



# Advanced Master's Degree Comprehensive Speech Therapy

» Modality: online» Duration: 2 years

» Certificate: TECH Global University

» Credits: 120 ECTS

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/education/advanced-master-degree/advanced-master-degree-comprehensive-speech-therapy

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# 01 Introduction





# tech 06 | Presentation

The latest advances in Speech Therapy, both clinical and educational, are giving an important twist to the new methodological approaches related to the detection, assessment and intervention in Speech, Language and Communication Disorders, with increasing incidence in children and youth school population.

Knowing what the specific educational needs arising from speech disorders are, how to identify them, what is their idiosyncrasy in terms of signs or observable characteristics and what models of both direct and indirect intervention are the most appropriate, are all key aspects for any process of speech therapy re-education.

In addition, it is important to take into account that professionals such as speakers, journalists, commercials, announcers, actors, singers, etc., require knowledge and management of their phonatory apparatus, since its use is essential for their work. In this sense, it is also important to know the multifactorial nature of the voice and its alterations. The changes that occur in the human voice over time are related, among other factors, to the maturation and development of the phonorespiratory system, as well as to its deterioration.

For this reason, TECH has designed this social commitment program to help specialize highly qualified professionals and develop their personal, social and labor skills during the course of the program. The graduate will be able to learn in a more organic, simpler and more efficient way by motivating critical thinking and development.

This program is designed to give the student access to the specific knowledge of this discipline in an intensive and practical way. A great value for any professional. Additionally, as it is a 100% online education, it is the students themselves who decide where and when to study. Without the restrictions of fixed timetables or having to move between classrooms, this course can be combined with work and family life.

This **Advanced Master's Degree in Comprehensive Speech Therapy** contains the most complete and up-to-date program on the market. The most important features include:

- The latest technology in e-learning software
- Intensely visual teaching system, supported by graphic and schematic contents that are easy to assimilate and understand.
- The development of practical case studies presented by practising experts
- State-of-the-art interactive video systems
- Teaching supported by telepractice
- Continuous updating and retraining systems
- Self-regulated learning: full compatibility with other occupations
- Practical exercises for self-assessment and learning verification
- Support groups and educational synergies: Questions to the expert, discussion and knowledge forums
- Communication with the teacher and individual reflection work.
- Content that is accessible from any fixed or portable device with an Internet connection.
- Supplementary documentation databases are permanently available, even after the program



A high-level scientific program, supported by an advanced technological development and the teaching experience of the best professionals"



A deep and complete immersion into strategies and approaches in Comprehensive Speech Therapy"

Our teaching staff is made up of working professionals. In this way we ensure that we deliver the educational update we are aiming for. A multidisciplinary team of qualified and experienced professionals in different environments, who will develop the theoretical knowledge efficiently, but, above all, will put at the service of the specialization the practical knowledge derived from their own experience: one of the differential qualities of this Advanced Master's Degree.

This command of the subject is complemented by the effectiveness of the methodological design of this Grand Master. Developed by a multidisciplinary team of e-learning experts, it integrates the latest advances in educational technology. In this way, you will be able to study with a range of easy-to-use and versatile multimedia tools that will give you the necessary skills you need for La specialization.

The design of this program is based on Problem-Based Learning: an approach that views learning as a highly practical process. To achieve this remotely, telepractice is used. With the help of an innovative, interactive video system and *learning from an expert*, you will be able to acquire the knowledge as if you were dealing with the case you are studying in real time. A concept that will make it possible to integrate and fix learning in a more realistic and permanent way.

A program created for professionals who aspire to excellence that will allow you to acquire new skills and strategies in a smooth and effective way.

We have the best teaching methodology and a multitude of simulated cases that will help you prepare for real situations.







# tech 10 | Objectives



## **General Objectives**

- Identify, assess, diagnose and effectively intervene in the different speech, language and communication disorders that have developed
- Learn the specific anatomical and functional aspects of the phonatory system as a basis for the rehabilitation of vocal pathologies and for vocal work with voice professionals
- Gain in-depth knowledge of the most current diagnostic and treatment techniques
- Delve into the knowledge and analysis of the results obtained in objective voice assessments
- Learn how to implement a correct and complete assessment of vocal function in daily clinical practice
- Know the most important features of the voice and learn to listen to different types of voices in order to know which aspects are altered to guide clinical practice
- Analyze the different possible vocal pathologies and achieve scientific rigor in treatments
- Learn about different approaches to the treatment of vocal pathologies
- Raise awareness of the need for vocal care
- Teach voice therapy work focused on different voice professionals.
- Learn the importance of multidisciplinary work in some voice pathologies
- View the voice as a global ability of the person and not as an exclusive act of the phonatory system
- Solve real case studies with current therapeutic approaches based on scientific evidence





## **Specific Objectives**

## Module 1. Basis of Speech and Language Therapy

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

## Module 2. 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, at the same time, to acquire knowledge to be able to intervene and to make own and effective material for the different Dyslalias that can be presented

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

- Know 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
- Knowing 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

# tech 12 | Objectives

- In-depth knowledge about the characteristics of each of the syndromes described in the degree
- 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. Dysarthria in Children and Adolescents

- Acquisition of the basic fundamentals of dysarthria in children and adolescents, both conceptual and classificatory, as well as the particularities and differences with other pathologies.
- Be able to differentiate the symptomatology and characteristics of verbal apraxia and dysarthria, being able to identify both pathologies by carrying out an adequate assessment process.
- Clarify the role of the speech therapist in both the assessment and intervention process, being able to apply appropriate and personalized exercises to the child
- Know the environments and contexts of development of children, being able to give adequate support in all of them and to guide the family and educational professionals in

- the rehabilitation process
- Know the professionals involved in the assessment and intervention of Dysarthric children, and the importance of collaboration with all of them during the intervention process

## Module 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 Therapy 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 to know their implications in the area of Language, as well as to acquire strategies to intervene on them at a Speech Therapy level together with other professionals
- Acquire knowledge on how to intervene at the level of Social Skills in children and adolescents, as well as to deepen in some concepts related to them, and to obtain specific strategies to enhance them
- Know different Behavior Modification strategies that are useful in consultation to achieve both the initiation, development, and generalization of appropriate behaviors, as well as the reduction or elimination of inappropriate behaviors
- Delve into the concept of motivation and to acquire strategies to promote it in consultation
- Acquire knowledge related to School failure in children and adolescents
- Know the main study habits and techniques that can help to improve the performance of children and adolescents from a Speech Therapy and Psychological point of view

## Module 11. Anatomical, Physiological and Biomechanical Basics of the Voice

- ◆ Learn about the phylogenetic origin of the phonatory system
- Learn about the evolutionary development of the human larynx
- Learn the main muscles and the functioning of the respiratory system
- Learn about the main anatomical structures that make up the larynx and how they function
- Learn the histology of the vocal cords
- Analyze the vibratory cycle of the vocal cords
- Analyze the different structures and cavities that form the vocal tract
- Study the different theories that have given answers to how voice is produced

- Study the characteristics of phonatory physiology and its main components
- Gain in-depth knowledge of the different exploratory tests used in the morphofunctional exploration of the larynx
- Learn the instruments needed to perform a morphofunctional assessment of the phonatory system

## Module 12. Objective Exploration of the Voice

- Analyze and understand the results obtained with objective screening tests
- Learn in which cases the performance of such objective tests is indicated or not
- Learn concepts of speech acoustics
- Learn the different observable parameters in a spectrogram
- Learn how to analyze a spectrogram
- Know how to collect voice samples for acoustic analysis
- Interpret results obtained in the acoustic analysis of the voice
- Optimally use different acoustic analysis programs

### Module 13. Functional Assessment of the Voice

- Learn to listen to different types of voices with objective criteria
- Apply different audio-perceptual scales in daily practice
- Learn about the different existing vocal function assessment tests
- Know the concept of fundamental frequency and learn how to obtain it from a speech sample
- Know the phonetogram and learn to use it in daily practice
- Calculate vocal functionality indexes
- Perform a complete anamnesis based on the patient's characteristics
- Learn about additional tests that can guide us in our treatment

#### Module 14. Normal Voice vs. Pathological Voice

• Differentiating normal voice from pathological voice

# tech 14 | Objectives

- Differentiate between the concepts of euphonia and dysphonia
- Learn to detect early symptoms/traits of dysphonia through listening
- Know the different types of voices and their characteristics
- Analyze the different types of functional dysphonia
- Analyze the different types of congenital organic dysphonia
- Analyze the different types of acquired organic dysphonia
- Analyze the different types of organic-functional dysphonia
- Be able to identify the observed vocal pathology in an image
- Learn how to analyze and classify a voice according to its audible acoustic features

## Module 15. Medical-Surgical Treatments of Vocal Pathology

- Learn about the different existing phonosurgery techniques
- Learn about the different common laryngeal surgeries
- Be familiar with the different medications prescribed by physicians in case of dysphonia
- Give importance to teamwork in the rehabilitation of voice pathologies

## Module 16. Speech Therapy for Voice Disorders

- Know when speech therapy treatment is or isn't indicated.
- Know and plan the general objectives of rehabilitation
- Know the different possible approaches in the rehabilitation approach
- Learn the basic principles of muscle conditioning
- Learn the basic principles of respiratory conditioning
- Learn the basic principles of hygiene therapy
- Learn the basic principles of confidential voice therapy
- Learn the basic principles of resonant voice therapy

- Learn the basic principles of the accent method
- Learn the basic principles of vocal function exercises
- Learn the basic principles of fluent phonation
- Learn the basic principles of Lee Silverman LSVT
- Learn the basic principles of physiological therapy
- Learn the basic principles of semi-occluded vocal tract exercises
- Learn the basic principles of manual laryngeal massage
- Learn the basic principles of facilitating sounds
- Learn the basic principles of ESTILL VOICE TRAINING
- Learn the basic principles of the PROEL method
- Learn the basic principles of the NEIRA method
- Learn the basic principles of the body-voice-movement approach
- Know how to choose the most effective therapy for each patient in relation to their specific vocal characteristics and needs

## Module 17. Speech Therapy for Pathologies

- Approach rehabilitation treatment in pathologies of functional origin
- Approach rehabilitation treatment in pathologies of organic origin, both congenital and acquired
- Approach rehabilitation treatment in pathologies of organic-functional origin
- Address rehabilitative treatment in patients who underwent a laryngectomy
- Address vocal conditioning in patients attending a clinic due to gender reassignment
- Solve practical cases

## Module 18. The Professional Use of the Spoken Voice

Learn the risk groups of professional vocal pathology

# Objectives | 15 tech

- Apply a plan of hygienic measures to care for the voice
- Learn the specific objectives of vocal work for each group of professionals
- Learn to work on aspects of vocal flexibility
- Learn to work on aspects of vocal resistance
- Learn to work on the versatility of the voice required in these professional groups
- Make work proposals according to each group
- Solve practical cases
- List the components of the singing voice
- Describe the aspects of emission, articulation and intonation
- Explain the different vocal registers

## Module 19. Professional Singing Voice

- Program voice therapy goals in professional singing voice
- Describe the artistic part of the process
- Explain, handle and manipulate the tone
- Explain, manage and manipulate intensity in a healthy way
- Know, handle and manipulate projection in a healthy way
- Know how to apply a vocal resistance program without damage
- Define the basis of sensorimotor learning applied to the singing voice
- Localize the muscular work in each emission
- Solve practical cases
- Define the relationship between psychology and voice
- Explain the influence of vocal aspects on non-verbal communication

## Module 20. Psychology and Voice

• Explain the importance of multidisciplinary work in the prevention and treatment of voice

#### pathologies

- Describe the relationship between voice and emotions
- Describe the relationship between voice and stress
- Explain the different types of dysphonia in which a multidisciplinary approach is needed
- Analyze aspects of voice problem prevention from a psychological and health perspective

#### Module 21. Vocal Rehabilitation

- Gain in-depth knowledge of the most current diagnostic and treatment techniques
- Analyze the different possible vocal pathologies and achieve scientific rigor in treatments
- Solve real case studies with current therapeutic approaches based on scientific evidence
- Delve into the knowledge and analysis of the results obtained in objective voice assessments
- Learn about different approaches to the treatment of vocal pathologies
- Raise awareness of the need for vocal care
- View the voice as a global ability of the person and not as an exclusive act of the phonatory system

# 03 **Skills**

Once all the contents have been studied and the objectives of the Advanced Master's Degree in Comprehensive Speech Therapy have been achieved, the professional will have superior competence and performance in this field. A comprehensive approach, in a top-level qualification, that makes all the difference.



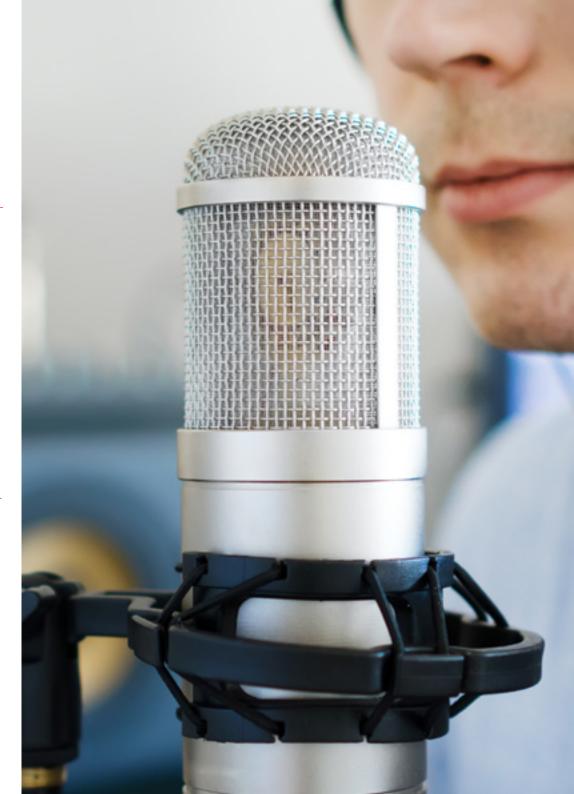


# tech 18 | Skills



## **General Skills**

- 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
- Acquire skills for the elaboration of Technical Reports
- Assimilate effective intervention practices from a multidisciplinary approach
- Possess and understand knowledge that provides a basis or opportunity to be original in the development and/or application of ideas, often in a research context
- Apply acquired knowledge and problem-solving skills in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study.
- Integrate knowledge and face the complexity of making judgments based on incomplete or limited information, including reflections on the social and ethical responsibilities linked to the application of their knowledge and judgments
- Know how to communicate conclusions, knowledge, and supporting arguments to specialized and non-specialized audiences in a clear and unambiguous way
- Acquire the learning skills that will enable them to continue studying in a manner that will be largely self-directed or autonomous





## **Specific Skills**

- Acquisition of the aspects involved in psycholinguistic production in Spanish Language
- Delve into the knowledge of Logopathies 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
- Be aware and be able to involve the family, as well as the rest of the educational agents in the whole Speech Therapy process, considering the contextual and Psychosocial variables
- Learn and integrate the use of technologies, as well as the application of Innovative Therapies and resources from other related disciplines
- Know the necessary tools for approaching daily clinical practice in an efficient way, achieving the improvement of vocal function in your patients.
- Adapt your working methodology to the individual idiosyncrasies of each patient.
- Know when to refer to other professionals or to carry out team treatments with the ultimate goal of patient benefit and improvement.
- Explore the infinite possibilities of the human voice and be able to practice them both on yourself and on your patients
- Conduct comprehensive reports on your patients' vocal function for coordination with other professionals involved in treatment.
- Self-evaluate your clinical practice, adjusting the daily work to the evolution of your patients.
- Know the characteristics of the voice and the parameters that define them.

- Interpret voices in relation to the emotions and the psychological-affective variables.
- Analyze differential variables in the use of voice according to context.
- Recognize characteristics in the use of the voice according to the profession.
- Practice different vocal registers adapted to the role.
- Describe the use of your own voice and interpret the feelings in your own body.
- Practice self-evaluating your own voice and measuring its own parameters.
- Acquire knowledge of what the phonatory apparatus is like and how it works in order to understand vocal practice.
- Understand how the voice works in relation to explanatory theories of phonation.
- Perform speech therapy intervention in all the required areas, applying principles of coherent intervention and with professional skill



Our objective is very simple: to offer you quality education, with the best teaching system available today, so that you can achieve excellence in your profession"





#### **International Guest Director**

Awarded on multiple occasions for her Clinical Excellence, Dr. Sarah Schneider is a renowned Speech-Language Pathologist highly specialized in the comprehensive treatment of voice and upper airway related conditions.

In this way, she has worked in prestigious international institutions such as UCSF Health in the United States. There, she has led several clinical programs that have allowed the implementation of interdisciplinary approaches for the optimal treatment of voice disorders, swallowing problems and even communication difficulties. Thanks to this, he has helped patients to optimize their quality of life considerably by overcoming complex pathologies ranging from Laryngeal Dystonia or abnormal Vocal Vibrations to Voice Rehabilitation in transgender users. In this same line, he has contributed significantly to numerous singers and professional speakers to optimize their vocal performance.

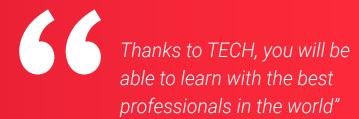
She also balances this work with her facet as a Clinical Researcher. As such, she has written multiple scientific articles on subjects such as the most innovative techniques for the restoration of the voice in people who have lost it due to surgery or serious injuries such as laryngeal cancer. Her line of study also includes the use of advanced technologies for the diagnosis and treatment of common Phonetic Dysfunctions, among which Hypernasality is included.

In his firm commitment to improving the overall well-being of individuals, he has shared his findings at various conferences on a global scale with the aim of advancing progress in this field. Through these initiatives, she has enabled specialists to not only update on the most recent advances in voice restoration, but also to develop effective strategies for the prevention of vocal injuries in experts who rely on their oral ability, actors being a clear example of this.



# Dr. Schneider, Sarah

- Director of Speech-Language Pathology at UCSF Health, California, United States
- Speech Pathologist for Dr. Robert T. Sataloff in Philadelphia, Pennsylvania
- Speech Pathologist at Vanderbilt Voice Center in Nashville, Tennessee
- Master of Science degree in Speech-Language Pathology from Marquette University
- Bachelor of Science degree in Communication Sciences and Disorders from Marquette University
- Member of:
  - Editorial Board of the Journal of Voice
  - California Hearing and Speech Association



### **International Guest Director**

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

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

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

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



# Dra. Rosenzweig, Elizabeth Anne

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

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



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

## Management



## Ms. Martín Bielsa, Laura

- Speech therapist and teacher
- Expert in voice pathology
- Director of Multidisciplinary Center Dime Más
- CFP Estill Voice Training
- Extensively trained in different methods of vocal rehabilitation
- Dean of the Professional Association of Speech-Language Pathologists of Aragon



## 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. 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
- Training in Spanish Sign Language Interpretation (LSE)

#### Ms. Cerezo Fernández, Ester

- Speech Therapist Specialist in Neuropsychology
- Speech Therapist at the Neurorehabilitation Clinic Paso a Paso
- 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. López Mouriz, Patricia

- General Health Psychologist
- Psychologist at FÍSICO Fisioterapia y Salud
- Psychologist Mediator at 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 from the University of Santiago de Compostela (USC)
- Training in Equality, Brief Therapy and Learning Difficulties in Children

## Ms. Quílez Félez, Olaya

- Health Psychologist at Dime Más Multidisciplinary Center and other Health Centers in Aragon
- Master's Degree in Neuropsychology
- Collaborator in research projects with the University of Zaragoza

#### Ms. Corvo, Sandra

- Speech therapist
- Director of Clínica Córtex-Ciudad Rodrigo
- Master's Degree in Advances in Neurorehabilitation of Communicative and Motor Functions of the Gimbernat Cantabria School
- She is currently working on her doctoral thesis on the improvement of voice and speech in patients with Parkinson's disease by means of movement co-programming through dance

### Mr. Gómez, Agustín

- Speech therapist
- Director of the Alpadif center Albacete
- Associate Professor and collaborator of the Speech Therapy Degree at the UCLM
- Diverse voice training: CFP Estill Voice Training and PROEL, among others
- Actor with more than 20 years of experience in different independent theatrical companies

## Fernández Peñarroya, Raúl

- Director of the Fisyos center in Andorra
- Physiotherapist with extensive training in rehabilitation, manual therapy, fascial treatment and dry needling.
- Research activity on aspects of physiotherapy treatment in Parkinson's disease

# tech 28 | Course Management

#### Ms. Mata Ares, Sandra María

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

### Ms. Pozo García, Susana

- Physiotherapist
- Director of the Fisyos Center in Andorra
- Osteopathic specialist with extensive training and clinical experience in myofascial induction, dry needling and lymphatic drainage
- Internship tutor at the Health Sciences University School of Zaragoza

## Ms. Rico Sánchez, Rosana

- Director and Speech Therapist in the Speech Therapy and Pedagogy Center Palabras Y Más
- 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/or Augmentative Communication Systems (SAAC)





# Course Management | 29 tech

### Ms. Romero Meca, Alizia

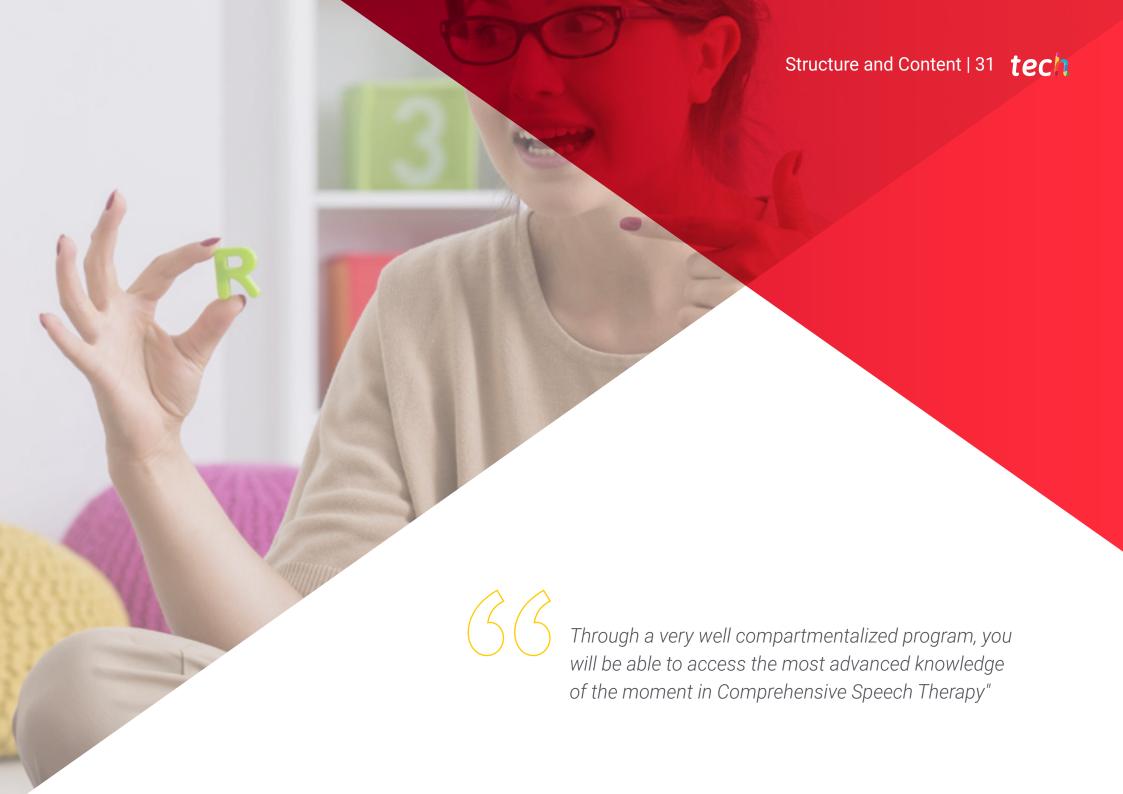
- Diploma in Music Education
- CMT Certified Teacher at Estill Voice Training
- Currently, preparing for certification as a CCI Instructor at Estill Voice Training
- Professional singer since 1996, with several tours and more than 500 performances
- Vocal Coach since 2000, teaching classes of all musical genres, levels and groups
- Director and singer of the Chamber Choir The Gospel Wave Choir

## 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.





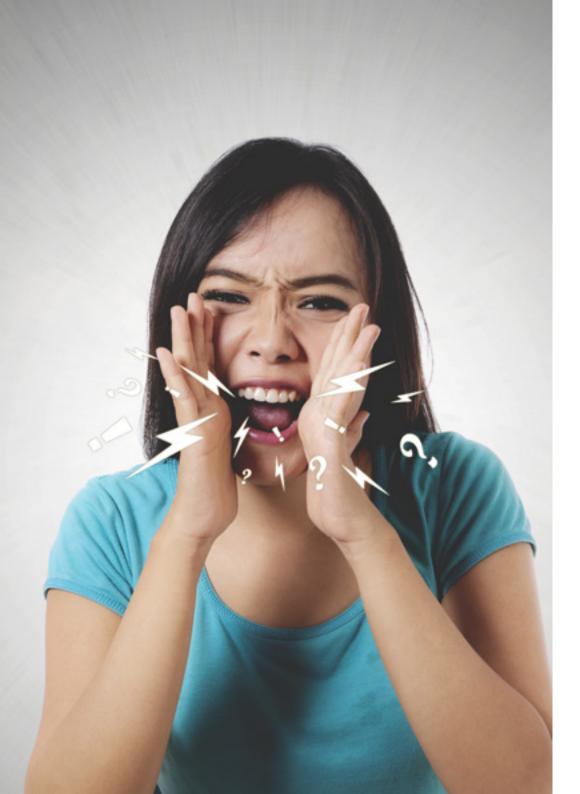


# tech 32 | Structure and Content

## Module 1. Basis of Speech and Language Therapy

- 1.1. Introduction to the Master's Degree and the Modules
  - 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.
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	1.8.7.5. Bliss System			1.9.5.2. Guidelines for the Professional
	1.8.7.6. Communicators		1.9.6.	Advantages of Family Integration in All Contexts of the Subject
	1.8.7.7. Minspeak			1.9.6.1. Advantages of Coordination with Educational Professionals
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1.8.9.	Technical Aids Adapted to Each Person			1.9.7.1. Recommendations to Facilitate Oral Communication
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1.9.2.	Consequences in the Family Context of a Child with Atypical Development			1.10.3.2. Who Provides School Support in the Center?
	1.9.2.1. Difficulties Present in the Immediate Environment			1.10.3.2.1. Hearing and Speech Teacher
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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. Conclusions

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		2.2.1.1. Basic Concepts
		2.2.1.2. Phonemes
	2.2.2.	Classification of Phonemes
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		2.2.2.2. According to the Point of Articulation
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		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
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2.2.6.1. Etymology of the Term 2.2.6.2. Concept of Dyslalia

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	2.3.1.4. Lack of Comprehension or Auditory Discrimination		2.3.8.3. Substitution
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	2.4.4.2. Orofacial Motor Skills			2.5.4.2. Who Is the Focus of this Intervention?
	2.4.4.3. Muscle Tone			2.5.4.3. The importance of Direct Intervention for Dyslexic Children
2.4.5.	Auditory Perception and Discrimination		2.5.5.	Indirect Intervention for Children with Dyslalia
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	2.4.5.2. Phoneme Discrimination			2.5.5.2. Who Is the Focus of this Intervention?
	2.4.5.3. Word Discrimination			2.5.5.3. The Importance of Carrying Out Indirect Intervention in Dyslexic Children.
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	2.4.6.2. How to Collect a Speech Sample			2.5.6.2. How to Use Games for Rehabilitation
	2.4.6.3. How to Make a Record of the Speech Samples?			2.5.6.3. Adaptation of Games to Children, Necessary or Not?
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	2.4.7.2. Purpose of Standardized Tests			2.5.7.2. Concept of Auditory Discrimination
	2.4.7.3. Classification			2.5.7.3. When Is the Right Time During the Intervention to Include Auditory
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	2.4.8.3. Classification			2.5.8.2. Why Should a Schedule Be Used in the Speech Therapy Intervention of
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2.4.10.	Final Conclusions			2.5.8.3. Benefits of Making a Schedule
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  - 4.1.4. Late Language Onset vs. SLD SLD
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  - 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 SLD Comorbidities
  - 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

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- 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 SLD
- 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

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- 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 Disorder
- 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

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	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
Detection	on
5.2.1.	Main Indicators in Early Detection
	5.2.1.1. Warning Signs
	5.2.1.2. Warning Signs
5.2.2 C	ommunicative 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.	•
	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.

		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.
5.3.	Identific	cation 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

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		5.3.6.2. Aversion to Textures			5.4.7.4. Aspects to Take into Account
		5.3.6.3. Eating Disorders in ASD		5.4.8.	School Age
	5.3.7.	Social Area			5.4.8.1. Main Aspects to Consider
		5.3.7.1. SCERTS (Social-Communication, Emotional Regulation, and Transactional			5.4.8.2. Open Communication with the Teaching Staff
		Support)			5.4.8.3. Types of Schooling
	5.3.8.	Personal Autonomy		5.4.9.	Educational Environment
		5.3.8.1. Daily Living Therapy			5.4.9.1. Bullying
	5.3.9.	Competency Assessment			5.4.9.2. Emotional Impact
		5.3.9.1. Strengths		5.4.10.	Warning Signs
		5.3.9.2. Reinforcement-Based Intervention			5.4.10.1. Guidelines for Action
	5.3.10.	Specific Intervention Programs			5.4.10.2. Conflict Resolution
		5.3.10.1. Case Studies and their Results	5.5.	Commi	unication Systems
		5.3.10.2. Clinical Discussion		5.5.1.	Available Tools
.4.	Commi	unication and Language in Autism Spectrum Disorder			5.5.1.1. ICT Tools for Children with Autism
	5.4.1.	Stages in the Development of Normotypical Language			5.5.1.2. Augmentative and Alternative Communication Systems (AACS)
		5.4.1.1. Comparative Table of Language Development in Patients with and without ASD.		5.5.2.	Communication Intervention Models
		5.4.1.2. Specific Language Development in Autistic Children			5.5.2.1. Facilitated Communication (FC)
	5.4.2.	Communication Deficits in ASD			5.5.2.2. Verbal Behavioral Approach (VB)
		5.4.2.1. Aspects to Take into Account in the Early Stages of Development		5.5.3.	Alternative and/or Augmentative Communication Systems
		5.4.2.2. Explanatory Table with Factors to Take into Account During these Early			5.5.3.1. PEC's (Picture Exchange Communication System)
		Stages			5.5.3.2. Benson Schaeffer Total Signed Speech System
	5.4.3.				5.5.3.3. Sign Language
		5.4.3.1. ASD and Dysphasia			5.5.3.4. Bimodal System
	5.4.4.	Preventive Education		5.5.4.	Alternative Therapies
	<b>5</b> 4 <b>5</b>	5.4.4.1. Introduction to Prenatal Infant Development			5.5.4.1. Hotchpotch
	5.4.5.	From 0 to 3 Years Old			5.5.4.2. Alternative Medicines
		5.4.5.1. Developmental Scales			5.5.4.3. Cognitive-Behavioral
	F 4.6	5.4.5.2. Implementation and Monitoring of Individualized Intervention Plans (IIP).		5.5.5.	Choice of System
	5.4.6.	CAT Means-Methodology			5.5.5.1. Factors to Consider
		5.4.6.1. Nursery School (NS)			5.5.5.2. Decision Making
	5.4.7.	From 3 to 6 years old		5.5.6.	Scale of Objectives and Priorities to Be Developed
		5.4.7.1. Schooling in Normal Center			5.5.6.1. Assessment, Based on the Resources Available to the Student, of the
		5.4.7.2. Coordination of the Professional with the Follow-up by the Pediatrician and Neuropediatrician			System Best Suited to Their Capabilities
		5.4.7.3 Communication Skills to be Developed within this Age Range		5.5.7.	Identification of the Appropriate System

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		5.5.7.1. We implement the most appropriate Communication System or Therapy taking into Account the Strengths of the Patient.		5.6.9.	Support for University Integration of Grade I ASD
	5.5.8.	Implementation.			5.6.9.1. Best Practices for Supporting Students in Higher Education
	0.0.6.	5.5.8.1. Planning and Structuring of the Sessions		5.6.10.	Positive Behavioral Reinforcement
		5.5.8.2. Duration and Timing			5.6.10.1. Program Structure
		5.5.8.3. Evolution and Estimated Short-Term Objectives			5.6.10.2. Guidelines to Follow to Carry Out the Method
	E E O		5.7.		ional Materials and Resources
	5.5.9.	Monitoring		5.7.1.	What Can We Do as Speech Therapists?
		5.5.9.1. Longitudinal Evaluation 5.5.9.2. Re-Evaluation Over Time			5.7.1.1. Professional as an Active Role in the Development and Continuous
	F F 10			F 7 0	Adaptation of Materials
	5.5.10.	Adaptation Over Time		5.7.2.	List of Adapted Resources and Materials
		5.5.10.1. Restructuring of Objectives based on Demanded Needs			5.7.2.1. What should I consider?
		5.5.10.2. Adaptation of the Intervention According to the Results Obtained			5.7.2.2. Brainstorming
5.6.		ation of an Intervention Program		5.7.3.	Methods
	5.6.1.	Identification of Needs and Selection of Objectives			5.7.3.1. Theoretical Approach to the Most Commonly Used Methods
		5.6.1.1. Early Care Intervention Strategies			5.7.3.2. Functionality Comparative Table with the Methods Presented
		5.6.1.2. Denver Model		5.7.4.	TEACHH Program
	5.6.2.	Analysis of Objectives based on Developmental Levels			5.7.4.1. Educational Principles based on this Method
		5.6.2.1. Intervention Program to Strengthen Communicative and Linguistic Areas			5.7.4.2. Characteristics of Autism as a Basis for Structured Teaching.
	5.6.3.	Development of Preverbal Communicative Behaviors		5.7.5.	INMER Program
		5.6.3.1. Applied Behavior Analysis			5.7.5.1. Fundamental Bases of the Program Main Function
	5.6.4.	Bibliographic Review of Theories and Programs in Childhood Autism.			5.7.5.2. Virtual Reality Immersion System for People with Autism
		5.6.4.1. Scientific Studies with Groups of Children with ASD		5.7.6.	ICT-mediated Learning
		5.6.4.2. Results and Final Conclusions Based on the Proposed Programs			5.7.6.1. Software for Teaching Emotions
	5.6.5.	School Age			5.7.6.2. Applications that favour Language Development
		5.6.5.1. Educational Inclusion		5.7.7.	Development of Materials
		5.6.5.2. Global Reading as a Facilitator of Integration in the Classroom			5.7.7.1. Sources Used
	5.6.6.	Adulthood			5.7.7.2. Image Banks
		5.6.6.1. How to Intervene/Support in Adulthood			5.7.7.3. Pictogram Banks
		5.6.6.2. Elaboration of a Specific Program			5.7.7.4. Recommended Materials
	5.6.7.	Behavioral Intervention		5.7.8.	Free Resources to Support Learning
		5.6.7.1. Applied Behavior Analysis (ABA)			5.7.8.1. List of Reinforcement Pages with Programs to Reinforce Learning
		5.6.7.2. Training of Separate Trials		5.7.9.	SPC
	5.6.8.	Combined Intervention			5.7.9.1. Access to the Pictographic Communication System
		5.6.8.1. The TEACCH Model			

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		5.7.9.2. Methodology			5.9.1.2. Curricular Adaptation
		5.7.9.3. Main Function		5.9.2.	School Inclusion
	5.7.10.	Implementation.			5.9.2.1. We All Add Up
		5.7.10.1. Selection of the Appropriate Program			5.9.2.2. How to Help from our Role as Speech-Language Pathologists
		5.7.10.2. List of Benefits and Disadvantages		5.9.3.	Characteristics of Students with ASD
5.8.	Adaptin	ng the Environment to the Student with Autism Spectrum Disorder			5.9.3.1. Restricted Interests
	5.8.1.	General Considerations to Be Taken into Account			5.9.3.2. Sensitivity to the Context and its Constraints
		5.8.1.1. Possible Difficulties within the Daily Routine		5.9.4.	Characteristics of Students with Asperger's
	5.8.2.	Implementation of Visual Aids			5.9.4.1. Potentialities
		5.8.2.1. Guidelines to Have at Home for Adaptation			5.9.4.2. Difficulties and Repercussions at the Emotional Level
	5.8.3.	Classroom Adaptation			5.9.4.3. Relationship with the Peer Group
		5.8.3.1. Inclusive Teaching		5.9.5.	Placement of the Student in the Classroom
	5.8.4.	Natural Environment			5.9.5.1. Factors to Be Taken into Account for Proper Student Performance
		5.8.4.1. General Guidelines for Educational Response		5.9.6.	Materials and Supports to Consider
	5.8.5.	Intervention in Autism Spectrum Disorders and other Severe Personality Disorders			5.9.6.1. External Support
	5.8.6.	Curricular Adaptations of the Center			5.9.6.2. Teacher as a Reinforcement Element within the Classroom
		5.8.6.1. Heterogeneous Groupings		5.9.7.	Assessment of Task Completion Times
	5.8.7.	Adaptation of Individual Curricular Needs			5.9.7.1. Application of Tools such as Anticipators or Timers
		5.8.7.1. Individual Curricular Adaptation		5.9.8.	Inhibition Times
		5.8.7.2. Limitations			5.9.8.1. Reduction of inappropriate Behaviors through Visual Support
	5.8.8.	Curricular Adaptations in the Classroom			5.9.8.2. Visual Schedules
		5.8.8.1. Cooperative Education			5.9.8.3. Time-Outs
		5.8.8.2. Cooperative Learning		5.9.9.	Hypo- and Hypersensitivity
	5.8.9.	Educational Responses to the Different Needs Demanded			5.9.9.1. Noise Environment
		5.8.9.1. Tools to Be Taken into Account for Effective Teaching			5.9.9.2. Stress-generating Situations
	5.8.10.	Relationship with the Social and Cultural Environment		5.9.10.	Anticipation of Conflict Situations
		5.8.10.1. Habits-Autonomy			5.9.10.1. Back to School Time of Entry and Exit
		5.8.10.2. Communication and Socialization			5.9.10.2. Canteen
5.9.	School	Context			5.9.10.3. Vacations
	5.9.1.	Classroom Adaptation	5.10.	Conside	erations to Be Taken into Account with Families
		5.9.1.1. Factors to Consider		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

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	5. TO. T.S. Alixiety 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

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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 the 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. 2nd Mendel's Law
    - 6.1.5.3. 3rd Mendel's 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 the Unit

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6.2.2.	6.2.1.1. History of Down Syndrome 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		6.2.9.	<ul> <li>6.2.8.1. Aspects to Take into Account</li> <li>6.2.8.2. Setting Objectives for the Intervention</li> <li>6.2.8.3. Material for Rehabilitation</li> <li>6.2.8.4. Resources to Be Used</li> <li>Guidelines</li> <li>6.2.9.1. Guidelines to the Person with Down Syndrome to Consider</li> <li>6.2.9.2. Guidelines to for the Family to Consider</li> <li>6.2.9.3. Guidelines for the Educational Context</li> <li>6.2.9.4. Resources and Associations</li> </ul>
6.2.3.	Etiology		6.2.10.	The Interdisciplinary Team
	6.2.3.1. The Origin of Down Syndrome			6.2.10.1. The Importance of the Interdisciplinary Team
6.2.4.	Prevalence			6.2.10.2. Speech Therapy
	6.2.4.1. Prevalence of Down Syndrome in Spain			6.2.10.3. Occupational Therapy
	6.2.4.2. Prevalence of Down Syndrome in Other Countries			6.2.10.4. Physiotherapy
6.2.5.	Characteristics of Down Syndrome			6.2.10.5. Psychology
	, , , , , , , , , , , , , , , , , , , ,	6.3.		Syndrome
	6.2.5.2. Speech and Language Development Characteristics		6.3.1.	Introduction to the Unit
	6.2.5.3. Motor Developmental Characteristics			6.3.1.1. History of Hunter Syndrome
6.2.6.	Comorbidity of Down Syndrome		6.3.2.	Concept of Hunter Syndrome
	6.2.6.1. What Is Comorbidity?			6.3.2.1. What Is Hunter Syndrome?
	6.2.6.2. Comorbidity in Down Syndrome			6.3.2.2. Genetics of Hunter Syndrome
	6.2.6.3. Associated Disorders			6.3.2.3. Prognosis of Hunter Syndrome
6.2.7.	Diagnosis and Evaluation of Down Syndrome		6.3.3.	Etiology
	6.2.7.1. The Diagnosis of Down Syndrome			6.3.3.1. The Origin of Hunter Syndrome
	6.2.7.1.1. Where It Is Performed		6.3.4.	Prevalence
	6.2.7.1.2. Who Performs It			6.3.4.1.
	6.2.7.1.3. When Can It Be Performed			6.3.4.2. Hunter Syndrome in Other Countries
	6.2.7.2. Speech Therapy Evaluation of Down Syndrome		6.3.5.	Main Impacts
	6.2.7.2.1. Medical History			6.3.5.1. Physical Characteristics
	6.2.7.2.2. Areas to Consider			6.3.5.2. Speech and Language Development Characteristics
6.2.8.	Speech Therapy Based Intervention			6.3.5.3. Motor Developmental Characteristics

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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 It Is Performed
	6.3.7.1.2. Who Performs It
	6.3.7.1.3. When Can It 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 to the Person with Hunter Syndrome to Consider
	6.3.9.2. Guidelines to 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
Fragile 2	X Syndrome
6.4.1.	Introduction to the 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??

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	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.
	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 It Is Performed
	6.4.7.1.2. Who Performs It
	6.4.7.1.3. When Can It 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

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		6.4.9.1. Guidelines to the Person with Fragile X Syndrome to Consider		6.5.6.	Main Impacts
		6.4.9.2. Guidelines to for the Family to Consider			6.5.6.1. Introduction
		6.4.9.3. Guidelines for the Educational Context			6.5.6.2. Physical Characteristics
		6.4.9.4. Resources and Associations			6.5.6.3. Clinical Characteristics
	6.4.10.	The Interdisciplinary Team		6.5.7.	Diagnosis and Evaluation of Rett Syndrome
		6.4.10.1. The Importance of the Interdisciplinary Team			6.5.7.1. The Diagnosis of Rett Syndrome
		6.4.10.2. Speech Therapy			6.5.7.1.1. Where It Is performed
		6.4.10.3. Occupational Therapy			6.5.7.1.2. Who Performs It
		6.4.10.4. Physiotherapy			6.5.7.1.3. When It Can Be Performed
6.5.	Rett Sy	drome			6.5.7.2. Speech Therapy Evaluation of Rett Syndrome
	6.5.1.	Introduction to the Unit			6.5.7.2.1. Medical History
		6.5.1.1. History of Rett Syndrome			6.5.7.2.2. Areas to Consider
	6.5.2.	Concept of Rett Syndrome		6.5.8.	Speech Therapy Based Intervention
		6.5.2.1. What Is Rett Syndrome?			6.5.8.1. Aspects to Take into Account
		6.5.2.2. Genetics of Rett Syndrome			6.5.8.2. Setting Objectives for the Intervention
		6.5.2.3. Prognosis of Rett Syndrome			6.5.8.3. Material for Rehabilitation
	6.5.3.	Etiology			6.5.8.4. Resources to Be Used
		6.5.3.1. The Origin of Rett Syndrome		6.5.9.	Guidelines
	6.5.4.	Prevalence			6.5.9.1. Guidelines to the Person with Rett Syndrome to Consider
		6.5.4.1.			6.5.9.2. Guidelines to for the Family to Consider
		6.5.4.2. Rett Syndrome in Other Countries			6.5.9.3. Guidelines for the Educational Context
		6.5.4.3. Stages in the Development of Rett Syndrome			6.5.9.4. Resources and Associations
		6.5.4.3.1. Stage I: Early Onset Stage		6.5.10.	The Interdisciplinary Team
		6.5.4.3.2. Stage II: Accelerated Destruction Stage			6.5.10.1. The Importance of the Interdisciplinary Team
		6.5.4.3.3. Stage III: Stabilization or Pseudo-Stationary Stage			6.5.10.2. Speech Therapy
		6.5.4.3.4. Stage IV: Late Motor Impairment Stage			6.5.10.3. Occupational Therapy
	6.5.5.	Comorbidity of Rett Syndrome			6.5.10.4. Physiotherapy
		6.5.5.1. What Is Comorbidity?	6.6.	Smith-N	Magenis Syndrome
		6.5.5.2. Comorbidity in Rett Syndrome		6.6.1.	Smith-Magenis Syndrome
		6.5.5.3. Associated Disorders			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

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	6.6.4.1. Infants (up to 2 years of age)			6.7.6.5. Language Characteristics
	6.6.4.2. Childhood (from 2 to 12 years of age)			6.7.6.5.1. Early Language Development
	6.6.4.2.1. Adolescence and Adulthood. (From 2 Years Onwards)			6.7.6.5.2. Characteristics of Language in the SW from 4 Years of Age Onwards
6.6.5.	Differential Diagnosis			6.7.6.6. Socio-Affective Characteristics in Williams Syndrome
6.6.6.	Clinical, Cognitive, Behavioral, and Physical Features of Smith-Magenis Syndrome.		6.7.7.	Speech Therapy Intervention in Early Care in Children with Williams Syndrome
	6.6.6.1. Clinical Characteristics		6.7.8.	Speech Therapy Intervention at School with Williams Syndrome
	6.6.6.2. Cognitive and Behavioral Characteristics		6.7.9.	Speech Therapy Intervention in Adulthood with Williams Syndrome
	6.6.6.3. Physical Characteristics		6.7.10.	Associations
6.6.7.	Speech Therapy Evaluation in Smith-Magens Syndrome	6.8.	Angelm	nan Syndrome
6.6.8.	Speech Therapy Intervention in Smith-Magenis Syndrome		6.8.1.	Introduction to the Unit
	6.6.8.1. General Considerations for starting the Intervention			6.8.1.1. History of Angelman Syndrome
	6.6.8.2. Stages of the Intervention Process		6.8.2.	Concept of Angelman Syndrome
	6.6.8.3. Communicative Aspects of Intervention			6.8.2.1. What Is Angelman Syndrome?
6.6.9.	Speech Therapy Exercises for Smith-Magenis Syndrome			6.8.2.2. Genetics of Angelman Syndrome
	6.6.9.1. Auditory Stimulation Exercises: Sounds and Words			6.8.2.3. Prognosis of Angelman Syndrome
	6.6.9.2. Exercises to Promote Grammatical Structures		6.8.3.	Etiology
	6.6.9.3. Exercises to Increase Vocabulary			6.8.3.1. The Origin of Angelman Syndrome
	6.6.9.4. Exercises to Improve the Use of Language		6.8.4.	Prevalence
	6.6.9.5. Exercises for Problem Solving and Reasoning			6.8.4.1.
6.6.10.	Associations to Help Patients and Families of Smith-Magenis Syndrome			6.8.4.2. Angelman Syndrome in Other Countries
William	as Syndrome		6.8.5.	Main Impacts
6.7.1.	Williams Syndrome			6.8.5.1. Introduction
	6.7.1.1. History of Williams Syndrome			6.8.5.2. Frequent Manifestations of Angelman Syndrome
	6.7.1.2. Concept of Williams Syndrome			6.8.5.3. Rare Manifestations
6.7.2 E	tiology of Williams Syndrome		6.8.6.	Comorbidity of Angelman Syndrome
6.7.3 E	pidemiology of Williams Syndrome			6.8.6.1. What Is Comorbidity?
6.7.4 D	iagnosis of Williams Syndrome			6.8.6.2. Comorbidity in Angelman Syndrome
6.7.5 S	peech Therapy Evaluation of Williams Syndrome			6.8.6.3. Associated Disorders
6.7.6 C	haracteristics of Williams Syndrome		6.8.7.	Diagnosis and Evaluation of Angelman Syndrome
	6.7.6.1. Medical Aspects			6.8.7.1. The Diagnosis of Angelman Syndrome
	6.7.6.2. Facial Features			6.8.7.1.1. Where It Is Performed
	6.7.6.3. Hyperacusis			6.8.7.1.2. Who Performs It
	6.7.6.4. Neuroanatomical Features			

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	6.8.7.1.3. When Can It Be Performed		6.9.5.1. Introduction
	6.8.7.2. Speech Therapy Evaluation of Angelman Syndrome		6.9.5.2. Clinical Manifestations of Duchenne Disease
	6.8.7.2.1. Medical History		6.9.5.2.1. Speech Delay
	6.8.7.2.2. Areas to Consider		6.9.5.2.2. Behavioral Problems
6.8.8.	Speech Therapy Based Intervention		6.9.5.2.3. Muscle Weakness
	6.8.8.1. Aspects to Take into Account		6.9.5.2.4. Stiffness
	6.8.8.2. Setting Objectives for the Intervention		6.9.5.2.5. Lordosis
	6.8.8.3. Material for Rehabilitation		6.9.5.2.6. Respiratory Dysfunction
	6.8.8.4. Resources to Be Used		6.9.5.3. Most common Symptoms of Duchenne Disease
6.8.9.	Guidelines	6.9.6.	Comorbidity of Duchenne Disease
	6.8.9.1. Guidelines for the Person with Angelman Syndrome to Consider		6.9.6.1. What Is Comorbidity?
	6.8.9.2. Guidelines for the Family to Consider		6.9.6.2. Comorbidity of Duchenne Disease
	6.8.9.3. Guidelines for the Educational Context		6.9.6.3. Associated Disorders
	6.8.9.4. Resources and Associations	6.9.7.	Diagnosis and Evaluation of Duchenne Disease
6.8.10.	The Interdisciplinary Team		6.9.7.1. The Diagnosis of Duchenne Disease
	6.8.10.1. The Importance of the Interdisciplinary Team		6.9.7.1.1. Where It Is Performed
	6.8.10.2. Speech Therapy		6.9.7.1.2. Who Performs It
	6.8.10.3. Occupational Therapy		6.9.7.1.3. When Can It Be Performed
	6.8.10.4. Physiotherapy		6.9.7.2. Speech Therapy Evaluation of Duchenne Disease
Duchenne Disease			6.9.7.2.1. Medical History
6.9.1.	Introduction to the Unit		6.9.7.2.2. Areas to Consider
	6.9.1.1. History of Duchenne Disease	6.9.8.	Speech Therapy Based Intervention
6.9.2.	Concept of Duchenne Disease		6.9.8.1. Aspects to Take into Account
	6.9.2.1. What Is Duchenne Disease?		6.9.8.2. Setting Objectives for the Intervention
	6.9.2.2. Genetics of Duchenne Disease		6.9.8.3. Material for Rehabilitation
	6.9.2.3. Prognosis of Duchenne Disease		6.9.8.4. Resources to Be Used
6.9.3.	Etiology	6.9.9.	Guidelines
	6.9.3.1. The Origin of Duchenne Disease		6.9.9.1. Guidelines for the Person with Duchenne Disease to Consider
6.9.4.	Prevalence		6.9.9.2. Guidelines for the Family to Consider
	6.9.4.1. Prevalence of Duchenne Disease in Spain		6.9.9.3. Guidelines for the Educational Context
	6.9.4.2. Prevalence of Duchenne Disease in Other Countries		6.9.9.4. Resources and Associations
6.9.5.	Main Impacts	6.9.10.	The Interdisciplinary Team

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		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 S	yndrome
	6.10.1.	Introduction to the 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 of Usher Syndrome
		6.10.2.3.1. Type I
		6.10.2.3.2. Type I
		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.
		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 It Is Performed
		6.10.7.1.2. Who Performs It

	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
	$6.10.9.1. \ \mbox{Guidelines}$ 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

6.10.7.1.3. When Can It Be Performed

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

7.1. Introduction to the Module
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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

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7.2.3.	Classification			7.2.9.6. Linguistic Factors
	7.2.3.1. Tonic Stuttering		7.2.10.	Warning Signs
	7.2.3.2. Clonic Stuttering			7.2.10.1. Preliminary Considerations
	7.2.3.3. Mixed Stuttering			7.2.10.2. When to Evaluate?
7.2.4.	Other Specific Disorders of Fluency of Verbal Expression			7.2.10.3. Is it possible to prevent the Disorder?
7.2.5.	Development of the Disorder	7.3.	Evaluat	ion of Dysphemia
	7.2.5.1. Preliminary Considerations		7.3.1.	Introduction to the Unit
	7.2.5.2. Levels of Development and Severity		7.3.2.	Dysphemia or normal Dysfluencies?
	7.2.5.2.1. Initial Phase			7.3.2.1. Initial Considerations
	7.2.5.2.2. Borderline Stuttering			7.3.2.2. What Are Normal Disfluencies?
	7.2.5.2.3. Initial Stuttering			7.3.2.3. Differences between Dysphemia and Normal Dysfluencies.
	7.2.5.2.4. Intermediate Stuttering			7.3.2.4. When to Act?
	7.2.5.2.5. Advanced Stuttering		7.3.3.	Objective of the Evaluation
7.2.6.	Comorbidity		7.3.4.	Evaluation Method
	7.2.6.1. Comorbidity in Dysphemia			7.3.4.1. Preliminary Considerations
	7.2.6.2. Associated Disorders			7.3.4.2. Outline of the Evaluation Method
7.2.7.	Prognosis of Recovery		7.3.5.	Collection of Information
	7.2.7.1. Preliminary Considerations			7.3.5.1. Interview with Parents
	7.2.7.2. Key Factors			7.3.5.2. Gathering Relevant Information
	7.2.7.3. Prognosis According to the moment of Intervention			7.3.5.3. Medical History
7.2.8.	The Incidence and Prevalence of Stuttering		7.3.6.	Collecting Additional Information
	7.2.8.1. Preliminary Considerations			7.3.6.1. Questionnaires for Parents
	7.2.8.2. Incidence in Spain at School Age			7.3.6.2. Questionnaires for Teachers
	7.2.8.3. Prevalence in Spain at School Age		7.3.7.	Evaluation of the Child
7.2.9.	Etiology of Stuttering			7.3.7.1. Observation of the Child
	7.2.9.1. Preliminary Considerations			7.3.7.2. Questionnaire for the Child
	7.2.9.2. Physiological Factors			7.3.7.3. Parent-Child Interaction Profile
	7.2.9.3. Genetic Factors.		7.3.8.	Diagnosis
	7.2.9.4. Environmental Factors			7.3.8.1. Clinical Judgment of the Information Collected
	7.2.9.5. Psychosocial Factors			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 Environments
	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
User-Ce	entered Speech Therapy Intervention in Dysphemia: Direct Treatment
7.4.1.	Introduction to the 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

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		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 Progran	Therapy Intervention in User-centered Dysphemia: Lidcombe Early Intervention
	_	Introduction to the 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
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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 Therapist
	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
Internal	izing Problems: Anxiety

	10.2.2.1. Emotional Dimension
	10.2.2.2. Cognitive Dimension
	10.2.2.3. Psychophysiological Dimension
	10.2.2.4. Behavioral Dimension
0.2.3.	Anxiety Risk Factors
	10.2.3.1. Individual
	10.2.3.2. Contextual
0.2.4.	Conceptual Differences
	10.2.4.1. Anxiety and Stress
	10.2.4.2. Anxiety and Fear
	10.2.4.3. Anxiety and Phobia
0.2.5.	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
0.2.6.	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: School Anxiety, School 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

10.2.1. Concept of Anxiety

10.2.2. Detection: Main Manifestations

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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 Disorders 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

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Depression	10.4.2.2.3. Types of Aggressive Behaviors
10.3.5.1. Major Depressive Disorder	10.4.3. Some of the Main Child and Adolescent Conduct Disorders
10.3.5.1.1. Concept	10.4.3.1. Oppositional Defiant Disorder
10.3.5.1.2. Main Symptoms	10.4.3.1.1. Concept
10.3.5.1.3. Prevalence	10.4.3.1.2. Main Symptoms
10.3.5.1.4. Etiology	10.4.3.1.3. Facilitating Factors
10.3.5.2. Persistent Depressive Disorder	10.4.3.1.4. Prevalence
10.3.5.2.1. Concept	10.4.3.1.5. Etiology
10.3.5.2.2. Main Symptoms	10.4.3.2. Conduct Disorder
10.3.5.2.3. Prevalence	10.4.3.2.1. Concept
10.3.5.2.4. Etiology	10.4.3.2.2. Main Symptoms
10.3.5.3. Disruptive Mood Dysregulation Disorder	10.4.3.2.3. Facilitating Factors
10.3.5.3.1. Concept	10.4.3.2.4. Prevalence
10.3.5.3.2. Main Symptoms	10.4.3.2.5. Etiology
10.3.5.3.3. Prevalence	10.4.4. Hyperactivity and Impulsivity
10.3.5.3.4. Etiology	10.4.4.1. Hyperactivity and its Manifestations
10.3.6. interference of Depressive Symptomatology in Speech Therapy Rehabilitation	10.4.4.2. Relationship between Hyperactivity and Disruptive Behavior
10.3.6.1. In Articulation Rehabilitation	10.4.4.3. Evolution of Hyperactive and Impulsive Behaviors throughout
10.3.6.2. In Literacy Rehabilitation	Development
10.3.6.3. In Voice Rehabilitation	10.4.4.4. Problems Associated with Hyperactivity/Impulsivity
10.3.6.4. In Dysphemia Rehabilitation	10.4.5. Jealousy
10.4. Externalizing Type Problems: The Main Disruptive Behaviors and their Characteristics	10.4.5.1. Concept
10.4.1. Factors that Contribute to the Development of Behavioral Problems	10.4.5.2. Main Manifestations
10.4.1.1. In childhood	10.4.5.3. Possible Causes
10.4.1.2. In adolescence	10.4.6. Behavioral Problems at Mealtime or Bedtime
10.4.2. Disobedient and Aggressive Behavior	10.4.6.1. Common Bedtime Problems
10.4.2.1. Disobedience	10.4.6.2. Usual Problems at Mealtimes
10.4.2.1.1. Concept	10.4.7. Interference of Behavioral Problems in Speech Therapy Rehabilitation
10.4.2.1.2. Manifestations	10.4.7.1. In Articulation Rehabilitation
10.4.2.2. Aggressiveness	10.4.7.2. In Literacy Rehabilitation
10.4.2.2.1. Concept	10.4.7.3. In Voice Rehabilitation
10.4.2.2.2. Manifestations	

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 I: 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

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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	<ul> <li>10.8.6. Rejection of Requests</li> <li>10.8.6.1. Non-assertive ways of Rejecting Requests</li> <li>10.8.6.2. Specific Guidelines for Rejecting Requests in an Assertive Manner</li> <li>10.8.7. Giving and Receiving Compliments</li> <li>10.8.7.1. Specific Guidelines for giving Compliments</li> <li>10.8.7.2. Specific Guidelines for Accepting Compliments in an Assertive Manner</li> <li>10.8.8. Responding to Criticism</li> <li>10.8.8.1. Non-Assertive ways of Responding to Criticism</li> <li>10.8.8.2. Specific Guidelines for Reacting Assertively to Criticism</li> </ul>
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	10.8.9. 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
<ul> <li>10.8. Social Skills II: Specific Guidelines for Handling Different Situations</li> <li>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</li> <li>10.8.2. Entering an Initiated Conversation  10.8.2.1. Specific Guidelines for Entering an Initiated Conversation</li> <li>10.8.3. Maintaining the Dialogue  10.8.3.1. Active Listening  10.8.3.2. Specific Guidelines for Maintaining Conversations</li> <li>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</li> <li>10.8.5. Making Requests</li> </ul>	<ul> <li>10.9. Strategies for Behavior Modification in Consultation and for Increasing the Motivation of the Youngest Children in Consultation</li> <li>10.9.1. What Are Behavior Modification Techniques?</li> <li>10.9.2. Techniques Based on Operant Conditioning</li> <li>10.9.3. Techniques for the Initiation, Development, and Generalization of Appropriate Behaviors</li> <li>10.9.3.1. Positive Reinforcement</li> <li>10.9.3.2. Token Economy</li> <li>10.9.4. Techniques for the Reduction or Elimination of Inappropriate Behaviors</li> <li>10.9.4.1. Extinction</li> <li>10.9.4.2. Reinforcement of Incompatible Behaviors</li> <li>10.9.4.3. Response Cost and Withdrawal of Privileges</li> <li>10.9.5. Punishment</li> <li>10.9.5.1. Concept</li> <li>10.9.5.2. Main Disadvantages</li> </ul>
10.8.5.1. Non-Assertive Ways of Making Requests 10.8.5.2. Specific Guidelines for Making Requests in an Assertive Manner	10.9.5.3. Guidelines for the Application of Punishment 10.9.6. Motivation 10.9.6.1. Concept and Main Characteristics

10.9.6.3. 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

#### Module 11. Anatomical, Physiological and Biomechanical Basics of the Voice

11.1. Laryngeal Phylogeny and Embryology

10.9.6.2. Types of Motivation

11.1.1. Laryngeal Phylogeny

11.1.2. Laryngeal Embryology

11.2. Basic Concepts of Physiology

11.2.1. Muscle Tissue

11.2.2. Types of Muscle Fibers

11.3. Respiratory System Structures

11.3.1. Chest

11.3.2. Airways

11.4. Respiratory System Musculature

11.4.1. Inspiratory Muscles

11.4.2. Expiratory Muscles

11.5. Respiratory System Physiology

11.5.1. Respiratory System Function

11.5.2. Lung Capacities and Volumes

11.5.3. Lung Nervous System

11.5.4. Resting Breathing vs. Breathing in Phonation

11.6. Laryngeal Anatomy and Physiology

11.6.1. Laryngeal Skeleton

11.6.2. Laryngeal Cartilages

11.6.3. Ligaments and Membranes

11.6.4. Joints

11.6.5. Musculature

11.6.6. Vascularization

11.6.7. Laryngeal Innervation

11.6.8. Lymphatic System

11.7. Structure and Function of the Vocal Cords

11.7.1. Histology of the Vocal Cords

11.7.2. Biomechanical Properties of the Vocal Cords

11.7.3. Phases of the Vibration Cycle

11.7.4. Fundamental Frequency

11.8. Anatomy and Physiology of the Vocal Tract

11.8.1. Nasal Cavity

11.8.2. Oral Cavity

11.8.3. Laryngeal Cavity

11.8.4. Linear and Non-Linear Source and Filter Theory

11.9. Voice Production Theory

11.9.1. Historical Recap

11.9.2. Ewald's Primitive Myoelastic Theory

11.9.3. Husson's Neuro-Chronaxial Theory

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- 11.9.4. Completed Mucoondulatory Theory and Aerodynamic Theory
- 11.9.5. Neurooscillatory Theory
- 11.9.6. Oscillo-Impedial Theory
- 11.9.7. Mass-Spring Models
- 11.10. The Physiology of Phonation
  - 11.10.1. Neurological Control of Phonation
  - 11.10.2. Pressure
  - 11.10.3. Thresholds
  - 11.10.4. Beginnings and Endings of the Vibration Cycle
  - 11.10.5. Laryngeal Adjustments for Phonation

#### Module 12. Objective Exploration of the Voice

- 12.1. Morphofunctional Exploration
  - 12.1.1. Indirect Laryngoscopy
  - 12.1.2. Nasofibrolaryngoscopy
  - 12.1.3. Telelaryngoscopy
  - 12.1.4. Stroboscopy
  - 12.1.5. Videochemography
- 12.2. Electroglottography
  - 12.2.1. Equipment
  - 12.2.2. Use
  - 12.2.3. Electroglottographic Parameters
  - 12.2.4. Interpreting Results
- 12.3. Aerodynamic Measurements
  - 12.3.1. Equipment
  - 12.3.2. Use
  - 12.3.3. Aerodynamic Parameters
  - 12.3.4. Interpreting Results
- 12.4. Electromyography
  - 12.4.1. What is an EMG
  - 12.4.2. Indicated Pathologies
  - 12.4.3. Procedure
  - 12.4.4. Interpreting Results

- 12.5. Video Chemography
  - 12.5.1. What is an VKG
  - 12.5.2. Interpreting Results
- 12.6. Physical Aspects of the Voice
  - 12.6.1. Types of Waves
  - 12.6.2. Amplitude
  - 12.6.3. Frequency (F)
  - 12.6.4. Time
- 12.7. Acoustic Aspects of Voice
  - 12.7.1. Intensity
  - 12.7.2. Pitch
  - 12.7.3. Duration
  - 12.7.4. Quality
- 12.8. Acoustic Analysis of Voice
  - 12.8.1. Fundamental Frequency
  - 12.8.2. Harmonics
  - 12.8.3. Formants
  - 12.8.4. Speech Acoustics
  - 12.8.5. The Spectrogram
  - 12.8.6. Disturbance Measures
  - 12.8.7. Noise Measures
  - 12.8.8. Voice Equipment/Laboratory
  - 12.8.9. Gathering Samples
  - 12.8.10. Interpreting Results

#### Module 13. Functional Assessment of the Voice

- 13.1. Perceptual Assessment
  - 13.1.1. GRBAS
  - 13.1.2. RASAT
  - 13.1.3. GBR Score
  - 13.1.4. CAPE-V
  - 13.1.5. VPAS

13.2.	Assessi	ment of Vocal Function
	13.2.1.	Fundamental Frequency
	13.2.2.	Phonetogram
	13.2.3.	Maximum Phonatory Times
	13.2.4.	Velo-Palatine Efficiency
	13.2.5.	VHI
13.3.	Medica	History
	13.3.1.	The Importance of the Clinical History
	13.3.2.	Characteristics of the Initial Interview
	13.3.3.	Medical History Sections and Voice Implications
	13.3.4.	Proposal of a Model of Anamnesis for Vocal Pathology
13.4.	Body As	ssessment
	13.4.1.	Introduction
	13.4.2.	Posture
		13.4.2.1. Ideal or Correct Posture
	13.4.3.	Voice-Posture Relationship
	13.4.4.	Posture Assessment
13.5.	Respira	tory Assessment
	13.5.1.	Respiratory Function
	13.5.2.	Breathing-Voice Relationship
	13.5.3.	Aspects to Assess
13.6.	Assessi	ment of the Stomatognathic System
	13.6.1.	Stomatognathic System
	13.6.2.	Relationships Between the Stomatognathic System and Voice Production
	13.6.3.	Assessment
13.7.	Assessi	ng Vocal Function
	13.7.1.	Vocal Quality
	13.7.2.	High Vocal Quality vs. Low Vocal Quality
	13.7.3.	Vocal Quality Assessment in Voice Professionals
13.8.	Softwar	re for Assessing Vocal Function
	13.8.1.	Introduction
	13.8.2.	Free Software

13.8.3. Payment Software 13.9. Materials to Collect Information and Assess Vocal Function 13.9.1. Medical History 13.9.2. Reading text for Speech Sample Collection in Spanish 13.9.3. Perceptual Assessment (After Medical History and Anamnesis) 13.9.4. Self-Assessment 13.9.5. Assessing Vocal Function 13.9.6. Respiratory Assessment 13.9.7. Stomatognathic Assessment 13.9.8. Posture Assessment 13.9.9. Acoustic Analysis of Vocal Quality Module 14. Normal Voice vs. Pathological Voice 14.1. Normal Voice and Pathological Voice 14.1.1. Euphonia vs. Dysphonia 14.1.2. Types of Voices 14.2. Vocal Fatigue 14.2.1. Introduction 14.2.1.1. Advice to Prevent Vocal Fatigue 14.2.2. Synthesis 14.3. Acoustic Signs of Dysphonia

14.3.1. First Signs14.3.2. Acoustic Features14.3.3. Levels of Severity

14.4. Functional Dysphonias

14.4.1. Type I: Isometric Laryngeal Disorder

14.4.4. Type IV: Conversion Aphonia/Dysphonia14.4.5. Transitional Adolescent Dysphonia

14.4.2. Type II: Glottic and Supraglottic Lateral Contraction14.4.3. Type III: Anteroposterior Supraglottic Contraction

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14.5.	Psycho	genic Dysphonia
	14.5.1.	Definition
	14.5.2.	Patient Characteristics
	14.5.3.	Signs of Psychogenic Dysphonia and Voice Characteristics
	14.5.4.	Clinical Forms
	14.5.5.	Diagnosis and Treatment of Psychogenic Dysphonia
	14.5.6.	Synthesis
14.6.	Transiti	onal Adolescent Dysphonia
	14.6.1.	Vocal Changes
	14.6.2.	Concept of Adolescent Transitional Dysphonia
	14.6.3.	Treatment
	14.6.4.	Synthesis
14.7.	Dyspho	nia Due to Congenital Organic Lesions
	14.7.1.	Introduction
	14.7.2.	Intrachordal Epidermal Cyst
	14.7.3.	Sulcus Vocalis
	14.7.4.	Mucosal Bridge
	14.7.5.	Vergeture
	14.7.6.	Micro-Adherence
	14.7.7.	Laryngomalacia
	14.7.8.	Synthesis
14.8.	Acquire	d Organic Dysphonias
	14.8.1.	Introduction
	14.8.2.	Dysphonias of Neurological Origin
		14.8.2.1. Peripheral Laryngeal Paralysis
		14.8.2.2. Upper Motor Neuron Disorders
		14.8.2.3. Extrapyramidal Alterations
		14.8.2.4. Cerebellar Alterations
		14.8.2.5. Lower Motor Neuron Disorders
		14.8.2.6. Other Alterations
	14.8.3.	Organic Dysphonias of Acquired Origin
		14 8 3 1 Of Traumatic Origin

14.8.3.2. Inflammatory
14.8.3.3. Dysphonias of Neoplastic Origin
14.8.4. Synthesis
14.9. Mixed Dysphonias
14.9.1. Introduction
14.9.2. Vocal Nodes
14.9.3. Laryngeal Polyps
14.9.4. Reinke's Edema
14.9.5. Vocal Cord Hemorrhage
14.9.6. Contact Ulcer or Granuloma
14.9.7. Mucous Retention Cyst

#### Module 15. Medical-Surgical Treatments of Vocal Pathology

- 15.1. Phonosurgery
  - 15.1.1. Flush Section

14.9.8. Synthesis

- 15.1.2. Cordotomies
- 15.1.3. Injection Techniques
- 15.2. Laryngeal Surgery
  - 15.2.1. Thyroplasties
  - 15.2.2. Laryngeal Neurosurgery
  - 15.2.3. Surgery in Malignant Laryngeal Pathologies
- 15.3. Medication in Dysphonia
  - 15.3.1. Medication to Regularize Respiratory Aspects
  - 15.3.2. Medication to Regularize Digestive Aspects
  - 15.3.3. Medication to Regulate the Non-Autonomous Nervous System
  - 15.3.4. Types of Medication

#### **Module 16.** Speech Therapy for Voice Disorders

- 16.1. The Importance of the Multidisciplinary Team in the Approach to Treatment
  - 16.1.1. Introduction
  - 16.1.2. Teamwork
    - 16.1.2.1. Characteristics of Multidisciplinary Work

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	16.1.3.	Multidisciplinary Work in the Treatment of Vocal Pathology
16.2.	Indicati	ons and Restrictions of Speech Therapy Treatment
	16.2.1.	Prevalence of Vocal Disorders
	16.2.2.	Treatment Indications
	16.2.3.	Treatment Limitations and Restrictions
	16.2.4.	Adherence to Treatment
16.3.	Genera	Intervention Objectives
	16.3.1.	The General Objectives of All Vocal Work
	16.3.2.	How to Meet the General Objectives?
16.4.	Muscle	Conditioning
	16.4.1.	Voice as a Muscle Activity
	16.4.2.	General Aspects of Training
	16.4.3.	Principles of Training
16.5.	Respira	tory Conditioning
	16.5.1.	Justifying Respiratory Work in Vocal Therapy
	16.5.2.	Methodology
	16.5.3.	Static Exercises With Facilitating Postures
	16.5.4.	Semisupine
	16.5.5.	Neutral or Monkey Position
	16.5.6.	Dynamic Exercises With Facilitating Postures
16.6.	Hygiene	e Therapy
	16.6.1.	Introduction
	16.6.2.	Harmful Habits and Their Effects on the Voice
	16.6.3.	Preventive Measures
16.7.	Confide	ential Voice Therapy
	16.7.1.	History of the Method
	16.7.2.	Foundation and Principles
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16.8.	Resona	nce Voice Therapy
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16.9.2. Justification of the Method
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16.10. Vocal Function Exercises
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16.12. Lee Silverman LSVT
16.12.1. Introduction
16.12.2. Justification
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16.13. Physiological Therapy
16.13.1. Justification
16.13.2. Physiological Objectives
16.13.3. Training
16.14. Semi-Occluded Vocal Tract Exercises
16.14.1. Introduction
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16.14.3. TVSO
16.15. Manual Laryngeal Massage
16.15.1. Introduction
16.15.2. Manual Circumlaryngeal Therapy
16.15.3. Laryngeal Massage Technique
16.15.4. Introduction to Functional and Structural Techniques
16.15.4.1. Jones Technique for the Suprahyoid Muscles
16.15.4.2. Functional Hyoid Bone Technique
16.15.4.3. Functional Technique for Tongue and Hyoid Bone

16.8.3. Uses and Benefits

16.9. Accent Method

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16.15.4.4. Functional Technique for the Tongue 16.15.4.5. Technique for Maxillopharyngeal Fasciae 16.16. Facilitating Techniques 16.16.1. Introduction 16.16.2. Description of Facilitating Techniques 16.17. Estill Voice Training 16.17.1. Jo Estill and the Creation of the Model 16.17.2. Principles of Estill Voice Training 16.17.3. Description 16.18. PROEL Method 16.18.1. Introduction 16.18.2. Principles 16.18.3. Curiosities 16 19 NFIRA Method 16.19.1. Introduction 16.19.2. Concept of Euphony 16.19.3. Objectives of the Method 16.19.4. Body-Vocal Scaffolding 16.19.4.1. Body Work 16.19.4.2. Respiratory Attitude 16.19.4.3. Resonance Work 16.19.4.4. Vocal Work 16.19.4.5. Emotional Work 16.20. Body, Voice and Movement 16.20.1. Introduction and Justification 16.20.2. Techniques That Incorporate Movement Into Their Programs 16.20.3. Examples: 16.21. Elastic Bandages 16.21.1. History 16.21.2. Bandage Characteristics 16.21.3. Effects 16.21.4. Contraindications

16.22. Electrostimulation 16.22.1. Introduction 16.22.2. Justification 16.22.3. Methodology 16.23. Low-Power Laser 16.23.1. History 16.23.2. Physical Concepts 16.23.3. Classification of the Types of Laser 16.23.4. Effects of Lasers and Their Interaction With Tissues 16.23.5. Safety Measures and Contraindications 16.23.6. Use of Lasers in the Prevention and Treatment of Voice Disorders Module 17. Speech Therapy for Pathologies 17.1. Speech Therapy in Functional Dysphonias 17.1.1. Type I: Isometric Laryngeal Disorder 17.1.2. Type II: Glottic and Supraglottic Lateral Contraction 17.1.3. Type III: Anteroposterior Supraglottic Contraction 17.1.4. Type IV: Conversion Aphonia/Dysphonia 17.1.5. Psychogenic Dysphonia with Arched Vocal Cords 17.1.6. Transitional Adolescent Dysphonia 17.2. Speech Therapy in Organic Origin Dysphonias 17.2.1. Speech Therapy in Congenital Origin Dysphonias 17.2.2. Speech Therapy in Acquired Origin Dysphonias 17.3. Speech Therapy in Organic-Functional Origin Dysphonias 17.3.1. Nodes 17.3.2. Polyps 17.3.3. Mucous Cysts 17.3.4. Others

16.21.5.1. Uses in the Voice

16.21.5. Techniques

- 17.4. Post-Laryngectomy Rehabilitation
  - 17.4.1. Types of Prosthesis
  - 17.4.2. The Esophageal Voice: Murmurs, Esophageal Sound, Learning Sequence, Characteristics of the Esophageal Voice
  - 17.4.3. Tracheoesophageal Voice
  - 17.4.4. The Voice in Patients with Prostheses
- 17.5. Treating the Voice in Gender Change
  - 17.5.1. Initial Considerations
  - 17.5.2. Voice Masculinization Objectives
  - 17.5.3. Voice Feminization Objectives
  - 17.5.4. Acoustic Aspects of Voice Accommodation: Vocal String Body and Cover, Fundamental Frequency, Resonance, and Timbre
  - 17.5.5. Suprasegmental Aspects of Speech

#### Module 18. The Professional Use of the Spoken Voice

- 18.1. Risk Factors in Voice Professionals
  - 18.1.1. General Aspects
  - 18.1.2. Teachers
  - 18.1.3. Actors
  - 18.1.4. Dubbing
  - 18.1.5. Broadcasters
  - 18.1.6. Telephone Operators
  - 18.1.7. Hygienic Measures Plan for Vocal Care
- 18.2. Bases and Objectives of Vocal Training
  - 18.2.1. Physiological Basis of the Spoken Voice
  - 18.2.2. Objectives of Vocal Training in Healthy Voices
- 18.3. Flexibility.
  - 18.3.1. What is Flexibility?
  - 18.3.2. Vocal Flexibility
    - 18.3.2.1. Power
    - 18.3.2.2. Source
    - 18.3.2.3. Filter

- 18.3.2.4. Body
- 18.3.2.5. Emotion
- 18.4. Resistance
  - 18.4.1. What is Vocal Endurance?
  - 18.4.2. Vocal Endurance
- 18.5. Communication: A Versatile Voice
  - 18.5.1. Theoretical Framework
  - 18.5.2. Paralanguage
  - 18.5.3. Strategies for Working on the Aspects of Paralanguage
- 18.6. The Teacher's Voice
  - 18.6.1. Features
  - 18.6.2. Objectives of Vocal Work
  - 18.6.3. Work Proposal
- 18.7. The Actors's Voice
  - 18.7.1. Features
  - 18.7.2. Objectives of Vocal Work
  - 18.7.3. Work Proposal
- 18.8. Dubbina
  - 18.8.1. Features
  - 18.8.2. Objectives of Vocal Work
  - 18.8.3. Work Proposal
- 18.9. Broadcasters
  - 18.9.1. Features
  - 18.9.2. Objectives of Vocal Work
  - 18.9.3. Work Proposal
- 18.10. Telephone Operators
  - 18.10.1. Features
  - 18.10.2. Objectives of Vocal Work
  - 18.10.3. Work Proposal

#### Module 19. Professional Singing Voice

- 19.1. Musical Concepts
  - 19.1.1. Introduction
  - 19.1.2. Musical Sounds

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	19.1.3.	Major Scale. Tonality. Intervals
	19.1.4.	Chords Common Combinations
19.2.	Physiol	ogical Bases of the Singing Voice
	19.2.1.	Power, Source and Filters
	19.2.2.	Transmission
	19.2.3.	Articulation
	19.2.4.	Tuning
	19.2.5.	Vocal Registers
19.3.	Objectiv	ves of the Vocal Technique
	19.3.1.	Vocal Technique as a Mechanical Process
	19.3.2.	The Training System
	19.3.3.	Healthy vs. Fatigue
	19.3.4.	Vocal Technique and the Artistic Side
19.4.	Tone	
	19.4.1.	Tone as Frequency
	19.4.2.	Low Frequencies
	19.4.3.	The Use of the Spoken Voice
	19.4.4.	High Frequency
	19.4.5.	Extension and Tessitura
19.5.	Intensit	У
	19.5.1.	Levels of Intensity
	19.5.2.	Healthy Ways of Increasing Intensity
	19.5.3.	Working with Low Intensity
19.6.	Projecti	on
		How to Project the Voice
	19.6.2.	Healthy Ways of Using Projection
	19.6.3.	Working With or Without a Microphone
19.7.	Endurar	nce
	19.7.1.	Vocal Athletes
	19.7.2.	Healthy Training
	19.7.3.	Harmful Habits
19.8.	Importa	ance of Sensorimotor Learning
	19.8.1.	Proprioception and Muscle Work Placement
	19.8.2.	Sound Proprioception

19.9. Exercises to Improve the Singing Voice
19.9.1. Introduction
19.9.2. Kim Chandler /O- Funky' n Fun
19.9.3. Estill Études Volume I - Alejandro Saorín Martínez
19.9.4. Other Publications
19.9.5. Compilation of Exercises Indicating Their Authors
19.9.5.1. Relief of Muscle Tension
19.9.5.2. Work on Articulation, Projection, Resonance and Intonation
19.9.5.3. Work on Register, Tessitura and Vocal Instability
19.9.5.4. Others
19.10. Proposal of Adapted Songs by Level
19.10.1. Introduction
19.10.2. Categories

#### Module 20. Psychology and Voice

- 20.1. Voice Psychology as a Specialty
  - 20.1.1. Voice Psychology as a Specialty
  - 20.1.2. Relation Between Voice and Psychology
  - 20.1.3. Voice as a Fundamental Element in Non-Verbal Communication
  - 20.1.4. Summary
- 20.2. Connection Between Voice and Psychology
  - 20.2.1. What is Voice?
  - 20.2.2. What is Psychology?
  - 20.2.3. Psychological Aspects of the Voice
  - 20.2.4. Voice According to Mood
  - 20.2.5. Voice According to Personality
  - 20.2.6. Summary
- 20.3. Voice as a Fundamental Element in Non-Verbal Communication
  - 20.3.1. Non-Verbal Communication
  - 20.3.2. Paraverbal Elements of Communication
  - 20.3.3. Impact of the Voice on the Oral Message
  - 20.3.4. Psychological Types and Vocal Characteristics
  - 20.3.5. Summary

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20.4.	Voice a	nd Emotions
	20.4.1.	What is an Emotion?
	20.4.2.	Functions of Emotions
	20.4.3.	Classification of Emotions
	20.4.4.	Expressing Emotions
	20.4.5.	Summary
20.5.	Voice a	nd Stress
	20.5.1.	What is Stress?
	20.5.2.	Theories and Models that Explain Stress
	20.5.3.	Characteristics of Stressors
	20.5.4.	Consequences of Stress
	20.5.5.	Summary
20.6.	Types o	f Functional and Psychogenic Dysphonias
	20.6.1.	What are Dysphonias?
	20.6.2.	Difference Between Functional and Organic Dysphonia
	20.6.3.	Causes of Functional Dysphonia
	20.6.4.	Types of Functional Dysphonia
	20.6.5.	Summary
20.7.	Prevent	ion of Voice Problems
	20.7.1.	Healthy Lifestyle Habits
	20.7.2.	Sleep-Wake Connection
	20.7.3.	Feeding
	20.7.4.	Tobacco
	20.7.5.	Physical Exercise
20.8.	Conscio	ousness: Mind-Body Connection
	20.8.1.	Difference Between Consciousness and Conscience
	20.8.2.	Historical Trajectory of Consciousness
	20.8.3.	Properties of Consciousness
	20.8.4.	Self-Awareness

20.8.5. Summary

20.9.	Psycho	education
	20.01	\//b a+ la

- 20.9.1. What Is Psychoeducation?
- 20.9.2. Psychoeducation in Functional Dysphonia
- 20.9.3. Psychoeducational Program
- 20.9.4. Summary
- 20.10. Mindfulness
  - 20.10.1. What Is Mindfulness?
  - 20.10.2. Types of Mindfulness Practices
  - 20.10.3. Benefits of Mindfulness
  - 20.10.4. Summary
- 20.11. Psychological Therapy in Voice Pathology
  - 20.11.1. Organic Pathologies
  - 20.11.2. Functional Pathologies

#### Module 21. Vocal Rehabilitation

- 21.1. Speech Therapy Treatment for Functional Dysphonias
  - 21.1.1. Type I: Isometric Laryngeal Disorder
  - 21.1.2. Type II: Glottic and Supraglottic Lateral Contraction
  - 21.1.3. Type III: Anteroposterior Supraglottic Contraction
  - 21.1.4. Type IV: Conversion Aphonia/Dysphonia and Psychogenic Dysphonia with Arched Vocal Cords
  - 21.1.5. Transitional Adolescent Dysphonia
- 21.2. Speech Therapy Treatment for Organic Dysphonias
  - 21.2.1. Introduction
  - 21.2.2. Speech Therapy in Congenital Origin Dysphonias
  - 21.2.3. Epidermoid Cyst
  - 21.2.4. Sulcus and Vergetures
  - 21.2.5. Speech Therapy in Acquired Origin Dysphonias
- 21.3. Speech Therapy Treatment for Organic-Functional Dysphonias
  - 21.3.1. Introduction
  - $21.3.2. \quad \text{Objectives in the Rehabilitation of Organic-Functional Pathologies} \\$
  - 21.3.3. Proposal of Exercises and Techniques According to the Rehabilitation Objective

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21.4. Voice in Acquired Neurological Problems
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- 21.4.1. Dysphonias of Neurological Origin
- 21.4.2. Peripheral Laryngeal Paralysis
- 21.4.3. Upper Motor Neuron Disorders
- 21.4.4. Extrapyramidal Alterations
- 21.4.5. Cerebellar Alterations
- 21.4.6. Lower Motor Neuron Disorders
- 21.4.7. Other Alterations
- 21.4.8. Logopedic Work Proposals
- 21.4.9. Laryngeal Paralysis
- 21.4.10. Parkinson's Disease
- 21.4.11. Bibliography

#### 21.5. Child Dysphonia

- 21.5.1. Child Voice Physiology
- 21.5.2. Child Dysphonia
- 21.5.3. Assessment
- 21.5.4. Treatment

#### 21.6. Hygiene Therapy

- 21.6.1. Introduction
- 21.6.2. Harmful Habits and Their Effect on the Voice
- 21.6.3. Clearing Throat and Coughing
- 21.6.4. Voice Use in Harmful Environments and Situations
- 21.6.5. Toxic Agents
- 21.6.6. Preventive Measures
- 21.6.7. Hydration

#### 21.7. Semi-Occluded Vocal Tract Exercises

- 21.7.1. Introduction
- 21.7.2. Justification
- 21.7.3. TVSO
- 21.8. Estill Voice Training as a Technique to Improve Vocal Function
  - 21.8.1. Jo Estill and the Creation of the Model
  - 21.8.2. Principles of Estill Voice Training
  - 21.8.3. Description







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





## tech 96 | Methodology

#### At TECH Education School we use the Case Method

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

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



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



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:

- Educators who follow this method not only grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their knowledge.
- 2. The learning process is solidly focused on practical skills that allow educators to better integrate the knowledge into daily practice.
- **3.** Ideas and concepts are understood more efficiently, given that the example situations are based on real-life teaching.
- **4.** Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.



## tech 98 | Methodology

#### Relearning Methodology

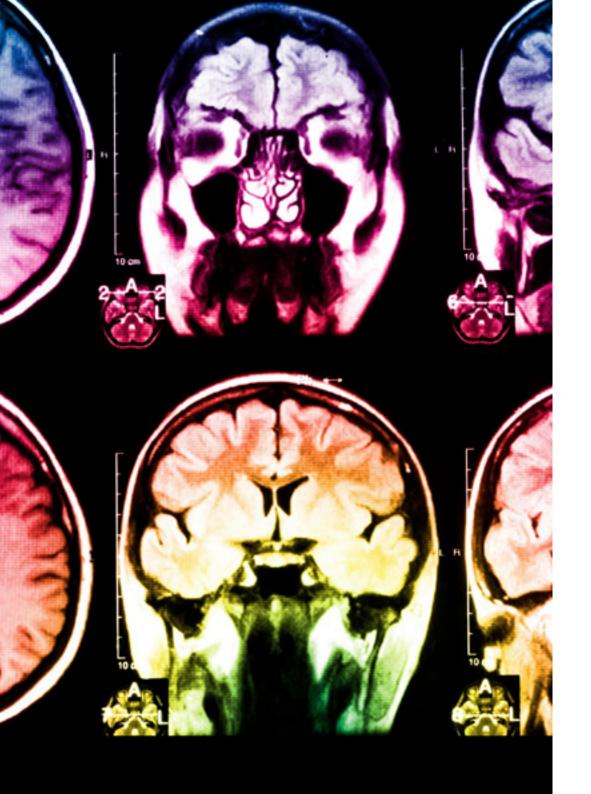
TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

We enhance the Case Study with the best 100% online teaching method: Relearning.

Educators will learn through real cases and by solving complex situations in simulated learning environments.

These simulations are developed using state-of-the-art software to facilitate immersive learning.





### Methodology | 99 tech

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

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

Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by our learning system is 8.01, according to the highest international standards.

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



#### **Study Material**

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

These contents are then adapted in 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.



#### **Video Education Techniques and Procedures**

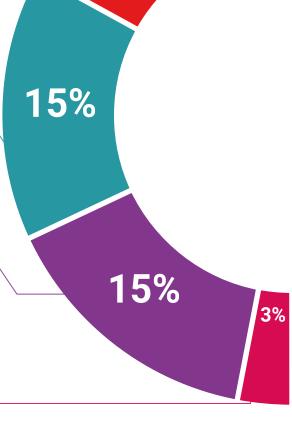
TECH introduces students to the latest techniques, with the latest educational advances, and to the forefront of Education. All this, first-hand, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, students can watch them as many times as they want.



#### **Interactive Summaries**

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

This exclusive 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 assess and re-assess 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

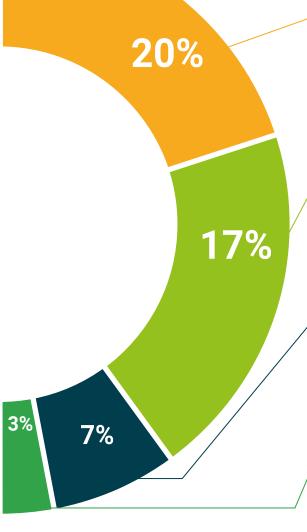
There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



#### **Quick Action Guides**

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical and effective way to help students progress in their learning.







## tech 104 | Certificate

The Advanced Master's Degree in **Advanced Master's Degree in Comprehensive Speech Therapy** guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by **TECH Global University**.

**TECH Global University** is an official European University publicly recognized by the Government of Andorra (*official bulletin*). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

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

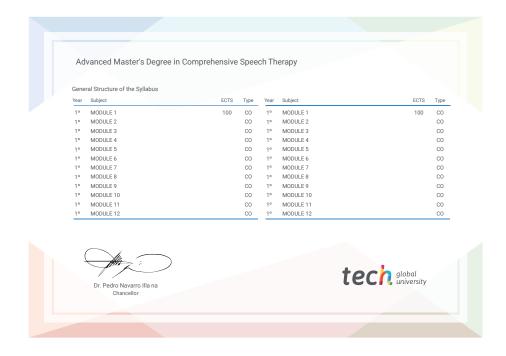
Title: Advanced Master's Degree in Comprehensive Speech Therapy

Modality: online

Duration: 2 years

Accreditation: 120 ECTS





<sup>\*</sup>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.

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Advanced Master's Degree Comprehensive Speech

Comprehensive Speech Therapy

- » Modality: online
- » Duration: 2 years
- » Certificate: TECH Global University
- » Credits: 120 ECTS
- » Schedule: at your own pace
- » Exams: online

