

# Curricular changes in the undergraduate degree in Speech, Language and Hearing Sciences from UNIFESP

## Mudanças curriculares no Curso de graduação em Fonoaudiologia da UNIFESP

## Cambios curriculares de la Licenciatura en Fonoaudiologia de la UNIFESP

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### Abstract

**Objectives:** in this study, it was of interest to verify the changes in the course of Speech, Language and Hearing Sciences of the UNIFESP after the creation of SUS (1988), after the edition of the DCN (2002) and with the participation of speech therapy in professional reorientation program, Pro-Saude II (2007). **Method:** analysis of documents (EPC nº 32544): considered the document of recognition of the course of Speech, Language and Hearing Sciences of the Escola Paulista de Medicina/UNIFESP (1977); the Political Educational Projects produced by academic Board of undergraduate degree in Speech, Language and Hearing Sciences from UNIFESP (2002, 2005, 2011); **Procedures:** the documents were analyzed according to :the creation of disciplines, increased workload, changes of emphasis on targeting existing disciplines, teachers' participation in activities, hiring of professionals. **Results:** The documents recorded changes over time, being relevant: the creation of collective health I: the territory and their problems in 2002, naming change this discipline in 2005 for public health planning and organization: health services, and new naming change in 2011 to health, illness and society: conceptions and practices; creating in 2011 of the discipline of epidemiology; creation of the approach to practice: performance in basic attention; establishment of LIBRAS; expansion of speech activities in health protection and promotion; and creation

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#### Authors' contributions:

SMI: theme idealization, methodological description, bibliographical consultation, collection the results, analysis of the results against the literature and writing of the article.

CRBÁ: theme idealization, methodological description, discussion of the results and writing of the article.

RFP: paper guidance, theme idealization, methodological outline, analysis and discussion of the results and writing of the article.

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of electives and optional. Conclusion: there have been changes in the undergraduate degree in Speech, Language and Hearing Sciences of UNIFESP, after the SUS, after editing the DCN and mainly after the Pro-saude II, recorded in the documents reviewed, following the recommended by the DCN.

**Keywords:** Speech, Language and Hearing Sciences; Higher Education; Curriculum; Professional Training; Health Human Resource Training.

### Resumo

**Objetivos:** Neste estudo, foi de interesse verificar as mudanças no Curso de Fonoaudiologia da UNIFESP após a criação do SUS (1988), após a edição das Diretrizes Curriculares Nacionais – DCN (2002) e com a participação da Fonoaudiologia no programa de reorientação profissional, Pró-Saúde II (2007).

**Método:** Análise documental (parecer CEP nº 32544): considerados o documento de reconhecimento do Curso de Fonoaudiologia da Escola Paulista de Medicina/UNIFESP (1977) os Projetos Político Pedagógicos produzidos pela Diretoria acadêmica do Curso de graduação em Fonoaudiologia da UNIFESP (2002, 2005, 2011); **Procedimentos:** Os documentos foram analisados segundo: criação de disciplinas, aumento de carga horária, mudanças de direcionamento de ênfase nas disciplinas já existentes, participação dos docentes nas atividades, contratação de profissionais. **Resultados:** Os documentos registraram mudanças ao longo do tempo, sendo relevantes: a criação da disciplina de Saúde coletiva I: o território e seus problemas em 2002, mudança de nomenclatura desta disciplina em 2005 para Saúde coletiva I: planejamento e organização de serviços de saúde, e nova mudança de nomenclatura em 2011 para Saúde, adoecimento e sociedade: concepções e práticas; criação em 2011 da disciplina de Epidemiologia; criação da disciplina de aproximação à prática: atuação em Atenção Básica; criação da disciplina de LIBRAS; ampliação da atuação fonoaudiológica em proteção e promoção à Saúde; e criação de disciplinas eletivas e optativas. **Conclusão:** Houve mudanças no Curso de Graduação em Fonoaudiologia da UNIFESP, após o SUS, após a edição das DCN e principalmente após o Pró-Saúde II, registradas nos documentos analisados, obedecendo ao recomendado pelas DCN.

**Palavras-chave:** Fonoaudiologia; Educação Superior; Currículo; Capacitação Profissional; Capacitação de Recursos Humanos em Saúde.

### Resumen

**Objetivos:** En este estudio, fue de interés verificar los cambios en el curso de Fonoaudiología de la UNIFESP después de la creación del SUS (1988), después de la edición de las Directrices Curriculares Nacionales - DCN (2002) y con la participación de la Fonoaudiología en el programa de reorientación profesional, Pro-Salud II (2007). **Método:** Análisis documental (parecer CEP nº 32544): considerado el documento de reconocimiento del curso de Fonoaudiología de la Escuela Paulista de Medicina/UNIFESP (1977), los Proyectos Políticos Pedagógicos producidos por el Consejo Académico de la Licenciatura en Fonoaudiología de la UNIFESP (2002, 2005, 2011); **Procedimientos:** los documentos fueron analizados según: creación de disciplinas, aumento de carga horaria, cambios de énfasis en las disciplinas existentes, participación de los docentes en las actividades, contratación de profesionales. **Resultados:** los documentos registran cambios con el tiempo, siendo relevantes: la creación de la disciplina de Salud Colectiva I: El Territorio y sus Problemas, en 2002, el cambio de la nomenclatura de esta disciplina en 2005 para: Salud Colectiva I: Planificación y Organización de Servicios de Salud, y nuevo cambio de nombramiento en 2011 para Salud, Enfermedad y Sociedad: Conceptos y Prácticas; creación en 2011 de la disciplina de Epidemiología; creación de la disciplina Acercamiento a la Práctica: Actuación en la Atención Básica; creación de la disciplina de LIBRAS; ampliación de la actuación fonoaudiológica en protección y promoción de la salud y creación de disciplinas electivas y opcionales. **CONCLUSIÓN:** hubo cambios en la Licenciatura en Fonoaudiología de la UNIFESP, después del SUS, después de la edición del DCN y principalmente después del Pro-Salud II, registrados en los documentos revisados, siguiendo lo recomendado por el DCN.

**Palabras claves:** Fonoaudiología; Educación Superior; Curriculum; Capacitación Profesional; Capacitación de Recursos Humanos en Salud.

## Introduction

Speech, Language and Hearing Sciences is part of the Health area which addresses human communication in its different domains and scopes. The Speech-Language and Hearing Pathologist is a professional with full graduation in Speech-Language Pathology and Audiology, which operates in research, prevention, evaluation and speech-language therapy in the area of oral and written communication, voice and hearing, as well as improving speech and voice patterns (Law 6965/81).

The teaching of Speech-Language Pathology and Audiology in Brazil began in the 60's, with the creation of the first Course of Speech-Language Pathology and Audiology linked to the University of São Paulo Medical School Hospital das Clínicas. In 1976, the first minimum curriculum for the Courses of Speech-Language Pathology and Audiology in the period was approved by the Federal Council of Education (resolution 54/76).

At the São Paulo Federal University - UNIFESP, the Course of Speech-Language Pathology and Audiology began in 1968, in the former São Paulo School of Medicine. On December 13, 1977, the Technical Training Course in Speech-Language Pathology and Audiology was recognized, which should last three years and full period (recognized by Decree No. 81.349, in view of Opinion No. CFE No. 3.472/77, published in the Federal Official Gazette in 02/16/1978).

In 1983, two years after the recognition of Speech-Language and Hearing Pathologist as a profession, the course of UNIFESP was reformulated in view of Resolution No 6 of 04/06/83 of the Federal Council of Education (CFE). Thus, it was called Speech-Language Pathology and Audiology Course of São Paulo School of Medicine, lasting four years, full time.

Over time, the curricular structure of the course remained following the same principle and organization, although content updates and modernization of clinical practice with physical and dynamic adjustments were made, but without structural changes.

In 2002, a new restructuring of the curriculum was carried out, with renaming of different disciplines which, in the previous proposal, were underlying the modular names as Curricular Units. This reformulation also complied with the recommendations of the Commission of Teaching

Specialists in the field, adviser to the Secretariat of Higher Education of the Ministry of Education – SESu/MEC, seeking to improve the quality of education and adapt the student training to the new demands of scientific knowledge and the national and international job market and, over all, meet the National Curricular Guidelines (Resolution No. 5 CNE/CES of 02/19/2002)<sup>1</sup>. These resulted from extensive discussion process, and the creation of SUS [Unified Health System], in 1988, was decisive in its implementation.

The Unified Health System – SUS<sup>2</sup> is the formalization of the achievement of everyone's right to health. It is a public policy defined in the Brazilian Constitution which stipulates that public health actions and services integrate a network and constitute a unified system. The principles of SUS – universality, integrality, equity, social control, expanded health concept – are social law qualifiers, driving the expression of new needs. Its strategies – decentralization, regionalization, hierarchy, single command – define its organization and functioning. Its implementation is a dynamic process which requires a new professional profile with skills and abilities that can respond to these increasingly complex demands. The article 200, item III, of the Federal Constitution (1988)<sup>2</sup>, stipulates that “it is the responsibility of SUS, in addition to other attributions, in accordance with the law, order the formation of human resources in the health area,” providing in that moment, the importance of the adequacy of the professionals for their consolidation.

However, expressive advances in the curricular changes process can be observed primarily in the last two decades, driven by numerous factors, with emphasis on those related to the articulated policies of the Ministries of Education and Health, such as reorientation vocational training programs and education through work – *Pró-Saúde*<sup>3,4</sup> I, II and PET-Saúde<sup>5</sup>. It is emphasized that the health education associations, which have already questioned and pointed to the need for a reorientation of vocational training, have played an important role in this process.

Thus, many educational institutions, during the 90's and 00's, reviewed their pedagogical projects and curricular matrices in their undergraduate courses aiming to adjust to the new moment and the new health needs to be answered by the healthcare system under construction<sup>6</sup>.

Constant changes and adjustments have been carried out to meet the demand of the professional with profiling advocated by SUS. In this sense, special attention and resources have been targeted with the objective of expanding access and qualifying primary care<sup>7</sup>. At the same time, it is a great challenge for the teaching of health professions, especially due to the difficulties from health services infrastructure, preceptory undefinitions, resistance of educational institutions to broaden their teaching for external services to internship sites such as university hospitals and medical schools, as well as defining actions to be developed by the different professions at this level of attention. This lack of definition occurs, among other factors, by incomprehension of the basic attention role in the system, linked almost exclusively to the idea of promoting health and prevention of diseases and, also, by the conception of SUS<sup>2</sup> which, although universal and integral, as advocated by Brazilian Constitution, SUS is still perceived as a compensatory policy, focused on poor people, hence simplified and limited.

Efforts are recognized in the adequacy of curricula by some of the educational institutions and teachers involved in the teaching-learning process<sup>6, 8, 9</sup> in the training of a professional who acts in a full and integrated manner, contemplating the demand. In this sense, studies that address the insertion of the Speech-Language and Hearing Pathologist in primary care and vocational training contribute to the improvement and efficiency of the citizen's assistance, as well as those who analyze the teaching-learning process and the insertion of the professional in the SUS.

The Speech-Language Pathology and Audiology Course of UNIFESP São Paulo School of Medicine has been adjusting and making changes to its curricular structure, although it contemplates in the Pedagogical Project, since its early stages, the teaching of Preventive and Educational Speech-Language Pathology and Audiology, which includes practice in different settings of Public Health Service. An example of this performance is the participation, since 1986, in the *Programa de Integração Docente Assistencial* [Assistance Teacher Integration Program], PIDA-Embu<sup>10</sup>, for integration, teaching and health services, conducted by UNIFESP with the participation of Medicine, Nursing, Ophthalmic Technology and Speech-Language Pathology and Audiology courses.

In this context, it was of interest to analyze the Speech-Language and Hearing Pathologist training process of UNIFESP, particularly to analyze the curricular changes that occurred from the creation of SUS, in 1988, and reflect on its impact on the professional training in the Speech-Language Pathology and Audiology Course from the São Paulo School of Medicine of São Paulo Federal University– UNIFESP in this period.

Thus, the objective of this study was to describe the changes occurred in the pedagogical political project of Speech-Language Pathology and Audiology Course of São Paulo School of Medicine of UNIFESP in the period subsequent to the creation of SUS, from the editing of the National Curricular Guidelines and subsequent to the *Pró-Saúde*.

## Method

This study was approved by the Ethics and Research Committee of the São Paulo Federal University – UNIFESP/Hospital São Paulo under opinion No. 32544.

## Study Component

To achieve the proposed objective, documentary analysis was defined as a component for the study.

The documentary analysis relies on the consultation and analysis of the curriculum and the pedagogical political projects of the Undergraduate Course in Speech-Language Pathology and Audiology of UNIFESP, since its beginning, after the creation of SUS<sup>2</sup>, the edition of the National Curricular Guidelines<sup>1</sup> and the *Pró-Saúde*<sup>4</sup> (integral part of the interministerial policies for induction to curricular changes).

The following documents available on the Board of Directors of the Undergraduate Course in Speech, Language and Hearing Sciences were consulted, upon the prior authorization of the acting director: Programming Recognition of the Speech-Language Pathology and Audiology Course of São Paulo School of Medicine – volumes 1 and 2 (1977); Pedagogical Political Project (2003), Pedagogical Political Project (2005), Pedagogical Political Project (2011).

## Procedures

The following were used as guiding dimensions for documentary analysis:

- Expansion of teaching in acting in Primary Care;
- Inclusion of work in multidisciplinary teams, mainly involving undergraduate students;
- Inclusion of intersectorial activities in the Speech-Language Pathology and Audiology course.

For the documents' analysis, the documents' records of the Academic Board charters for UNIFESP Undergraduate Degree in Speech, Language and Hearing Sciences Course were considered. Pedagogical Political Projects and curricula were analyzed, considering the dimensions above as guiding for analysis of the results obtained in terms of: creation of disciplines, increase in workload, changes of focusing emphasis on existing disciplines, participation of teachers in the activities, hiring of professionals.

## Results

The Speech-Language Pathology and Audiology Course of São Paulo School of Medicine was created in 03/01/1968 by Prof. Dr. Pedro Luiz Mangabeira-Albernaz, in the Department of Otorhinolaryngology (ENT). It lasted two (2) years in a 20 hours weekly basis.

In 1970, the Course was expanded to four (4) years, maintaining a 20 hours weekly basis, to integrate the list of Courses of São Paulo School of Medicine, offering 25 vacancies through admission exam. In 1974, the Speech-Language Pathology and Audiology Course began to be coordinated by Prof. Dr. Raymundo Manno Vieira, who restructured the course from a reorientation of objectives and introduced theoretical-practical subsidies for educational and preventive action. In 1976 the Course was restructured to meet the minimum curriculum for Speech-Language Pathology and Audiology Courses (opinion 2122/76 and 2129/76), and in 1977 it was recognized as a Technical Training Course in Speech-Language Pathology and Audiology, lasting three (3) years in a 40 hours weekly basis (Ordinance/MEC No. 81.349 of 02/16/1978). With the publication of resolution no. 6 of 04/06/83 of the Federal Council of Education, the Course was reformulated (Law No. 6965, promulgated by the Presidency of the Republic in 12/09/1981), to be called Speech-Language Pathology and Audiology

Course of São Paulo School of Medicine, lasting four (4) years in full time. Since then, the Course has maintained its philosophy and its characteristics of theoretical-practical organization.

The undergraduate course in Speech-Language Pathology and Audiology at UNIFESP is dedicated to forming the general practitioner, focused on Health Promotion, capable of preventing, evaluating, diagnosing and handling human communication disorders, as well as improving the patterns of human hearing, voice, swallowing, speech and language, and enabling this professional for teaching and research development in his area of expertise, in addition to sensitizing and stimulating him to continue his studies at postgraduate levels.

The professional training, since the recognition of the Course in 1977, seeks to provide aptitude so that the Speech-Language and Hearing Pathologist can fully act with Language, the Human Communication. For this, the course was planned in order to prepare the professional with:

A. Knowledge of biological bases (anatomy, physiology, pathology), as well as the psychological nature and linguistic participation involved in the process of development and manifestation of Human Language, in terms of assessing and monitoring; treating and rehabilitating; attending and improving.

B. Knowledge of the socio-cultural bases, the philosophical and pedagogical implications involved in the process of development and manifestation of Language, in terms of preventing and caring; supervising and guiding; instructing and approaching;

C. Knowledge of scientific character and the importance of Speech-Language Pathology and Audiology in the context of human knowledge, to be able to inform and provide resources that contribute, together with other areas of study and research, so that the process of development and manifestation of Language can be increasingly understood in its complexity.

*“Thus, Speech-Language Pathology and Audiology, as a study and a scientific and practical knowledge, must offer to its professionals, with the mission casted upon it, sufficient information of the biological, cultural and social bases involved in the process of development and manifestation of human Language, as well as the resources for evaluating, measuring, monitoring, and protecting it...”<sup>11</sup>*

In order to do so, the initial proposal of the Course included the Speech-Language and Hearing Pathologist training in three cycles, didactically organized in: INTEGRATED COURSE II (BASIC CYCLE), INTEGRATED COURSE III (PROFESSIONAL CYCLE) and PROFESSIONAL INTERNSHIP. The Course had a workload of 2430

hours, and the student was offered an average of 30 hours of activities per week. The admission to the Speech-Language Pathology and Audiology Course took place by means of a college entrance examination with an offer of twenty-five vacancies/year.

**Table 1.** Organization of undergraduate degree in Speech, Language and Hearing Sciences in 1977.

1 <sup>st</sup> year	1st semester:	Integrated Course II
	2nd semester:	Prerequisites to Training cycle
2nd year	1st semester:	Integrated Course III
	2nd semester:	
3rd year	1st semester:	Vocational internship
	2nd semester:	

THE INTEGRATED COURSE II, or BASIC CYCLE, was developed and offered to students enrolled in the Speech-Language Pathology and Audiology, Nursing and Orthoptics courses, which attended them in conjunction during the first semester of the first year. In the last three (3) weeks of the INTEGRATED CYCLE II, the students received specific content to their course of origin, fulfilling with the training complementation for the future requirements in the professional cycles<sup>11</sup>.

The INTEGRATED CYCLE III or PROFESSIONAL CYCLE was developed in order to specifically contemplate Speech-Language Pathology and Audiology through an integrated program of vocational content. This cycle began in the first semester of the second year of the Course.

The INTERNSHIP TRAINING began in the third year of the Course when the practical activities were developed, essential for the Speech-Language and Hearing Pathologist training. These practical activities took place in the São Paulo School of Medicine (EPM) premises and in places outside the Institution, such as hospitals, schools and other institutions that provided students with professional training in organizations specialized in Language therapy.

Between 1977 and 1983, changes that were necessary and pertinent to the context of that time were made, and the curricula were periodically revised to provide such adjustments. However, no substantial change was held in this period.

In 1983, with the publication of Resolution No. 6 of 04/06/83 of the Federal Council of Education (CFE), the course was reformulated, including to comply with Law No. 6965 (promulgated by the Presidency of the Republic on 12/09/1981), which provided for the regulation of the profession of Speech-Language and Hearing Pathologist throughout the national territory, and after the approval of a new minimum curriculum it is now called Speech-Language Pathology and Audiology Course of São Paulo School of Medicine, by the CFE Opinion 20/83, approved on 02/03/1983, for a duration of four years, full time. This pedagogical project proposed the realization of a course with modular structure.

In 1988, two Academic Disciplines were created: Human Communication Disorders and Hearing Disorders, without disrupting the close relationship between themselves in the student training, both in undergraduate and postgraduate programs.

In 2002, the curriculum of the Speech-Language Pathology and Audiology course of UNIFESP underwent new changes, presenting a new nomination of the different disciplines that in the previous proposal were presented under modular names such as Curricular Units.

This curriculum was modified based on the proposal of the Commission of Teaching Specialists in the field, adviser to the Secretariat of Higher Education of the Ministry of Education and Culture - SESu / MEC, seeking to improve the qual-



ity of education and adapt the student training to the new demands of scientific knowledge and the national and international job market. New adjustments were then made in order to contemplate the National Curricular Guidelines. It is worth highlighting that the Speech-Language Pathology and Audiology Course, since its beginnings considers the teaching of Preventive and Educational Speech-Language Pathology and Audiology and includes actions in differentiated settings of Public Health and Education Service and consequently the reflections on these actions. The creation of the Collective Health discipline, taught in partnership with the Department of Preventive Medicine of UNIFESP, was the pedagogical-academic complement of the teaching philosophy that complies with the Law of Guidelines and Bases of Health Education.

It was from 2002 that the names of the Disciplines were revised to conform to the norms of the Curricular Guidelines in force, in the Integrated Professional Cycle and in the Professional Internship, the disciplines were arranged according to areas of knowledge.

The disciplines taught in the Course from 2002 were organized as follows:

- Basic Cycle - Initiation to the Health area
- Specific Basic Cycle - Initiation to Speech-Language Pathology and Audiology
- Integrated Professional Cycle - Training in the medical, odontological, educational, psychological, linguistic and speech and hearing areas. First term CU I - CU II.
- Integrated Professional Cycle - Training in the medical, odontological, educational, psychological, linguistic and speech and hearing areas. Second term CU III.
- Integrated Professional Cycle - Training in the medical, odontological, educational, psychological, linguistic and speech and hearing areas. Third term CU IV – CU V.
- Professional Internship cycle - 1st step: joint action internship – 3rd grade
- Professional Internship cycle - Clinical practice - 4th grade

Comparatively, the curricula of 1977, on the occasion of the Speech-Language Pathology and Audiology Course of São Paulo School of Medicine/UNIFESP recognition, and 2002, record courses with big differences, among them, the

workload, the number of disciplines in the professional cycle and the curricular organization.

The development of knowledge and technological advances associated with the reorientation of the health professional training, driven by the creation of SUS, led to the observed changes.

We highlight here the proposition of the modular structure, in its three cycles, respecting the initial proposal of the Course, but with ramifications in Curricular Units that organize the disciplines by axis of interest in the professional cycle (integrated). The establishment of the clinical Meeting, place for discussion of clinical cases, promoted the multidisciplinary discussion with participation of different professionals.

Observing the syllabus it is possible to note that there has been a paradigm reorientation, with more emphasis on prevention and promotion aspects, analyzing the new nomenclature of existing disciplines beyond the creation of some others.

In these 23 years of Speech-Language Pathology and Audiology Course, the concern with the professional training qualified for the Speech-Language Pathology and Audiology clinic is also evident in the expressive increase of specialized disciplines and workload of practice.

Between 2002 and 2011, series of demands were made to undergraduate courses in order to perfect and improve the healthcare professionals training. The professional preparation to act in SUS is the object of discussion and mobilization for many years. Curricular changes have been made in order to respond to the demands, providing the student flexibility, diversification of performance settings, and greater substrate of the theoretical content offered, both clinical and organizational.

In the undergraduate degree in Speech, Language and Hearing Sciences of UNIFESP, there was a restructuring of the transversal axis of theoretical and practical disciplines with the proposal of articulating longitudinally and progressively disciplines contents of the clinical area and collective health to their practices in the different settings of the Health Network. This proposal aimed to facilitate the learning in the Integrated Professional Cycle, which determines the multiplication and diversity of the practice settings, and also aimed to meet the specificities pertinent to the National Program for Training Reorientation of Health Professional - *Pró-Saúde II*<sup>4</sup>.

The proposed axis of approach to practice runs through the four grades and is composed of the following disciplines: Practical Approach: Speech-Language Pathology and Audiology Procedures; Health, Illness and Society: Conceptions and Practices; Practical Approach: Speech-Language Pathology and Audiology Acting in Primary Care; Speech-Language Pathology and Audiology Acting in Health Promotion and Protection; Joint Action Internship; Clinical Practice Internship.

In 2005, the nomenclature of the discipline Collective Health I - Health Services Planning and Organization was modified to Health - Illness and Society: Conceptions and Practices with the objective of inserting the student in simultaneous evaluation performed by multiprofessional health team. The modification aimed to maintain the unit of the discipline jointly taught for the students of Medicine and Speech-Language Pathology and Audiology courses of UNIFESP, continuing the practices of joint action of students and health professionals and include in the professional training of the Speech-Language Pathology and Audiology student in-depth content in the area of collective health. Such modifications were related to the execution of projects pertinent to the health equipment where the practices occur, and also to the deepening of theoretical concepts in the area.

In 2006, there was the inclusion of LIBRAS (Brazilian Sign Language) discipline in order to provide the students of the Speech-Language Pathology and Audiology Course of UNIFESP with the conditions to use this language as an instrument of communication with deaf individuals. This inclusion was intended to comply with Decree No. 5.626, dated December 22, 2005, of Article 3, of Law No. 10436, dated 04/24/02, which determines the insertion of LIBRAS as a compulsory discipline in Bachelor Degree and Speech-Language Pathology and Audiology courses. The discipline of LIBRAS (I and II) is offered in the 2nd semester of the 1st year of the Specific Basic Cycle, with a 36h

workload, and in the 3rd grade, UCIV of the Integrated Professional Cycle with the same workload.

In 2008, the Speech-Language Pathology and Audiology Course introduced in its curriculum Elective Disciplines that are compulsory and occur in the first semester (May and June) and in the second semester (August and September). The frequency of the student in the Elective Discipline is computed in hours and converted into credits.

In addition to the mandatory activities included in the curriculum, the course started to offer a set of extracurricular activities with the purpose of complementing undergraduate student training.

There was the inclusion of Complementary Activities in line with the Law of Guidelines and Bases and proposal of a nuclear curriculum model of UNIFESP as a paradigm in the training of Speech-Language and Hearing Pathologists. The nuclear curriculum presupposed the offer of activities that allow the student to complement important knowledge and skills to be acquired in disciplines selected by him.

Students were offered opportunities to undertake other complementary activities such as: participation in Academic Leagues, Monitoring, Extension Work and Scientific Initiation. Optional Disciplines were also created with the objective of offering students the opportunity to study subjects not included in the course's curriculum, at alternative times throughout the academic period.

Since 2011, the Speech-Language Pathology and Audiology course of UNIFESP has been developed full-time, with a total workload of 5500 hours, distributed over 200 school days/year, and offers annually, through admission examination, thirty-three vacancies by the universal system and three vacancies (10% of total vacancies) by the quota system. The course is structured in four grades, organized sequentially in three Cycles: BASIC, INTEGRATED PROFESSIONAL e SUPERVISED PROFESSIONAL INTERNSHIP.



**Table 2.** Organization of undergraduate degree in Speech, language and Hearing Sciences in 2011.

CYCLE		Curricular Units	
Basic (1st series)	1st semestre	Unified	
	2nd semestre	Specific	
Integrated training (2nd series)	3rd semestre	1st term	Unit I: human communication: normal development
	4th semestre	2nd term	Unit II: human communication: evaluation criteria and methods Unit III: human communication: pathology
Integrated training (3rd grade)	5th semestre	3rd term	Unit IV: Speech, Language and Hearing therapy
	6th semestre		Unit V: human communication: promotion and prevention of Speech, Language and Hearing pathologies
Supervised internship training (3rd grade)	5th and 6th semesters	1st step: Joint Actions	
Supervised internship training (4th grade)	7th and 8th semesters	step 2: clinical practice	

The BASIC CYCLE aims to promote the initiation of the student to the health related disciplines and those more specifically of Speech-Language Pathology and Audiology. It is organized in Basic, aimed at initiation in the health area (1st semester - 1st grade) and Specific, aimed at the initiation in the field of Speech-Language Pathology and Audiology Sciences (2nd semester - 1st grade).

The purpose of the INTEGRATED PROFESSIONAL CYCLE is to provide the student with an integrated vision of essential knowledge to the Speech-Language and Hearing Pathologist. It is sequentially organized into five CURRICULAR UNITS, which bring together around a target theme different academic disciplines and interdisciplinary modules. These CURRICULAR UNITS, in turn, are grouped in three terms that allow the integrated evaluation of knowledge. Some disciplines are cross-curricular and teach the syllabus content throughout the CURRICULAR UNITS held in the 3rd, 4th, 5th and 6th semesters.

The CURRICULAR UNITS - CU are designated by numbers from I to V representing each the target central theme of different disciplines:

CU I - HUMAN COMMUNICATION: THE NORMAL SUCCEED: aims to provide the student with theoretical conceptual knowledge of normal human language, processes and stages of linguistic, educational, neuro-psyche and socio-cultural acquisition and development of the healthy child.

CU II - HUMAN COMMUNICATION: CRITERIA AND METHODS OF EVALUATION: aims to provide

the student with general knowledge of the criteria and evaluation methods for the diagnosis of voice, speech, hearing and human language disorders.

CU III - HUMAN COMMUNICATION: SPEECH AND HEARING PATHOLOGY: aims to provide the student with knowledge of the pathologies through the study of the main clinical manifestations of voice, speech, hearing and human language disorders, most frequent etiological factors, specific evaluation procedures and discussion of clinical cases.

CU IV - HUMAN COMMUNICATION: SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY: aims to provide the student with knowledge of the different approaches used in the rehabilitation and reeducation of voice, speech, hearing and human language disorders.

The Professional Ethics Discipline takes place at the beginning of Curricular Unit IV (5th/6th semesters) to assist, guide and regulate the relations of the trainee, whether the interprofessional or those with the individual assisted by this Institution, in the Speech-Language Pathology and Audiology area.

CU V - HUMAN COMMUNICATION: SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY PROMOTION AND PREVENTION: aims to provide the student with knowledge of acting in voice, speech, hearing and human language healthcare programs, as well as acting in official healthcare agencies collaborating in its the promotion, maintenance and prevention.

In addition to the structure of CURRICULAR UNITS, the Integrated Professional Cycle is academically organized in three terms:

- 1st TERM - constituted of the Curricular Units I and II (3rd semester – 2nd grade).
- 2nd TERM - constituted solely of the Curricular Unit III (4th semester – 2nd grade).
- 3rd TERM - constituted of the Curricular Units IV and V (5th and 6th semester – 3rd grade).

The purpose of the SUPERVISED PROFESSIONAL INTERNSHIP CYCLE is to provide the student essential training for the practical acting in Speech-Language Pathology and Audiology. It is performed in two consecutive stages: Practice of Joint Action and Clinical Practice. Both are organized in three different disciplines: 1. Evaluation and Therapy I (Speech-Language Pathology and Audiology and the Human Communication Disorders); 2. Evaluation and Therapy II (Multidisciplinary in the Human Communication Disorders); 3. Evaluation and Therapy of Hearing Disorders. The first stage is held in the 5th and 6th semesters, with students in the 3rd grade, working together with those in the 4th grade, and the second stage - the Clinical Practice - lasting one academic year (7th and 8th semesters) of 4th grade.

The essential contents for the graduation in Speech-Language Pathology and Audiology are related to normal processes and to altered and deviated processes of human communication in

the dimensions of the individual, family and community. They provide integrated knowledge about the biopsychosocial reality of the individual and the completion of actions in the Health Area, and contemplate three major axes of Human Knowledge content, hereby represented in BIOLOGICAL AND HEALTH SCIENCES, in SOCIAL AND HUMAN SCIENCES and in SPEECH, LANGUAGE AND HEARING SCIENCES, developed in a knowledge connections network, on an increasing scale of theoretical complexity and practical applicability.

In addition to theoretical and practical classes, seminars based on learning to solve problems, integrated classes, and supervised internships, the syllabus contents of the Speech-Language Pathology and Audiology Course are also reviewed through the study of clinical cases discussed by a multidisciplinary team at a Clinical Meeting. This meeting has the participation of students of the 2nd to 4th year of Graduation in Speech-Language Pathology and Audiology, students of specialization and Post-graduation *stricto sensu*, professors of the Department of Speech-Language Pathology and Audiology, in addition to guests from other disciplines and Departments.

Comparing the curriculum of 2011 and 2002, it was possible to verify that in these ten years many changes have been made, in order to train a professional more capable to act in SUS, in an effective way.

These changes occurred primarily:

**Table 3.** Major changes in the curriculum of the undergraduate degree in Speech, Language and Hearing Sciences of UNIFESP.

Year	Discipline	Load time	Theoretical	Practice
2002	<b>Creation:</b> public health (I): the territory and its problems	64 h	32 h	32 h
2005	<b>Modification:</b> collective health I: planning and organization of health services	68 h	40 h	28 h
	<b>Modification, with new transaxle:</b> Health, illness and society: conceptions and practices	36 h		36 h
	Approach to practice: performance in basic attention in speech, language and hearing	72 h	56 h	16 h
2011	Speech, language and hearing activities in health protection and promotion	256 h		256 h
	<b>Creation:</b> Epidemiology	36 h	36 h	
	<b>Creation:</b> LIBRAS (Brazilian sign language)	36 h	15 h	21 h
	<b>Creation:</b> Electives			

## Discussion

In this study, it was of interest to verify the changes in the Speech-Language Pathology and Audiology Course of UNIFESP after the creation of SUS (1988)<sup>2</sup>, after the publication of the DCN (2003)<sup>1</sup> and with the participation of Speech-Language Pathology and Audiology in the professional reorientation program, *Pró-Saúde II* (2007)<sup>4</sup>.

The concept of Health as physical, mental and social well-being, and not only the absence of disease, was advocated by WHO - World Health Organization, since 1948<sup>12</sup>. The Alma-Ata Conference (1978) reaffirms the paradigm shift and broadening of the concept of Health, as a right of every human being, besides advocating the insertion of primary healthcare in government programs based on social, biomedical and public health research on prevalent diseases, and should contain a range of preventive, curative and rehabilitative actions<sup>13</sup>. In this historical context, the Brazilian Federal Constitution created SUS - Unified Health System<sup>2</sup>, which represented the consolidation of the right to Health for all Brazilian citizens. The SUS is a regionalized and hierarchical network, characterized by decentralization, comprehensive health care, which is primarily preventive with the participation of the community<sup>14</sup>. SUS principles are: universality, equity, integrality, social control and expanded health concept. SUS guidelines and strategies are: hierarchization, integration, regionalization, municipalization, single command and form of financing. Since its implementation in 1988, SUS has been advancing in the consolidation of its programs and principles and counts on the adequacy of the process of human resources training for Health work as essential to this consolidation.

The impact of the creation of SUS in the Undergraduate Degree in Speech-Language Pathology and Audiology of UNIFESP was observed through the diversification of practice settings and the work with multidisciplinary and interdisciplinary teams in order to provide students experience with SUS equipment, acting mainly in health prevention and promotion. The first major curricular change was registered in 2002, after the editing of the National Curricular Guidelines. Until then, the curriculum of the Course was less modified probably by understanding that at the time of the creation of SUS, the paradigm shift of the health concept to be employed from then on, was already contemplated,

and since its beginnings it was dedicated to train professionals in a comprehensive and general manner, including notions of prevention and promotion of communication health, by a team of teachers of various backgrounds. Even offering internships of practice to students in schools, in addition to ambulatory and hospital.

In 2001, the National Curricular Guidelines - DCN were published for the Undergraduate Courses in Health area<sup>1</sup>, in particular for the Undergraduate Courses in: Speech-Language Pathology and Audiology, Physiotherapy and Occupational Therapy (CNE/CES opinion no. 1210/2001). The objective of the DCN was “to serve as a reference for Higher Education Institutions (HEIs) in the organization of their training programs, allowing flexibility in the building of full curricula and favoring the indication of areas of knowledge to be considered, rather than establish defined disciplines and workloads”, and recommended that curricular modernizations be guided by the professional profiles demanded by society<sup>13</sup>. From then on, the HEIs were requested to review their curricula to adapt the professional training, mainly focused on the population demand, following a profile consistent with the one advocated by SUS.

The DCN edition had an impact on the Undergraduate Courses in Speech-Language Pathology and Audiology, which had to adapt their curricula flexibilizing them in a model of academic activities structured by a pedagogical project with programmatic actions<sup>6</sup>. The paradigm shift, with emphasis on the aspects of prevention and health promotion<sup>8</sup>, the creation of specific disciplines and practices in collective Health and the multiprofessional acting have been reported in some studies that registered their experiences from this new orientation<sup>15,16,17</sup>.

At UNIFESP, this process of adaptation was seen as something natural and carried out in order to preserve the Course philosophy and its original organization. Emphasis is placed on Curricular Unit V (CU V), intended to contemplate the contents of prevention and health promotion in Speech-Language Pathology and Audiology, specifically; and the creation of the Collective Health discipline, in partnership with the Department of Preventive Medicine. At the time, internships were also already carried out in UBS (former Health centers), and in public schools.

In order to support the implementation of DCN, incentive and professional reorientation pro-

grams have been created, such as *Pró-Saúde*<sup>3</sup> and *Pró-Saúde II*<sup>4</sup>. The National Program for reorientation of Professional Training in Health - *Pró-Saúde*<sup>3</sup> was carried out with the participation of Medicine, Nursing and Dentistry courses, professions included in the Family Health Strategy, and had the participation of 89 undergraduate courses in its first edition. In 2007, *Pró-Saúde II*<sup>4</sup> was extended to 14 Health professions, following the recommendation of the National Health Council and the same movement of creation of the Centers of Support for Family Health Strategy - Nasf, which promoted the insertion of other professionals in the area of Health in Primary Care, and had the participation of 359 undergraduate courses<sup>18</sup>.

The elaboration of *Pró-Saúde* Medicine and Nursing (2005) and Speech-Language Pathology and Audiology (2007) projects at UNIFESP was carried out in an articulated way, developed along with the actions already established by Promed (2002), continuing and consolidating the development of joint actions in permanent education and research in services. The work in services, external to the university Hospital complex, had already occurred for years, but in a disjointed and punctual way, with different objectives, formats and arrangements. However, it was from *Pró-Saúde*<sup>3</sup> that this issue became relevant in the institution's agenda, which endeavors to establish agreements with the health services in the city of São Paulo. In addition, a major contribution of *Pró-Saúde* was the organization of the organizational chart with space for participation and articulation. For UNIFESP courses, it has been reinforced in the development of changes and curricular reform<sup>19</sup>.

Specifically in the undergraduate course in Speech-Language Pathology and Audiology, after the participation of *Pró-Saúde II*<sup>4</sup>, we highlight the expansion in spaces and action settings related to SUS, the result of articulation between the University and Health Services of the city of São Paulo; possibility of multidisciplinary acting; greater participation in university Extension projects; creation of elective and optional disciplines, aiming at curricular flexibilization; and hiring of two professors and three administrative technicians to act specifically in Collective Health.

Contemplating the guiding axes of this study, it was observed:

### *Expansion of teaching in acting in Primary Care*

Considering Primary Care as structuring in the SUS organization, and understanding that it is at this acting level that Healthcare access, bonding and continuity happens, the Speech-Language and Hearing Pathologist can and should act at this level. Thus, the Speech-Language Pathology and Audiology Course should be concerned with the training of this professional, who can act efficiently, understanding his role<sup>12</sup> and proposing actions of different natures. In this context, the participation of the Speech-Language and Hearing Pathologist in the Family Health Strategy is successfully reported<sup>20</sup>.

The acting in Primary Care in the Speech-Language Pathology and Audiology Course of UNIFESP was initially structured on the occasion of the minimum Curriculum revision for Speech-Language Pathology and Audiology in 1983. But only in the last decade it has truly been expanded. In 2008, there was a restructuring of the transversal axis of theoretical and practical disciplines with the proposal of articulating longitudinally and progressively disciplines contents of the clinical area and collective health to their practices in different settings of the Health Network. By acting with population groups, which was performed in public equipment, the Speech-Language and Hearing Pathologist monitors the development of health promotion, protection, recovery and rehabilitation actions. The proposed axis of approach to practice runs through the four grades and is composed of the following disciplines: Practical Approach: Speech-Language Pathology and Audiology Procedures; Health, Illness and Society: Conceptions and Practices; Practical Approach: Speech-Language Pathology and Audiology Acting in Primary Care; Speech-Language Pathology and Audiology Acting in Health Promotion and Protection; Joint Action Internship; Clinical Practice Internship.

Over time, the concept of Primary Care and its role in SUS are being discussed and readjusted<sup>21,22</sup> but still fragile in this conception, still under construction, and consequently in the theoretical and pedagogical appropriation for the approach of Speech-Language Pathology and Audiology Primary Care.

### *Inclusion of Work in multidisciplinary teams, mainly involving undergraduate students*

The work in multiprofessional teams is one of the aspects included in the Speech-Language and Hearing Pathologist training according to DCN<sup>1</sup>.

Interdisciplinarity appears to promote the overcoming of super-specialization and the disarticulation between theory and practice<sup>23</sup>.

The Speech-Language Pathology and Audiology Course of UNIFESP considers the performance of the Speech-Language and Hearing Pathologist not only rehabilitation, but also the prevention of human Communication disorders, forming the professional in order to work in multidisciplinary teams. In 2002, the Collective Health discipline was introduced in the curriculum and was taught in conjunction with the Department of Preventive Medicine of UNIFESP, as a pedagogical-academic complement of the teaching philosophy that until then met the Law of Guidelines and Bases of Health Education, and sought interdisciplinarity.

### *Inclusion of inter-sectorial activities in the Course*

The undergraduate course in Speech-Language Pathology and Audiology of UNIFESP has education in its origin, so the interface of education in Speech-Language Pathology and Audiology is familiar and has always existed. Currently, at CU V, specific lectures are given on the Speech-Language Pathology and Audiology in the school, in the Educational Speech-Language Pathology and Audiology Discipline, in addition to the internship performed in public schools during the 3rd year of graduation, Educational Speech-Language Pathology and Audiology: intervention program. This activity has been maintaining over the years, adjusting to the knowledge advances.

The partnership between Education and Speech-Language Pathology and Audiology is discussed by several authors<sup>24,25,26,27,28</sup>, and Speech-Language Pathology and Audiology acting has been consolidating, receiving national parameters of action.

### **Conclusion**

- There have been curricular changes mainly in the last ten years, due to the development of knowledge, the maturation of professionals ex-

periencing the SUS and the policies that induce professional reorientation.

- The curricular changes could be perceived since the creation of specific disciplines of Collective Health and Epidemiology; redirection to contemplate contents of Health promotion and protection in existing Disciplines; introduction of internship for practical approach from the 2nd semester of the 1st year (basic cycle) carried out with SUS Health Network equipment; creation of elective disciplines by the faculty of the Undergraduate course in Speech-Language Pathology and Audiology of UNIFESP and the elective discipline offered by the different courses by the University, chosen by the student; and an increase in the workload of the joint action internship performed in BHU (Basic Health Unit).

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