A History of the Terminology of Communication Sciences and Disorders

Introduction

In human endeavour, some frustrations repeat themselves throughout history. What seems like a new project is initiated and goes the way of its predecessors as a result of these same frustrations. In considering the terminology of our professional area, as with any endeavour, we benefit by understanding where people have ventured previously, what frustrations they experienced, and what we can learn from the outcomes of past efforts.

As a group keen to promote improved appropriateness, accessibility and consistency of terminology, the *International Group on Terminology Frameworks – Communication Sciences and Disorders* (IGOTF-CSD) is interested to understand how terminology and terminology problems have been described and explored in the field of communication sciences and disorders in the past. This article summarises the work of academics and practitioners in communication sciences and disorders who have attempted to explain and improve the terminology of this complex and evolving field.

The section A Review of Literature on Terminology summarises the various views in the professional literature about the reasons and nature of terminology problems, specific comments on terms and definitions, discussion about the futility of standardised lists to improve terminology, and concludes with Rockey's (1969) call to view terminology as a specialty area of study.

In the Summary of Terminology Projects and Activities a range of general activities on terminology within our field are listed with brief descriptions, such as classification systems and attempts to increase the consistency of terms used, as well as activities where our field has engaged with the broader systems of terminology, including the broad medical classification systems.

The next section, What We Can Learn From the Brief Tour of History attempts to draw out particular trends and influences evident in the literature, such as the influence of the varied history of the professions within communication sciences and disorders, and summarises the type of activities previously undertaken in terminology and what this might indicate for future projects. It concludes with Suggestions for future projects on terminology where 10 key points are made as suggestions for future investigations into terms and terminology in our field.

The final section presents the Vision for the Future that motivates IGOTF-CSD to engage in the complex and challenging area of terminology.

The article concludes with a Bibliography for those interested in reading further on this topic as well as brief historical and current information from IGOTF-CSD member associations (Appendix 1) and the titles of the professionals in selected countries (Appendix 2).

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The review is limited to those articles and activities focused on defining, classifying or understanding the issues of terminology broadly in our field; it does not include discussions on terms within specialty areas within communication disorders. Some of the relevant historical information may never come to light, residing as it does in the memories of numerous project workers or in archives of associations that have tackled the issue. However, it is hoped that this document will remain a 'work-in-progress', and over time, it will stimulate the recollection and collation of additional information.

Through this brief tour of history, we aim to understand why activities may or may not have resulted in the desired outcomes and we aim to learn from these past endeavours. In short, we aim to avoid repeating the work and effort of our predecessors and gain from the opportunity to see further as we stand on their shoulders.

Acknowledgments

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Association	**Representative**
American Speech-Language Hearing Association (ASHA)	Lemmietta McNeilly Ray Kent
Audiologopaedisk Forening (AFL) & CPLOL	Bent Kjaer
Canadian Assn of Speech-Language Pathologists & Audiologists (CASLPA)	Sharon Fotheringham
Comité Permanent de Liaison des Orthophonistes/Logopèdes Europe (CPLOL)	Aileen Patterson
International Association of Logopedics and Phoniatrics (IALP)	Mara Behlau
Irish Association of Speech and Language Therapists (IASLT)	Irene Walsh
New Zealand Speech Language Therapy Association (NZSLTA)	Tika Ormond Michael Robb
Philippine Association of Speech Pathologists (PASP)	Johncy Rose Concepcion
Royal College of Speech and Language Therapists (RCSLT)	Pam Enderby
Società Italiana di Foniatria e Logopedia (SIFEL)	Antonio Schindler
Speech Pathology Association of Australia (SPAA)	Trish Bradd Regina Walsh (Chair)

A Review of Literature on Terminology

While terms and definitions for particular conditions have been extensively debated over the years, relatively little has been written in our professional literature about terminology itself. Within this review *terms* refer to individual words, while *terminology* refers to the larger concepts of systems of the use of terms, classification, nomenclature, taxonomy, clinical systems and the features of terms themselves.

The first part considers the important influence of the history and relative youth of the profession on its terminology. This is followed by an exploration of writing about the nature and impact of the terminology 'problem', about terms themselves, and about definitions and their features. The next section summarises several sources outside our field who argue that while more or better defined terminology may seem a logical solution to improving terminology, standardised lists of terms are unlikely to meet the enormous range of needs of users, and so would fail to have a major or lasting impact on practice.

This review sources literature from the 1960s to the present, limited to articles in English that are identifiably related to the topic of terminology. It is likely that other information may be buried within literature on other topics, as well as articles in languages other than English that are not accessible to the author.

The history and relative youth of the profession

The field of communication sciences and disorders sits at the interface of linguistics, psychology and medicine and its evolution has been influenced by trends in these disciplines over time (Sonninen & Damsté, 1971). Training for professionals who work in communication sciences and disorders has developed from different starting points and within different philosophical contexts in various countries. The philosophy and paradigm of training and practice is an important element in the approach to terminology that is adopted. The concepts and terms we learn in our professional development shape our professional identity, such that specific terminology systems reflect each person's fundamental comprehension of the profession (Kjaer, 2005). We accept the terms that were current at our time of training and may not identify these terms as a possible source of any problem (Hewitt cited in Johnson, 1968). Terminology is also influenced by various social welfare and private insurance systems within countries (Patterson, 2005).

The differing evolution of the profession, philosophy of training, and dominant practice paradigms within and between countries have been major contributing factors to variability in terminology in the field of communication sciences and disorders. For example, Robertson, Kersner & Davis (1995) traced the history of speech therapy[1] in the UK through the nineteenth century when the medical profession sought assistance in the treatment of 'defective speech', and on the other hand the appointment of 'remedial teachers for stammerers' within the education system at the beginning of the twentieth century. There are ongoing tensions between different paradigms of training and practice, and the different approaches to terminology within these paradigms, such as the differences between those based in medicine and those based in education (Walsh, 2005a). Appendix 1 presents brief summaries of the field of communication sciences and disorders from selected countries which illustrate the diversity of historical development and current situations across the world.

In 1969, Rockey wrote that the profession appeared to be in transition from professional infancy to childhood and it was usual, and desirable, that the terms that we used would undergo refinement as we mature; this was necessary so that we would have 'tools' suitable for scientific communication. Rockey (1969) suggested that it is probable that

[1] The professionals working in communication science and disorders have been referred to by different titles in different countries over time, and this document uses a range of these titles based on the source material. See Appendix 2 for a list of current titles from selected countries.

we had inherited erroneous or immature conception of many disorders, reflected in the terms adopted, but gave no specific examples. Other authors have also commented on the relative youth of the profession and the implications of this for terminology. Goldstein (1970) mentioned that we seemed reluctant to define our young profession and its domain due to the amorphous and fluid nature of its evolution. However Goldstein was concerned that the lack of self-definition meant that defining our profession was being done by others, such as medical or administrative personnel.

Rockey (1969) commented on how in the *Arts* the use of words was different from in the *Sciences*, and drew attention to the contrast between the 'art' of therapy and the 'science' of investigation and research. Sonninen and Damsté (1971) suggested that the 'art' uses terms that are not meant to have sharp definitions; terms are centered on effective relationships with patients and in subjective ways of responding. In contrast, the 'science' carries all theoretical formulation of the origin, development and healing processes of communication problems (Sonninen & Damsté , 1971). It seemed inevitable that these two 'faces' of the profession may contribute to a confusion of terminology (i.e. vague or poorly defined words being misused as clinical diagnostic terms, and on the other hand, clinical terms being inappropriately used to discuss clients' needs with service funders and managers).

The nature of the terminology 'problem'

Schindler (1990) remarked on the lack of commentary on what he called the basic problems of our science: a criticism of terminology. He highlighted the following quote from Kenneth Scott Wood (cited in Travis, 1971) which still seems disconcertingly current:

> *All areas of scientific study are afflicted with a certain amount of ambiguity, duplication, inappropriateness, and disagreement in the use of terms. Like other sciences, speech pathology, audiology, and the entire cluster of studies associated with the production and perception of speech have been developing over the years a terminology and nomenclature that leave much to be desired in logic and stability. Many terms and their meanings are not well crystallized because the subject matter is always changing; concepts themselves are often tentative and fluid, and many writers have liberally coined new terms whenever they felt a need to do so. This growth of speech pathology and audiology, stimulated as it has been by so many workers, has generated hundreds of terms, some of which are interchangeable, some of which have different means to different people, some of which are now rare or obsolete, and some of which for various reasons have had only a short literary life.* (cited in Schindler, 1990, p 320).

Occasional comments on the 'problem' have appeared over the last 50 years; for example, the terminology issue created a 'bottleneck' to growth (Jerger, 1962 cited in Johnson, 1968), or 'clumsy' terminology might be placing an obstacle in the path of progress (Doerfler's Foreword to Johnson, 1968). However, while some people have seen terminology as central to professional identity and progress, and worthy of significant attention, others have commented that this concern is akin to an anxiety neurosis of a professional group in its adolescence (Bzoch, 1963, cited in Johnson, 1968). These comments were made in a forum on the title of the professions in the USA, but apply equally to the broader terminology issues across the field.

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Over the years, attention has periodically been drawn to the confusing and difficult area of terminology, focusing on the problems and their impact. A public government report in Australia on the disability field highlighted that the terminology in the field of communication disorders was sometimes vague, inappropriately defined and used inconsistently (AIHW, 2003). The following issues have been attributed in some part to inadequate or inconsistent terminology:

- Lack of understanding in the wider community about the negative implications in all areas of human functioning and on quality of life for those people with limited communication (Kamhi, 1998; Kamhi, 2004);
- Difficulties in health promotion related to communication and disorders (Hoffman & Worrall, 2004);
- Difficulties in establishing the prevalence of communication disorders (Law, Boyle, Harris, Harkness & Nye, 2000);
- Difficulties in planning and implementing responsive speech pathology services due to inadequate information about needs in local communities (Enderby & Pickstone, 2005);
- Difficulties integrating speech pathology services into health, education and social contexts, due to a poor understanding of the benefits of providing support services to assist people's communication abilities directly where people are living, learning and working (McCartney, 1999);
- Difficulties for professionals in determining the best therapeutic approach for some clients due to poor definitions of communication disorders (Gagnon, Mottron & Joanette, 1997);
- Difficulty promoting professional training courses for speech pathologists in various institutions as they are known by varying titles (Kamhi, 2005);
- The inefficient use of professional research funding for extensive debates in the professional literature about whether certain communication disorders actually exist or whether they are merely 'created' by the use of terms with vague definitions (Walsh, 2006).

While there has been more extensive professional writing on the issues and impacts of terminology, Schindler's (1990) concern that there was no broad, shared and positive basis for terms and classification in communication disorders still seems to hold true. He suggested that terms and classification are of primary importance to clearly state the object of study and to order the findings and professional knowledge of the field of communication sciences and disorders.

Discussing how to resolve terminology problems (in a forum on the title of the profession in the USA), Hewitt (1961, cited in Johnson, 1968) suggested that criteria should be established for the consideration of terms, in order to avoid the tendency to divide into 'camps' of opinion on specific terms. The alternative, Hewitt suggested was 'unreflected chance' becoming the arbiter of decisions on terms. Perkins (1962, cited in Johnson, 1968) also raised the concept of criteria for terms by which to make a selection from the possibilities. (After suggesting suitable criteria, Hewitt and Perkins unfortunately neglected the critical fact that consensus regarding the criteria is necessary before they can be usefully applied.) Other commentators suggested that evolutionary process and general usage would take care of the nomenclature (Burkowsky, 1963, cited in Johnson, 1968). Burkowsky made the argument that a label is only a label; it is not a truth. This was an epistemological argument, while the counter-arguments were political. Those engaged with promoting the field of communication sciences and disorders within the

broader research, political and public arenas were extremely aware of the political power of terms, regardless of the epistemological concepts of *labels* and *truths* (Johnson, 1968). This distinction between conceptual and political arguments seems an area that warrants further exploration in the future if the field is to effectively address its terminology issues.

Much work to resolve the 'problem' of terminology has been based on the perception that the problem is the result of various definitions. Sonninen & Hurme (1992) suggested that at least two opposing strategies for developing shared definitions of terms were possible, a consensus model or a dictation model. However they saw problems in either approach. The consensus model requires that a large percentage of the community participate in the definition process and afterwards accept the new definitions; the dictation model may succeed only if those who dictate have enough power on the community. Neither of these conditions have been realised to date.

More recently, two completely different approaches to improving consistency in terminology have been suggested. Cowie, Wanger, Cartwright, Bailey, Millar, Price and Henry (2001) reviewed the case notes of speech and language therapists (SLTs) in the UK and found that terms were used inconsistently not only between SLTs, but also between different case notes kept by the same SLT. They recommended the use of a common standardised vocabulary as a logical progression toward the goal of sharing information. Simmons-Mackie (2004) also commented on the high level of inconsistency in terms used by speech pathologists to report the outcomes of therapy. Simmons-Mackie saw value in a framework for terms to improve consistency, rather than a standardised vocabulary. She recommended further investigation by speech pathologists of the conceptual framework underpinning the International Classification of Functioning, Disability and Health – ICF (WHO, 2001).

Terms and definitions

A major project to improve the terminology of communication sciences and disorders was undertaken under the auspices of IALP by Sonninen and Damsté (1971). (For details of their project see Summary of Terminology Project and Activities.) They were concerned that the tool of communication, i.e. language, was actually an obstacle to communication as definitions, use and cultural interpretations all varied. The authors questioned the way that the profession had imitated a medical habit: the use of obscure, exclusive words when talking to other people. They pondered whether this was a manifestation of seeking security to 'cover up' the areas in which we felt inadequate in our professional knowledge at that time.

Sonnenin and Damsté (1971) proposed a new framework for terms wherein the five domains of spoken communication (*voice, articulation, language*, together making *speech*, and *hearing*) were to be consistently represented by five standard terms, and that standard prefixes (*a, an, dys, hypo*) would allow finer meanings to be communicated. However, their suggestions for improvement have never been taken up (Behlau, 2005). Sonninen & Hurme (1992) pondered whether the minimal discussion of the 1971 publication was because the results did not reach those who would need them, or their framework was not found to be appropriate. They pondered whether '… the problem of creating a multilingual terminology [was] simply too difficult to solve?' (Sonninen & Hurme, 1992, p189).

Apel (1999) commented that using the single term with a range of definitions to refer to a range of completely different phenomena confounds communication within the profession. He gave the example of the various and overly-inclusive definitions of the term *language,* and explained that the lack of a shared and precise definition of such a core term resulted in a breakdown in communication and exchange of ideas in the scientific community. As well, Apel (1999) was concerned that others outside our profession may set the requirements and guidelines for our definition of core words like *language* without understanding what our profession actually means by this term.

Kamhi (2004) wrote that ideas that make intuitive sense were generally more successful than those that require scientific knowledge and expertise to understand. He explained that according to memetic theory, each person's processing limitation, cultural biases, personal preferences and human nature made them more susceptible to certain ideas over others (Kamhi, 2004). Unfortunately for professionals in communication sciences and disorders, memetic theory holds that the truth value and logic of an idea may not be the primary determinant of its appeal and acceptance. Kamhi suggested that those values that we hold dear: science, truth and logic, have little impact on how the nonprofessional community views our scope of practice and expertise. Using complex, scientifically comprehensive terms, such as those related to language-based disorders and phonological constructs, means that our message is probably not being successfully conveyed to others outside our profession. Kamhi (2004) also suggested that stigma varies with the terms chosen: those of a medical orientation (e.g. *dyslexia*) are less stigmatizing than terms with behavioral orientation (e.g. *reading disability*).

Schindler (2005) pointed out that terms do not always translate directly from one language to another and that geographical and cultural differences have lead to 'prototype' differences. A prototype is a concept, which individuals construct from their own language and world view; therefore, prototypes vary from culture to culture. An example of a prototype is the concept (and term) *disorder*. Defining a term for a 'concept' is considerably more difficult that defining a term for a 'thing'. Terms for 'things' are defined by universal criteria, but not so those terms for concepts. (For example, *vocal nodules* are a 'thing' while *voice disorder* is a 'concept'; the concept will have different applications in different cultures.) Translation projects, such as *Multilingual Speech Therapy Terminology Bank* (ILC, 2001) and the *Multilingual Terminology Database Project* (Gent University, in progress) have involved considerable effort over extended periods by many people, and have revealed important features of definitions and terms, features that will also be useful to explore further in order to improve consistency in terminology.

Rockey (1969) explored the general nature of definitions and suggested that more attention to identifying misuse, and promoting desired use, must be given before we can improve our terms. She listed various features of definitions, such as the nature of the phenomenon to which it refers, the orientation we have toward communication itself, the different types of definitions, and the parameters of definitions that enable productive exchange of ideas, and recommended the area of General Semantics (distinct from semantics in our field) as a aid to further understanding. Rockey stated that the comparison of disorders or the study of controlled groups under research conditions requires that we have a clear definition of the things under investigation. It is only when we have definitions that are of a similar type (as in referring to the same aspect of the conditions being discussed) that we have the basis for a meaningful classification system

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(Rockey, 1969). Other writers have commented on the need to choose the appropriate type of definition for the purpose of the term (Snow, 1996; Oates, 2004; Walsh, 2005a).

Sonninen and Hurme (1992) pointed out that words are defined by words: we define a concept, such as 'disability', as what we consider it means, which is distinct from defining a physical entity, such as 'water'. As such, definitions of such concepts are a matter of consensus of theory and research about complex phenomenon, more than about the 'true essence' of the phenomenon being defined. Sonninen and Hurme (1992) suggested that scientific terms need logical, clear and detailed definitions to enable scientific analysis and communication, and drew a distinction between the terms and definitions needed for therapeutic communication and those for scientific communication.

Gagnon, Mottron & Joanette (1997) were concerned about the vagueness of some of our clinical definitions and strongly cautioned the profession against the current predilection for creating terms. They said that it is a much more difficult task to abandon an outdated or ill-founded clinical entity than it is to introduce a new one. Gagnon et al (1997) pointed out that some terms are used as though they referred to empirically validated clinical entities, when in fact they merely label a group of symptoms that co-occur. This can result in a vague clinical description for a 'condition' that overlaps with other so-called 'conditions' that also have vague descriptions. They suggested that speech and language pathologists did not systematically look at symptoms other from those related to communication, and this impacted on the usefulness of definitions to explain the phenomenon (Gagnon et al, 1997).

The futility of lists of terms for improving consistency

Bain (2005) stated that while it may seem intuitively appealing or logical to address a terminology problem with more or better defined terminology, this may not be the case, as lists of 'approved' terms do not necessarily 'connect' with the users of the terms. He appealed to Systems Theory to suggest that the active application of terms within a professional practice schema is necessary for valid and useful terms. Without this, Bain suggested, we just tend to see terminology proliferation (2005). Making better or sanctioned definitions is an understandable impulse to 'sort out the mess of terms'. Unfortunately, it seems to appeal only to terminologists!

Rector (1999) pointed out that little literature on terminologies in medicine has looked at the different types of information, the purposes of the information and the users of the information. Given the number of different purposes that terms are used for, Rector questioned the idea that a single general terminology serving all of the aspirations for clinical information systems is possible. He says that the difficulty in determining and achieving clinical consensus around definitions and concepts is often underestimated, and to be useful, terminology must be open ended and allow local tailoring. While he was referring to health terminologies in general (not specifically communications disorders), Rector (1999) was challenging the commonly-held belief that a list of standardised terms will solve terminology problems.

Madden and Hogan (1997), writing about terms used in the disability field, highlighted that different purposes in defining may lead to different definitions. They mention the different requirements of terms within and between clinical, service, legislative and administrative systems, which dictate how words are defined. They suggest that to

improve consistency, we should not search for 'uniform' definitions, as it is accepted that definitions must vary according to different purposes. Instead, they consider a productive tool would be a framework which includes common standards for terminology and common language about terms, and which allows common reference points. Thus terms themselves vary, but are consistently comparable and contrastable according to their parameters and purposes that they serve. Chute (2000) considers that the debate about which term to use is essentially a local concern, but that terminology systems should include the organisation of concepts to which a term might be attached to allow comparability and consistency.

In a forum on terminology, Walsh (2005a) suggested that the way to improve accessibility, appropriateness and consistency of terminology was to develop a conceptual framework at the meta-terminology level which would provide the profession with a tool for analysis to debate and ultimately decide on individual terms within specific contexts. Considering terms at a broad 'meta-terminology' level would mean that local language issues and local context requirements, etc., would be catered for, but the differences and universalities in terms could be explored.

Walsh (2005a) made the case that since attempts in the past to formalise definitions for terms by dictate from experts have not made any noticeable impact on practice, then a completely new approach would be necessary. She suggested that a new approach would focus on human behaviour, and how terms do or do not meet the needs of people (professionals and other stakeholders) in communication for a range of purposes. Walsh attempted to draw out some of the communicative purposes that the profession has for its terms (including labeling diagnostic conditions, describing linguistic behaviours, labeling groups of clients to advocate for their rights, promoting functional communication as part of well-being). She also began some preliminary analysis of features of terms which may be important in achieving these communicative purposes. A rudimentary framework for this analysis was presented, and Walsh called for extensive further work to be undertaken to advance thinking in this area.

The forum attracted eight responses from USA (Kamhi, 2005), Brazil (Behlau, 2005), Denmark (Kjaer, 2005), Italy (Schindler, 2005), United Kingdom (Patterson, 2005) and Australia (Bain, 2005; Eadie, 2005; Madden & Bullock, 2005). Respondents raised several other issues about problems for the profession due to inconsistent terminology. Based on their experiences, Kamhi, Patterson and Eadie commented on the difficulties in equipping pre-service speech pathologists with appropriate and relevant terminology for the workplace. Others raised issues such as the public profile of the profession (Patterson, Behlau), the need to broaden the question of what makes a term useful (Kjaer, Schindler) and the value of looking outside our field to systems theory (Bain), memetic theory (Kamhi), and other functional approaches to meaning and organisation of terms (Madden & Bullock). The respondents were in favour of the approach proposed by Walsh (2005a), but offered cautions about how to proceed and called for future work to avoid the frustrations of past endeavours. Their recommendations included attention to the process of development as much as the content, some additional suggested purposes for terms, and the recognition that there was considerable work necessary to bring the initial idea to a practical or applied level. One key recommendation was that developmental work must involve members of the profession and that a useful framework could only be developed through practical application (Walsh, 2005b).

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Rockey (1969) said that experts in a specific clinical area may not also be expert in matters of terminology, although a person who knows the subject thoroughly is likely to define it well. What Rockey was alluding to is the need for more understanding about terminology itself. She called for terminology to be considered a specialised field of study requiring as much research and thought as other specialties. Description of health concepts is difficult (Chute, 2000) and revisiting and analyzing terminology in a productive way is extremely complex. The lack of resolution to our terminology 'problem' is testament to the fact the greater understanding and resources are necessary to see improvement.

Summary of literature review

This section has summarised diverse comments about terms and terminology in the field of communication sciences and disorders over the last 40 years. Numerous contributing factors to terminology problems have been recognised, such as the youth of the profession, the diversity of professional training, geographical and cultural differences and even the range of attitudes about how to improve the situation. Many authors have commented on the impact and nature of terminology problems, which are indeed extremely complex, but there has been relatively little comment on how to improve the situation. Finally, the review considered the fact that the natural impulse to create more and better defined terms, while understandable, was not likely to actually have a lasting impact. As communication experts we surely recognise that words and language are dynamic; this same principle applies to our professional terms in communication as it does to everyday words. We need a new way to consider this problem: a new approach that recognises the dynamic role that terms play in the professional schema.

Summary of Terminology Projects and Activities

This section includes brief summaries of activities that have attempted to classify, define or otherwise organise terminology broadly for the field of communication sciences and disorders. It does not include projects that focused on a single specialty area within this field. The first group includes those based around classification systems for the field; these have naturally grown from small beginnings into complex systems. The second group of activities focused more at rationalizing the proliferation of terms by some system of organisation or by the creation of standardised lists of terms. Finally a selection of broader medical or psychological terminology projects which include terms related to communication disorders are listed.

Activities on classification/taxonomy of terminology

John Thelwall, early 19th century

Thelwall is recognised as a pioneering speech scientist and therapist in the UK. Thelwall's classification for different types of speech disorders (from Duchan, 2001-2006) included:

- Natural vs. habitual (organic vs. functional)
- Stuttering vs. cluttering
- Nasality, pectoralism, maxillarism (describing tonal quality)
- Cleft palate
- Defects of vocal organs (articulation) vs. enunciation (tonal)
- Speech sounds:
    - Obscurity of elements of sound

- Imperfections of sounds
- Confused application of speech organs

Diagnostic Taxonomy of Stinchfield and Robbins, 1931

In Duchan's (2001-2006) extensive historical record, she noted that a major focus of the early practitioners of the profession in the USA was to establish a model and taxonomy of conditions that would fall within their jurisdiction. A nomenclature committee of the American Society for the Study of Disorders of Speech (later ASHA) was given the task to establish common terms for diagnostic categories. They adopted a medical model and devised a taxonomy based on the biological-disease basis of speech disorders. The taxonomy included over 100 different diagnostic categories, with more attention paid to naming the conditions than to describing or diagnosing them. Sara Stinchfield wrote at the time:

> *The attempt is made in this arrangement to give the student an outline of practically all of the commonly found disorders of speech, such as appear in home, school, and speech clinic, and to so group them that they may come under one of seven main headings: dysarthria, dyslalia, dyslogia, dysphasia, dysphemia, dysphonia, or dysrhythmia…It was necessary for the committee on terminology to coin a number of new terms having old prefixes, frequently defining the older and better-known terms as synonymous with the coined ones* (Stinchfield, 1931, p. 29, from Duchan, 2001-2006).

(For the detailed list of terms within these categories, see the extract from the book: Stinchfield & Robbins (1931) *A dictionary of terms dealing with disorders of speech*. Boston, Expression Company, on Duchan's website (2001-2006)).

Nomenclature of communication disorders, USA, 1963

Produced under the sponsorship of the rehabilitation codes with the support of funds from the National Institute of Neurological Diseases and Blindness in USA. (*Unable to access.)*

Systems analysis in Phoniatrics, 1990

In work for the European Union of Phoniatricians, Schindler (1990) detailed the main relationship among symptoms, etiopathogenetic relationships and phoniatric (communication) syndromes. The five symptoms (language delay or absence, abnormal pronunciation or dyslalia, dysfluent speech, dysgrammatism and dyslexia, and miscellaneous) were chosen from those most frequently noticed. Six etiopathogenetic relationships were considered: organic central nervous system lesions, organic sensori-perceptual lesions, organic executive motor lesions, socio-cultural inadequacies, emotional and relational inadequacies, and statistical extremes. The nine syndromes (resulting from various combinations of symptoms and etiology) were dysphonic syndrome, organic dyslalic syndrome, aphasic syndrome, verbal dysfluency syndrome, anarthric syndrome, oligophrenic syndrome, deafness syndrome, sociocultural and/or emotional relational inadequacies syndrome, and simple delayed speech. See Schinder's (1990) article for the diagram which more clearly illustrates the relationship between these three elements of symptoms, etiopathogenetic relationships and syndromes.

General activities on terminology

IALP Terminology Project, Sonninen & Damsté (1971)

Analysis of terms submitted to the project upon request from the authors, from Czechoslovakia, Denmark, Great Britain, Hungary and South Africa (those who replied to a general invitation). The authors suggested a framework for terminology including:

- *A(n)* for total loss, *dys* for impairment of a function
- Proposed reducing inconsistency in terminology by linking only one root word for each area of disorder, ie. -arthria for articulation; -acusis for hearing, -phonia for voice, -phasia for language, -lalia for speech (being speaking)
- To provide a descriptive name of the symptom in a first term; this first term is a general etiologic term but the second term is 'cleared' of all etiologic meaning while referred to the areas listed above (e.g. *psychogenic aphonia*)
- Etiological statements can be:
    - Primary organic factors: hereditary, genetic, development
    - Secondary organic factors: external trauma, internal derangement, vascular accidents and degeneration
    - Habitual functional factors: adaptive processes, development by learning and habit formation
    - Psychogenic functional factors: all psychodynamic processes.

Even though the terminology proposed followed a logic system, it was never widely adopted. However it is interesting to note the currency of suggestions in their report:

- Craft terms and scientific terms must be distinguished;
- Scientific terms describing etiology must be distinguished from those describing symptoms;
- The use of simple basic terms should be encouraged, and the creation of new terms should be avoided unless really necessary.

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Danish list of diagnoses (1982)
Produced in Denmark, a list of purely logopaedic diagnoses were used across the 14 county centres for speech-language-hearing treatment/rehabilitation. The list of diagnoses was consistently used until centre structure and management changed in mid 1990s.

Scandinavian Council of Logopaedics and Phoniatrics (NSLF) (1985)
The task of the council was to define and describe the profession, which was found to be difficult and time consuming; a compromise goal was reached and published in Nordisk Samarbeidsråd for Logopedi og Foniatri (NSLF) (1985). Logopedi i Norden – Harmonisering. Nordisk Tidsskrift for Logopedi og Foniatri. Supplement. March.

CPLOL Terminology Projects (2000)
The Terminology project was first undertaken in the late 1980s, and repeated in 1995-97 with a focus on terminology of prevention, results published in 2000. It included terms and definitions across English and French. The work seems not to have had a measurable impact on the European logopaedic profession. The task was difficult but it was possible to work together despite different mother tongues and different cultural backgrounds (Report title is CPLOL (2000). *Report on prevention of speech and language disorders*. Isbergues, France: Ortho Edition)

Multilingual Speech Therapy Terminology Bank, ILC (2000/1) (also known as Termenbank) CD-ROM
Produced by ILC with support from the Socrates-Erasmus Project; *Termenbank* is a CD ROM with an extensive data base (using Access 2003) of terms with definitions and translations in eight languages (English, Dutch, Finnish, French, German, Italian, Spanish and Swedish). Terms are categorised under the headings of anatomy, therapy, disorders, language and psychology.

Lexique/Lexicon (2001)
Produced by the Canadian Association of Speech-Language Pathologists and Audiologists, (CASLPA); an English-French translation of terms used by speech-language pathologists and audiologists. (See Appendix 1 for CASLPA's address)

Prevention/Early Intervention poster project, CPLOL (2003)
Produced by CPLOL; pan-European agreement on a single framework for content and purpose of posters for prevention/early intervention; within this framework posters were created in each local language translation. Terminology was identified as a major issue and agreement was only possible by agreeing on a broad framework and allowing local flexibility/variation in the terms used.

Multilingual terminology database for speech-language pathology and audiology (Gent University, in progress)
This project is based on the logopaedic and audiologic translation dictionary (English-Dutch, Dutch-English) by Corthals, Van Borsel and Van Lierde (2004). The aim is to expand this translation tool to other languages (currently 17) using English as the reference language. Experts in speech-language pathology and audiology have been invited to translate the 1300 most frequently used terms into their mother tongue. As such, a multilingual database will be created to generate bilingual dictionaries that can be

useful in the context of international publication, teaching, dissemination and consultation of professional literature, student and staff exchanges.

Broader systems which include CSD terminology

International Classification of Functioning, Health and Disability – ICF (2001)

Speech pathologists have made initial explorations of the usefulness of the ICF (WHO, 2001). These initial investigations indicate that the ICF has a high level of applicability and relevance to the field of communication disorders which covers all three aspects of health, disability and functioning. Threats and Worrall (2004) suggested that the ICF provides a consistent and comprehensive classification system for terms related to health, disability and functioning. Walsh (2005a) pointed out, however, that the existing problems with vaguely and inconsistently defined terms in the field of communication disorders would continue to manifest within broader classification systems. She suggested that when unexplored or unclear terms are integrated into new information management systems, they carry the same inherent problems.

Following is a small selection of ICF related activities within the field.

- Original terms and the classification of this area within ICIDH, ICIDH-2 and ICF in the speech/language impairment and communication disability area were created by clinical psychologists but these were found by speech therapists/pathologists to be problematic. Extensive work was undertaken by an ASHA representative contributing to the predecessors of the ICF in these areas.
- Therapy Outcome Measures (Enderby & John, 1997) in UK (with an Australian modification known as AusTOM) is an outcome measurement tool based on the conceptual model on ICIDH (predecessor of ICF), which includes terms for the various aspects of functioning and disability across speech pathology, physiotherapy and occupational therapy. The TOMs revision, in progress, also includes mapping onto ICD-10 (WHO, 1992).
- Research in Italy on validity of ICF in identifying patients with specific conditions by Schindler, A., Manassero, A., Dao, M., Giraudo, E., Grosso, E., Tiddia, C. & Schindler, O. (2002) and Schindler, A., Muò, R., Di Rosa, R., Manassero, A., Vernero, I. & Schindler, O. (2004) indicated clinical usefulness of ICF to distinguish the client groups that were investigated.
- CPLOL: attitudes to and degrees of application of the ICF amongst CPLOL member countries varies; this seems to be related to language and the difficulties of translation. Several countries reported major issues regarding lack of usefulness or validity of translated materials. For example, a Danish working group contributed to Danish translation of ICF in communication areas, however, it is considered unusable (unless thoroughly adjusted) by the profession in that country.
- In Australia, ICF is being applied in some settings in both adult and paediatric contexts. ICF has been adopted as the standard for national data reporting in the country, so there is an opportunity and a challenge for the profession to influence the use of the ICF with its clients.

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International Statistical Classification of Diseases and Related Health Problems (ICD-9/10, WHO, 1992)

The International Statistical Classification of Diseases and Related Health Problems (versions 9 and 10 used in different countries) known as ICD, provides a list of categories for medical diagnoses. The hierarchy and terms included are neither suitable nor extensive enough for speech therapists/pathologists, although there are references to various communication disorders (Sonninen and Hurme, 1992). Until recently the Australian modification (ICD-10AM) included a list of interventions, which mentioned speech pathology interventions with a single entry. Both the ICD-10 and ICD-10AM are being updated, and the Australian modification is separating out the list of interventions into a separate publication (Australian Classification of Health Interventions) in line with the anticipated publication of International Classification of Health Interventions. The current review of ICD-10 has not included speech therapists/pathologists as far as can be determined.

Diagnostic and Statistical Manual of Mental Disorders IV text revision DSM-IV®-TR (APA, 2000)

Terminology relating to communication disorders within the Diagnostic and Statistical Manual of Mental Disorders IV text revision (DSM-IV®-TR) was developed by psychiatrists and reflects their perspective on this area. The terms do not reflect the current evidence base of the field of communication sciences and are inadequate for speech pathologists' needs and those of their clients. DSM-V preparatory work is currently underway, including an invitation for submissions for changes (First, 2002).

Current Procedural Terminology (CPT) ™ codes (4th edition, AMA, 2003)

CTP ™ codes are descriptive terms and identifying codes for reporting medical services and procedures as they are performed by physicians for the purposes of reimbursement systems within the USA. The purpose is to provide a uniform language to describe medical, surgical, and diagnostic services. Codes are managed by the AMA. A committee within ASHA contributes codes for speech-language pathology and audiology. All non-physician groups are presented by the one professional.

SNOMED-CT® (NHS, 2002)

UK speech-language therapists developed terms and codes for communication disorders as part of the READ Project (later called CTV3) but this project was not completed despite extensive work. Subsequently, a selection of CTV3 terms was integrated into another system developed by the American Pathologists Association called SNOMED, to form the Systematic Nomenclature of Medicine – Clinical Terms (SNOMED-CT®). This is designed for use with electronic patient recording systems in health settings. The terms relating to communication disorders and eating disorders that were integrated were selected by general practitioners rather than speech and language therapists. SNOMED is in use in both USA and UK, but little use is made of communication disorders related terms. SNOMED is in a trial stage in Australia.

Cowie et al (2001) were hopeful that standardised vocabularies (such as SNOMED-CT®) would enhance consistency and appropriateness of terminology in speech pathology. However, clinical terminologies generally do not define the terms that are included. Given that the lack of appropriate definitions in the field of communication disorders is a major factor contributing to inconsistency, a clinical terminology such as SNOMED-CT® will not necessarily facilitate appropriate and consistent use of terms. Systems like

SNOMED-CT® are built on an assumption of shared, appropriate and consistently-used terms, and thus do not address the key problem of varying definitions of terms within our field (Walsh, 2005a).

Summary of projects and activities

The projects and activities detailed in this section reveal an enormous amount of engagement in specific projects on the terms in communication sciences and disorders. Professionals have attempted to reduce the inconsistency resulting from historical and geographical diversity within the field through classification systems, standardised lists, organisational frameworks for prefixes and suffixes, and translation projects. They have also attempted to engage within the broader medical or psychological terminology systems and projects, with varying success. These projects reveal what has been tried and the varying results. Smaller scale or local projects seem to have more chance of success than the broader, whole of field type of projects. However, even the smaller projects had a limited life span.

So considerable energy and effort has been expended, but the terminology in communication sciences and disorders remains a significant challenge.

What We Can Learn From the Brief Tour of History

Work on terminology at any level is complex, demanding and time-consuming. Extensive effort has been made by many people over the years to improve our terminology. Cultural and regulatory frameworks influence the priority given by members of the profession to addressing terminology issues (Patterson, 2005). The renewed focus on electronic health record systems is raising some of the old problems in terminology, (and not just for our field).

It is evident that problems with terms and terminology are long standing – there has been extensive work over many years, and yet inconsistent and inadequately developed terms remain an issue. A review of both the literature and the activities previously undertaken about terminology reveals some important trends. It also gives rise to suggestions for any future projects in terminology that take place in the field.

The influence of the state of the field on terminology

Our profession represents a blend of two types of terminology use: the first as less precise, with words as the tool for personal communication and interaction for therapeutic benefit, and the second as very precise, with words as the tool for scientific decision making. We want to achieve both purposes. Added to this the need to engage with lobbying, gathering of statistics, service management, where terminology is used in slightly different ways, and the wide range of different purposes of our terminology becomes evident.

Fundamental questions about the field of communication sciences and disorders need to be addressed before (or perhaps at the same time as) we address questions of appropriate, accessible and consistent terminology. These include:

- Maturity – do we yet have the scientific grounding required for clear, precise terminology related to communication disorders?

- Scope – are we describers of human communicative behaviour or explainers of human communicative behaviour, and do our terms work for these different purposes?
- Paradigms of practice – can we reconcile the range of historical, cultural and training factors that impact on terms within the wide range of paradigms of practice in the field of communication sciences and disorders?

These and other fundamental questions demand more attention than is possible in this historical review; they represent fundamental decisions that will determine the future direction we take in terminology.

Human factors in terminology

Existing terminology is not easily 'given up'; people use terms current during their training, based on knowledge and beliefs developed during their training. Work on terminology projects has shown that changes suggested to terms by expert dictate may face resistance based on long-standing and strong traditions, emotions and 'ownership' of specific terms (Kjaer, 2005). Better understanding of this natural human response could assist attempts to improve how terms are used in our profession. No projects to date have directly promoted the importance of consistency among the profession, or aimed to increase the understanding of the issues in terminology. There have been no activities that focus on the behaviour of the professionals in their use of terms. Terminology activities that skill and support people in using terms more appropriately are worth investigating to see if this has a more positive impact.

A major objective for a future terminology project would be to increase the value of consistency in terminology, increase the understanding of what limitation we place upon ourselves due to our current terminology use, and highlight the value of changing these behaviours. People working to improve terminology would do well to recall Thoreau's comment that 'things don't change, people do'.

The type of activities previously undertaken

The main focus of terminology projects over the last three decades has been to seek agreement on formal definitions for terms in professional use; terminology problems have been seen as a scientific issue (Schindler, 2005). These projects have had little measurable impact on practice however (Kjaer, 2005), although the reasons for this are not clear. It could be, as Sonninen and Hurme (1992) mused, that it is just 'too difficult'; it could be shortcomings in processes to engage the profession with recommendations (as alluded to above); it could be that this 'solution' to inconsistent terminology is based on an inadequate understanding of the nature of the problem, or it could be something else again.

Much work has been undertaken on translation projects. Terms do not always translate directly, however; previous projects have highlighted difficulties in reaching consensus about translations between languages for terms relating to complex concepts (Schindler, 2005). Geographical and cultural differences may lead to prototype (deep concept) differences, as a consequence of clinical focus on different aspects of the same phenomena, also contributing to inconsistency in terminology.

Work on terminology has tended to be conducted in groups of communication sciences professionals, with minimal involvement of people outside the profession. There is a

tendency to carry the whole 'burden' of terminology, to take full responsibility for all the issues. This indicates that the issue of terminology has been viewed as one of agreeing on a specific scientific definition. However, if we look outside our own field, we see there is more to a term than its scientific definition. It is also imperative that we recognise that people other than professionals in communication sciences and disorders need to be able to use relevant terms, and that there is an equal need for appropriate and accessible terms for a range of 'users'. Such a concept of 'users' of terms challenges the view that we 'own' the term for our field, and that other people would be our 'audience'. It also challenges us to involve people from outside our specific field in our terminology activities.

We have had limited involvement in the development of major terminology systems that come from the medical orientation; our profession is often represented in these endeavours by someone of another health profession (despite sometimes considerable work at the profession-specific level). Others have collated and defined our core terminology without necessarily understanding our role. Terms currently within broad terminology systems are inadequate for our perspective of communication disorders, do not give us the specificity that we require and do not clearly explain the field or the people that we serve. Work on medical terminologies in conjunction with other health professionals has been affected by consultation processes that have relegated all non-medical opinion to one voice, and thus may be 'filtered' by the orientation of individual participants. In the absence of a widely shared conceptual model about functioning and disability, it has been difficult to mount a challenge to communication disorders being sidelined or inadequately represented by others (Walsh, 2005a).

No projects have been recorded that have gone beyond the issue of definitions and taken into account the additional challenges of ensuring that words are appropriate for the range of needs of the profession, that terms are used for purposes that are in line with their definitions, and ensuring that these terms are a valid part of the professional schema. Nor has there been any record of projects related to professional terms which explore meta-terminology concepts.

Sources of support and information

Terminology is an issue within numerous fields; just a quick scan of the literature of related professions shows that we should not restrict ourselves to self-reflection on this topic. Many other professions have grappled with similar issues and what they have learned should inform our progress.

It seems that a critical concept is that terminology is itself a specialist area. It does not necessarily follow that a specialist in a specific area of communication disorder is also skilled at terminology itself. Other fields like General Semantics, lexicography, philosophy and semiotics may have some illuminating information. The nature and characteristics of a term and of its definition are critical with regard to how a term is intended to be used. It does not appear that previous terminology activities have referred to these broader fields.

Suggestions for future projects on terminology

This historical review of the literature and specific professional projects give rise to a number of suggestions for future investigations into terms and terminology.

1. Terms should be regarded as a dynamic expression of the professional schema, operating within a broad culture and a number of specific contexts, for a range of purposes.

2. The 'expert dictate' model of developing 'gold standard' terms has been attempted on a number of occasions and found to have little measurable impact on practice. The reasons for this, and possible alternative models, should be investigated.

3. The question of terminology has long been considered by the profession as an issue of scientific definition. The nature of problems in terminology should be further investigated, so that efforts to find solutions are based on a more complete understanding of the problems.

4. Given that human behaviour includes inconsistency, and that there may be a limited value or understanding of the importance of consistent terminology, projects should directly assist professionals to increase awareness of the underlying issues and the impact of the problems in terminology.

5. Terms in communication sciences and disorders do not 'belong' to us alone. Since terms need to be appropriate, accessible and consistently used by all those who need them, a range of stakeholders need to be involved in project work on terminology.

6. Consistency in the use of terms in research is required to overcome a lack of precision which impedes clarity. The importance of greater rigour in the use of terms should be promoted within the profession as necessary to take research forward.

7. Further investigation should consider the use and features of terms, with an aim to establish shared meta-terminology models and concepts to allow productive professional debate and decisions about specific terms. This would allow decisions about the merit of any term to be based on established shared criteria, rather than being based on varying personal views.

8. General systems of terminology should be engaged directly, to allow better representation of the work of our profession and for increasing our public profile.

9. The science of taxonomy, and understanding how words can be organised, should be further investigated as an important step in establishing a useful classification system for the field.

10. The study of professional terminology as a specialty area should be actively pursued. Other sources of information about terminology, such as General Semantics, lexicography and ontology would inform the development of professionals' knowledge about terminology.

It is clear from this list of suggestions indicated by the historical review that a substantial amount of research and active engagement is required to improve the appropriateness, accessibility and consistency of terminology. The factors that have influenced the development of our current terminology and continue to impact on the resolution of terminology issues must be acknowledged and addressed in terminology projects if they are to succeed. With the benefit of our predecessors' experience and with a broader,

perhaps more inclusive view of the needs of all users of terms in the field of communication sciences and disorders, it is possible to see the way forward.

Vision for the future

Influencing attitudes and understanding about something as fundamental and closely tied to one's professional identity as terminology is no small task. We believe it can be done, but will require sufficient will, resources, cooperation, and a realistic timeframe. In fact, we believe it must be done, as terminology presents a significant barrier to the profession's advancement in research, clinical effectiveness, public image and political profile.

We look to a time in the future, when terms are used with care and consideration across the profession; when all stakeholders (not just the professionals) in communication sciences and disorders have access to terms that meet their needs; when there is a high level of value for accessible, appropriate and consistent terms; when there is awareness of terms as dynamic and powerful; when there is active engagement with broader systems of terminology, and even the capacity to challenge the misuse of terms by others; when we understand the many characteristics of terms that impact on their usefulness in communication; and when a shared meta-terminology language takes debate on terms out of the personal-opinion realm and into an arena where terms are considered according to which most appropriately meets the established criteria.

This is not a vision of a mandated and inflexible list of terms for the field. This is a vision of a dynamic professional group able to actively engage to resolve its terminology issues as they arise, to be logical and consistent in adapting terms as new scientific information is discovered, and to present itself to the public and the government with clear consistent messages that promote the importance of communicative well-being for all people.

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Appendix 1: Brief historical and current information

This section includes brief historical information from the associations within IGOTF-CSD, with references for further information. The type of information varies according to what was provided by the contributors. Contact the individual associations for further information. It is hoped that more information will be added to this review over time, including information on the history of the profession in other countries.

1. Australia

The origins of the profession in Australia were strongly linked to the profession in the UK. Thus, early practice in Australia took a medical orientation, and it continues to be defined as an 'allied health' profession. Growing influence on practice from the USA has seen an increasingly strong educational paradigm, although much service to children in schools is provided from the health sector by practitioners employed outside the educational system.

The Speech Pathology Association of Australia (known as Speech Pathology Australia) is the national body for the speech pathology profession in Australia. For more information and posters form the Oral History Project see their site at: http://www.speechpathologyaustralia.org.au/

2. Brazil

The official name of the profession in Brazil is '*Fonoaudiologia'*, which comprises both therapeutic approaches to communication disorders, dysphagia and audiology practices, besides the improvement of normal communication for professional purposes. During the decades of 1920 and 1940 there were some practical professionals, who were seen by the public as special teachers, working on prevention as well as speech and writing correction. Some authors consider the '*1o Congresso da Língua Nacional Cantada'*, (First Congress of the National Singing Language), led by writers, poets, musicians, artists and scientists, in 1939, as the official starting point of speech therapy in Brazil. From 1950 there was a fast move from an educational profile to an increasingly health science outline with the beginning of short courses on '*Logopedia'* (logopedics), '*Ortofonia'* (orthophony) and '*Terapia da Palavra'* (speech therapy). Since the first undergraduate university level course was established in the city of São Paulo, *Universidade de São Paulo*, in 1961, many other programs have been established. Some of the programs focused more on health sciences (usually the ones located within a medical campus) while others focused on educational disciplines (the ones within pedagogical campus).

In 1981 the profession was officially recognized under a single name '*Fonoaudiologia'*, excluding other existing names from all legal documents. Moreover, in 1993 the term paramedical, considered inadequate, was also excluded from documents by a NHC resolution (NHC – National Health Council – *CNS – Conselho Nacional de Saúde*). Nowadays, *'Fonoaudiologia'* is categorized under the large group of health professionals. The completion of a basic 4-year program allows the professional to start practice. There are 28,000 SLP in the country and 5 recognized areas of specialty: language, audiology, oral myology and voice. The Brazilian association's site is at: http://www.fonoaudiologia.org.br/

3. Canada

The professions in Canada began in the early 1960s when the original training for both audiologist and speech-language pathologist were in the same stream. Professionals work in both education and health settings, and in public and private areas. There are now nine training programs at the Masters level for Speech-Language Pathologists, of which three are French only. Six of the ten provinces and three territories are regulated; there are professional associations in all provinces and territories and a national professional association, the Canadian Association of Speech-Language Pathologists and Audiologists (CASLPA). CASLPA has developed Lexicon/Lexique for the translation of French and English Speech-Language Pathology and Audiology terms. For this document and more information see their site at: http://www.caslpa.ca/

4. Europe

Within Europe a number of distinct paradigms underpin the shape of the profession as it has developed over the last 50 years. In the 1950s in Central Europe the education in speech therapy[2] was shaped by the phoniatricians, and professionals were considered the doctors' assistant within a paramedical paradigm. In Denmark & Norway, professional education was post graduate based on teacher training, within a pedagogical paradigm. The profession was considered part of special education. In Sweden & Finland, logopaedic education was influenced by the Central European tradition. In most Eastern European countries the education was, and to some extent still is, strongly influenced by the paradigm of the Soviet Russian defectology.

CPLOL is the Standing Liaison Committee of Speech and Language Therapists/ Logopedists in the European Union (initials are for the title in French). In 2006 CPLOL has 25 professional organizations of speech and language therapists/ logopedists in 23 European countries. The member organizations represent more than 50,000 professionals. More information can be found on the CPLOL site at: http://www.cplol.org/

More specific information from those European countries that have participated in IGOTF-CSD is also included.

4.1 Denmark

Speech and language therapy has been acknowledged a profession for more than a hundred years, in the sense that the first 'speech therapy centre' was established in 1898, as a public institution financed by the state. In Denmark speech and language therapy is considered a pedagogic profession, rather than a paramedical one. Although the latter is the more general opinion in Europe, Danish logopaedics is in full accordance with the professional profile of CPLOL, saying that "The speech and language therapist is the professional responsible for the prevention, assessment, treatment and scientific study of human communication and related disorders". Today, speech and language therapy is broadly recognized by the public as well as by

[2] The professionals working in communication science and disorders have been referred to by different titles in different countries over time, and this document uses a range of these titles based on the source material. See Appendix 2 for a list of current titles from selected countries.

different authorities. Nevertheless, there are no specific legal regulations concerning speech and language therapy. The profession is considered part of 'special education'. The Danish Speech-Language and Hearing Association is 'Audiologopædisk Forening'. This information taken from http://www.cplol.org/eng/SLTinDenmark.htm

4.2 Ireland

The speech-language therapy profession grew out of the work of medical staff and assistants, and the work of a UK trained speech therapist in several voluntary institutions in the 1950s. Subsequently, many hospitals and centres (voluntary institutions run by religious orders) were interested to add this service to their provision. Although the first graduate course in SLT in Ireland at Trinity College Dublin was within the Arts Faculty, the profession always had a medical orientation. At one stage the School of Clinical Speech & Language Studies at Trinity College moved to the Faculty of Health Sciences, but has recently moved back to an Arts Humanities Faculty and formed a new school entitled School of Linguistic, Speech and Communication Sciences. Up to recently this was the only course available in Ireland. However, in response to a national need for more therapists, three additional universities based courses have been set up; these courses are all allied to Health/Medicine Faculties. The Irish Association of Speech & Language Therapists (IASLT) accredits these courses and is actively involved in supporting the profession through its involvement in numerous national and international activities. The IASLT is the recognised professional association of Speech Language Therapists in Ireland; for more information see http://extranet.hebe.ie/IASLT/

4.3 Italy

Two professions manage communication and swallowing disorders in Italy: the speech pathologist and the phoniatrician, the medical doctor with a 4 years specialty in communication disorders. The management of communication disorders by health care professionals is very recent and took place only in the second half of the 1900s. In the eighteenth century deaf people were managed in special institutions by school professionals. In 1927, the Italian Government established the schools for deaf teachers (more recently designated as special teachers). Actors and singing teachers took care of voice and speech pedagogy as well as of their disorders. The management of people who underwent total laryngectomy was in charge of the so called “teachers of laryngectomized people”; they were people who underwent the same surgical procedure and who taught other people how to speak, but had no formal training. Speech and language disorders were mainly managed by the school system; outside the school institution only fluency disorders were cared by other professionals.

In the 1960s informal education of speech pathologists started in few cities (Rome, Padua, Turin) thanks to the first phoniatricians (Ferreri, Segre, Bellussi, Croatto). In 1969 the formal education of speech and language pathologists began within the university system. In 1991 a three year program for speech pathologist within the Faculty of Medicine was set up; the speech pathologist was considered as the health professional entitled to assess, prevent and rehabilitate communication disorders in paediatric, adult and geriatric populations. Since 2003, Masters Courses for speech and language pathologists have been instituted. The Italian speech and language pathologists (about 10,000 professionals) are organized in regional associations, which together constitute the national association with a site at: www.fli.it

The phoniatrician is a medical doctor, who after completing medical training, undertakes a four year residency in phoniatrics. Phoniatrics is a medical specialty within the frame of rehabilitation and deals with communication and swallowing disorders. The phoniatrician is educated and trained in the clinical and instrumental assessment of voice, speech, language, hearing and swallowing disorders. The education of a phoniatrician includes courses in linguistics, general psychology, neuro-psychology, pedagogy, acoustics, speech pathology and the medical disciplines related to communication and swallowing disorders. Phoniatricians work in team with the SLP, each having an independent assessment, however, only the phoniatrician is entitled to "write" a medical diagnosis. The Società Italiana di Foniatria e Logopedia (SIFEL) can be round at: www.sifel.net

4.4 United Kingdom

Speech and language therapy, as a separate profession, developed after the First World War in response to the number of individuals returning from the war with head injuries and associated difficulties. At that time it was very much seen as part of the medical provision to management. Speech and language therapists were later employed separately by education with the main focus still remaining within hospital services. In the 1970s, the profession was unified from an employment point of view and is primarily funded through health but with the major (70%) provision being to children within the education sector. Since the late 1960s entry to the profession has been based on a degree qualification and there has been a steady increase in the number of courses available and numbers of students qualifying. There are many courses allowing postgraduate entry to the profession.

The Royal College of Speech and Language Therapists (RCSLT) is the professional body for speech and language therapists and support workers, promoting excellence in practice and influence health, education and social care policies. For documents about the history of the profession and more information about the association in the UK currently see the RCSLT site at: http://www.rcslt.org/

5. New Zealand

Within New Zealand the orientation of the profession initially was very education based and over the last twenty years has taken more of a medical orientation. The original university course has supported this change with a shift in the courses offered and a change to a science degree format. The professional association has followed the UK framework in the past but has lately become more influenced by the USA.

New Zealand Speech-Language Therapists Association (NZSTA) is the professional self-regulatory body for speech-language therapists in New Zealand. For more information see their site at: http://www.nzsta-speech.org.nz/

6. Philippines

Speech pathology was first introduced as an undergraduate program (Bachelor of Science in Speech Pathology) in June 1978. A graduate program (Master in Rehabilitation Science – Speech Pathology) was initiated in 1997. Both programs are solely offered by the College of Allied Medical Professions at the University of the Philippines in Manila. The undergraduate program has a very strong inclination towards paediatric speech and language. Hence most graduates' clinical practices are

in paediatric settings. Within hospitals, speech pathologists do not work under the direction of physicians, unlike some other therapies. However, this may be due to the lack of legislative base explicitly including speech pathologists in health delivery systems as well as the infancy of the profession within the country. Generally, hospitals do not have speech pathologists as part of the regular hospital staff, unless engaged as an independent practitioner as a consultant. More information can be found in Cheng, W.T., Olea, T.C. Marzan, J.C. (2002). Speech-language pathology in the Philippines: reflections on the past and present, perspectives for the future. *Folia Phoniatrica and Logopaedica, 54* (2): 79-82.

The Philippine Association of Speech Pathologists (PASP) is the national association of SPs. It was founded in 1991 with the aims of promoting the growth of the profession and ensuring the quality of services for persons with communication disorders. Unfortunately, there is no public law yet regulating the practice of speech pathology that would ensure that only qualified professionals give SP services. To protect the interests of the professional and the persons with communication disorders, PASP began work on professional self-regulation. In 2006, the certification of the professional competence of speech pathologists commenced. It is anticipated that this endeavour will pave the way for drafting of a public policy for regulating the SP profession here in the Philippines in the future.

7. United States of America

Extensive historical information about the formation of the professions in the USA can be found on Judy Duchan's website, *Getting here: a short history of speech pathology in America*. This site documents the development of the professions from the 1800s with elocutionists, through to scientists and finally to the rise of professionalism, and the formative work by many individuals through the 1900s. Access the site at: http://www.acsu.buffalo.edu/~duchan/new_history/overview.html

The American Speech-Language Hearing Association (ASHA) began as the American Academy of Speech Correction March 1926. Membership was confined to those members of the National Association of Teachers of Speech who were 1) doing actual corrective work, and 2) teaching methods of correction to others, or 3) conducting research which has a leading purpose of solving speech correction problems. ASHA is now a free standing association for more than 123,000 members and affiliates who are audiologists, speech-language pathologists, and speech, language, and hearing scientists. More information about the history of the professions in USA can be found in ASHA publications (e.g. Malone, R "The First 75 Years: An Oral History of the American Speech-Language-Hearing Association, Rockville, MD: ASHA) and on their site at: www.asha.org/

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Appendix 2: Title of the profession in selected countries

This list is adapted from information from the CPLOL website with the addition of some countries outside Europe. As well as the profession of speech pathology (by its range of titles), in some countries the medical profession of phoniatrician also exists, predominantly in Europe. Speech pathologists and phoniatricians have individual professional associations, although IALP represents both interests. In some countries, separate professional associations represent speech pathologists and audiologists, while in other countries speech pathology and audiology are represented by the one association, predominantly in the Americas.

Austria	Diplomierter/e Logopäde/in
Australia	Speech pathologist
Belgium	Logopède/Logopedist
Brazil	Fonoaudiologia
Canada	Speech-language pathologist; Audiologist
Cyprus	Logopathologos/ Logotherapeftis
Czech Republic	Logoped
Denmark	Talepædagog / Logopæd / Audiologopæd
Estonia	Logopeed
Finland	Puheterapeutti
France	Orthophoniste
Germany	Logopäde/in
Greece	Logopedikos/ Logopathologos / Logotherapeftis
Ireland	Speech and language therapist
Italy	Logopedista
Luxembourg	Orthophoniste
New Zealand	Speech and language therapist
Netherlands	Logopedist
Philippines	Speech pathologist
Portugal	Terapeuta da fala
Slovenia	Profesor defektolog za osebe z motnjami sluha in govera
Spain	Logopeda
Sweden	Logoped
United Kingdom	Speech and language therapist
United States of America	Speech-language pathologist Audiologist

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