1. The Importance of the Involvement of the School
    - 2.7.2.2. The Influence of the School on Speech Development
  - 2.7.3. The Impact of Dyslalias in the School context
    - 2.7.3.1. How can Dyslalias influence the curriculum?
  - 2.7.4. School Supports
    - 2.7.4.1. Who provides them?
    - 2.7.4.2. How are they carried out?
  - 2.7.5. The coordination of the Speech Therapist with the School Professionals
    - 2.7.5.1. With whom does the Coordination take place?
    - 2.7.5.2. Guidelines to be followed to achieve such Coordination
  - 2.7.6. Consequences in class of the Dyslalic child
    - 2.7.6.1. Communication with Classmates
    - 2.7.6.2. Communication with Teachers
    - 2.7.6.3. Psychological Repercussions of the Child
  - 2.7.7. Orientations
    - 2.7.7.1. Guidelines for the School, to Improve the Child's Intervention
  - 2.7.8. The School as an Enabling Environment
    - 2.7.8.1. Preliminary Considerations
    - 2.7.8.2. Classroom Care Guidelines
    - 2.7.8.3. Guidelines for improving Classroom Articulation
  - 2.7.9. Resources Available to the School
  - 2.7.10. Final Conclusions
- 2.8. Bucco-phonatory Praxias
  - 2.8.1. Introduction to Unit
  - 2.8.2. The Praxias
    - 2.8.2.1. Concept of Praxias
    - 2.8.2.2. Types of Praxias
      - 2.8.2.2.1. Ideomotor Praxias
      - 2.8.2.2.2. Ideational Praxias
      - 2.8.2.2.3. Facial Praxias
      - 2.8.2.2.4. Visoconstructive Praxias
    - 2.8.2.3. Classification of Praxias according to Intention (Junyent Fabregat, 1989)
      - 2.8.2.3.1. Transitive Intention
      - 2.8.2.3.2. Esthetic Purpose
      - 2.8.2.3.3. With Symbolic Character
  - 2.8.3. Frequency of the Performance of Orofacial Praxias

- 2.8.4. What Praxias are used in the Speech Therapy Intervention of Dyslalia?
  - 2.8.4.1. Labial Praxias
  - 2.8.4.2. Lingual Praxias
  - 2.8.4.3. Velum of Palate Praxias
  - 2.8.4.4. Other Praxias
- 2.8.5. Aspects that the Child Must Have to Be Able to Perform the Praxias
- 2.8.6. Activities for the Realization of the Different Facial Praxias
  - 2.8.6.1. Exercises for the Labial Praxias
  - 2.8.6.2. Exercises for the Lingual Praxias
  - 2.8.6.3. Exercises for Soft Palate Praxias
  - 2.8.6.4. Other Exercises
- 2.8.7. Current Controversy over the use of Orofacial Praxias
- 2.8.8. Theories in favor of the use of Praxias in the Intervention of the Dyslexic Child
  - 2.8.8.1. Preliminary Considerations
  - 2.8.8.2. Scientific Evidence
  - 2.8.8.3. Comparative Studies
- 2.8.9. Theories Against the Realization of Praxias in the Intervention of the Dyslexic Child
  - 2.8.9.1. Preliminary Considerations
  - 2.8.9.2. Scientific Evidence
  - 2.8.9.3. Comparative Studies
- 2.8.10. Final Conclusions
- 2.9. Materials and Resources for the Speech Therapy Intervention of Dyslalia: part I
  - 2.9.1. Introduction to Unit
  - 2.9.2. Materials and Resources for the correction of the Phoneme /p/ in all positions
    - 2.9.2.1. Self-made Material
    - 2.9.2.2. Commercially Available Material
    - 2.9.2.3. Technological Resources
  - 2.9.3. Materials and Resources for the correction of the Phoneme /s/ in all positions
    - 2.9.3.1. Self-made Material
    - 2.9.3.2. Commercially Available Material
    - 2.9.3.3. Technological Resources
  - 2.9.4. Materials and Resources for the correction of the Phoneme /r/ in all positions
    - 2.9.4.1. Self-made Material
    - 2.9.4.2. Commercially Available Material
    - 2.9.4.3. Technological Resources
  - 2.9.5. Materials and Resources for the correction of the Phoneme /l/ in all positions
    - 2.9.5.1. Self-made Material
    - 2.9.5.2. Commercially Available Material
    - 2.9.5.3. Technological Resources
  - 2.9.6. Materials and Resources for the Correction of the Phoneme / M/ in All Positions
    - 2.9.6.1. Self-made Material
    - 2.9.6.2. Commercially Available Material
    - 2.9.6.3. Technological Resources
  - 2.9.7. Materials and Resources for the correction of the Phoneme / N/ in all positions
    - 2.9.7.1. Self-made Material
    - 2.9.7.2. Commercially Available Material
    - 2.9.7.3. Technological Resources
  - 2.9.8. Materials and Resources for the correction of the Phoneme / D/ in all positions
    - 2.9.8.1. Self-made Material
    - 2.9.8.2. Commercially Available Material
    - 2.9.8.3. Technological Resources
  - 2.9.9. Materials and Resources for the correction of the Phoneme / Z/ in all positions
    - 2.9.9.1. Self-made Material
    - 2.9.9.2. Commercially Available Material
    - 2.9.9.3. Technological Resources
  - 2.9.10. Materials and Resources for the Correction of the Phoneme /k/ in All Positions
    - 2.9.10.1. Self-made Material
    - 2.9.10.2. Commercially Available Material
    - 2.9.10.3. Technological Resources
- 2.10. Materials and Resources for the Speech Therapy Intervention of Dyslalia: part II
  - 2.10.1. Materials and Resources for the correction of the Phoneme / f/ in all positions
    - 2.10.1.1. Self-made Material
    - 2.10.1.2. Commercially Available Material
    - 2.10.1.3. Technological Resources

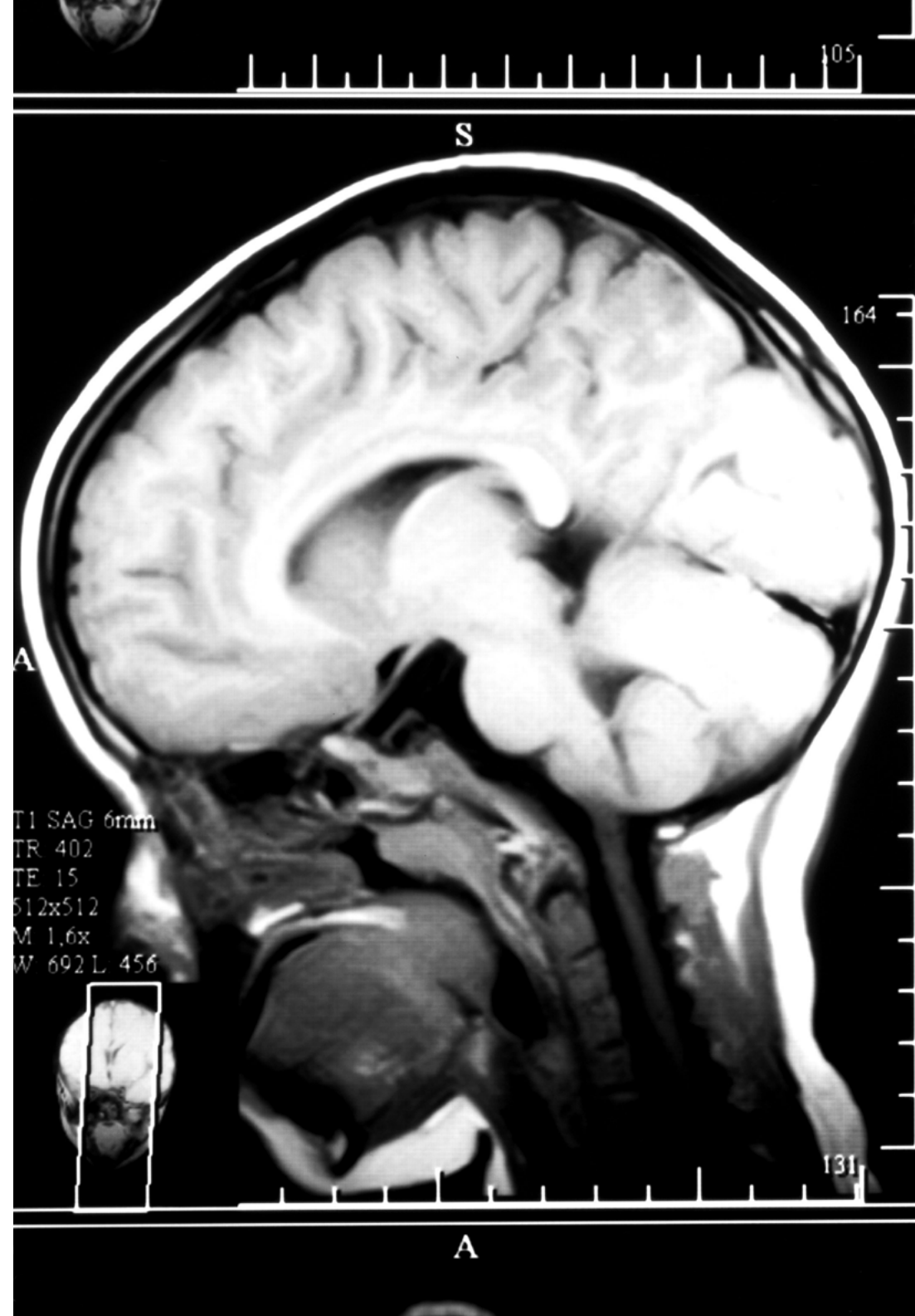
- 2.10.2. Materials and Resources for the correction of the Phoneme / Ñ/ in all positions
  - 2.10.2.1. Self-made Material
  - 2.10.2.2. Commercially Available Material
  - 2.10.2.3. Technological Resources
- 2.10.3. Materials and Resources for the correction of the Phoneme / G/ in all positions
  - 2.10.3.1. Self-made Material
  - 2.10.3.2. Commercially Available Material
  - 2.10.3.3. Technological Resources
- 2.10.4. Materials and Resources for the correction of the Phoneme / ll/ in all positions
  - 2.10.4.1. Self-made Material
  - 2.10.4.2. Commercially Available Material
  - 2.10.4.3. Technological Resources
- 2.10.5. Materials and Resources for the correction of the Phoneme /b/ in all positions
  - 2.10.5.1. Self-made Material
  - 2.10.5.2. Commercially Available Material
  - 2.10.5.3. Technological Resources
- 2.10.6. Materials and Resources for the correction of the Phoneme /T/ in all positions
  - 2.10.6.1. Self-made Material
  - 2.10.6.2. Commercially Available Material
  - 2.10.6.3. Technological Resources
- 2.10.7. Materials and Resources for the Correction of the Phoneme /ch/ in All Positions
  - 2.10.7.1. Self-made Material
  - 2.10.7.2. Commercially Available Material
  - 2.10.7.3. Technological Resources
- 2.10.8. Materials and Resources for the correction of the Phoneme / l/ in all positions
  - 2.10.8.1. Self-made Material
  - 2.10.8.2. Commercially Available Material
  - 2.10.8.3. Technological Resources
- 2.10.9. Materials and Resources for the Correction of the Phoneme / r/ in All Positions
  - 2.10.9.1. Self-made Material
  - 2.10.9.2. Commercially Available Material
  - 2.10.9.3. Technological Resources
- 2.10.10. Final Conclusions

### Module 3. Dyslexia: Assessment, Diagnosis, and Intervention

- 3.1. Basic Fundamentals of Reading and Writing
  - 3.1.1. Introduction
  - 3.1.2. The Brain
    - 3.1.2.1. Anatomy of the Brain
    - 3.1.2.2. Brain Function
  - 3.1.3. Methods of Brain Scanning
    - 3.1.3.1. Structural Imaging
    - 3.1.3.2. Functional Imaging
    - 3.1.3.3. Stimulation Imaging
  - 3.1.4. Neurobiological Basis of Reading and Writing
    - 3.1.4.1. Sensory Processes
      - 3.1.4.1.1. The Visual Component
      - 3.1.4.1.2. The Auditory Component
    - 3.1.4.2. Reading Processes
      - 3.1.4.2.1. Reading Decoding
      - 3.1.4.2.2. Reading Comprehension
    - 3.1.4.3. Writing Processes
      - 3.1.4.3.1. Written Coding
      - 3.1.4.3.2. Syntactic Construction
      - 3.1.4.3.3. Planning
      - 3.1.4.3.4. The Act of Writing
  - 3.1.5. Psycholinguistic Processing of Reading and Writing
    - 3.1.5.1. Sensory Processes
      - 3.1.5.1.1. The Visual Component
      - 3.1.5.1.2. The Auditory Component
    - 3.1.5.2. Reading Process
      - 3.1.5.2.1. Reading Decoding
      - 3.1.5.2.2. Reading Comprehension
    - 3.1.5.3. Writing Processes
      - 3.1.5.3.1. Written Coding
      - 3.1.5.3.2. Syntactic Construction
      - 3.1.5.3.3. Planning
      - 3.1.5.3.4. The Act of Writing

- 3.1.6. The Dyslexic Brain in the light of Neuroscience
- 3.1.7. Laterality and Reading
  - 3.1.7.1. Reading with the hands
  - 3.1.7.2. Handedness and Language
- 3.1.8. Integration of the outside World and Reading
  - 3.1.8.1. Attention
  - 3.1.8.2. Memory
  - 3.1.8.3. Emotions
- 3.1.9. Chemical Mechanisms involved in Reading
  - 3.1.9.1. Neurotransmitters
  - 3.1.9.2. Limbic System
- 3.1.10. Conclusions and Appendices
- 3.2. Talking and organizing time and space for Reading
  - 3.2.1. Introduction
  - 3.2.2. Communication
    - 3.2.2.1. Oral Language
    - 3.2.2.2. Written Language
  - 3.2.3. Relations between Oral Language and Written Language
    - 3.2.3.1. Syntactic Aspects
    - 3.2.3.2. Semantic Aspects
    - 3.2.3.3. Phonological Aspects
  - 3.2.4. Recognize Language Forms and Structures
    - 3.2.4.1. Language, Speech, and Writing
  - 3.2.5. Develop Speech
    - 3.2.5.1. Oral Language
    - 3.2.5.2. Linguistic prerequisites for Reading
  - 3.2.6. Recognize the structures of Written Language
    - 3.2.6.1. Recognize the Word
    - 3.2.6.2. Recognize the Sequential Organization of the Sentence
    - 3.2.6.3. Recognize the meaning of Written Language
  - 3.2.7. Structure Time
    - 3.2.7.1. Organizing Time
  - 3.2.8. Structuring Space
    - 3.2.8.1. Spatial Perception and Organization
  - 3.2.9. Reading Strategies and their learning
    - 3.2.9.1. Logographic Stage and Global Method
    - 3.2.9.2. Alphabetic Stage
    - 3.2.9.3. Orthographic Stage and learning to Write
    - 3.2.9.4. Understanding to be able to Read
  - 3.2.10. Conclusions and Appendices
- 3.3. Dyslexia
  - 3.3.1. Introduction
  - 3.3.2. Brief History of the Term Dyslexia
    - 3.3.2.1. Chronology
    - 3.3.2.2. Different terminological meanings
  - 3.3.3. Conceptual Approach
    - 3.3.3.1. Dyslexia
      - 3.3.3.1.1. WHO Definition
      - 3.3.3.1.2. DSM-IV Definition
      - 3.3.3.1.3. DSM-V Definition
  - 3.3.4. Other Related Concepts
    - 3.3.4.1. Conceptualization of Dysgraphia
    - 3.3.4.2. Conceptualization of Dysgraphia
  - 3.3.5. Etiology
    - 3.3.5.1. Explanatory Theories of Dyslexia
      - 3.3.5.1.1. Genetic Theories
      - 3.3.5.1.2. Neurobiological Theories
      - 3.3.5.1.3. Linguistic Theories
      - 3.3.5.1.4. Phonological Theories
      - 3.3.5.1.5. Visual Theories
  - 3.3.6. Types of Dyslexia
    - 3.3.6.1. Phonological Dyslexia
    - 3.3.6.2. Lexical Dyslexia
    - 3.3.6.3. Mixed Dyslexia

- 3.3.7. Comorbidities and Strengths
  - 3.3.7.1. ADD or ADHD
  - 3.3.7.2. Dyscalculia
  - 3.3.7.3. Dysgraphia
  - 3.3.7.4. Visual Stress Syndrome
  - 3.3.7.5. Crossed Laterality
  - 3.3.7.6. High Abilities
  - 3.3.7.7. Strengths
- 3.3.8. The Person with Dyslexia
  - 3.3.8.1. The Child with Dyslexia
  - 3.3.8.2. The Adolescent with Dyslexia
  - 3.3.8.3. The Adult with Dyslexia
- 3.3.9. Psychological Repercussions
  - 3.3.9.1. The feeling of injustice
- 3.3.10. Conclusions and Appendices
- 3.4. How to identify the Person with Dyslexia?
  - 3.4.1. Introduction
  - 3.4.2. Warning Signs
    - 3.4.2.1. Warning Signs in Early Childhood Education
    - 3.4.2.2. Warning Signs in Primary Education
  - 3.4.3. Frequent Symptomatology
    - 3.4.3.1. General Symptomatology
    - 3.4.3.2. Symptomatology by Stages
      - 3.4.3.2.1. Infant Stage
      - 3.4.3.2.2. School Stage
      - 3.4.3.2.3. Adolescent Stage
      - 3.4.3.2.4. Adult Stage
  - 3.4.4. Specific Symptomatology
    - 3.4.4.1. Dysfunctions in Reading
      - 3.4.4.1.1. Dysfunctions in the Visual Component
      - 3.4.4.1.2. Dysfunctions in the Decoding Processes
      - 3.4.4.1.3. Dysfunctions in Comprehension Processes







- 3.4.4.2. Dysfunctions in Writing
  - 3.4.4.2.1. Dysfunctions in the Oral-Written Language Relationship
  - 3.4.4.2.2. Dysfunction in the Phonological Component
  - 3.4.4.2.3. Dysfunction in the Encoding Processes
  - 3.4.4.2.4. Dysfunction in Syntactic Construction Processes
  - 3.4.4.2.5. Dysfunction in Planning
- 3.4.4.3. Motor Processes
  - 3.4.4.3.1. Visuoceptive Dysfunctions
  - 3.4.4.3.2. Visuoconstructive Dysfunctions
  - 3.4.4.3.3. Visuospatial Dysfunctions
  - 3.4.4.3.4. Tonic Dysfunctions
- 3.4.5. Dyslexia Profiles
  - 3.4.5.1. Phonological Dyslexia Profile
  - 3.4.5.2. Lexical Dyslexia Profile
  - 3.4.5.3. Mixed Dyslexia Profile
- 3.4.6. Dysgraphia Profiles
  - 3.4.6.1. Visuo-perceptual Dyslexia Profile
  - 3.4.6.2. Visoconstructive Dyslexia Profile
  - 3.4.6.3. Visuospatial Dyslexia Profile
  - 3.4.6.4. Tonic Dyslexia Profile
- 3.4.7. Dysorthographic Profiles
  - 3.4.7.1. Phonological Dysorthography Profile
  - 3.4.7.2. Orthographic Dysorthographic Profile
  - 3.4.7.3. Syntactic Dysorthography Profile
  - 3.4.7.4. Cognitive Dysorthography Profile
- 3.4.8. Associated Pathologies
  - 3.4.8.1. Secondary Pathologies
- 3.4.9. Dyslexia versus other Disorders
  - 3.4.9.1. Differential Diagnosis
- 3.4.10. Conclusions and Appendices
- 3.5. Assessment and Diagnosis
  - 3.5.1. Introduction
  - 3.5.2. Evaluation of Tasks
    - 3.5.2.1. The Diagnostic Hypothesis

- 3.5.3. Evaluation of Processing Levels
  - 3.5.3.1. Sublexical Units
  - 3.5.3.2. Lexical Units
  - 3.5.3.3. Supralexical Units
- 3.5.4. Assessment of Reading Processes
  - 3.5.4.1. Visual Component
  - 3.5.4.2. Decoding Process
  - 3.5.4.3. Comprehension Process
- 3.5.5. Evaluation of Writing Processes
  - 3.5.5.1. Neurobiological Skills of the Auditory Component
  - 3.5.5.2. Encoding Process
  - 3.5.5.3. Syntactic Construction
  - 3.5.5.4. Planning
  - 3.5.5.5. The Act of Writing
- 3.5.6. Evaluation of the Oral-Written Language Relationship
  - 3.5.6.1. Lexical Awareness
  - 3.5.6.2. Representational Written Language
- 3.5.7. Other Aspects to be Assessed
  - 3.5.7.1. Chromosomal Assessments
  - 3.5.7.2. Neurological Assessments
  - 3.5.7.3. Cognitive Assessments
  - 3.5.7.4. Motor Assessments
  - 3.5.7.5. Visual Assessments
  - 3.5.7.6. Linguistic Assessments
  - 3.5.7.7. Emotional Appraisals
  - 3.5.7.8. School Ratings
- 3.5.8. Standardized Tests and Evaluation Tests
  - 3.5.8.1. TALE
  - 3.5.8.2. PROLEC
  - 3.5.8.3. DST-J Dyslexia
  - 3.5.8.4. Other Tests
- 3.5.9. The Dyctective Test
  - 3.5.9.1. Contents
  - 3.5.9.2. Experimental Methodology
  - 3.5.9.3. Summary of Results
- 3.5.10. Conclusions and Appendices
- 3.6. Intervention in Dyslexia
  - 3.6.1. General Aspects of Intervention
  - 3.6.2. Selection of objectives based on the Diagnosed Profile
    - 3.6.2.1. Analysis of Collected Samples
  - 3.6.3. Prioritization and Sequencing of Targets
    - 3.6.3.1. Neurobiological Processing
    - 3.6.3.2. Psycholinguistic Processing
  - 3.6.4. Adequacy of the Objectives to the Contents to be worked on
    - 3.6.4.1. From the Specific Objective to the Content
  - 3.6.5. Proposal of Activities by Intervention Area
    - 3.6.5.1. Proposals based on the Visual Component
    - 3.6.5.2. Proposals based on the Phonological Component
    - 3.6.5.3. Proposals based on Reading Practice
  - 3.6.6. Programs and Tools for Intervention
    - 3.6.6.1. Orton-Gillingham Method
    - 3.6.6.2. ACOS Program
  - 3.6.7. Standardized Materials for Intervention
    - 3.6.7.1. Printed Materials
    - 3.6.7.2. Other Materials
  - 3.6.8. Space Organization
    - 3.6.8.1. Lateralization
    - 3.6.8.2. Sensory Modalities
    - 3.6.8.3. Eye Movements
    - 3.6.8.4. Visuoperceptual Skills
    - 3.6.8.5. Fine Motor Skills
  - 3.6.9. Necessary Adaptations in the Classroom
    - 3.6.9.1. Curricular Adaptations
  - 3.5.10. Conclusions and Appendices

- 3.7. From Traditional to Innovative. New Approach
  - 3.7.1. Introduction
  - 3.7.2. Traditional Education
    - 3.7.2.1. Brief description of Traditional Education
  - 3.7.3. Current Education
    - 3.7.3.1. The Education of our days
  - 3.7.4. Process of Change
    - 3.7.4.1. Educational Change. From Challenge to Reality
  - 3.7.5. Teaching Methodology
    - 3.7.5.1. Gamification
    - 3.7.5.2. Project-based Learning
    - 3.7.5.3. Others
  - 3.7.6. Changes in the Development of the Intervention Sessions
    - 3.7.6.1. Applying the new changes in Speech Therapy Intervention
  - 3.7.7. Proposal of Innovative Activities
    - 3.7.7.1. "My Logbook"
    - 3.7.7.2. The Strengths of each Student
  - 3.7.8. Development of Materials
    - 3.7.8.1. General Tips and Guidelines
    - 3.7.8.2. Adaptation of Materials
    - 3.7.8.3. Creating our own Intervention Material
  - 3.7.9. The use of Current Intervention Tools
    - 3.7.9.1. Android and iOS Operating System Applications
    - 3.7.9.2. The use of Computers
    - 3.7.9.3. Digital Whiteboard
  - 3.7.10. Conclusions and Appendices
- 3.8. Strategies and Personal Development of the Person with Dyslexia
  - 3.8.1. Introduction
  - 3.8.2. Study Strategies
    - 3.8.2.1. Study Techniques
  - 3.8.3. Organization and Productivity
    - 3.8.3.1. The Pomodoro Technique
  - 3.8.4. Tips on how to face an exam
  - 3.8.5. Language Learning Strategies
    - 3.8.5.1. First Language Assimilation
    - 3.8.5.2. Phonological and Morphological Awareness
    - 3.8.5.3. Visual Memory
    - 3.8.5.4. Comprehension and Vocabulary
    - 3.8.5.5. Linguistic Immersion
    - 3.8.5.6. Use of ICT
    - 3.8.5.7. Formal Methodologies
  - 3.8.6. Development of Strengths
    - 3.8.6.1. Beyond the Person with Dyslexia
  - 3.8.7. Improving Self-concept and Self-esteem
    - 3.8.7.1. Social Skills
  - 3.8.8. Eliminating Myths
    - 3.8.8.1. Student with Dyslexia. I am not lazy
    - 3.8.8.2. Other Myths
  - 3.8.9. Famous People with Dyslexia
    - 3.8.9.1. Well-known People with Dyslexia
    - 3.8.9.2. Real Testimonials
  - 3.8.10. Conclusions and Appendices
- 3.9. Guidelines
  - 3.9.1. Introduction
  - 3.9.2. Guidelines for the Person with Dyslexia
    - 3.9.2.1. Coping with the Diagnosis
    - 3.9.2.2. Guidelines for Daily Living
    - 3.9.2.3. Guidelines for the Person with Dyslexia as a Learner
  - 3.9.3. Guidelines for the Family Environment
    - 3.9.3.1. Guidelines for collaborating in the Intervention
    - 3.9.3.2. General Guidelines
  - 3.9.4. Guidelines for the Educational Context
    - 3.9.4.1. Adaptations
    - 3.9.4.2. Measures to be taken to facilitate the Acquisition of Content
    - 3.9.4.3. Guidelines to be Followed to Pass Exams
  - 3.9.5. Specific Guidelines for Foreign Language Teachers
    - 3.9.5.1. The Challenge of Language Learning

- 3.9.6. Guidelines for other Professionals
- 3.9.7. Guidelines for the Form of Written Texts
  - 3.9.7.1. Typography
  - 3.9.7.2. Font Size
  - 3.9.7.3. Colors
  - 3.9.7.4. Character, Line, and Paragraph Spacing
- 3.9.8. Guidelines for Text Content
  - 3.9.8.1. Frequency and Length of Words
  - 3.9.8.2. Syntactic Simplification
  - 3.9.8.3. Numerical Expressions
  - 3.9.8.4. The use of Graphical Schemes
- 3.9.9. Writing Technology
- 3.9.10. Conclusions and Appendices
- 3.10. The Speech-Language Pathologist's Report on Dyslexia
  - 3.10.1. Introduction
  - 3.10.2. The Reason for the Evaluation
    - 3.10.2.1. Family Referral or Request
  - 3.10.3. The Interview
    - 3.10.3.1. The Family Interview
    - 3.10.3.2. The School Interview
  - 3.10.4. The History
    - 3.10.4.1. Clinical History and Evolutionary Development
    - 3.10.4.2. Academic History
  - 3.10.5. The Context
    - 3.10.5.1. The Social Context
    - 3.10.5.2. The family context
  - 3.10.6. Assessments
    - 3.10.6.1. Psycho-Pedagogical Assessment
    - 3.10.6.2. Speech Therapy Assessment
    - 3.10.6.3. Other Assessments
  - 3.10.7. The Results
    - 3.10.7.1. Logopedic Evaluation Results
    - 3.10.7.2. Results of Other Assessments

- 3.10.8. Conclusions
  - 3.10.8.1. Diagnosis
- 3.10.9. Intervention Plan
  - 3.10.9.1. The Needs
  - 3.10.9.2. The Speech Therapy Intervention Program
- 3.10.10. Conclusions and Appendices

## Module 4. Specific Language Disorder

- 4.1. Background Information
  - 4.1.1. Module Presentation
  - 4.1.2. Module Objectives
  - 4.1.3. Historical Evolution of SLD
  - 4.1.4. Late Language Onset vs. SLD SLD
  - 4.1.5. Differences between SLD and Language Delay
  - 4.1.6. Difference between ASD and SLD
  - 4.1.7. Specific Language Disorder vs. Aphasia
  - 4.1.8. SLD as a predecessor of Literacy Disorders
  - 4.1.9. Intelligence and Specific Language Disorder
  - 4.1.10. Prevention of Specific Language Disorder
- 4.2. Approach to the Specific Language Disorder
  - 4.2.1. Definition of SLD
  - 4.2.2. General characteristics of SLD
  - 4.2.3. Prevalence of SLD
  - 4.2.4. Prognosis of SLD
  - 4.2.5. Etiology of SLD
  - 4.2.6. Clinically based classification of SLD
  - 4.2.7. Empirically based classification of SLD
  - 4.2.8. Empirical-clinical based Classification of SLD
  - 4.2.9. Comorbidity of SLD
  - 4.2.10. SLD, not only a Difficulty in the Acquisition and Development of Language
- 4.3. Linguistic Characteristics in Specific Language Disorder
  - 4.3.1. Concept of Linguistic Capabilities
  - 4.3.2. General Linguistic Characteristics
  - 4.3.3. Linguistic Studies in SLD in Different Languages

- 4.3.4. General Alterations in Language Skills Presented by People with SLD
- 4.3.5. Grammatical Characteristics in SLD
- 4.3.6. Narrative Features in SLD
- 4.3.7. Pragmatic Features in SLD
- 4.3.8. Phonetic and Phonological Features in SLD
- 4.3.9. Lexical Features in SLD
- 4.3.10. Preserved Language Skills in SLD
- 4.4. Terminological Change
  - 4.4.1. Changes in the Terminology of SLD
  - 4.4.2. Classification According to DSM
  - 4.4.3. Changes Introduced in the DSM
  - 4.4.4. Consequences of Changes in Classification with the DSM
  - 4.4.5. New Nomenclature: Language Disorder
  - 4.4.6. Characteristics of Language Disorder
  - 4.4.7. Main Differences and Concordances between SLD and SL
  - 4.4.8. Altered Executive Functions in SLD
  - 4.4.9. Preserved Executive Functions in SL
  - 4.4.10. Detractors of Terminology Change
- 4.5. Assessment in Specific Language Disorder
  - 4.5.1. Speech-Language Evaluation: Prior Information
  - 4.5.2. Early identification of SLD: Prelinguistic Predictors
  - 4.5.3. General Considerations to take into account in the Speech Therapy Evaluation of SLD
  - 4.5.4. Principles of Evaluation in Cases of SLD
  - 4.5.5. The Importance and Objectives of Speech-Language Pathology Assessment in SLD
  - 4.5.6. Evaluation Process of SLD
  - 4.5.7. Assessment of Language, Communicative Skills and Executive Functions in SLD
  - 4.5.8. Evaluation Instrument of SLD
  - 4.5.9. Interdisciplinary Evaluation
  - 4.5.10. Diagnosis of TEL
- 4.6. Interventions in Specific Language Disorder
  - 4.6.1. The Speech Therapy Intervention
  - 4.6.2. Basic Principles of Speech Therapy Intervention
  - 4.6.3. Environments and Agents of intervention in SLD
  - 4.6.4. Intervention Model in Levels
  - 4.6.5. Early Intervention in SLD
  - 4.6.6. Importance of Intervention in SLD
  - 4.6.7. Music Therapy in the intervention of SLD
  - 4.6.8. Technological Resources in the Intervention of SLD
  - 4.6.9. Intervention in the Executive Functions in SLD
  - 4.6.10. Multidisciplinary Intervention in SLD
- 4.7. Elaboration of a Speech Therapy Intervention Program for children with Specific Language Disorder
  - 4.7.1. Speech Therapy Intervention Program
  - 4.7.2. Approaches on SLD to design an Intervention Program
  - 4.7.3. Objectives and Strategies of SLD Intervention Programs
  - 4.7.4. Indications to follow in the Intervention of Children with SLD
  - 4.7.5. Comprehension Treatment
  - 4.7.6. Treatment of Expression in cases of SLD
  - 4.7.7. Intervention in Reading and Writing
  - 4.7.8. Social Skills Training in SLD
  - 4.7.9. Agents and Timing of Intervention in cases of SLD
  - 4.7.10. SAACs in the Intervention in cases of SLD
- 4.8. The School in Cases of Specific Language Disorder
  - 4.8.1. The School in Child Development
  - 4.8.2. School Consequences in children with SLD
  - 4.8.3. Schooling of children with SLD
  - 4.8.4. Aspects to take into account in School Intervention
  - 4.8.5. Objectives of School Intervention in cases of SLD
  - 4.8.6. Guidelines and Strategies for Classroom Intervention with children with SLD
  - 4.8.7. Development and Intervention in Social Relationships within the School
  - 4.8.8. Dynamic Playground Program
  - 4.8.9. The School and the Relationship with other Intervention Agents
  - 4.8.10. Observation and Monitoring of School Intervention

- 4.9. The Family and its Intervention in cases of children with Specific Language Disorder
  - 4.9.1. Consequences of SLD in the Family Environment
  - 4.9.2. Family Intervention Models
  - 4.9.3. General Considerations to be taken into account
  - 4.9.4. The importance of Family Intervention in SLD
  - 4.9.5. Family Orientations
  - 4.9.6. Communication Strategies for the Family
  - 4.9.7. Needs of Families of Children with SLD
  - 4.9.8. The Speech Therapist in the Family Intervention
  - 4.9.9. Objectives of the Family Speech Therapy Intervention in the SLD
  - 4.9.10. Follow-up and Timing of the Family Intervention in SLD
- 4.10. Associations and Support Guides for Families and Schools of Children with SLD
  - 4.10.1. Parent Associations
  - 4.10.2. Information Guides
  - 4.10.3. AVATEL
  - 4.10.4. ATELMA
  - 4.10.5. ATELAS
  - 4.10.6. ATELCA
  - 4.10.7. ATEL CLM
  - 4.10.8. Other Associations
  - 4.10.9. SLD Guides aimed at the Educational Field
  - 4.10.10. SLD Guides and Manuals aimed at the Family Environment

## Module 5. Understanding Autism

- 5.1. Temporal Development in its definition
  - 5.1.1. Theoretical approaches to ASD
    - 5.1.1.1. Early Definitions
    - 5.1.1.2. Evolution throughout History
  - 5.1.2. Current Classification of Autism Spectrum Disorder
    - 5.1.2.1. Classification according to DSM-IV
    - 5.1.2.2. DSM-V Definition
- 5.1.3. Table of Disorders pertaining to ASD
  - 5.1.3.1. Autism Spectrum Disorder
  - 5.1.3.2. Asperger's Disorder
  - 5.1.3.3. Rett's Disorder
  - 5.1.3.4. Childhood Disintegrative Disorder
  - 5.1.3.5. Pervasive Developmental Disorders
- 5.1.4. Comorbidity with other Pathologies
  - 5.1.4.1. ASD and ADHD (Attention and/or Hyperactivity Disorder)
  - 5.1.4.2. ASD AND HF (High Functioning)
  - 5.1.4.3. Other Pathologies of Lower Associated Percentage
- 5.1.5. Differential Diagnosis of Autism Spectrum Disorder
  - 5.1.5.1. Non-Verbal Learning Disorder
  - 5.1.5.2. NPDD (Perturbing Disorder Not Predetermined)
  - 5.1.5.3. Schizoid Personality Disorder
  - 5.1.5.4. Affective and Anxiety Disorders
  - 5.1.5.5. Tourette's Disorder
  - 5.1.5.6. Representative table of specified Disorders
- 5.1.6. Theory of Mind
  - 5.1.6.1. The Senses
  - 5.1.6.2. Perspectives
  - 5.1.6.3. False beliefs
  - 5.1.6.4. Complex Emotional States
- 5.1.7. Weak Central Coherence Theory
  - 5.1.7.1. Tendency of Children with ASD to Focus their Attention on Details in Relation to The Whole
  - 5.1.7.2. First Theoretical Approach (Frith, 1989)
  - 5.1.7.3. Central Coherence Theory today (2006)
- 5.1.8. Theory of Executive Dysfunction
  - 5.1.8.1. What do we know as "Executive functions"?
  - 5.1.8.2. Planning
  - 5.1.8.3. Cognitive Flexibility
  - 5.1.8.4. Response Inhibition
  - 5.1.8.5. Mentalistic Skills
  - 5.1.8.6. Sense of Activity

- 5.1.9. Systematization Theory
  - 5.1.9.1. Explanatory Theories put forth by Baron-Cohen, S
  - 5.1.9.2. Types of Brain
  - 5.1.9.3. Empathy Quotient (EQ)
  - 5.1.9.4. Systematization Quotient (SQ)
  - 5.1.9.5. Autism Spectrum Quotient (ASQ)
- 5.1.10. Autism and Genetics
  - 5.1.10.1. Causes potentially responsible for the Disorder
  - 5.1.10.2. Chromosomopathies and Genetic Alterations
  - 5.1.10.3. Repercussions on Communication
- 5.2. Detection
  - 5.2.1. Main indicators in early Detection
    - 5.2.1.1. Warning Signs
    - 5.2.1.2. Warning Signs
  - 5.2.2. Communicative Domain in Autism Spectrum Disorder
    - 5.2.2.1. Aspects to take into Account
    - 5.2.2.2. Warning Signs
  - 5.2.3. Sensorimotor Area
    - 5.2.3.1. Sensory Processing
    - 5.2.3.2. Dysfunctions in Sensory Integration
  - 5.2.4. Social Development
    - 5.2.4.1. Persistent Difficulties in Social Interaction
    - 5.2.4.2. Restricted Patterns of Behavior
  - 5.2.5. Evaluation Process
    - 5.2.5.1. Developmental Scales
    - 5.2.5.2. Tests and Questionnaires for Parents
    - 5.2.5.3. Standardized Tests for Evaluation by the Professional
  - 5.2.6. Data Collection
    - 5.2.6.1. Instruments used for Screening
    - 5.2.6.2. Case Studies M-CHAT
    - 5.2.6.3. Standardized Tests
  - 5.2.7. In-session Observation
    - 5.2.7.1. Aspects to Take into Account within the Session
  - 5.2.8. Final Diagnosis
    - 5.2.8.1. Procedures to be Followed
    - 5.2.8.2. Proposed Therapeutic Plan
  - 5.2.9. Preparation of the Intervention Process
    - 5.2.9.1. Strategies for Intervention on ASD in early care
  - 5.2.10. Scale for the Detection of Asperger's Syndrome
    - 5.2.10.1. Stand-alone Scale for the Detection of Asperger Syndrome and High-Functioning Autism (HF)
- 5.3. Identification of Specific Difficulties
  - 5.3.1. Protocol to be followed
    - 5.3.1.1. Factors to Consider
  - 5.3.2. Needs Assessment based on Age and Developmental Level
    - 5.3.2.1. Protocol for Screening from 0 to 3 years of age
    - 5.3.2.2. M-CHAT-R Questionnaire. (16-30 months)
    - 5.3.2.3. Follow-up Interview M-CHAT-R/F
  - 5.3.3. Fields of Intervention
    - 5.3.3.1. Evaluation of the Effectiveness of Psychoeducational Intervention
    - 5.3.3.2. Clinical Practice Guideline Recommendations
    - 5.3.3.3. Main Areas of Potential Work
  - 5.3.4. Cognitive Area
    - 5.3.4.1. Mentalistic Skills Scale
    - 5.3.4.2. What Is It? How do we apply this Scale in ASD?
  - 5.3.5. Communication Area
    - 5.3.5.1. Communication Skills in ASD
    - 5.3.5.2. We Identify the Demand Based on Developmental Level
    - 5.3.5.3. Comparative Tables of Development with ASD and Normotypical Development
  - 5.3.6. Eating Disorders
    - 5.3.6.1. Intolerance Chart
    - 5.3.6.2. Aversion to Textures
    - 5.3.6.3. Eating Disorders in ASD
  - 5.3.7. Social Area
    - 5.3.7.1. SCERTS (Social-Communication, Emotional Regulation, and Transactional Support)
  - 5.3.8. Personal Autonomy

- 5.3.8.1. Daily Living Therapy
- 5.3.9. Competency Assessment
  - 5.3.9.1. Strengths
  - 5.3.9.2. Reinforcement-based Intervention
- 5.3.10. Specific Intervention Programs
  - 5.3.10.1. Case Studies and their Results
  - 5.3.10.2. Clinical Discussion
- 5.4. Communication and Language in Autism Spectrum Disorder
  - 5.4.1. Stages in the Development of Normotypical Language
    - 5.4.1.1. Comparative Table of Language Development in Patients with and without ASD
    - 5.4.1.2. Specific Language Development in Autistic Children
  - 5.4.2. Communication Deficits in ASD
    - 5.4.2.1. Aspects to take into account in the Early Stages of Development
    - 5.4.2.2. Explanatory Table with Factors to take into account during these Early Stages
  - 5.4.3. Autism and Language Pathology
    - 5.4.3.1. ASD and Dysphasia
  - 5.4.4. Preventive Education
    - 5.4.4.1. Introduction to Prenatal Infant Development
  - 5.4.5. From 0 to 3 years old
    - 5.4.5.1. Developmental Scales
    - 5.4.5.2. Implementation and Monitoring of Individualized Intervention Plans (IIP)
  - 5.4.6. CAT Means-Methodology
    - 5.4.6.1. Nursery School (NS)
  - 5.4.7. From 3 to 6 years old
    - 5.4.7.1. Schooling in Normal Center
    - 5.4.7.2. Coordination of the Professional with the Follow-up by the Pediatrician and Neuropediatrician
    - 5.4.7.3. Communication Skills to be Developed within this Age Range
    - 5.4.7.4. Aspects to take into Account
  - 5.4.8. School Age
    - 5.4.8.1. Main Aspects to take into Account
    - 5.4.8.2. Open Communication with the Teaching Staff
    - 5.4.8.3. Types of Schooling
- 5.4.9. Educational Environment
  - 5.4.9.1. Bullying
  - 5.4.9.2. Emotional Impact
- 5.4.10. Warning Signs
  - 5.4.10.1. Guidelines for Action
  - 5.4.10.2. Conflict Resolution
- 5.5. Communication Systems
  - 5.5.1. Available Tools
    - 5.5.1.1. ICT Tools for Children with Autism
    - 5.5.1.2. Augmentative and Alternative Communication Systems (AACs)
  - 5.5.2. Communication Intervention Models
    - 5.5.2.1. Facilitated Communication (FC)
    - 5.5.2.2. Verbal Behavioral Approach (VB)
  - 5.5.3. Alternative and/or Augmentative Communication Systems
    - 5.5.3.1. PEC's (Picture Exchange Communication System)
    - 5.5.3.2. Benson Schaeffer Total Signed Speech System
    - 5.5.3.3. Sign Language
    - 5.5.3.4. Bimodal System
  - 5.5.4. Alternative Therapies
    - 5.5.4.1. Hotchpotch
    - 5.5.4.2. Alternative Medicines
    - 5.5.4.3. Cognitive-Behavioral
  - 5.5.5. Choice of System
    - 5.5.5.1. Factors to Consider
    - 5.5.5.2. Decision Making
  - 5.5.6. Scale of Objectives and Priorities to be Developed
    - 5.5.6.1. Assessment, based on the Resources available to the student, of the system best suited to their capabilities
  - 5.5.7. Identification of the Appropriate System
    - 5.5.7.1. We implement the most appropriate Communication System or Therapy taking into account the Strengths of the Patient
  - 5.5.8. Implementation
    - 5.5.8.1. Planning and structuring of the Sessions



- 5.5.8.2. Duration and Timing
- 5.5.8.3. Evolution and estimated short-term Objectives
- 5.5.9. Monitoring
  - 5.5.9.1. Longitudinal Evaluation
  - 5.5.9.2. Re-evaluation over time
- 5.5.10. Adaptation over time
  - 5.5.10.1. Restructuring of Objectives based on Demanded Needs
  - 5.5.10.2. Adaptation of the Intervention according to the Results obtained
- 5.6. Elaboration of an Intervention Program
  - 5.6.1. Identification of Needs and Selection of Objectives
    - 5.6.1.1. Early Care Intervention Strategies
    - 5.6.1.2. Denver Model
  - 5.6.2. Analysis of Objectives based on Developmental Levels
    - 5.6.2.1. Intervention Program to Strengthen Communicative and Linguistic Areas
  - 5.6.3. Development of Preverbal Communicative Behaviors
    - 5.6.3.1. Applied Behavior Analysis
  - 5.6.4. Bibliographic Review of Theories and Programs in Childhood Autism
    - 5.6.4.1. Scientific Studies with Groups of Children with ASD
    - 5.6.4.2. Results and Final Conclusions Based on the Proposed Programs
  - 5.6.5. School Age
    - 5.6.5.1. Educational Inclusion
    - 5.6.5.2. Global reading as a facilitator of Integration in the Classroom
  - 5.6.6. Adulthood
    - 5.6.6.1. How to intervene/support in Adulthood?
    - 5.6.6.2. Elaboration of a Specific Program
  - 5.6.7. Behavioral Intervention
    - 5.6.7.1. Applied Behavior Analysis (ABA)
    - 5.6.7.2. Training of Separate Trials
  - 5.6.8. Combined Intervention
    - 5.6.8.1. The TEACCH Model
  - 5.6.9. Support for University Integration of grade I ASD
    - 5.6.9.1. Best Practices for supporting students in Higher Education
  - 5.6.10. Positive Behavioral Reinforcement
    - 5.6.10.1. Program Structure
- 5.6.10.2. Guidelines to Follow to Carry Out the Method
- 5.7. Educational Materials and Resources
  - 5.7.1. What can we do as Speech Therapists?
    - 5.7.1.1. Professional as an active role in the Development and Continuous Adaptation of Materials
  - 5.7.2. List of Adapted Resources and Materials
    - 5.7.2.1. What should I consider?
    - 5.7.2.2. Brainstorming
  - 5.7.3. Methods
    - 5.7.3.1. Theoretical Approach to the most commonly used Methods
    - 5.7.3.2. Functionality Comparative Table with the Methods Presented
  - 5.7.4. TEACCH Program
    - 5.7.4.1. Educational Principles based on this Method
    - 5.7.4.2. Characteristics of Autism as a basis for Structured Teaching
  - 5.7.5. INMER Program
    - 5.7.5.1. Fundamental Bases of the Program Main Function
    - 5.7.5.2. Virtual Reality Immersion System for People with Autism
  - 5.7.6. ICT-mediated Learning
    - 5.7.6.1. Software for Teaching Emotions
    - 5.7.6.2. Applications that favour Language Development
  - 5.7.7. Development of Materials
    - 5.7.7.1. Sources Used
    - 5.7.7.2. Image Banks
    - 5.7.7.3. Pictogram Banks
    - 5.7.7.4. Recommended Materials
  - 5.7.8. Free Resources to Support Learning
    - 5.7.8.1. List of Reinforcement Pages with Programs to Reinforce Learning
  - 5.7.9. SPC
    - 5.7.9.1. Access to the Pictographic Communication System
    - 5.7.9.2. Methodology
    - 5.7.9.3. Main Function
  - 5.7.10. Implementation
    - 5.7.10.1. Selection of the appropriate Program
    - 5.7.10.2. List of Benefits and Disadvantages

- 5.8. Adapting the Environment to the student with Autism Spectrum Disorder
  - 5.8.1. General Considerations to be taken into account
    - 5.8.1.1. Possible Difficulties within the Daily Routine
  - 5.8.2. Implementation of Visual Aids
    - 5.8.2.1. Guidelines to have at home for Adaptation
  - 5.8.3. Classroom Adaptation
    - 5.8.3.1. Inclusive Teaching
  - 5.8.4. Natural Environment
    - 5.8.4.1. General Guidelines for Educational Response
  - 5.8.5. Intervention in Autism Spectrum Disorders and other Severe Personality Disorders
  - 5.8.6. Curricular Adaptations of the Center
    - 5.8.6.1. Heterogeneous Groupings
  - 5.8.7. Adaptation of Individual Curricular Needs
    - 5.8.7.1. Individual Curricular Adaptation
    - 5.8.7.2. Limitations
  - 5.8.8. Curricular Adaptations in the Classroom
    - 5.8.8.1. Cooperative Education
    - 5.8.8.2. Cooperative Learning
  - 5.8.9. Educational Responses to the different Needs demanded
    - 5.8.9.1. Tools to be taken into account for Effective Teaching
  - 5.8.10. Relationship with the Social and Cultural Environment
    - 5.8.10.1. Habits-autonomy
    - 5.8.10.2. Communication and Socialization
- 5.9. School Context
  - 5.9.1. Classroom Adaptation
    - 5.9.1.1. Factors to Consider
    - 5.9.1.2. Curricular Adaptation
  - 5.9.2. School Inclusion
    - 5.9.2.1. We All Add Up
    - 5.9.2.2. How to Help from our Role as Speech-Language Therapist?
  - 5.9.3. Characteristics of Students with ASD
    - 5.9.3.1. Restricted Interests
    - 5.9.3.2. Sensitivity to the Context and its Constraints
  - 5.9.4. Characteristics of Students with Asperger's
    - 5.9.4.1. Potentialities
    - 5.9.4.2. Difficulties and Repercussions at the Emotional Level
    - 5.9.4.3. Relationship with the Peer Group
  - 5.9.5. Placement of the Student in the Classroom
    - 5.9.5.1. Factors to be taken into account for Proper Student performance
  - 5.9.6. Materials and Supports to Consider
    - 5.9.6.1. External Support
    - 5.9.6.2. Teacher as a Reinforcement Element within the Classroom
  - 5.9.7. Assessment of Task Completion Times
    - 5.9.7.1. Application of Tools such as Anticipators or Timers
  - 5.9.8. Inhibition Times
    - 5.9.8.1. Reduction of inappropriate Behaviors through Visual Support
    - 5.9.8.2. Visual Schedules
    - 5.9.8.3. Time-Outs
  - 5.9.9. Hypo- and Hypersensitivity
    - 5.9.9.1. Noise Environment
    - 5.9.9.2. Stress-generating Situations
  - 5.9.10. Anticipation of Conflict Situations
    - 5.9.10.1. Back to School Time of Entry and Exit
    - 5.9.10.2. Canteen
    - 5.9.10.3. Vacations
- 5.10. Considerations to be taken into account with families
  - 5.10.1. Conditioning Factors of parental Stress and Anxiety
    - 5.10.1.1. How does the Family Adaptation Process occur?
    - 5.10.1.2. Most Common Worries
    - 5.10.1.3. Anxiety Management
  - 5.10.2. Information for Parents when a Diagnosis is suspected
    - 5.10.2.1. Open Communication
    - 5.10.2.2. Stress Management Guidelines
  - 5.10.3. Assessment Records for Parents
    - 5.10.3.1. Strategies for the Management of Suspected ASD in Early Care
    - 5.10.3.2. PEDs. Questions about Parents' Developmental Concerns
    - 5.10.3.3. Situation Assessment and Building a Bond of Trust with Parents
  - 5.10.4. Multimedia Resources

- 5.10.4.1. Table of Freely Available Resources
- 5.10.5. Associations of Families of People with ASD
  - 5.10.5.1. List of Recognized and Proactive Associations
- 5.10.6. Return of Therapy and Appropriate Evolution
  - 5.10.6.1. Aspects to take into account for Information Exchange
  - 5.10.6.2. Creation of Empathy
  - 5.10.6.3. Creation of a Circle of Trust between Therapist-Relatives-Patient
- 5.10.7. Return of the Diagnosis and follow-up to the different Healthcare Professionals
  - 5.10.7.1. Speech Therapist in their Active and Dynamic role
  - 5.10.7.2. Contact with the Different Health Areas
  - 5.10.7.3. The Importance of Maintaining a Common Line
- 5.10.8. Parents, how to Intervene with the Child?
  - 5.10.8.1. Advice and Guidelines
  - 5.10.8.2. Family Respite
- 5.10.9. Generation of Positive Experiences in the Family Environment
  - 5.10.9.1. Practical Tips for Reinforcing Pleasant Experiences in the Family Environment
  - 5.10.9.2. Proposals for Activities that Generate Positive Experiences
- 5.10.10. Websites of Interest
  - 5.10.10.1. Links of Interest

## Module 6. Genetic Syndromes

- 6.1. Introduction to Genetic Syndromes
    - 6.1.1. Introduction to Unit
    - 6.1.2. Genetics
      - 6.1.2.1. Concept of Genetics
      - 6.1.2.2. Genes and Chromosomes
    - 6.1.3. The Evolution of Genetics
      - 6.1.3.1. Basis of Genetics
      - 6.1.3.2. The Pioneers of Genetics
    - 6.1.4. Basic Concepts of Genetics
      - 6.1.4.1. Genotype and Phenotype
      - 6.1.4.2. The Genome
      - 6.1.4.3. DNA
      - 6.1.4.4. RNA
      - 6.1.4.5. Genetic Code
  - 6.1.5. Mendel's Laws
    - 6.1.5.1. Mendel's 1st Law
    - 6.1.5.2. Mendel's 2nd Law
    - 6.1.5.3. Mendel's 3rd Law
  - 6.1.6. Mutations
    - 6.1.6.1. What are Mutations?
    - 6.1.6.2. Levels of Mutations
    - 6.1.6.3. Types of Mutations
  - 6.1.7. Concept of Syndrome
  - 6.1.8. Classification
  - 6.1.9. The Most Frequent Syndromes
  - 6.1.10. Final Conclusions
- 6.2. Down Syndrome
    - 6.2.1. Introduction to Unit
      - 6.2.1.1. History of Down Syndrome
    - 6.2.2. Concept of Down Syndrome
      - 6.2.2.1. What is Down Syndrome?
      - 6.2.2.2. Genetics of Down Syndrome
      - 6.2.2.3. Chromosomal Alterations in Down Syndrome
        - 6.2.2.2.1. Trisomy 21
        - 6.2.2.2.2. Chromosomal Translocation
        - 6.2.2.2.3. Mosaicism or Mosaic Trisomy
      - 6.2.2.4. Prognosis of Down Syndrome
    - 6.2.3. Etiology
      - 6.2.3.1. The Origin of Down Syndrome
    - 6.2.4. Prevalence
      - 6.2.4.1. Prevalence of Down Syndrome in Spain
      - 6.2.4.2. Prevalence of Down Syndrome in Other Countries
    - 6.2.5. Characteristics of Down Syndrome
      - 6.2.5.1. Physical Characteristics
      - 6.2.5.2. Speech and Language Development Characteristics
      - 6.2.5.3. Motor Developmental Characteristics

- 6.2.6. Comorbidity of Down Syndrome
  - 6.2.6.1. What is Comorbidity?
  - 6.2.6.2. Comorbidity in Down Syndrome
  - 6.2.6.3. Associated Disorders
- 6.2.7. Diagnosis and Evaluation of Down Syndrome
  - 6.2.7.1. The Diagnosis of Down Syndrome
    - 6.2.7.1.1. Where is it performed?
    - 6.2.7.1.2. Who performs it?
    - 6.2.7.1.3. When it can be performed?
  - 6.2.7.2. Speech Therapy Evaluation of Down Syndrome
    - 6.2.7.2.1. Medical History
    - 6.2.7.2.2. Areas to Consider
- 6.2.8. Speech Therapy Based Intervention
  - 6.2.8.1. Aspects to take into Account
  - 6.2.8.2. Setting Objectives for the Intervention
  - 6.2.8.3. Material for Rehabilitation
  - 6.2.8.4. Resources to be Used
- 6.2.9. Guidelines
  - 6.2.9.1. Guidelines for the Person with Down Syndrome to consider
  - 6.2.9.2. Guidelines for the Family to consider
  - 6.2.9.3. Guidelines for the Educational Context
  - 6.2.9.4. Resources and Associations
- 6.2.10. The Interdisciplinary Team
  - 6.2.10.1. The Importance of the Interdisciplinary Team
  - 6.2.10.2. Speech Therapy
  - 6.2.10.3. Occupational Therapy
  - 6.2.10.4. Physiotherapy
  - 6.2.10.5. Psychology
- 6.3. Hunter Syndrome
  - 6.3.1. Introduction to Unit
    - 6.3.1.1. History of Hunter Syndrome
  - 6.3.2. Concept of Hunter Syndrome
    - 6.3.2.1. What is Hunter Syndrome?
    - 6.3.2.2. Genetics of Hunter Syndrome
    - 6.3.2.3. Prognosis of Hunter Syndrome
  - 6.3.3. Etiology
    - 6.3.3.1. The Origin of Hunter Syndrome
  - 6.3.4. Prevalence
    - 6.3.4.1. Hunter Syndrome in Spain
    - 6.3.4.2. Hunter Syndrome in Other Countries
  - 6.3.5. Main Impacts
    - 6.3.5.1. Physical Characteristics
    - 6.3.5.2. Speech and Language Development Characteristics
    - 6.3.5.3. Motor Developmental Characteristics
  - 6.3.6. Comorbidity of Hunter Syndrome
    - 6.3.6.1. What is Comorbidity?
    - 6.3.6.2. Comorbidity in Hunter Syndrome
    - 6.3.6.3. Associated Disorders
  - 6.3.7. Diagnosis and Evaluation of Hunter Syndrome
    - 6.3.7.1. The Diagnosis of Hunter Syndrome
      - 6.3.7.1.1. Where is it performed?
      - 6.3.7.1.2. Who performs it?
      - 6.3.7.1.3. When it can be performed?
    - 6.3.7.2. Speech Therapy Evaluation of Hunter Syndrome
      - 6.3.7.2.1. Medical History
      - 6.3.7.2.2. Areas to Consider
  - 6.3.8. Speech Therapy Based Intervention
    - 6.3.8.1. Aspects to take into Account
    - 6.3.8.2. Setting Objectives for the Intervention
    - 6.3.8.3. Material for Rehabilitation
    - 6.3.8.4. Resources to be Used
  - 6.3.9. Guidelines
    - 6.3.9.1. Guidelines for the Person with Hunter Syndrome to consider
    - 6.3.9.2. Guidelines for the Family to consider
    - 6.3.9.3. Guidelines for the Educational Context
    - 6.3.9.4. Resources and Associations
  - 6.3.10. The Interdisciplinary Team
    - 6.3.10.1. The Importance of the Interdisciplinary Team
    - 6.3.10.2. Speech Therapy

- 6.3.10.3. Occupational Therapy
- 6.3.10.4. Physiotherapy
- 6.3.10.5. Psychology
- 6.4. Fragile X Syndrome
  - 6.4.1. Introduction to Unit
    - 6.4.1.1. History of Fragile X Syndrome
  - 6.4.2. Concept of Fragile X Syndrome
    - 6.4.2.1. What is Fragile X Syndrome?
    - 6.4.2.2. Genetics of Fragile X Syndrome
    - 6.4.2.3. Prognosis of Fragile X Syndrome
  - 6.4.3. Etiology
    - 6.4.3.1. The origin of Fragile X Syndrome
  - 6.4.4. Prevalence
    - 6.4.4.1. Fragile X Syndrome in Spain
    - 6.4.4.2. Fragile X Syndrome in Other Countries
  - 6.4.5. Main Impacts
    - 6.4.5.1. Physical Characteristics
    - 6.4.5.2. Speech and Language Development Characteristics
    - 6.4.5.3. Characteristics in the Development of Intelligence and Learning
    - 6.4.5.4. Social, Emotional, and Behavioral Characteristics
    - 6.4.5.5. Sensory Characteristics
  - 6.4.6. Comorbidity of Fragile X Syndrome
    - 6.4.6.1. What is Comorbidity?
    - 6.4.6.2. Comorbidity of Fragile X Syndrome
    - 6.4.6.3. Associated Disorders
  - 6.4.7. Diagnosis and Evaluation of Fragile X Syndrome
    - 6.4.7.1. The Diagnosis of Fragile X Syndrome
      - 6.4.7.1.1. Where is it performed?
      - 6.4.7.1.2. Who performs it?
      - 6.4.7.1.3. When it can be performed?
    - 6.4.7.2. Logopedic Evaluation of Fragile X Syndrome
      - 6.4.7.2.1. Medical History
      - 6.4.7.2.2. Areas to Consider
  - 6.4.8. Speech Therapy Based Intervention
    - 6.4.8.1. Aspects to take into Account
    - 6.4.8.2. Setting Objectives for the Intervention
    - 6.4.8.3. Material for Rehabilitation
    - 6.4.8.4. Resources to be Used
  - 6.4.9. Guidelines
    - 6.4.9.1. Guidelines for the Person with Fragile X Syndrome to consider
    - 6.4.9.2. Guidelines for the Family to consider
    - 6.4.9.3. Guidelines for the Educational Context
    - 6.4.9.4. Resources and Associations
  - 6.4.10. The Interdisciplinary Team
    - 6.4.10.1. The Importance of the Interdisciplinary Team
    - 6.4.10.2. Speech Therapy
    - 6.4.10.3. Occupational Therapy
    - 6.4.10.4. Physiotherapy
- 6.5. Rett Syndrome
  - 6.5.1. Introduction to Unit
    - 6.5.1.1. History of Rett Syndrome
  - 6.5.2. Concept of Rett Syndrome
    - 6.5.2.1. What is Rett Syndrome?
    - 6.5.2.2. Genetics of Rett Syndrome
    - 6.5.2.3. Prognosis of Rett Syndrome
  - 6.5.3. Etiology
    - 6.5.3.1. The origin of Rett Syndrome
  - 6.5.4. Prevalence
    - 6.5.4.1. Rett Syndrome in Spain
    - 6.5.4.2. Rett Syndrome in Other Countries
    - 6.5.4.3. Stages in The Development of Rett Syndrome
      - 6.5.4.3.1. Stage I: Early Onset Stage
      - 6.5.4.3.2. Stage II: Accelerated Destruction Stage
      - 6.5.4.3.3. Stage III: Stabilization or Pseudo-Stationary Stage
      - 6.5.4.3.4. Stage IV: Late Motor Impairment Stage
  - 6.5.5. Comorbidity of Rett Syndrome
    - 6.5.5.1. What is Comorbidity?
    - 6.5.5.2. Comorbidity in Rett Syndrome

- 6.5.5.3. Associated Disorders
- 6.5.6. Main Impacts
  - 6.5.6.1. Introduction
  - 6.5.6.2. Physical Characteristics
  - 6.5.6.3. Clinical Characteristics
- 6.5.7. Diagnosis and Evaluation of Rett Syndrome
  - 6.5.7.1. The Diagnosis of Rett Syndrome
    - 6.5.7.1.1. Where is it performed?
    - 6.5.7.1.2. Who performs it?
    - 6.5.7.1.3. When it can be performed?
  - 6.5.7.2. Speech Therapy Evaluation of Rett Syndrome
    - 6.5.7.2.1. Medical History
    - 6.5.7.2.2. Areas to Consider
- 6.5.8. Speech Therapy Based Intervention
  - 6.5.8.1. Aspects to take into Account
  - 6.5.8.2. Setting Objectives for the Intervention
  - 6.5.8.3. Material for Rehabilitation
  - 6.5.8.4. Resources to be Used
- 6.5.9. Guidelines
  - 6.5.9.1. Guidelines for the Person with Rett Syndrome to consider
  - 6.5.9.2. Guidelines for the Family to consider
  - 6.5.9.3. Guidelines for the Educational Context
  - 6.5.9.4. Resources and Associations
- 6.5.10. The Interdisciplinary Team
  - 6.5.10.1. The Importance of the Interdisciplinary Team
  - 6.5.10.2. Speech Therapy
  - 6.5.10.3. Occupational Therapy
  - 6.5.10.4. Physiotherapy
- 6.6. Smith-Magenis Syndrome
  - 6.6.1. Smith-Magenis Syndrome
    - 6.6.1.1. Introduction
    - 6.6.1.2. Concept
  - 6.6.2. Etiology
  - 6.6.3. Epidemiology





- 6.6.4. Development according to Stages
  - 6.6.4.1. Infants (up to 2 years of age)
  - 6.6.4.2. Childhood (from 2 to 12 years of age)
    - 6.6.4.2.1. Adolescence and Adulthood (from 12 Years of Age)
- 6.6.5. Differential Diagnosis
- 6.6.6. Clinical, Cognitive, Behavioral, and Physical Features of Smith-Magenis Syndrome
  - 6.6.6.1. Clinical Characteristics
  - 6.6.6.2. Cognitive and Behavioral Characteristics
  - 6.6.6.3. Physical Characteristics
- 6.6.7. Speech Therapy Evaluation in Smith-Magens Syndrome
- 6.6.8. Speech Therapy Intervention in Smith-Magenis Syndrome
  - 6.6.8.1. General Considerations for starting the Intervention
  - 6.6.8.2. Stages of the Intervention Process
  - 6.6.8.3. Communicative Aspects of Intervention
- 6.6.9. Speech Therapy Exercises for Smith-Magenis Syndrome
  - 6.6.9.1. Auditory Stimulation Exercises: Sounds and Words
  - 6.6.9.2. Exercises to Promote Grammatical Structures
  - 6.6.9.3. Exercises to Increase Vocabulary
  - 6.6.9.4. Exercises to Improve the Use of Language
  - 6.6.9.5. Exercises for Problem Solving and Reasoning
- 6.6.10. Associations to help Patients and Families of Smith-Magenis Syndrome
- 6.7. Williams Syndrome
  - 6.7.1. Williams Syndrome
    - 6.7.1.1. History of Williams Syndrome
    - 6.7.1.2. Concept of Williams Syndrome
  - 6.7.2. Etiology of Williams Syndrome
  - 6.7.3. Epidemiology of Williams Syndrome
  - 6.7.4. Diagnosis of Williams Syndrome
  - 6.7.5. Speech Therapy Assessment of Williams Syndrome
  - 6.7.6. Features of Williams Syndrome
    - 6.7.6.1. Medical Aspects

- 6.7.6.2. Facial Features
- 6.7.6.3. Hyperacusis
- 6.7.6.4. Neuroanatomical Features
- 6.7.6.5. Language Characteristics
  - 6.7.6.5.1. Early Language Development
  - 6.7.6.5.2. Characteristics of Language in the SW from 4 years of age onwards
- 6.7.6.6. Socio-affective Characteristics in Williams Syndrome
- 6.7.7. Speech Therapy Intervention in Early Care in Children with Williams Syndrome
- 6.7.8. Speech Therapy Intervention at School with Williams Syndrome
- 6.7.9. Speech Therapy Intervention in Adulthood with Williams syndrome
- 6.7.10. Associations
- 6.8. Angelman Syndrome
  - 6.8.1. Introduction to Unit
    - 6.8.1.1. History of Angelman Syndrome
  - 6.8.2. Concept of Angelman Syndrome
    - 6.8.2.1. What is Angelman Syndrome?
    - 6.8.2.2. Genetics of Angelman Syndrome
    - 6.8.2.3. Prognosis of Angelman Syndrome
  - 6.8.3. Etiology
    - 6.8.3.1. The origin of Angelman Syndrome
  - 6.8.4. Prevalence
    - 6.8.4.1. Angelman Syndrome in Spain
    - 6.8.4.2. Angelman Syndrome in Other Countries
  - 6.8.5. Main Impacts
    - 6.8.5.1. Introduction
    - 6.8.5.2. Frequent Manifestations of Angelman Syndrome
    - 6.8.5.3. Rare Manifestations
  - 6.8.6. Comorbidity of Angelman Syndrome
    - 6.8.6.1. What is Comorbidity?
    - 6.8.6.2. Comorbidity in Angelman Syndrome
    - 6.8.6.3. Associated Disorders
  - 6.8.7. Diagnosis and Evaluation of Angelman Syndrome
    - 6.8.7.1. The Diagnosis of Angelman Syndrome
    - 6.8.7.1.1. Where is it performed?
    - 6.8.7.1.2. Who performs it?
    - 6.8.7.1.3. When it can be performed?
  - 6.8.7.2. Speech Therapy Evaluation of Angelman Syndrome
    - 6.8.7.2.1. Medical History
    - 6.8.7.2.2. Areas to Consider
  - 6.8.8. Speech Therapy Based Intervention
    - 6.8.8.1. Aspects to take into Account
    - 6.8.8.2. Setting Objectives for the Intervention
    - 6.8.8.3. Material for Rehabilitation
    - 6.8.8.4. Resources to be Used
  - 6.8.9. Guidelines
    - 6.8.9.1. Guidelines for the Person with Angelman Syndrome to consider
    - 6.8.9.2. Guidelines for the Family to consider
    - 6.8.9.3. Guidelines for the Educational Context
    - 6.8.9.4. Resources and Associations
  - 6.8.10. The Interdisciplinary Team
    - 6.8.10.1. The Importance of the Interdisciplinary Team
    - 6.8.10.2. Speech Therapy
    - 6.8.10.3. Occupational Therapy
    - 6.8.10.4. Physiotherapy
- 6.9. Duchenne Disease
  - 6.9.1. Introduction to Unit
    - 6.9.1.1. History of Duchenne Disease
  - 6.9.2. Concept of Duchenne Disease
    - 6.9.2.1. What is Duchenne Disease?
    - 6.9.2.2. Genetics of Duchenne Disease
    - 6.9.2.3. Prognosis of Duchenne Disease
  - 6.9.3. Etiology
    - 6.9.3.1. The origin of Duchenne Disease
  - 6.9.4. Prevalence
    - 6.9.4.1. Prevalence of Duchenne Disease in Spain
    - 6.9.4.2. Prevalence of Duchenne Disease in Other Countries



- 6.9.5. Main Impacts
  - 6.9.5.1. Introduction
  - 6.9.5.2. Clinical Manifestations of Duchenne Disease
    - 6.9.5.2.1. Speech Delay
    - 6.9.5.2.2. Behavioral Problems
    - 6.9.5.2.3. Muscle Weakness
    - 6.9.5.2.4. Stiffness
    - 6.9.5.2.5. Lordosis
    - 6.9.5.2.6. Respiratory Dysfunction
  - 6.9.5.3. Most common Symptoms of Duchenne Disease
- 6.9.6. Comorbidity of Duchenne Disease
  - 6.9.6.1. What is Comorbidity?
  - 6.9.6.2. Comorbidity of Duchenne Disease
  - 6.9.6.3. Associated Disorders
- 6.9.7. Diagnosis and Evaluation of Duchenne Disease
  - 6.9.7.1. The Diagnosis of Duchenne Disease
    - 6.9.7.1.1. Where is it performed?
    - 6.9.7.1.2. Who performs it?
    - 6.9.7.1.3. When it can be performed?
  - 6.9.7.2. Speech Therapy Evaluation of Duchenne Disease
    - 6.9.7.2.1. Medical History
    - 6.9.7.2.2. Areas to Consider
- 6.9.8. Speech Therapy Based Intervention
  - 6.9.8.1. Aspects to take into Account
  - 6.9.8.2. Setting Objectives for the Intervention
  - 6.9.8.3. Material for Rehabilitation
  - 6.9.8.4. Resources to be Used
- 6.9.9. Guidelines
  - 6.9.9.1. Guidelines to Consider for the Person with Duchenne Disease
  - 6.9.9.2. Guidelines for the Family to consider
  - 6.9.9.3. Guidelines for the Educational Context
  - 6.9.9.4. Resources and Associations
- 6.9.10. The Interdisciplinary Team
  - 6.9.10.1. The Importance of the Interdisciplinary Team
  - 6.9.10.2. Speech Therapy
  - 6.9.10.3. Occupational Therapy
  - 6.9.10.4. Physiotherapy
- 6.10. Usher Syndrome
  - 6.10.1. Introduction to Unit
    - 6.10.1.1. History of Usher Syndrome
  - 6.10.2. Concept of Usher Syndrome
    - 6.10.2.1. What is Usher Syndrome?
    - 6.10.2.2. Genetics of Usher Syndrome
    - 6.10.2.3. Typology Usher Syndrome
      - 6.10.2.3.1. Type I
      - 6.10.2.3.2. Type II
      - 6.10.2.3.3. Type III
    - 6.10.2.4. Prognosis of Usher Syndrome
  - 6.10.3. Etiology
    - 6.10.3.1. The Origin of Usher Syndrome
  - 6.10.4. Prevalence
    - 6.10.4.1. Usher Syndrome in Spain
    - 6.10.4.2. Usher Syndrome in Other Countries
  - 6.10.5. Main Impacts
    - 6.10.5.1. Introduction
    - 6.10.5.2. Frequent Manifestations of Usher Syndrome
    - 6.10.5.3. Rare Manifestations
  - 6.10.6. Comorbidity of Usher Syndrome
    - 6.10.6.1. What is Comorbidity?
    - 6.10.6.2. Comorbidity in Usher Syndrome
    - 6.10.6.3. Associated Disorders
  - 6.10.7. Diagnosis and Evaluation of Usher Syndrome
    - 6.10.7.1. The Diagnosis of Usher Syndrome
      - 6.10.7.1.1. Where is it performed?
      - 6.10.7.1.2. Who performs it?

- 6.10.7.1.3. When it can be performed?
- 6.10.7.2. Speech Therapy Evaluation of Usher Syndrome
  - 6.10.7.2.1. Medical History
  - 6.10.7.2.2. Areas to Consider
- 6.10.8. Speech Therapy Based Intervention
  - 6.10.8.1. Aspects to take into Account
  - 6.10.8.2. Setting Objectives for the Intervention
  - 6.10.8.3. Material for Rehabilitation
  - 6.10.8.4. Resources to be Used
- 6.10.9. Guidelines
  - 6.10.9.1. Guidelines for the Person with Usher Syndrome to consider
  - 6.10.9.2. Guidelines for the Family to consider
  - 6.10.9.3. Guidelines for the Educational Context
  - 6.10.9.4. Resources and Associations
- 6.10.10. The Interdisciplinary Team
  - 6.10.10.1. The Importance of the Interdisciplinary Team
  - 6.10.10.2. Speech Therapy
  - 6.10.10.3. Occupational Therapy
  - 6.10.10.4. Physiotherapy

## Module 7. Dysphemia and/or stuttering: Assessment, Diagnosis, and Intervention

- 7.1. Introduction to the Module
  - 7.1.2. Module Presentation
- 7.2. Dysphemia or Stuttering
  - 7.2.1. History of Stuttering
  - 7.2.2. Stuttering
    - 7.2.2.1. Concept of Stuttering
    - 7.2.2.2. Symptomatology of Stuttering
      - 7.2.2.2.1. Linguistic Manifestations
      - 7.2.2.2.2. Behavioral Manifestations
    - 7.2.2.3. Bodily Manifestations
      - 7.2.2.3.1. Characteristics of Stuttering
  - 7.2.3. Classification
    - 7.2.3.1. Tonic Stuttering
    - 7.2.3.2. Clonic Stuttering
    - 7.2.3.3. Mixed Stuttering
  - 7.2.4. Other Specific Disorders of Fluency of Verbal Expression
  - 7.2.5. Development of the Disorder
    - 7.2.5.1. Preliminary Considerations
    - 7.2.5.2. Levels of Development and Severity
      - 7.2.5.2.1. Initial Phase
      - 7.2.5.2.2. Borderline Stuttering
      - 7.2.5.2.3. Initial Stuttering
      - 7.2.5.2.4. Intermediate Stuttering
      - 7.2.5.2.5. Advanced Stuttering
  - 7.2.6. Comorbidity
    - 7.2.6.1. Comorbidity in Dysphemia
    - 7.2.6.2. Associated Disorders
  - 7.2.7. Prognosis of Recovery
    - 7.2.7.1. Preliminary Considerations
    - 7.2.7.2. Key Factors
    - 7.2.7.3. Prognosis according to the moment of Intervention
  - 7.2.8. The incidence and prevalence of Stuttering
    - 7.2.8.1. Preliminary Considerations
    - 7.2.8.2. Incidence in Spain at School Age
    - 7.2.8.3. Prevalence in Spain at School Age
  - 7.2.9. Etiology of Stuttering
    - 7.2.9.1. Preliminary Considerations
    - 7.2.9.2. Physiological Factors
    - 7.2.9.3. Genetic Factors
    - 7.2.9.4. Environmental Factors
    - 7.2.9.5. Psychosocial Factors
    - 7.2.9.6. Linguistic Factors
  - 7.2.10. Warning Signs
    - 7.2.10.1. Preliminary Considerations
    - 7.2.10.2. When to Evaluate?
    - 7.2.10.3. Is it possible to prevent the Disorder?

- 7.3. Evaluation of Dysphemia
  - 7.3.1. Introduction to Unit
  - 7.3.2. Dysphemia or normal Dysfluencies?
    - 7.3.2.1. Initial Considerations
    - 7.3.2.2. What are normal Disfluencies?
    - 7.3.2.3. Differences between Dysphemia and normal Dysfluencies
    - 7.3.2.4. When to act?
  - 7.3.3. Objective of the Evaluation
  - 7.3.4. Evaluation Method:
    - 7.3.4.1. Preliminary Considerations
    - 7.3.4.2. Outline of the Evaluation Method
  - 7.3.5. Collection of Information
    - 7.3.5.1. Interview with Parents
    - 7.3.5.2. Gathering Relevant Information
    - 7.3.5.3. Medical History
  - 7.3.6. Collecting Additional Information
    - 7.3.6.1. Questionnaires for Parents
    - 7.3.6.2. Questionnaires for Teachers
  - 7.3.7. Evaluation of the Child
    - 7.3.7.1. Observation of the Child
    - 7.3.7.2. Questionnaire for the Child
    - 7.3.7.3. Parent-Child Interaction Profile
  - 7.3.8. Diagnosis
    - 7.3.8.1. Clinical Judgment of the Information Collected
    - 7.3.8.2. Prognosis
    - 7.3.8.3. Types of Treatment
    - 7.3.8.4. Treatment Objectives
  - 7.3.9. Return
    - 7.3.9.1. Return of Information to Parents
    - 7.3.9.2. Informing the Child of the Results
    - 7.3.9.3. Explain Treatment to the Child
  - 7.3.10. Diagnostic Criteria
    - 7.3.10.1. Preliminary Considerations
    - 7.3.10.2. Factors that May Affect the Fluency of Speech
      - 7.3.10.2.1. Communication
        - 7.3.10.2.2. Difficulties in Language Development
        - 7.3.10.2.3. Interpersonal Interactions
        - 7.3.10.2.4. Changes
        - 7.3.10.2.5. Excessive Demands
        - 7.3.10.2.6. Self-esteem
        - 7.3.10.2.7. Social Resources
- 7.4. User-centered Speech Therapy Intervention in Dysphemia: Direct Treatment
  - 7.4.1. Introduction to Unit
  - 7.4.2. Direct Treatment
    - 7.4.2.1. Treatment Characteristics
    - 7.4.2.2. Therapist Skills
  - 7.4.3. Therapy Goals
    - 7.4.3.1. Goals with the Child
    - 7.4.3.2. Objectives with the Parents
    - 7.4.3.3. Objectives with the Teacher
  - 7.4.4. Objectives with the Child: Speech Control
    - 7.4.4.1. Objectives
    - 7.4.4.2. Techniques for Speech Control
  - 7.4.5. Objectives with the Child: Anxiety Control
    - 7.4.5.1. Objectives
    - 7.4.5.2. Techniques for Anxiety Control
  - 7.4.6. Objectives with the Child: Thought Control
    - 7.4.6.1. Objectives
    - 7.4.6.2. Techniques for Thoughts Control
  - 7.4.7. Objectives with the Child: Emotion Control
    - 7.4.7.1. Objectives
    - 7.4.7.2. Techniques for Emotion Control
  - 7.4.8. Objectives with the Child: Social and Communication Skills
    - 7.4.8.1. Objectives
    - 7.4.8.2. Techniques for the Promotion of Social and Communication Skills
  - 7.4.9. Generalization and Maintenance
    - 7.4.9.1. Objectives
    - 7.4.9.2. Generalization and Maintenance Techniques
  - 7.4.10. Recommendations for User Discharge

- 7.5. Speech Therapy Intervention in User-centered Dysphemia: Lidcombe Early Intervention Program
  - 7.5.1. Introduction to Unit
  - 7.5.2. Program Development
    - 7.5.2.1. Who Developed it?
    - 7.5.2.2. Where was it Developed?
  - 7.5.3. Is it Really Effective?
  - 7.5.4. Fundamentals of the Lindcombe Program
    - 7.5.4.1. Preliminary Considerations
    - 7.5.4.2. Age of Application
  - 7.5.5. Essential Components
    - 7.5.5.1. Parental Verbal Contingencies
    - 7.5.5.2. Stuttering Measures
    - 7.5.5.3. Treatment in Structured and Unstructured Conversations
    - 7.5.5.4. Scheduled Maintenance
  - 7.5.6. Assessment
    - 7.5.6.1. Evaluation Based on Lindcombe Program
  - 7.5.7. Stages of the Lindcombe Program
    - 7.5.7.1. Stage 1
    - 7.5.7.2. Stage 2
  - 7.5.8. Frequency of Sessions
    - 7.5.8.1. Weekly Visits to the Specialist
  - 7.5.9. Individualization in the Lindcombe Program
  - 7.5.10. Final Conclusions
- 7.6. Speech Therapy Intervention in the Child with Dysphemia: Proposed Exercises
  - 7.6.1. Introduction to Unit
  - 7.6.2. Exercises for Speech Control
    - 7.6.2.1. Self-made Resources
    - 7.6.2.2. Resources Found on the Market
    - 7.6.2.3. Technological Resources
  - 7.6.3. Exercises for Anxiety Control
    - 7.6.3.1. Self-made Resources
    - 7.6.3.2. Resources Found on the Market
    - 7.6.3.3. Technological Resources
  - 7.6.4. Exercises for Thought Control
    - 7.6.4.1. Self-made Resources
    - 7.6.4.2. Resources Found on the Market
    - 7.6.4.3. Technological Resources
  - 7.6.5. Exercises for Emotion Control
    - 7.6.5.1. Self-made Resources
    - 7.6.5.2. Resources Found on the Market
    - 7.6.5.3. Technological Resources
  - 7.6.6. Exercises to improve Social and Communication Skills
    - 7.6.6.1. Self-made Resources
    - 7.6.6.2. Resources Found on the Market
    - 7.6.6.3. Technological Resources
  - 7.6.7. Exercises that Promote Generalization
    - 7.6.7.1. Self-made Resources
    - 7.6.7.2. Resources Found on the Market
    - 7.6.7.3. Technological Resources
  - 7.6.8. How To Use the Exercises Properly?
  - 7.6.9. Implementation time for each Exercise
  - 7.6.10. Final Conclusions
- 7.7. The family as Agent of Intervention and Support for the child Dysphemia
  - 7.7.1. Introduction to Unit
  - 7.7.2. The Importance of the Family in the Development of the Dysphemic Child
  - 7.7.3. Communication Difficulties Encountered by the Dysphemic child at Home
  - 7.7.4. How do Communication Difficulties in the Family Environment Affect the Dysphemic child?
  - 7.7.5. Types of Intervention with Parents
    - 7.7.5.1. Early Intervention. (Brief Review)
    - 7.7.5.2. Direct Treatment (Brief Review)
  - 7.7.6. Early Intervention with Parents
    - 7.7.6.1. Orientation Sessions
    - 7.7.6.2. Daily Practice
    - 7.7.6.3. Behavioral Records

- 7.7.6.4. Behavior Modification
- 7.7.6.5. Organization of the Environment
- 7.7.6.6. Structure of Sessions
- 7.7.6.7. Special Cases
- 7.7.7. Direct Treatment with Parents
  - 7.7.7.1. Modifying Attitudes and Behaviors
  - 7.7.7.2. Adapting Language to the Child's Difficulties
  - 7.7.7.3. Daily Practice at Home
- 7.7.8. Advantages of Involving the Family in the Intervention
  - 7.7.8.1. How Family Involvement Benefits the Child?
- 7.7.9. The Family as a Means of Generalization
  - 7.7.9.1. The Importance of the Family in Generalization
- 7.7.10. Final Conclusions
- 7.8. The School as Agent of Intervention and Support for the Child Dysphemia
  - 7.8.1. Introduction to Unit
  - 7.8.2. The involvement of the School during the Intervention Period
    - 7.8.2.1. The Importance of the Involvement of the School
    - 7.8.2.2. The Influence of the School Center on the Development of the Dysphemic Child
  - 7.8.3. Intervention According to the Student's Needs
    - 7.8.3.1. Importance of Taking into Account the Needs of the Student with Dysphemia
    - 7.8.3.2. How to Establish the Needs of the Student?
    - 7.8.3.3. Responsible for the Elaboration of the Student's needs
  - 7.8.4. Classroom Consequences of the Dysphemic Child
    - 7.8.4.1. Communication with Classmates
    - 7.8.4.2. Communication with Teachers
    - 7.8.4.3. Psychological Repercussions of the Child
  - 7.8.5. School Supports
    - 7.8.5.1. Who provides them?
    - 7.8.5.2. How are they carried out?
  - 7.8.6. The coordination of the Speech Therapist with the School Professionals
    - 7.8.6.1. With whom does the Coordination take place?
    - 7.8.6.2. Guidelines to be followed to achieve such Coordination
  - 7.8.7. Orientations
    - 7.8.7.1. Guidelines for the School to improve the child's Intervention
    - 7.8.7.2. Guidelines for the School to improve the child's Self-esteem
    - 7.8.7.3. Guidelines for the School to Improve the Child's Social Skills
  - 7.8.8. The School as an Enabling Environment
  - 7.8.9. Resources Available to the School
  - 7.8.10. Final Conclusions
- 7.9. Associations and Foundations
  - 7.9.1. Introduction to Unit
  - 7.9.2. How can Associations help Families?
  - 7.9.3. The fundamental role of Stuttering Associations for families
  - 7.9.4. The Help of Stuttering Associations and Foundations for Health Care and Educational Professionals
  - 7.9.5. Spanish Stuttering Associations and Foundations
    - 7.9.5.1. Spanish Stuttering Foundation (TTM)
      - 7.9.5.1.1. Foundation Information
      - 7.9.5.1.2. Contact Information
  - 7.9.6. Stuttering Associations and Foundations around the World
    - 7.9.6.1. Argentine Association of Stuttering (AAT)
      - 7.9.6.1.1. Association Information
      - 7.9.6.1.2. Contact Information
  - 7.9.7. Websites for General Information on Stuttering
    - 7.9.7.1. Spanish Stuttering Foundation (TTM)
      - 7.9.7.1.1. Contact Information
    - 7.9.7.2. American Stuttering Foundation
      - 7.9.7.2.1. Contact Information
    - 7.9.7.3. Speech-Therapy Space
      - 7.9.7.3.1. Contact Information
  - 7.9.8. Stuttering Information Blogs
    - 7.9.8.1. Subject Blog
      - 7.9.8.1.1. Contact Information
    - 7.9.8.2. Blog of the Spanish Foundation of Stuttering (TTM)
      - 7.9.8.2.1. Contact Information

- 7.9.9. Speech Therapy magazines where information can be obtained
  - 7.9.9.1. Speech Therapy Space magazine
    - 7.9.9.1.1. Contact Information
  - 7.9.9.2. Neurology Journal
    - 7.9.9.2.1. Contact Information
- 7.9.10. Final Conclusions
- 7.10. Annexes
  - 7.10.1. Guidelines for Dysphemia
    - 7.10.1.1. Guide for Parents of the Spanish Stuttering Foundation
    - 7.10.1.2. Guide for Teachers of the Spanish Stuttering Foundation
    - 7.10.1.3. White Paper on "People with Stuttering in Spain"
  - 7.10.2. Example of Anamnesis for the Assessment of Dysphemias
  - 7.10.3. Fluency Questionnaire for Parents
  - 7.10.4. Questionnaire for parents of emotional responses to Stuttering
  - 7.10.5. Parent Record
  - 7.10.6. Fluency Questionnaire for Teachers
  - 7.10.7. Relaxation Techniques
    - 7.10.7.1. Instructions for the Speech Therapist
    - 7.10.7.2. Relaxation Techniques Adapted to Children
  - 7.10.8. Social Reality of People with Stuttering in Spain
  - 7.10.9. Discriminations Suffered by People that Stutter
  - 7.10.10. Truths and Myths of Stuttering

## Module 8. The Infantile-juvenile Dysarthria

- 8.1. Initial Considerations
  - 8.1.1. Introduction to the Module
    - 8.1.1.1. Module Presentation
  - 8.1.2. Module Objectives
  - 8.1.3. History of Dysarthrias
  - 8.1.4. Prognosis of Dysarthrias in Infantile and Juvenile age
    - 8.1.4.1. The Prognosis of Child Development in children with Dysarthrias
      - 8.1.4.1.1. Language Development in children with Dysarthria

- 8.1.4.1.2. Speech Development in children with Dysarthria
- 8.1.5. Early Care in Dysarthria
  - 8.1.5.1. What is Early Care?
  - 8.1.5.2. How does Early Care help Dysarthria?
  - 8.1.5.3. The importance of Early Care in Dysarthria Intervention
- 8.1.6. Prevention of Dysarthria
  - 8.1.6.1. How Can it be Prevented?
  - 8.1.6.2. Are there any Prevention Programs?
- 8.1.7. Neurology in Dysarthria
  - 8.1.7.1. Neurological Implications in Dysarthria
    - 8.1.7.1.1. Cranial Nerves and Speech Production
    - 8.1.7.1.2. Cranial Nerves Involved in Phonorespiratory Coordination
    - 8.1.7.1.3. Motor Integration of the Brain related to Speech
- 8.1.8. Dysarthria vs. Apraxia
  - 8.1.8.1. Introduction to Unit
  - 8.1.8.2. Apraxia of Speech
    - 8.1.8.2.1. Concept of Verbal Apraxia
    - 8.1.8.2.2. Characteristics of Verbal Apraxia
  - 8.1.8.3. Difference between Dysarthria and Verbal Apraxia
    - 8.1.8.3.1. Classification Table
  - 8.1.8.4. Relationship between Dysarthria and Verbal Apraxia
    - 8.1.8.4.1. Is there a relationship between both Disorders?
    - 8.1.8.4.2. Similarities between both Disorders
- 8.1.9. Dysarthria and Dyslalia
  - 8.1.9.1. What are Dyslalias? (Short Review)
  - 8.1.9.2. Difference between Dysarthria and Dyslalias
  - 8.1.9.3. Similarities between both Disorders
- 8.1.10. Aphasia and Dysarthria
  - 8.1.10.1. What is Aphasia? (In Brief)
  - 8.1.10.2. Difference between Dysarthria and Infantile Aphasia
  - 8.1.10.3. Similarities between Dysarthria and Infantile Aphasia
- 8.2. General Characteristics of Dysarthria
  - 8.2.1. Conceptualization

- 8.2.1.1. Concept of Dysarthria
  - 8.2.1.2. Symptomatology of Dysarthrias
  - 8.2.2. General Characteristics of Dysarthrias
  - 8.2.3. Classification of Dysarthrias according to the site of the Lesion Caused
    - 8.2.3.1. Dysarthria due to Disorders of the Upper Motor Neuron
      - 8.2.3.1.1. Speech Characteristics
      - 8.2.3.1.2. Dysarthria due to Lower Motor Neuron Disorders
        - 8.2.3.1.2.1. Speech Characteristics
      - 8.2.3.1.3. Dysarthria due to Cerebellar Disorders
        - 8.2.3.1.3.1. Speech Characteristics
      - 8.2.3.1.4. Dysarthria due to Extrapyramidal Disorders
        - 8.2.3.1.4.1. Speech Characteristics
      - 8.2.3.1.5. Dysarthria due to Disorders of Multiple Motor Systems
        - 8.2.3.1.5.1. Speech Characteristics
    - 8.2.3.2. Dysarthria due to Disorders of the Lower Motor Neuron
    - 8.2.3.3. Dysarthria due to Disorders of the Brainstem
    - 8.2.3.4. Dysarthria due to Disorders of the Cerebellum
    - 8.2.3.5. Dysarthria due to Disorders of the Extrapyramidal System
  - 8.2.4. Classification according to Symptoms
    - 8.2.4.1. Spastic Dysarthria
      - 8.2.4.1.1. Speech Characteristics
    - 8.2.4.2. Flaccid Dysarthria
      - 8.2.4.2.1. Speech Characteristics
    - 8.2.4.3. Ataxic Dysarthria
      - 8.2.4.3.1. Speech Characteristics
    - 8.2.4.4. Dyskinetic Dysarthria
      - 8.2.4.4.1. Speech Characteristics
    - 8.2.4.5. Mixed Dysarthria
      - 8.2.4.5.1. Speech Characteristics
    - 8.2.4.6. Spastic Dysarthria
      - 8.2.4.6.1. Speech Characteristics
  - 8.2.5. Classification according to the Articulatory Intake
    - 8.2.5.1. Generalized Dysarthria
    - 8.2.5.2. Dysarthric State
    - 8.2.5.3. Dysarthric Remnants
  - 8.2.6. Etiology of Infantile-juvenile Dysarthria
    - 8.2.6.1. Brain Lesion
      - 8.2.6.1.1. Brain Tumor
      - 8.2.6.1.2. Brain Tumor
      - 8.2.6.1.3. Cerebral Accident
      - 8.2.6.1.4. Other Causes
      - 8.2.6.1.5. Medication
    - 8.2.6.2. Brain Tumor
    - 8.2.6.3. Brain Tumor
    - 8.2.6.4. Cerebral Accident
    - 8.2.6.5. Other Causes
    - 8.2.6.6. Medication
  - 8.2.7. Prevalence of Infantile-juvenile Dysarthria
    - 8.2.7.1. Current Prevalence of Dysarthria
    - 8.2.7.2. Changes in Prevalence over the years
  - 8.2.8. Language Characteristics in Dysarthria
    - 8.2.8.1. Are there Language difficulties in children with Dysarthria?
    - 8.2.8.2. Characteristics of the Alterations
  - 8.2.9. Speech Characteristics in Dysarthria
    - 8.2.9.1. Are there Language Abnormalities in Children with Dysarthria?
    - 8.2.9.2. Characteristics of the Alterations
  - 8.2.10. Semiology of Dysarthria
    - 8.2.10.1. How to detect Dysarthria?
    - 8.2.10.2. Relevant Signs and Symptoms of Dysarthria
- 8.3. Classification of Dysarthria
  - 8.3.1. Other Disorders in Children with Dysarthria
    - 8.3.1.1. Motor Disturbances
    - 8.3.1.2. Physiological Alterations
    - 8.3.1.3. Communicative Disturbances
    - 8.3.1.4. Alterations in Social Relations
  - 8.3.2. Infantile Cerebral Palsy
    - 8.3.2.1. Concept of Cerebral Palsy
    - 8.3.2.2. Dysarthria in Infantile Cerebral Palsy
      - 8.3.2.2.1. Consequences of Dysarthria in Acquired Brain Injury
    - 8.3.2.3. Dysphagia
      - 8.3.2.3.1. Concept of Dysphagia
      - 8.3.2.3.2. Dysarthria in relation to Dysphagia
        - 8.3.2.3.3. Consequences of Dysarthria in Acquired Brain Injury
  - 8.3.3. Acquired Brain Injury
    - 8.3.3.1. Concept of Acquired Brain Injury
    - 8.3.3.2. Dysarthria in relation to Acquired Brain Injury

- 8.3.3.2.1. Consequences of Dysarthria in Acquired Brain Injury
  - 8.3.4. Multiple Sclerosis
    - 8.3.4.1. Concept of Multiple Sclerosis
    - 8.3.4.2. Dysarthria in Multiple Sclerosis
      - 8.3.3.2.1. Consequences of Dysarthria in Acquired Brain Injury
  - 8.3.5. Acquired Brain Injury in Children
    - 8.3.5.1. Concept of Acquired Brain Injury in children
    - 8.3.5.2. Dysarthria in Infantile Acquired Brain Injury
      - 8.3.5.2.1. Consequences of Dysarthria in Acquired Brain Injury
  - 8.3.6. Psychological Consequences in Dysarthric children
    - 8.3.6.1. How does Dysarthria Affect the Psychological Development of the Child?
    - 8.3.6.2. Psychological Aspects Affected
  - 8.3.7. Social Consequences in Dysarthric children
    - 8.3.7.1. Does it Affect the Social Development of Dysarthric Children?
  - 8.3.8. Consequences on Communicative Interactions in Dysarthric children
    - 8.3.8.1. How does Dysarthria affect Communication?
    - 8.3.8.2. Communicative Aspects Affected
  - 8.3.9. Social Consequences in Dysarthric children
    - 8.3.9.1. How does Dysarthria affect Social Relationships?
  - 8.3.10. Economic Consequences
    - 8.3.10.1. Professional Intervention and the economic cost to the family
- 8.4. Other Classifications of Dysarthria in infantile and juvenile ages
  - 8.4.1. Speech-Language evaluation and its importance in children with Dysarthria
    - 8.4.1.1. Why should the Speech-Language Pathologist evaluate cases of Dysarthria?
    - 8.4.1.2. Why evaluate cases of Dysarthria by the Speech-Language Pathologist?
  - 8.4.2. Clinical Speech Therapy Evaluation
  - 8.4.3. Evaluation and Diagnostic process
    - 8.4.3.1. Medical History
    - 8.4.3.2. Document Analysis
    - 8.4.3.3. Interviewing Family Members
  - 8.4.4. Direct Exploration
    - 8.4.4.1. Neurophysiological Examination
    - 8.4.4.2. Exploration of the Trigeminal Nerve
    - 8.4.4.3. Exploration of the Accessory Nerve
    - 8.4.4.4. Examination of the Glossopharyngeal Nerve
    - 8.4.4.5. Examination of the Facial Nerve
      - 8.4.4.5.1. Exploration of the Hypoglossal Nerve
      - 8.4.4.5.2. Exploration of the Accessory Nerve
  - 8.4.5. Perceptual Exploration
    - 8.4.5.1. Breathing Exploration
    - 8.4.5.2. Resonance
    - 8.4.5.3. Oral Motor Control
    - 8.4.5.4. Articulation
  - 8.4.6. Other Aspects to be Evaluated
    - 8.4.6.1. Intelligibility
    - 8.4.6.2. Automatic Speech
    - 8.4.6.3. Reading
    - 8.4.6.4. Prosody
    - 8.4.6.5. Intelligibility/severity Scan
  - 8.4.7. Assessment of the Dysarthric child in the family context
    - 8.4.7.1. Persons to be interviewed for the evaluation of the family context
    - 8.4.7.2. Relevant aspects in the interview
      - 8.4.7.2.1. Some Important Questions to Ask in the Family Interview
    - 8.4.7.3. Importance of the evaluation in the family context
  - 8.4.8. Evaluation of the Dysarthric child in the school context
    - 8.4.8.1. Professionals to Interview in the School Context
      - 8.4.8.1.1. The Tutor
      - 8.4.8.1.2. The Hearing and Language Teacher
      - 8.4.8.1.3. The School Counselor
    - 8.4.8.2. The Importance of School Assessment in children with Dysarthria
  - 8.4.9. Assessment of Dysarthric children by other health professionals
    - 8.4.9.1. The Importance of Joint Assessment
    - 8.4.9.2. Neurological Evaluation
    - 8.4.9.3. Physiotherapeutic Evaluation



- 8.4.9.4. Otolaryngological Assessment
- 8.4.9.5. Psychological Assessment
- 8.4.10. Differential Diagnosis
  - 8.4.10.1. How to make the Differential Diagnosis in children with Dysarthria?
  - 8.4.10.2. Considerations in Establishing the Differential Diagnosis
- 8.5. Characteristics of Dysarthrias
  - 8.5.1. The Importance of Intervention in Juvenile Dysarthria
    - 8.5.1.1. Consequences in children affected by Dysarthria
    - 8.5.1.2. Evolution of Dysarthria through Intervention
  - 8.5.2. Goals of Intervention for children with Dysarthria
    - 8.5.2.1. General Goals in Dysarthria
      - 8.5.2.1.1. Psychological Goals
      - 8.5.2.1.2. Motor Goals
  - 8.5.3. Intervention Methods
  - 8.5.4. Steps to be carried out during the Intervention
    - 8.5.4.1. Agree on the Intervention Model
    - 8.5.4.2. Establish the Sequencing and timing of the Intervention
  - 8.5.5. The child as the Main Subject during the Intervention
    - 8.5.5.1. Supporting the child's skills in Intervention
  - 8.5.6. General Intervention Considerations
    - 8.5.6.1. The importance of motivational involvement in Intervention
    - 8.5.6.2. Affectivity during the Intervention
  - 8.5.7. Proposal of Activities for Speech Therapy Intervention
    - 8.5.7.1. Psychological Activities
    - 8.5.7.2. Motor Activities
  - 8.5.8. The importance of the joint rehabilitation process
    - 8.5.8.1. Professionals involved in Dysarthrias
      - 8.5.8.1.1. Physiotherapist
      - 8.5.8.1.2. Psychologist
  - 8.5.9. Alternative and Augmentative Communication Systems as Support for Intervention
    - 8.5.9.1. How can These Systems Help Intervention with Children with Dysarthria?
    - 8.5.9.2. Choice of system type: Augmentative or Alternative?
    - 8.5.9.3. Settings in Which its Use will be Established
  - 8.5.10. How to Establish the end of Treatment?
    - 8.5.10.1. Criteria for Indicating the end of Rehabilitation
    - 8.5.10.2. Fulfillment of Rehabilitation Objectives
- 8.6. Evaluation of Dysarthrias
  - 8.6.1. Speech Therapy Interventions in Dysarthrias
    - 8.6.1.1. Importance of Speech Therapy Intervention in Childhood and Adolescent Dysarthrias
    - 8.6.1.2. What does Speech Therapy Intervention in Dysarthria consist of?
    - 8.6.1.3. Objectives of the Speech Therapy Intervention
      - 8.6.1.3.1. General Objectives of the Speech Therapy Intervention Program
      - 8.6.1.3.2. Specific Objectives of the Speech Therapy Intervention Program
  - 8.6.2. Swallowing Therapy in Dysarthria
    - 8.6.2.1. Swallowing Difficulties in cases of Dysarthria
    - 8.6.2.2. What does Swallowing Therapy consist of?
    - 8.6.2.3. Importance of the Therapy
  - 8.6.3. Postural and Body Therapy in Dysarthria
    - 8.6.3.1. Body Posture Difficulties in cases of Dysarthria
    - 8.6.3.2. What does Postural and Body Therapy consist of?
    - 8.6.3.3. The Importance of Therapy
  - 8.6.4. Orofacial Therapy in Dysarthria
    - 8.6.4.1. Orofacial difficulties in cases of Dysarthria
    - 8.6.4.2. What does Orofacial Therapy consist of?
    - 8.6.4.3. The Importance of Therapy
  - 8.6.5. Breathing Therapy and Phonorespiratory Coordination in Dysarthria
    - 8.6.5.1. Difficulties in Phonorespiratory Coordination in Cases of Dysarthria
    - 8.6.5.2. What does Therapy consist of?
    - 8.6.5.3. The Importance of Therapy
  - 8.6.6. Articulation Therapy in Dysarthria
    - 8.6.6.1. Difficulties in Articulation in cases of Dysarthria
    - 8.6.6.2. What does Therapy consist of?
    - 8.6.6.3. The Importance of Therapy
  - 8.6.7. Speech Therapy in Dysarthria
    - 8.6.7.1. Phonatory Difficulties in cases of Dysarthria

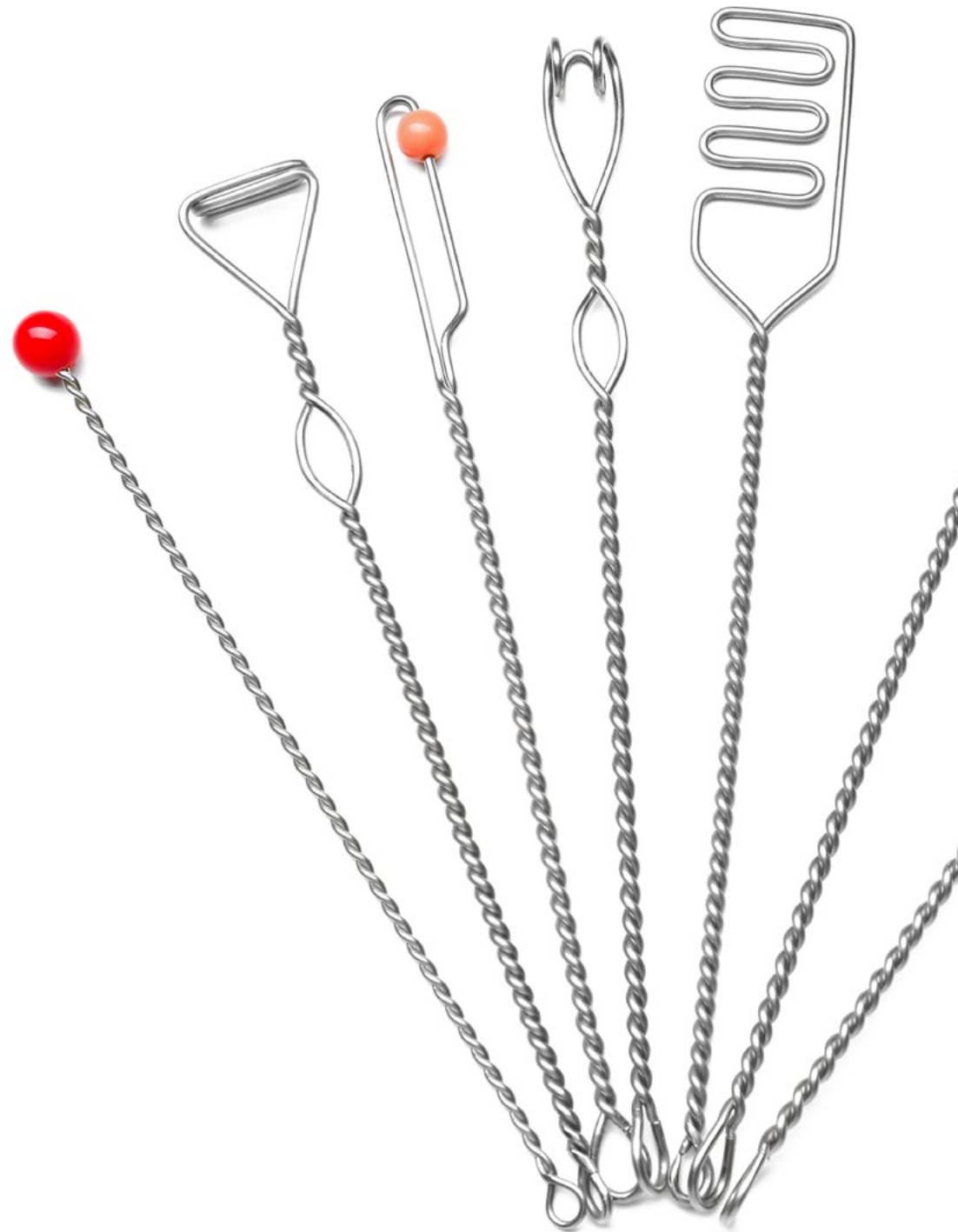
- 8.6.7.2. What does Therapy consist of?
- 8.6.7.3. The Importance of Therapy
- 8.6.8. Resonance Therapy in Dysarthria
  - 8.6.8.1. Difficulties in Resonance in cases of Dysarthria
  - 8.6.8.2. What does Therapy consist of?
  - 8.6.8.3. The Importance of Therapy
- 8.6.9. Vocal Therapy in Dysarthria
  - 8.6.9.1. Difficulties in Voice in cases of Dysarthria
  - 8.6.9.2. What does Therapy consist of?
  - 8.6.9.3. The Importance of Therapy
- 8.6.10. Prosody and Fluency Therapy
  - 8.6.10.1. Difficulties in Prosody and Fluency in cases of Dysarthria
  - 8.6.10.2. What does Therapy consist of?
  - 8.6.10.3. The Importance of Therapy
- 8.7. Speech Therapy exploration in Dysarthrias
  - 8.7.1. Introduction
    - 8.7.1.1. Importance of developing a Speech Therapy Intervention Program for a child with Dysarthria
  - 8.7.2. Initial considerations for the development of a Speech-language Intervention Program
    - 8.7.2.1. Characteristics of Dysarthric children
  - 8.7.3. Decisions for the planning of Speech Therapy Intervention
    - 8.7.3.1. Method of Intervention to be performed
    - 8.7.3.2. Consensus for the Sequencing of the Intervention sessions: aspects to consider
      - 8.7.3.2.1. Chronological Age
      - 8.7.3.2.2. The child's Extracurricular Activities
      - 8.7.3.2.3. Schedules
    - 8.7.3.3. Establishing lines of Intervention
  - 8.7.4. Objectives of the Speech Therapy Intervention Program for Dysarthria
    - 8.7.4.1. General Objectives of the Speech Therapy Intervention Program
    - 8.7.4.2. Specific Objectives of the Speech Therapy Intervention Program
- 8.7.5. Areas of Speech Therapy Intervention in Dysarthrias and Proposed Activities
  - 8.7.5.1. Orofacial
  - 8.7.5.2. Voice
  - 8.7.5.3. Prosody
  - 8.7.5.4. Speech
  - 8.7.5.5. Language
  - 8.7.5.6. Breathing
- 8.7.6. Materials and Resources for Speech Therapy Intervention
  - 8.7.6.1. Proposal of Materials on the market for use in Speech Therapy Intervention with an outline of the Material and its uses
  - 8.7.6.2. Images of the Materials previously proposed
- 8.7.7. Technological resources and didactic materials for Speech Therapy Intervention
  - 8.7.7.1. Software Programs for Intervention
    - 8.7.7.1.1. PRAAT Program
- 8.7.8. Intervention Methods for Intervention in Dysarthria Intervention
  - 8.7.8.1. Types of Intervention Methods
    - 8.7.8.1.1. Medical Methods
    - 8.7.8.1.2. Clinical Intervention Methods
    - 8.7.8.1.3. Instrumental Methods
    - 8.7.8.1.4. Pragmatic Methods
    - 8.7.8.1.5. Behavioral-Logopedic Methods
  - 8.7.8.2. Choice of the appropriate Method of Intervention for the case
- 8.7.9. Techniques of Speech Therapy Intervention and Proposed Activities
  - 8.7.9.1. Breathing
    - 8.7.9.1.1. Proposed Activities
  - 8.7.9.2. Phonation
    - 8.7.9.2.1. Proposed Activities
  - 8.7.9.3. Articulation
    - 8.7.9.3. Proposed Activities
  - 8.7.9.4. Resonance
    - 8.7.9.4.1. Proposed Activities
  - 8.7.9.5. Speech Rate
    - 8.7.9.5.1. Proposed Activities

- 8.7.9.6. Accent and Intonation
  - 8.7.9.6.1. Proposed Activities
- 8.7.10. Alternative and/or Augmentative Communication Systems as a Method of Intervention in Cases of Dysarthria
  - 8.7.10.1. What are AACs?
  - 8.7.10.2. How can AACs Help Intervention with Children with Dysarthria?
  - 8.7.10.3. How can AACs help Communication in children with Dysarthria?
  - 8.7.10.4. Choice of a System Method according to the child's needs
    - 8.7.10.4.1. Considerations for establishing a Communication System
  - 8.7.10.5. How To Use Communication Systems in Different Child Development Settings?
- 8.8. Speech Therapy Interventions in Dysarthrias
  - 8.8.1. Introduction to the unit in the Development of the Dysarthric child
  - 8.8.2. The Consequences of the Dysarthric child in the family context
    - 8.8.2.1. How is the Child Affected by Difficulties in the Home Environment?
  - 8.8.3. Communication Difficulties in the Dysarthric child's Home Environment
    - 8.8.3.1. What Barriers do they Encounter in the Home Environment?
  - 8.8.4. The Importance of Professional Intervention in the Family Environment and the Family-centered Intervention Model
    - 8.8.4.1. The importance of the family in the development of the Dysphemic child
    - 8.8.4.2. How to Carry Out Family-centered Intervention in Cases of Dysarthric Children?
  - 8.8.5. Family Integration in Speech Therapy and School Intervention for Children With Dysarthria
    - 8.8.5.1. Aspects to consider in order to integrate the family in the Intervention
  - 8.8.6. Benefits of integrating the family in the Professional and School Intervention
    - 8.8.6.1. Coordination with Health Professionals and the benefits
    - 8.6.6.2. Coordination with Educational Professionals and the benefits
  - 8.8.7. Advice for the Family Environment
    - 8.8.7.1. Tips to facilitate oral Communication in the Dysarthric child
    - 8.8.7.2. Guidelines for the Relationship at home with the Dysarthric child
  - 8.8.8. Psychological Support for the family
    - 8.8.8.1. Psychological Implications in the Family with Cases of Children with Dysarthria
    - 8.8.8.2. Why Provide Psychological Support?
- 8.8.9. The Family as a Means of Generalization in Learning
  - 8.8.9.1. The Importance of the Family for the Generalization in Learning
  - 8.8.9.2. How can the family support the child's Learning?
- 8.8.10. Communication with the child with Dysarthria
  - 8.8.10.1. Communication Strategies in the Home Environment
  - 8.8.10.2. Tips for better Communication
    - 8.8.10.2.1. Changes in the Environment
    - 8.8.10.2.2. Alternatives to Oral Communication
- 8.9. Proposal of Exercise for Speech Therapy Intervention in Dysarthria
  - 8.9.1. Introduction to Unit
    - 8.9.1.1. The Period of Childhood Schooling in Relation to the Prevalence of Infantile-juvenile Dysarthria
  - 8.9.2. The Importance of the Involvement of the School During the Intervention Period
    - 8.9.2.1. The school as a means of Development of the Dysarthric child
    - 8.9.2.2. The influence of the School on Child Development
  - 8.9.3. School supports, who offers support to the child at school and how?
    - 8.9.3.1. The Hearing and Language Teacher
    - 8.9.3.2. The Guidance Counselor
  - 8.9.4. Coordination of the Rehabilitation Professionals with the Education Professionals
    - 8.9.4.1. Who to coordinate with?
    - 8.9.4.2. Steps for coordination
  - 8.9.5. Consequences in the Dysarthric Child's Classroom
    - 8.9.5.1. Psychological Consequences in the Dysarthric Child
    - 8.9.5.2. Communication with Classmates
  - 8.9.6. Intervention According to the Student's Needs
    - 8.9.6.1. Importance of Taking Into Account the Needs of the Student with Dysarthria
    - 8.9.6.2. How to Establish the Needs of the Student?
    - 8.9.6.3. Participants in the Development of the Learner's needs
  - 8.9.7. Orientations
    - 8.9.7.1. Guidance for the School for Intervention with the Child with Dysarthria

- 8.9.8. Objectives of the Educational Center
  - 8.9.8.1. General Objectives of School Intervention
  - 8.9.8.2. Strategies to Achieve the Objectives
- 8.9.9. Methods of Intervention in the Classroom Strategies to Promote the Child's Integration
- 8.9.10. The use of SAACs in the classroom to Promote Communication
  - 8.9.10.1. How can SAACs help in the classroom with the Dysarthric Student?
- 8.10. Annexes

## Module 9. Understanding Hearing Impairments

- 9.1. The Auditory System: Anatomical and Functional Bases
  - 9.1.1. Introduction to Unit
    - 9.1.1.1. Preliminary Considerations
    - 9.1.1.2. Concept of Sound
    - 9.1.1.3. Concept of Noise
    - 9.1.1.4. Concept of Sound Wave
  - 9.1.2. The External Ear
    - 9.1.2.1. Concept and Function of the External Ear
    - 9.1.2.2. Parts of the External Ear
  - 9.1.3. The Middle Ear
    - 9.1.3.1. Concept and Function of the Middle Ear
    - 9.1.3.2. Parts of the Middle Ear
  - 9.1.4. The Inner Ear
    - 9.1.4.1. Concept and Function of the Inner Ear
    - 9.1.4.2. Parts of the Inner Ear
  - 9.1.5. Hearing Physiology
  - 9.1.6. How does Natural Hearing work?
    - 9.1.6.1. Concept of Natural Hearing
    - 9.1.6.2. Mechanism of Undisturbed Hearing
- 9.2. Hearing Loss
  - 9.2.1. Hearing Loss
    - 9.2.1.1. Concept of Hearing Loss
    - 9.2.1.2. Symptoms of Hearing Loss
  - 9.2.2. Classification of Hearing Loss According to Where the Lesion is Located
    - 9.2.2.1. Transmission or Conduction Hearing Loss
    - 9.2.2.2. Perceptual or Sensorineural Hearing Losses
  - 9.2.3. Classification of Hearing Loss according to the degree of Hearing Loss
    - 9.2.3.1. Light or Mild Hearing Loss
    - 9.2.3.2. Medium Hearing Loss
    - 9.2.3.3. Severe Hearing Loss
    - 9.2.3.4. Profound Hearing Loss
  - 9.2.4. Classification of Hearing Loss according to Age of Onset
    - 9.2.4.1. Prelocution Hearing Loss
    - 9.2.4.2. Perlocution Hearing Loss
    - 9.2.4.3. Postlocution Hearing Loss
  - 9.2.5. Classification of Hearing Loss according to its Etiology
    - 9.2.5.1. Accidental Hearing Loss
    - 9.2.5.2. Hearing Loss due to the consumption of Ototoxic Substances
    - 9.2.5.3. Genetic origin Hearing Loss
    - 9.2.5.4. Other Possible Causes
  - 9.2.6. Risk factors for Hearing Loss
    - 9.2.6.1. Aging
    - 9.2.6.2. Loud Noises
    - 9.2.6.3. Hereditary Factor
    - 9.2.6.4. Recreational Sports
    - 9.2.6.5. Others
  - 9.2.7. Prevalence of Hearing Loss
    - 9.2.7.1. Preliminary Considerations
    - 9.2.7.2. Prevalence of Hearing Loss in Spain
    - 9.2.7.3. Prevalence of Hearing Loss in the rest of the Countries
  - 9.2.8. Comorbidity of Hearing Loss
    - 9.2.8.1. Comorbidity in Hearing Loss
    - 9.2.8.2. Associated Disorders
  - 9.2.9. Comparison of the intensity of the most frequent Sounds
    - 9.2.9.1. Sound Levels of frequent noises
    - 9.2.9.2. Maximum Occupational Noise exposure allowed by Law



- 9.2.10. International Development Cooperation    Hearing Prevention
  - 9.2.10.1. Preliminary Considerations
  - 9.2.10.2. The Importance of Prevention
  - 9.2.10.3. Preventive Methods for Hearing Care
- 9.3. Audiology and Audiometry
- 9.4. Hearing Aids
  - 9.4.1. Preliminary Considerations
  - 9.4.2. History of Hearing Aids
  - 9.4.3. What are Hearing Aids?
    - 9.4.3.1. Concept of Hearing Aid
    - 9.4.3.2. How does a Hearing Aid work?
    - 9.4.3.3. Description of the Device
  - 9.4.4. Hearing Aid fitting and fitting Requirements
    - 9.4.4.1. Preliminary Considerations
    - 9.4.4.2. Hearing Aid Fitting Requirements
    - 9.4.4.3. How is a Hearing Aid fitted?
  - 9.4.5. When is it not advisable to fit a Hearing Aid?
    - 9.4.5.1. Preliminary Considerations
    - 9.4.5.2. Aspects that influence the Professional's Final Decision
  - 9.4.6. The Success and Failure of Hearing Aid fitting
    - 9.4.6.1. Factors influencing the success of Hearing Aid fitting
    - 9.4.6.2. Factors influencing the failure of Hearing Aid fitting
  - 9.4.7. Analysis of the evidence on effectiveness, safety, and ethical aspects of the Hearing Aid
    - 9.4.7.1. Hearing Aid Effectiveness
    - 9.4.7.2. Hearing Aid Safety
    - 9.4.7.3. Ethical Aspects of the Hearing Aid
  - 9.4.8. Indications and Contraindications of Hearing Aids
    - 9.4.8.1. Preliminary Considerations
    - 9.4.8.2. Hearing Aid Indications
    - 9.4.8.3. Hearing Aid Contraindications
  - 9.4.9. Current Hearing Aid Models
    - 9.4.9.1. Introduction
    - 9.4.9.2. The different current Hearing Aid Models

- 9.4.10. Final Conclusions
- 9.5. Cochlear implants
  - 9.5.1. Introduction to Unit
  - 9.5.2. History of Cochlear Implantation
  - 9.5.3. What are Cochlear Implants?
    - 9.5.3.1. Concept of Cochlear Implant
    - 9.5.3.2. How does a Cochlear Implant work?
    - 9.5.3.3. Description of the Device
  - 9.5.4. Requirements for Cochlear Implant Placement
    - 9.5.4.1. Preliminary Considerations
    - 9.5.4.2. Physical Requirements to be met by the user
    - 9.5.4.3. Psychological Requirements to be met by the user
  - 9.5.5. Implementation of Cochlear Implant
    - 9.5.5.1. The Surgery
    - 9.5.5.2. Implant Programming
    - 9.5.5.3. Professionals Involved in the Surgery and in the Implant Programming
  - 9.5.6. When is it not advisable to place a Cochlear Implant?
    - 9.5.6.1. Preliminary Considerations
    - 9.5.6.2. Aspects that influence the Professional's Final Decision
  - 9.5.7. Success and failure of Cochlear Implantation
    - 9.5.7.1. Factors influencing the success of Cochlear Implant placement
    - 9.5.7.2. Factors influencing Cochlear Implant placement failure
  - 9.5.8. Analysis of the Evidence on Effectiveness, Safety, and Ethical Aspects of Cochlear Implantation
    - 9.5.8.1. Effectiveness of Cochlear Implantation
    - 9.5.8.2. Safety of Cochlear Implantation
    - 9.5.8.3. Ethical Aspects of Cochlear Implantation
  - 9.5.9. Indications and Contraindications of Cochlear Implantation
    - 9.5.9.1. Preliminary Considerations
    - 9.5.9.2. Indications of Cochlear Implantation
    - 9.5.9.3. Contraindications of Cochlear Implantation
  - 9.5.10. Final Conclusions
- 9.6. Speech Therapy Evaluation instruments in Hearing Impairments
  - 9.6.1. Introduction to Unit
  - 9.6.2. Elements to take into account during the Evaluation
    - 9.6.2.1. Level of Care
    - 9.6.2.2. Imitation
    - 9.6.2.3. Visual Perception
    - 9.6.2.4. Mode of Communication
    - 9.6.2.5. Hearing
      - 9.6.2.5.1. Reaction to unexpected Sounds
      - 9.6.2.5.2. Sound Detection What sounds do you hear?
      - 9.6.2.5.3. Identification and Recognition of Environmental and Speech Sounds
  - 9.6.3. Audiometry and the Audiogram
    - 9.6.3.1. Preliminary Considerations
    - 9.6.3.2. Concept of Audiometry
    - 9.6.3.3. Concept of Audiogram
    - 9.6.3.4. The function of Audiometry and the Audiogram
  - 9.6.4. First part of the evaluation: Anamnesis
    - 9.6.4.1. General Development of the Patient
    - 9.6.4.2. Type and degree of Hearing Loss
    - 9.6.4.3. Timing of onset of Hearing Loss
    - 9.6.4.4. Existence of Associated Pathologies
    - 9.6.4.5. Mode of Communication
    - 9.6.4.6. Use or Absence of Hearing Aids
      - 9.6.4.6.1. Date of Fitting
      - 9.6.4.6.2. Other Aspects
  - 9.6.5. Second part of the Evaluation: Otorhinolaryngologist and Prosthetist
    - 9.6.5.1. Preliminary Considerations
    - 9.6.5.2. Otolaryngologist's Report
      - 9.6.5.2.1. Analysis of the Objective Tests
      - 9.6.5.2.2. Analysis of the Subjective Tests
    - 9.6.5.3. Prosthetist's Report

- 9.6.6. Second part of the Evaluation: Standardized Test/Tests
    - 9.6.6.1. Preliminary Considerations
    - 9.6.6.2. Speech Audiometry
      - 9.6.6.2.1. Ling Test
      - 9.6.6.2.2. Name Test
      - 9.6.6.2.3. Early Speech Perception Test (ESP)
      - 9.6.6.2.4. Distinguishing Features Test
      - 9.6.6.2.5. Vowel Identification Test
      - 9.6.6.2.6. Consonant Identification Test
      - 9.6.6.2.7. Monosyllable Recognition Test
      - 9.6.6.2.8. Bisyllable Recognition Test
      - 9.6.6.2.9. Phrase Recognition Test
        - 9.6.6.2.9.1. Open-choice Sentence Test with Support
        - 9.6.6.2.9.2. Test of Open-choice Sentences without Support
    - 9.6.6.3. Oral Language Test/Tests
      - 9.6.6.3.1. PLON-R
      - 9.6.6.3.2. Reynell Scale of Language Development
      - 9.6.6.3.3. ITPA
      - 9.6.6.3.4. ELCE
      - 9.6.6.3.5. Monfort Induced Phonological Register
      - 9.6.6.3.6. MacArthur
      - 9.6.6.3.7. Boehm's Test of basic concepts
      - 9.6.6.3.8. BLOC
  - 9.6.7. Elements to be included in a Speech Therapy Report on Hearing Impairment
    - 9.6.7.1. Preliminary Considerations
    - 9.6.7.2. Important and Basic Elements
    - 9.6.7.3. Importance of the Speech Therapy Report in Auditory Rehabilitation
  - 9.6.8. Evaluation of the Hearing-Impaired child in the school context
    - 9.6.8.1. Professionals to be Interviewed
      - 9.6.8.1.1. Tutor
      - 9.6.8.1.2. Professors
      - 9.6.8.1.3. Hearing and Speech Teacher
      - 9.6.8.1.4. Others
  - 9.6.9. Early Detection
    - 9.6.9.1. Preliminary Considerations
    - 9.6.9.2. The importance of Early Diagnosis
    - 9.6.9.3. Why is a Speech Therapy Evaluation More Effective When the Child is Younger?
  - 9.6.10. Final Conclusions
- 9.7. Speech-Language Therapist Role in Hearing Impairment Intervention
    - 9.7.1. Introduction to Unit
      - 9.7.1.1. Methodological Approaches, according to Perier's classification (1987)
      - 9.7.1.2. Oral Monolingual Methods
      - 9.7.1.3. Bilingual Methods
      - 9.7.1.4. Mixed Methods
    - 9.7.2. Are There any Differences Between Rehabilitation after a Hearing Aid or Cochlear Implant?
    - 9.7.3. Post-implant intervention in Prelingually Hearing-impaired children
    - 9.7.4. Post-implant Intervention in Postlocution children
      - 9.7.4.1. Introduction to Unit
      - 9.7.4.2. Phases of Auditory Rehabilitation
        - 9.7.4.2.1. Sound Detection Phase
        - 9.7.4.2.2. Discrimination Phase
        - 9.7.4.2.3. Identification Phase
        - 9.7.4.2.4. Recognition Phase
        - 9.7.4.2.5. Comprehension Phase
    - 9.7.5. Useful Activities for Rehabilitation
      - 9.7.5.1. Activities for the Detection Phase
      - 9.7.5.2. Activities for the Discrimination Phase
      - 9.7.5.3. Activities for the Identification Phase
      - 9.7.5.4. Activities for the Recognition Phase
      - 9.7.5.5. Activities for the Comprehension Phase

- 9.7.6. Role of the family in the Rehabilitation Process
  - 9.7.6.1. Guidelines for families
  - 9.7.6.2. Is the presence of the parents in the Sessions advisable?
- 9.7.7. The Importance of an Interdisciplinary Team during the Intervention
  - 9.7.7.1. Preliminary Considerations
  - 9.7.7.2. Why the Interdisciplinary Team is so important
  - 9.7.7.3. The Professionals involved in Rehabilitation
- 9.7.8. Strategies for the School Environment
  - 9.7.8.1. Preliminary Considerations
  - 9.7.8.2. Communication Strategies
  - 9.7.8.3. Methodological Strategies
  - 9.7.8.4. Strategies for Text Adaptation
- 9.7.9. Materials and Resources adapted to the Speech Therapy Intervention in Audiology
  - 9.7.9.1. Self-made useful Materials
  - 9.7.9.2. Commercially available Material
  - 9.7.9.3. Useful Technological Resources
- 9.7.10. Final Conclusions
- 9.8. Bimodal Communication
  - 9.8.1. Introduction to Unit
  - 9.8.2. What does Bimodal Communication consist of?
    - 9.8.2.1. Concept
    - 9.8.2.2. Functions
  - 9.8.3. Elements of Bimodal Communication
    - 9.8.3.1. Preliminary Considerations
    - 9.8.3.2. Elements of Bimodal Communication
      - 9.8.3.2.1. Pantomimic Gestures
      - 9.8.3.2.2. Elements of Sign Language
      - 9.8.3.2.3. Natural Gestures
      - 9.8.3.2.4. "Idiosyncratic" Gestures
      - 9.8.3.2.5. Other Elements
  - 9.8.4. Objectives and Advantages of the use of Bimodal Communication
    - 9.8.4.1. Preliminary Considerations
    - 9.8.4.2. Advantages of Bimodal Communication
      - 9.8.4.2.1. Regarding the Word at the Reception
      - 9.8.4.2.2. Regarding the Word in Expression
    - 9.8.4.3. Advantages of Bimodal Communication over other Augmentative and Alternative Communication Systems
  - 9.8.5. When should we consider using Bimodal Communication?
    - 9.8.5.1. Preliminary Considerations
    - 9.8.5.2. Factors to Consider
    - 9.8.5.3. Professionals making the Decision
    - 9.8.5.4. The Importance of the Role of the Family
  - 9.8.6. The Facilitating Effect of Bimodal Communication
    - 9.8.6.1. Preliminary Considerations
    - 9.8.6.2. The Indirect Effect
    - 9.8.6.3. The Direct Effect
  - 9.8.7. Bimodal Communication in the different Language Areas
    - 9.8.7.1. Preliminary Considerations
    - 9.8.7.2. Bimodal Communication and Comprehension
    - 9.8.7.3. Bimodal Communication and Expression
  - 9.8.8. Forms of Implementation of Bimodal Communication
  - 9.8.9. Programs Aimed at Learning and Implementing the Bimodal System
    - 9.8.9.1. Preliminary Considerations
    - 9.8.9.2. Introduction to Bimodal Communication supported by Clic and NeoBook Authoring Tools
    - 9.8.9.3. Bimodal 2000
  - 9.8.10. Final Conclusions
- 9.9. Spanish Sign Language (SSL- LSE in Spanish)
  - 9.9.1. Introduction to Spanish Sign Language
  - 9.9.2. History of Spanish Sign Language
  - 9.9.3. Spanish Sign Language
    - 9.9.3.1. Concept
    - 9.9.3.2. Augmentative or Alternative System?
    - 9.9.3.3. Is Sign Language Universal?



- 9.9.4. Iconicity and Simultaneity in Spanish Sign Language
  - 9.9.4.1. Concept of Iconicity
  - 9.9.4.2. Concept of Simultaneity
- 9.9.5. Considerations to take into account in the Sign Language
  - 9.9.5.1. The Body Language
  - 9.9.5.2. The Use of Space to Communicate
- 9.9.6. Linguistic structure of the sign in Sign Languages
  - 9.9.6.1. The Phonological Structure
  - 9.9.6.2. The Morphological Structure
- 9.9.7. The Syntactic Structure in Sign Language
  - 9.9.7.1. The Syntactic Component
  - 9.9.7.2. Functions
  - 9.9.7.3. Word Order
- 9.9.8. Signolinguistics
  - 9.9.8.1. Concept of Signolinguistics
  - 9.9.8.2. The birth of Signolinguistics
- 9.9.9. Dactylogy
  - 9.9.9.1. Concept of Dactylogy
  - 9.9.9.2. Use of Dactylogy
  - 9.9.9.3. The Dactylogical Alphabet
- 9.9.10. Final Conclusions
  - 9.9.10.1. The importance of the Speech-Language Pathologist's knowledge of Sign Language
  - 9.9.10.2. Where to study Sign Language?
  - 9.9.10.3. Resources to practice Sign Language for free
- 9.10. The figure of the Interpreter of Sign Language (ILSE)
  - 9.10.1. Introduction to Unit
  - 9.10.2. History of Interpretation
    - 9.10.2.1. History of Oral Language Interpreting
    - 9.10.2.2. History of Sign Language Interpreting
    - 9.10.2.3. Sign Language Interpreting as a Profession
  - 9.10.3. The Interpreter of Sign Language (ILSE)
    - 9.10.3.1. Concept
    - 9.10.3.2. ILSE Professional Profile
      - 9.10.3.2.1. Personal Characteristics
      - 9.10.3.2.2. Intellectual Characteristics
      - 9.10.3.2.3. Ethical Characteristics
      - 9.10.3.2.4. General Knowledge
    - 9.10.3.3. The Indispensable Role of the Sign Language Interpreter
    - 9.10.3.4. Professionalism in Interpreting
  - 9.10.4. Interpreting Methods
    - 9.10.4.1. Characteristics of Interpreting
    - 9.10.4.2. The purpose of Interpretation
    - 9.10.4.3. Interpreting as a Communicative and Cultural Interaction
    - 9.10.4.4. Types of Interpretation:
      - 9.10.4.4.1. Consecutive Interpretation
      - 9.10.4.4.2. Simultaneous Interpretation
      - 9.10.4.4.3. Interpreting in a telephone call
      - 9.10.4.4.4. Interpreting Written Texts
  - 9.10.5. Components of the Interpretation Process
    - 9.10.5.1. Message
    - 9.10.5.2. Perception
    - 9.10.5.3. Linking Systems
    - 9.10.5.4. Comprehension
    - 9.10.5.5. Interpretation
    - 9.10.5.6. Assessment
    - 9.10.5.7. Human Resources Involved
  - 9.10.6. List of the Elements of the Interpretation Mechanism
    - 9.10.6.1. Moser's Hypothetical Model of Simultaneous Interpretation
    - 9.10.6.2. Colonomos' Model of Interpreting Work
    - 9.10.6.3. Cokely's Interpretation Process Model

- 9.10.7. Interpretation Techniques
  - 9.10.7.1. Concentration and Attention
  - 9.10.7.2. Memory
  - 9.10.7.3. Note Taking
  - 9.10.7.4. Verbal Fluency and Mental Agility
  - 9.10.7.5. Resources for Lexical Building
- 9.10.8. ILSE Fields of Action
  - 9.10.8.1. Services in General
  - 9.10.8.2. Specific Services
  - 9.10.8.3. Organization of ILSE Services in Spain
  - 9.10.8.4. Organization of ILS services in other European Countries
- 9.10.9. Ethical Standards
  - 9.10.9.1. The ILSE Code of Ethics
  - 9.10.9.2. Fundamental Principles
  - 9.10.9.3. Other Ethical Principles
- 9.10.10. Sign Language Interpreter Associations
  - 9.10.10.1. ILSE Associations in Spain
  - 9.10.10.2. ILS Associations in Europe
  - 9.10.10.3. ILS Associations in the rest of the World

## Module 10. Psychological knowledge of interest in the Speech-Language Pathology Field

- 10.1. Child and Adolescent Psychology
  - 10.1.1. First approach to Child and Adolescent Psychology
    - 10.1.1.1. What does the area of knowledge of Child and Adolescent Psychology study?
    - 10.1.1.2. How has it evolved over the years?
    - 10.1.1.3. What are the Different Theoretical Orientations that a Psychologist can Follow?
    - 10.1.1.4. The Cognitive-Behavioral Model
  - 10.1.2. Psychological Symptoms and Mental Disorders in Childhood and Adolescence
    - 10.1.2.1. Difference between Sign, Symptom, and Syndrome
    - 10.1.2.2. Definition of Mental Disorder
    - 10.1.2.3. Classification of Mental Disorders: DSM 5 and ICD-10

- 10.1.2.4. Difference between Psychological Problem or Difficulty and Mental Disorder
- 10.1.2.5. Comorbidity
- 10.1.2.6. Frequent problems object of Psychological Attention
- 10.1.3. Skills of the Professional working with children and adolescents
  - 10.1.3.1. Essential Knowledge
  - 10.1.3.2. Main Ethical and Legal issues in Working with Children and Adolescents
  - 10.1.3.3. Personal Characteristics and Skills of the Professional
  - 10.1.3.4. Communication Skills
  - 10.1.3.5. The Game in Consultation
- 10.1.4. Main Procedures in Psychological Assessment and Intervention in Childhood and Adolescence
  - 10.1.4.1. Decision Making and Help Seeking in Children and Adolescents
  - 10.1.4.2. Interview
  - 10.1.4.3. Establishment of Hypotheses and Assessment Tools
  - 10.1.4.4. Functional Analysis and Explanatory Hypotheses of the Difficulties
  - 10.1.4.5. Establishment of Objectives
  - 10.1.4.6. Psychological Intervention
  - 10.1.4.7. Monitoring
  - 10.1.4.8. The Psychological Report: Key Aspects
- 10.1.5. Benefits of Working with Other Persons Related to the Child
  - 10.1.5.1. Fathers and Mothers
  - 10.1.5.2. Education Professionals
  - 10.1.5.3. Speech Therapist
  - 10.1.5.4. The Psychologist
  - 10.1.5.5. Other Professionals
- 10.1.6. The Interest of Psychology from the point of view of a Speech-Language Pathologist
  - 10.1.6.1. The Importance of Prevention
  - 10.1.6.2. The influence of Psychological Symptoms on Speech Therapy Rehabilitation
  - 10.1.6.3. The relevance of knowing how to detect possible Psychological Symptoms
  - 10.1.6.4. Referral to the appropriate Professional

- 10.2. Internalizing problems: Anxiety
  - 10.2.1. Concept of Anxiety
  - 10.2.2. Detection: Main Manifestations
    - 10.2.2.1. Emotional Dimension
    - 10.2.2.2. Cognitive Dimension
    - 10.2.2.3. Psychophysiological Dimension
    - 10.2.2.4. Behavioral Dimension
  - 10.2.3. Anxiety Risk Factors
    - 10.2.3.1. Individual
    - 10.2.3.2. Contextual
  - 10.2.4. Conceptual Differences
    - 10.2.4.1. Anxiety and Stress
    - 10.2.4.2. Anxiety and Fear
    - 10.2.4.3. Anxiety and Phobia
  - 10.2.5. Fears in childhood and adolescence
    - 10.2.5.1. Difference between Developmental Fears and Pathological Fears
    - 10.2.5.2. Developmental Fears in infants
    - 10.2.5.3. Developmental Fears in the Preschool stage
    - 10.2.5.4. Developmental Fears in the School stage
    - 10.2.5.5. The main Fears and Worries in the adolescent stage
  - 10.2.6. Some of the main Anxiety Disorders and problems in children and adolescents
    - 10.2.6.1. School Rejection
      - 10.2.6.1.1. Concept
      - 10.2.6.1.2. Delimitation of Concepts: Anxiety, Rejection, and School Phobia
      - 10.2.6.1.3. Main Symptoms
      - 10.2.6.1.4. Prevalence
      - 10.2.6.1.5. Etiology
    - 10.2.6.2. Pathological Fear of the dark
      - 10.2.6.2.1. Concept
      - 10.2.6.2.2. Main Symptoms
      - 10.2.6.2.3. Prevalence
      - 10.2.6.2.4. Etiology
    - 10.2.6.3. Separation Anxiety
      - 10.2.6.3.1. Concept
      - 10.2.6.3.2. Main Symptoms
      - 10.2.6.3.3. Prevalence
      - 10.2.6.3.4. Etiology
    - 10.2.6.4. Specific Phobia
      - 10.2.6.4.1. Concept
      - 10.2.6.4.2. Main Symptoms
      - 10.2.6.4.3. Prevalence
      - 10.2.6.4.4. Etiology
    - 10.2.6.5. Social Phobia
      - 10.2.6.5.1. Concept
      - 10.2.6.5.2. Main Symptoms
      - 10.2.6.5.3. Prevalence
      - 10.2.6.5.4. Etiology
    - 10.2.6.6. Panic Disorder
      - 10.2.6.6.1. Concept
      - 10.2.6.6.2. Main Symptoms
      - 10.2.6.6.3. Prevalence
      - 10.2.6.6.4. Etiology
    - 10.2.6.7. Agoraphobia
      - 10.2.6.7.1. Concept
      - 10.2.6.7.2. Main Symptoms
      - 10.2.6.7.3. Prevalence
      - 10.2.6.7.4. Etiology
    - 10.2.6.8. Generalized Anxiety Disorder
      - 10.2.6.8.1. Concept
      - 10.2.6.8.2. Main Symptoms
      - 10.2.6.8.3. Prevalence
      - 10.2.6.8.4. Etiology
    - 10.2.6.9. Obsessive Compulsive Disorder

- 10.2.6.9.1. Concept
- 10.2.6.9.2. Main Symptoms
- 10.2.6.9.3. Prevalence
- 10.2.6.9.4. Etiology
- 10.2.6.10. Post-Traumatic Stress Disorder
  - 10.2.6.10.1. Concept
  - 10.2.6.10.2. Main Symptoms
  - 10.2.6.10.3. Prevalence
  - 10.2.6.10.4. Etiology
- 10.2.7. Possible interference of Anxious Symptomatology in Speech Therapy Rehabilitation
  - 10.2.7.1. In Articulation Rehabilitation
  - 10.2.7.2. In Literacy Rehabilitation
  - 10.2.7.3. In Voice Rehabilitation
  - 10.2.7.4. In Dysphemia Rehabilitation
- 10.3. Internalizing Type Problems: Depression
  - 10.3.1. Concept
  - 10.3.2. Detection: Main Manifestations
    - 10.3.2.1. Emotional Dimension
    - 10.3.2.2. Cognitive Dimension
    - 10.3.2.3. Psychophysiological Dimension
    - 10.3.2.4. Behavioral Dimension
  - 10.3.3. Depression Risk Factors
    - 10.3.3.1. Individual
    - 10.3.3.2. Contextual
  - 10.3.4. Evolution of Depressive Symptomatology throughout development
    - 10.3.4.1. Symptoms in Children
    - 10.3.4.2. Symptoms in Adolescents
    - 10.3.4.3. Symptoms in Adults
  - 10.3.5. Some of the Major Disorders and problems of childhood and adolescent Depression
    - 10.3.5.1. Major Depressive Disorder
      - 10.3.5.1.1. Concept
      - 10.3.5.1.2. Main Symptoms
      - 10.3.5.1.3. Prevalence
      - 10.3.5.1.4. Etiology
    - 10.3.5.2. Persistent Depressive Disorder
      - 10.3.5.2.1. Concept
      - 10.3.5.2.2. Main Symptoms
      - 10.3.5.2.3. Prevalence
      - 10.3.5.2.4. Etiology
    - 10.3.5.3. Disruptive Mood Dysregulation Disorder
      - 10.3.5.3.1. Concept
      - 10.3.5.3.2. Main Symptoms
      - 10.3.5.3.3. Prevalence
      - 10.3.5.3.4. Etiology
- 10.3.6. Interference of Depressive Symptomatology in Speech Therapy Rehabilitation
  - 10.3.6.1. In Articulation Rehabilitation
  - 10.3.6.2. In Literacy Rehabilitation
  - 10.3.6.3. In Voice Rehabilitation
  - 10.3.6.4. In Dysphemia Rehabilitation
- 10.4. Externalizing Type Problems: the Main Disruptive Behaviors and their Characteristics
  - 10.4.1. Factors that contribute to the development of Behavioral problems
    - 10.4.1.1. In childhood
    - 10.4.1.2. In adolescence
  - 10.4.2. Disobedient and Aggressive Behavior
    - 10.4.2.1. Disobedience
      - 10.4.2.1.1. Concept
      - 10.4.2.1.2. Manifestations
    - 10.4.2.2. Aggressiveness
      - 10.4.2.2.1. Concept
      - 10.4.2.2.2. Manifestations
      - 10.4.2.2.3. Types of Aggressive Behaviors
  - 10.4.3. Some of the main child and adolescent Conduct Disorders
    - 10.4.3.1. Oppositional Defiant Disorder
      - 10.4.3.1.1. Concept
      - 10.4.3.1.2. Main Symptoms

- 10.4.3.1.3. Facilitating Factors
- 10.4.3.1.4. Prevalence
- 10.4.3.1.5. Etiology
- 10.4.3.2. Conduct Disorder
  - 10.4.3.2.1. Concept
  - 10.4.3.2.2. Main Symptoms
  - 10.4.3.2.3. Facilitating Factors
  - 10.4.3.2.4. Prevalence
  - 10.4.3.2.5. Etiology
- 10.4.4. Hyperactivity and Impulsivity
  - 10.4.4.1. Hyperactivity and its Manifestations
  - 10.4.4.2. Relationship between Hyperactivity and Disruptive Behavior
  - 10.4.4.3. Evolution of Hyperactive and Impulsive Behaviors throughout Development
  - 10.4.4.4. Problems Associated with Hyperactivity/Impulsivity
- 10.4.5. Jealousy
  - 10.4.5.1. Concept
  - 10.4.5.2. Main Manifestations
  - 10.4.5.3. Possible Causes
- 10.4.6. Behavioral Problems at Mealtime or Bedtime
  - 10.4.6.1. Common Bedtime Problems
  - 10.4.6.2. Usual Problems at Mealtimes
- 10.4.7. Interference of Behavioral problems in Speech Therapy Rehabilitation
  - 10.4.7.1. In Articulation Rehabilitation
  - 10.4.7.2. In Literacy Rehabilitation
  - 10.4.7.3. In Voice Rehabilitation
  - 10.4.7.4. In Dysphemia Rehabilitation
- 10.5. Attention
  - 10.5.1. Concept
  - 10.5.2. Brain areas involved in Attentional Processes and Main Characteristics
  - 10.5.3. Classification of Attention
  - 10.5.4. Influence of Attention on Language
  - 10.5.5. Influence of Attention Deficit on Speech Rehabilitation
    - 10.5.5.1. In Articulation Rehabilitation
    - 10.5.5.2. In Literacy Rehabilitation
    - 10.5.5.3. In Voice Rehabilitation
    - 10.5.5.4. In Dysphemia Rehabilitation
  - 10.5.6. Specific Strategies to promote different types of Care
    - 10.5.6.1. Tasks that favor Sustained Attention
    - 10.5.6.2. Tasks that favor Selective Attention
    - 10.5.6.3. Tasks that favor Divided Attention
  - 10.5.7. The importance of coordinated Intervention with other Professionals
- 10.6. Executive Functions
  - 10.6.1. Concept
  - 10.6.2. Brain areas involved in Executive Functions and Main Characteristics
  - 10.6.3. Components of Executive Functions
    - 10.6.3.1. Verbal Fluency
    - 10.6.3.2. Cognitive Flexibility
    - 10.6.3.3. Planning and Organization
    - 10.6.3.4. Inhibition
    - 10.6.3.5. Decision Making
    - 10.6.3.6. Reasoning and Abstract Thinking
  - 10.6.4. Influence of the Executive Functions on Language
  - 10.6.5. Specific Strategies for training Executive Functions
    - 10.6.5.1. Strategies that Favor Verbal Fluency
    - 10.6.5.2. Strategies that Favor Cognitive Flexibility
    - 10.6.5.3. Strategies that Promote Planning and Organization
    - 10.6.5.4. Strategies that Favor Inhibition
    - 10.6.5.5. Strategies that Favor Decision Making
    - 10.6.5.6. Strategies that Favor Reasoning and Abstract Thinking
  - 10.6.6. The importance of coordinated Intervention with other Professionals
- 10.7. Social Skills II: Related Concepts
  - 10.7.1. Social Skills
    - 10.7.1.1. Concept
    - 10.7.1.2. The Importance of Social Skills
    - 10.7.1.3. The Different Components of Social Skills

- 10.7.1.4. The Dimensions of Social Skills
- 10.7.2. Communication
  - 10.7.2.1. Communication Difficulties
  - 10.7.2.2. Effective Communication
  - 10.7.2.3. Components of Communication
    - 10.7.2.3.1. Characteristics of Verbal Communication
    - 10.7.2.3.2. Characteristics of Non-Verbal Communication and its Components
- 10.7.3. Communicative Styles
  - 10.7.3.1. Inhibited Style
  - 10.7.3.2. Aggressive Style
  - 10.7.3.3. Assertive Style
  - 10.7.3.4. Benefits of an Assertive Communication Style
- 10.7.4. Parental Educational Styles
  - 10.7.4.1. Concept
  - 10.7.4.2. Permissive-Indulgent Educational Style
  - 10.7.4.3. Negligent Permissive Style
  - 10.7.4.4. Authoritative Educational Style
  - 10.7.4.5. Democratic Educational Style
  - 10.7.4.6. Consequence of the Different Educational Styles in Children and Adolescents
- 10.7.5. Emotional Intelligence
  - 10.7.5.1. Intrapersonal and Interpersonal Emotional Intelligence
  - 10.7.5.2. Basic Emotions
  - 10.7.5.3. The Importance of Recognizing Emotions in Oneself and Others
  - 10.7.5.4. Emotional Regulation
  - 10.7.5.5. Strategies to favor an adequate Emotional Regulation
- 10.7.6. Self-esteem
  - 10.7.6.1. Concept of Self-esteem
  - 10.7.6.2. Difference between Self-concept and Self-esteem
  - 10.7.6.3. Characteristics of Self-esteem Deficit
  - 10.7.6.4. Factors associated with Self-esteem Deficit
  - 10.7.6.5. Strategies to promote Self-esteem
- 10.7.7. Empathy
  - 10.7.7.1. Concept of Empathy
  - 10.7.7.2. Is Empathy the Same as Sympathy?
  - 10.7.7.3. Types of Empathy
  - 10.7.7.4. Theory of Mind
  - 10.7.7.5. Strategies to promote Empathy
  - 10.7.7.6. Strategies to work on Theory of Mind
- 10.8. Social Skills II: Specific Guidelines for Handling Different Situations
  - 10.8.1. Communicative Intention
    - 10.8.1.1. Factors to take into account when starting a Conversation
    - 10.8.1.2. Specific Guidelines for Initiating a Conversation
  - 10.8.2. Entering an Initiated Conversation
    - 10.8.2.1. Specific Guidelines for entering an Initiated Conversation
  - 10.8.3. Maintaining the Dialogue
    - 10.8.3.1. Active Listening
    - 10.8.3.2. Specific Guidelines for maintaining conversations
  - 10.8.4. Conversational Closure
    - 10.8.4.1. Difficulties Encountered in Closing Conversations
    - 10.8.4.2. Assertive Style in Conversational Closure
    - 10.8.4.3. Specific Guidelines for Closing Conversations in Different Circumstances
  - 10.8.5. Making Requests
    - 10.8.5.1. Non-assertive ways of making Requests
    - 10.8.5.2. Specific Guidelines for making Requests in an Assertive Manner
  - 10.8.6. Rejection of Requests
    - 10.8.6.1. Non-assertive ways of Rejecting Requests
    - 10.8.6.2. Specific Guidelines for Rejecting Requests in an Assertive Manner
  - 10.8.7. Giving and Receiving Compliments
    - 10.8.7.1. Specific Guidelines for giving Compliments
    - 10.8.7.2. Specific Guidelines for accepting Compliments in an Assertive Manner
  - 10.8.8. Responding to Criticism
    - 10.8.8.1. Non-assertive ways of Responding to Criticism
    - 10.8.8.2. Specific Guidelines for reacting Assertively to Criticism
  - 10.8.9. Asking for Behavioral Changes

- 10.8.9.1. Reasons for requesting Behavioral Changes
- 10.8.9.2. Specific Strategies for requesting Behavioral Changes
- 10.8.10. Interpersonal Conflict Management
  - 10.8.10.1. Types of Conflicts
  - 10.8.10.2. Non-assertive ways of dealing with conflicts
  - 10.8.10.3. Specific Strategies for Dealing Assertively with Conflicts
- 10.9. Strategies for Behavior Modification in Consultation and for Increasing the Motivation of the Youngest Children in Consultation
  - 10.9.1. What are Behavior Modification Techniques?
  - 10.9.2. Techniques based on Operant Conditioning
  - 10.9.3. Techniques for the Initiation, Development, and Generalization of Appropriate Behaviors
    - 10.9.3.1. Positive Reinforcement
    - 10.9.3.2. Token Economy
  - 10.9.4. Techniques for the reduction or elimination of Inappropriate Behaviors
    - 10.9.4.1. Extinction
    - 10.9.4.2. Reinforcement of incompatible Behaviors
    - 10.9.4.3. Response cost and withdrawal of privileges
  - 10.9.5. Punishment
    - 10.9.5.1. Concept
    - 10.9.5.2. Main Disadvantages
    - 10.9.5.3. Guidelines for the Application of Punishment
  - 10.9.6. Motivation
    - 10.9.6.1. Concept and Main Characteristics
    - 10.9.6.2. Types of Motivation
    - 10.9.6.3. Main Explanatory Theories
    - 10.9.6.4. The influence of beliefs and other variables on motivation
    - 10.9.6.5. Main Manifestations of low Motivation
    - 10.9.6.6. Guidelines to Promote Motivation in Consultation
- 10.10. School Failure: Study Habits and Techniques from a Speech Therapy and Psychological point of view
  - 10.10.1. Concept of School failure
  - 10.10.2. Causes of School failure
  - 10.10.3. Consequences of School Failure in children
  - 10.10.4. Influencing Factors in School Success
  - 10.10.5. The aspects that we must take care of to obtain a good performance
    - 10.10.5.1. Sleep
    - 10.10.5.2. Nutrition
    - 10.10.5.3. Physical Activity
  - 10.10.6. The Role of Parents
  - 10.10.7. Some Guidelines and Study Techniques that Can Help Children and Adolescents
    - 10.10.7.1. The Study Environment
    - 10.10.7.2. The Organization and Planning of the Study
    - 10.10.7.3. Calculation of Time
    - 10.10.7.4. Underlining Techniques
    - 10.10.7.5. Schemes
    - 10.10.7.6. Mnemonic rules
    - 10.10.7.7. Review
    - 10.10.7.8. Breaks

07

# Clinical Internship

At the end of the 100% online part, the professional will advance to the practical part in a prestigious health center chosen by TECH's expert team for the training of professionals who wish to incorporate into their daily practice, new methods of care for patients with Speech, Language and Communication Disorders. The specialist will have the support and guidance of an assigned tutor with extensive experience in the area.







“

*You will not find a program like it. It combines two advanced methods of professional training adapted to your needs and the reality of the current health sector”*

This 100% practical training period will take place in a clinical center specialized in the care of pediatric or adult patients with Speech, Language and Communication Disorders, which will provide an advanced level of specialization in each of the approaches. There will be 3 weeks of practical activity and observation of new real cases, with patients with different needs that you will be able to treat together with the team of experts.

The various activities you will perform in this program will be focused on both diagnostic and therapeutic methods, in different areas of intervention necessary to improve the quality of life of the patient and their environment. You will perfect his techniques and incorporate new ones that will provide you with a modern praxis adjusted to the needs of the population that attends this type of consultations.

An exclusive opportunity that only TECH can offer you, thanks to its commitment to show new alternatives of professional advancement for those who wish to continue progressing in their career. For this reason, TECH has chosen a series of reference health centers where the specialist will have the opportunity to share their knowledge in 8-hour sessions from Monday to Friday.

The practical part will be carried out with the active participation of the student performing the activities and procedures of each area of skills (learning to learn and learning to do), with the accompaniment and guidance of teachers and other fellow trainees who facilitate teamwork and multidisciplinary integration as transversal skills for clinical practice (learning to be and learning to relate).





The procedures described below will be the basis of the practical part of the training, and their implementation is subject to both the suitability of the patients and the availability of the center and its volume of work, the proposed activities being the following:

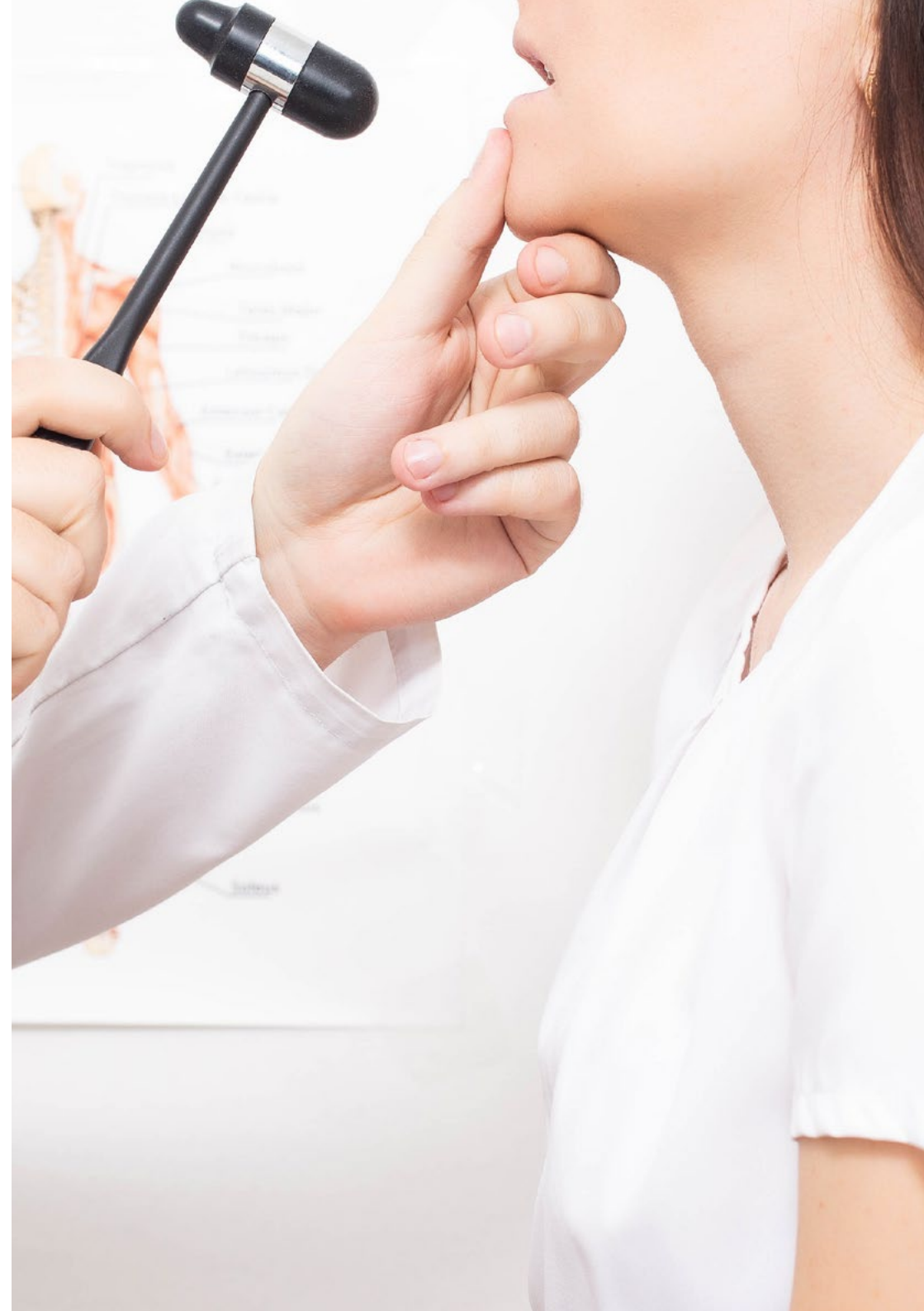
Module	Practical Activity
<b>Diagnostic methods in the detection of Speech, Language and Communication Disorders</b>	Perform the PROLEC-R, PROLEC-SE, PROESC and TALE tests for the assessment of the patient's reading and writing skills
	Apply the Leter-3 international manipulative scale and the Arizona Articulation and Phonology Scale, 4th revision (Arizona 4)
	Perform Goldman-Fristoe Articulation Test 3 (GFTA-3) and screening test through prosodic speech profile
	Perform BLOC, ITPA, PLON-R, RFI, EDAF, ELA-R and Monfort Induced Phonological Record tests to assess the patient's oral language
	Perform audiometry and analyze audiograms
	Apply the Brunet-Lézine scale, the Haizea-Llevant scale, the Bayley Scale and the Battelle Developmental Inventory to assess the patient's development
	Perform orofacial motor assessment, verifying the state of the stomatognathic system
<b>Diagnostic methods in the detection of Speech, Language and Communication Disorders</b>	Use SAAC technological resources such as AraBoard Constructor, Talk Up, SPQR, DictaPicto, AraWord and Picto Selector as alternative communication proposals for patients with communication disorders
	Design activities for rehabilitation in Dyslalia, Dyslexia, Aphasia and other disorders,
	Use the game as a therapeutic method in the pediatric office
	Indicate facial, mouth and tongue exercises to manage conditions and syndromes that affect the correct oral communication
<b>Techniques of social intervention in Speech, Language and Communication disorders</b>	Elaborate specific clinical reports for patients with communication and speech disorders
	Use the different methods of interviewing professionals in the school environment and the child's relatives in order to detect other factors of affection
	Indicate materials and resources adapted to the speech therapy intervention in audition in the school context
	Indicate the implementation of the bimodal system in patients with hearing disorders

## Civil Liability Insurance

This institution's main concern is to guarantee the safety of the trainees and other collaborating agents involved in the internship process at the company. Among the measures dedicated to achieve this, is the response to any incident that may occur during the entire teaching-learning process.

To this end, this entity commits to purchasing a civil liability insurance policy to cover any eventuality that may arise during the course of the internship at the center.

This liability policy for interns will have broad coverage and will be taken out prior to the start of the practical training period. That way professionals will not have to worry in case of having to face an unexpected situation and will be covered until the end of the internship program at the center.



## General Conditions of the Internship Program

The general terms and conditions of the internship program agreement shall be as follows:

**1. TUTOR:** During the Hybrid Professional Master's Degree, students will be assigned with two tutors who will accompany them throughout the process, answering any doubts and questions that may arise. On the one hand, there will be a professional tutor belonging to the internship center who will have the purpose of guiding and supporting the student at all times. On the other hand, they will also be assigned with an academic tutor whose mission will be to coordinate and help the students during the whole process, solving doubts and facilitating everything they may need. In this way, the student will be accompanied and will be able to discuss any doubts that may arise, both clinical and academic.

**2. DURATION:** The internship program will have a duration of three continuous weeks, in 8-hour days, 5 days a week. The days of attendance and the schedule will be the responsibility of the center and the professional will be informed well in advance so that they can make the appropriate arrangements.

**3. ABSENCE:** If the students does not show up on the start date of the Hybrid Professional Master's Degree, they will lose the right to it, without the possibility of reimbursement or change of dates. Absence for more than two days from the internship, without justification or a medical reason, will result in the professional's withdrawal from the internship, therefore, automatic termination of the internship. Any problems that may arise during the course of the internship must be urgently reported to the academic tutor.

**4. CERTIFICATION:** Professionals who pass the Hybrid Professional Master's Degree will receive a certificate accrediting their stay at the center.

**5. EMPLOYMENT RELATIONSHIP:** the Hybrid Professional Master's Degree shall not constitute an employment relationship of any kind.

**6. PRIOR EDUCATION:** Some centers may require a certificate of prior education for the Hybrid Professional Master's Degree. In these cases, it will be necessary to submit it to the TECH internship department so that the assignment of the chosen center can be confirmed.

**7. DOES NOT INCLUDE:** The Hybrid Professional Master's Degree will not include any element not described in the present conditions. Therefore, it does not include accommodation, transportation to the city where the internship takes place, visas or any other items not listed.

However, students may consult with their academic tutor for any questions or recommendations in this regard. The academic tutor will provide the student with all the necessary information to facilitate the procedures in any case.

# 08

## Where Can I Do the Clinical Internship?

This Hybrid Professional Master's Degree program includes in its academic program a 100% practical internship program in a reference health center where the professional will develop all their skills regarding the approach to Speech, Language and Communication Disorders in a precise way, together with other professionals versed in the area. It will be a differentiating experience of 3 weeks with an intensive day of therapeutics, diagnostics and activities that will bring new methods of care to their daily clinical practice.





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*Surpass yourself every day with the new contributions of science and technology that you will acquire in this practice in the most modern health center together with experienced professionals”*



The student will be able to complete the practical part of this Hybrid Professional Master's Degree at the following centers:



Medicine.

### Hospital HM Modelo

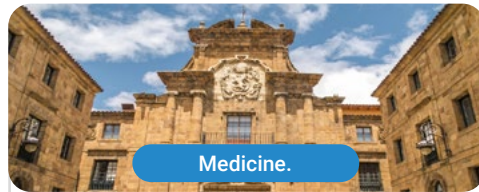
Country	City
Spain	La Coruña

Management: Rúa Virrey Osorio, 30, 15011, A Coruña

Network of private clinics, hospitals and private specialized centers distributed throughout Spain

**Related internship programs:**

- Anaesthesiology and Resuscitation
- Palliative Care



Medicine.

### Hospital HM Regla

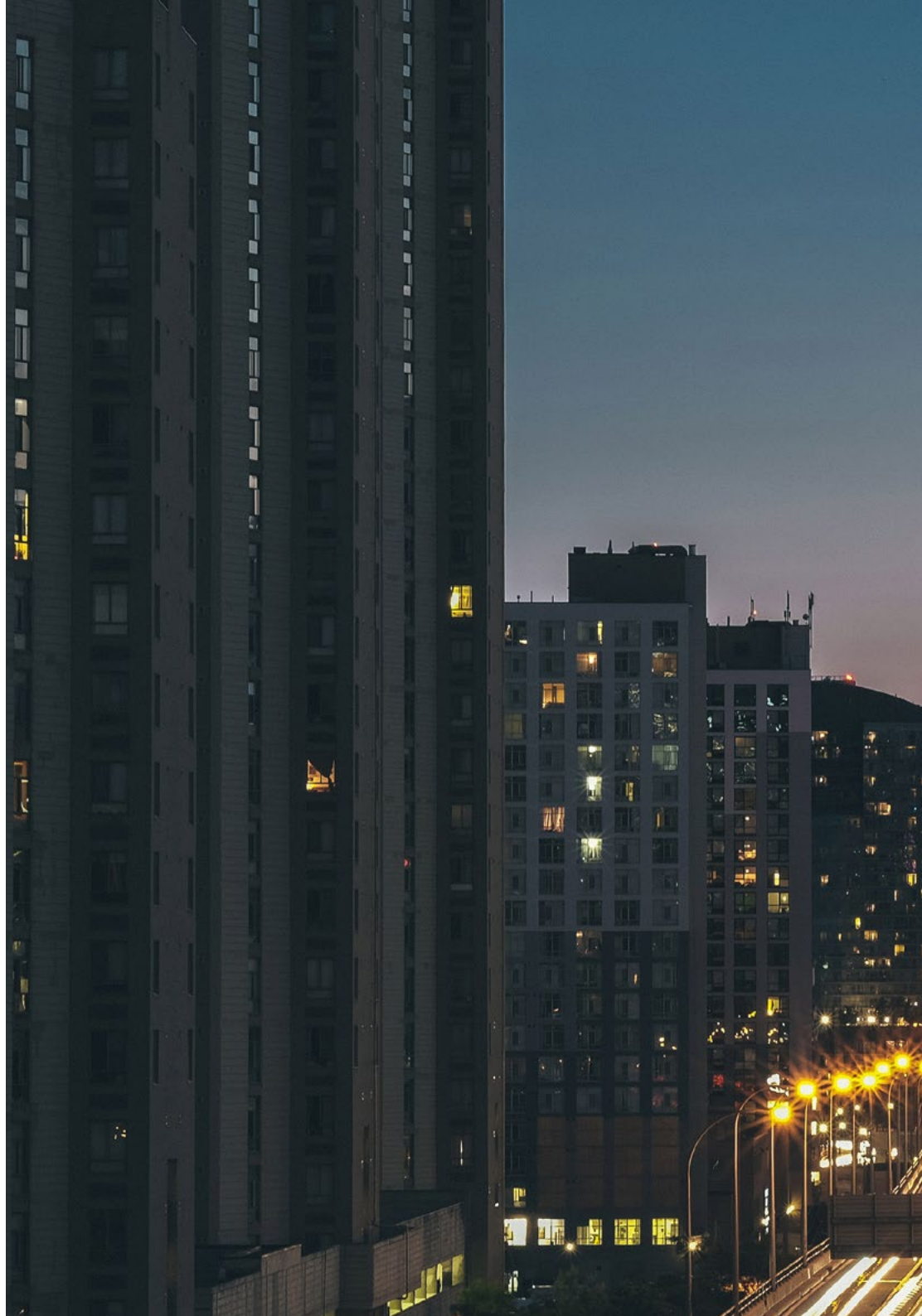
Country	City
Spain	León

Management: Calle Cardenal Landázuri, 2, 24003, León

Network of private clinics, hospitals and private specialized centers distributed throughout Spain

**Related internship programs:**

- Update on Psychiatric Treatment in Minor Patients







Medicine.

### Hospital HM Torrelodones

Country	City
Spain	Madrid

Management: Av. Castillo Olivares, s/n, 28250, Torrelodones, Madrid

Network of private clinics, hospitals and private specialized centers distributed throughout Spain

**Related internship programs:**

- Anaesthesiology and Resuscitation
- Palliative Care

09

# Methodology

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

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





“

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

## At TECH we use the Case Method

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

*With TECH you will experience a way of learning that is shaking the foundations of traditional universities around the world.*



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

“

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

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

1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate 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.



## Relearning Methodology

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

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

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



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

With this methodology, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

*Relearning will allow you to learn with less effort and better performance, involving you more in your 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 TECH's learning system is 8.01, according to the highest international standards.



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



#### Study Material

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

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



#### Surgical Techniques and Procedures on Video

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



#### Interactive Summaries

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

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



#### Additional Reading

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







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

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



#### Testing & Retesting

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



#### Classes

There is scientific evidence on the usefulness of learning by observing experts. The system known as 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.



# 10 Certificate

The Hybrid Professional Master's Degree in Medical Approach to Speech, Language, and Communication Disorders guarantees students, in addition to the most rigorous and up-to-date education, access to a Hybrid Professional Master's Degree diploma issued by TECH Technological University.



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

This **Hybrid Professional Master's Degree in Medical Approach to Speech, Language and Communication Disorders** contains the most complete and up-to-date program on the professional and educational field.

After the student has passed the assessments, they will receive their corresponding Hybrid Professional Master's Degree diploma issued by TECH Technological University via tracked delivery\*.

In addition to the diploma, students will be able to obtain an academic transcript, as well as a certificate outlining the contents of the program. In order to do so, students should contact their academic advisor, who will provide them with all the necessary information.

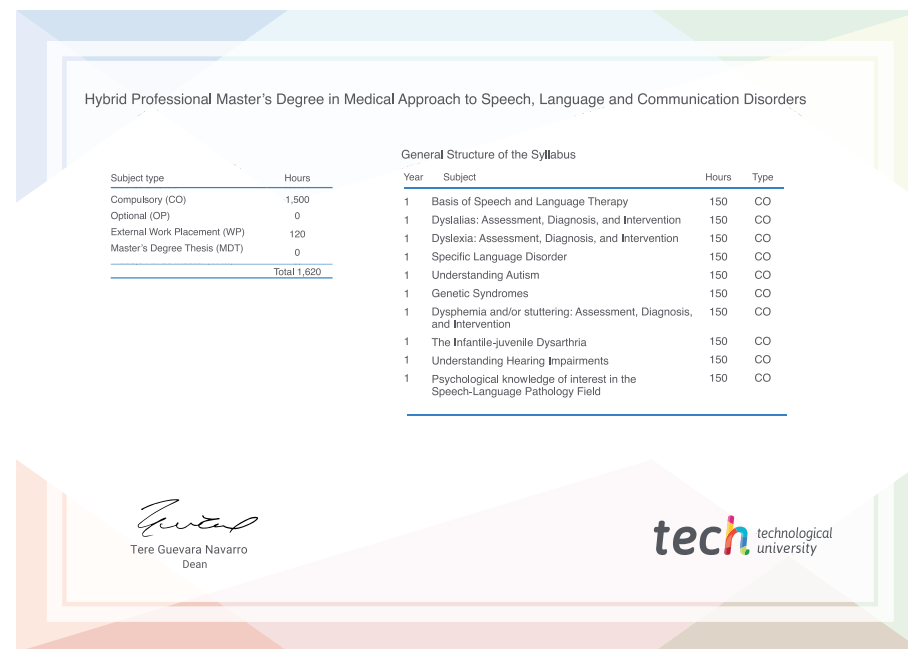
Title: **Hybrid Professional Master's Degree in Medical Approach to Speech, Language and Communication Disorders**

Course Modality: **Hybrid (Online + Clinical Internship)**

Duration: **12 months**

Certificate: **TECH Technological University**

Official hours: **1,620 h.**



\*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.



## Hybrid Professional Master's Degree

Medical Approach to  
Speech, Language and  
Communication Disorders

Course Modality: Hybrid (Online + Clinical Internship)

Duration: 12 months

Certificate: TECH Technological University

Teaching Hours: 1,620 h.

# Hybrid Professional Master's Degree

Medical Approach to Speech, Language  
and Communication Disorders