NetQues Project Report
Speech and Language Therapy Education in Europe
United in Diversity

Network for Tuning Standards and Quality of Education Programmes in Speech and Language Therapy/Logopaedics across Europe (NetQues): a multilateral academic and professional network

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Foreword

This project represents the current state of speech and language therapy (SLT) education across Europe.

The profession has existed in some form as long as communication disability has been recognised. SLT education has taken the profession from well-intentioned and intuitive support offered by professionals from related fields to a scientific discipline and approach to analysing and evaluating communication breakdown and offering evidence-based therapeutic interventions. The competences identified in this document are those recognised within Europe but they also represent the current knowledge, skills and attitude competences expected of new graduates of SLT across the world. The profession in every country draws upon knowledge from education, linguistics, biomedical and behavioural sciences, applying this to the core discipline of SLT. SLT education is at differing stages across the world. In some countries it is well established and in some it is still an aspiration to offer provision of any sort, but in all the intention is to provide the best possible service for people with communication and swallowing disabilities.

NetQues has been a huge undertaking. It demonstrates that across Europe, the SLT profession is united in its aspirations for new graduates to be competent and caring individuals with relevant up-to-date knowledge and skills when they enter their chosen field of practice. The competences identified, the glossary which supports the text and the examples of good practice are commendable.

The information presented here is an example of multinational collaborative work in defining and illustrating good practice with regard to SLT education.

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Acknowledgements

This report is the result of a truly team effort. It is a report on the outcomes and products of an ambitious project to bring together the best possible knowledge and skills from across Europe to form an academic and professional network, while working together on a common purpose to agree on quality standards in the initial education of the speech and language therapy (SLT) professional. It is hoped that it is not only the current outcomes which are of most value but the development of a true spirit of unity in European diversity, in a dynamic context which leads to many future networks, collaborations and projects in the field.

Sincere thanks are expressed to all partner institutions who have participated in the project network and contributed in supporting their staff and their involvement in the project. SLTs from across the spectrum of countries and programmes have given so much of their time and valuable expertise to this work in numerous ways. It has been very encouraging to know that the profession has so many champions whose main professional goal is to strive to improve the initial education of the SLT to be prepared to meet the demands of those in society who are in need of their specialist help. In particular, Comité Permanent de Liaison des Orthophonistes/Logopèdes de l'Union Européenne (CPLOL), the Coordinating Partner, wishes to acknowledge the major contribution made by the Project Management Steering Group and Work Package team leaders who continuously throughout the project managed to keep things running relatively smoothly no matter what challenges were faced in bringing together 65 diverse partner institutions, across different and changing educational and social cultures, systems and contexts. Thanks also go to the lead partners in each country who coordinated the flow of communication within their own country and especially with those partners who translated key documents into their own languages.

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Executive Summary

I The project Network for Tuning Standards and Quality of Education Programmes in Speech and Language Therapy/Logopaedics across Europe (NetQues) is the work of a multilateral academic and professional network of 65 partners from 31 European countries. It is led by the Comité Permanent de Liaison des Orthophonistes / Logopèdes de l'Union Européenne (CPLOL), the Standing Liaison Committee of Speech and Language Therapists and Logopaedists.

II Speech and language therapy (SLT) is globally recognised as an autonomous profession with legal regulation at national level in many countries. As the European Union (EU) has developed and increased in its membership, so also has the accompanying legislation to encourage cross border mobility and recognition of qualifications across member states. This has led to a need to be able to assess and analyse education programmes within the EU and beyond. This project sets out to establish agreements on areas of commonality in SLT education and also look at its differences. It delineates the agreed common core competences which are both essential and desirable for a newly qualified SLT to be able to practise the profession safely and effectively. The NetQues project has embraced the EU Tuning principles in looking for points of reference, convergence and common understanding, to serve as "a platform for developing reference points at subject area level"1.

III Speech, language and communication disorders have been documented for many thousands of years. By the end of the nineteenth century there was, across Europe and beyond, a body of knowledge and a small number of practitioners who were involved in the study and remediation of disorders of speech. Since those early days, the speciality has developed into an independent academic scientific field. This is supported by the EU wide organisation, CPLOL.

IV The discipline of SLT is concerned with human communication and swallowing, their processes, development and disorders and in particular the description, assessment and treatment of voice, speech, language and swallowing disorders. The SLT is the professional fully competent in the prevention, assessment, treatment and scientific study of human communication and related disorders.

V SLT practice has changed over time as a result of changes in society and in thinking and advances in the related academic fields of medicine, psychology, linguistics, sociology and education. Demographics, diagnostics, technological advances, communications technology and sociological changes have influenced SLTs' scope of practice. This scope of practice has gradually extended, with changing priorities and focus within the differing EU countries.

VI The NetQues project aims:

- to define academic and professional profiles of SLT across the EU

[1] González, J. and Wagenaar, R. (2003). *Tuning educational structures in Europe*. Bilbao: University of Deusto. Retrieved 15-06-2013 http://www.relint.deusto.es/TUNINGProject/documentos/Tuning_phase1/introduction page 1

- to describe the objectives of the pre-qualifying educational programme as well as the learning outcomes (in terms of knowledge, understanding and skills) that have to be met
- to identify the generic and subject specific competences which should be obtained in the programme.

VII A total of 65 partners were recruited from all 27 EU countries, plus Liechtenstein, Norway and the EU-candidate countries of Iceland and Turkey. Partners were mainly from academic institutions but also included some professional associations. Project coordination was undertaken by the lead partner, CPLOL, which comprises expert clinicians and academics representing each European country. Partners were allocated to one of six work package (WP) teams, reflecting a range of expertise and geographical spread within each team. Targets which aligned with the Tuning process lines were then assigned to each of the WP teams. Each WP team took responsibility for one or more elements of the work, shared across the partners. An ethnographic research approach was adopted using the broad range of expert participants as key informants. In order to provide as complete an overview as possible of this diversity and map the current state of the art of SLT education, two Europe wide surveys were conducted. The surveys explored the diversity of the qualifications in SLT. Results gave profiling information and benchmarks for competences required by a new entrant to the SLT profession.

VIII Profiles: Summary profiles encompassing data from both surveys show that all but two countries have at least one educational programme (and many have considerably more than one) leading to a professional qualification in SLT. SLT programmes in Europe are typically within universities, mainly state funded and predominantly organised in faculties with other health related programmes.

IX Typically, the level of qualification that enables an SLT to practise is at least a bachelors degree, awarded after at least three years of initial education. A masters degree (European qualifications framework level 7) may be accomplished after a total of five years of higher education (three years bachelors and two years masters). Doctoral programmes on average take an additional three years. A progression from bachelors via masters to doctorate degree is possible in almost every EU country. Where used, normally 60 European Credit Transfer System (ECTS) credits are awarded per academic year.

X Most established programmes are regulated by the state or the government. France reported the highest number of student SLTs. Belgium and the Netherlands have unexpectedly high numbers, possibly partly explained by their catchment area extending into Germany to meet the needs of neighbouring German students seeking to study a bachelors degree in SLT. However it should be noted that some of the figures given were estimates as many countries do not keep national statistics of students by subject of study.

XI Programmes include a wide range of assessment types including written examinations, practical examination of skills and viva voce examinations. Reflective account of experience, portfolio of competences, clinical practice exams, video analysis and student self-assessment are also used. In addition to academic study, all programmes include supervised/mentored clinical practicum as a key component of the route to qualification and professional competence. Clinical competence is mainly evaluated by clinical supervisors. Methods for assessment of clinical competence may differ widely and include written assessment, viva voce assessment, observation and evaluation form, portfolio or case examples. Research projects carried out by students as part of the programme are required in almost two thirds of programmes studied.

XII Competences: The education of SLTs demands achieving and being able to demonstrate competences which are a complex interaction of theory and practice together with a range of interaction skills necessary for effective evidence-based practice. A most striking feature of the overall results comparing the importance of the subject specific and generic competences needed in order to start to practise SLT was the extent of agreement between academics, graduates and employers.

XIII With regard to subject specific competences, these are all related to effective assessment, diagnosis, treatment, prevention and counselling of clients and their significant others in the area of communication disorders and swallowing difficulties. Subject-specific competences most often cited as essential are related to six areas identified, namely Scope of practice, Assessment and identification of communication disorders and swallowing difficulties, Planning and implementation of intervention, Planning, maintaining and evaluating services, Prevention and Professional development, continuing education and specific ethical responsibilities.

XIV With regard to generic competences, inter- and intra-personal competences were perceived as most crucial.

XV Benchmarks: The set of competences essential for a newly qualified SLT which were most often cited across all key stakeholder groups are listed in Annex I. This document can be regarded as the EU-wide agreed common standards which every SLT must meet in order to practise the profession. These also provide benchmarks for SLT initial education and should be addressed in all European SLT education programmes. The expected competences which have been shown to be essential reflect a range of levels, the vast majority of which have been judged to culminate at levels 6 and 7 of the European Qualifications Framework2.

[2] http://ec.europa.eu/education/policies/educ/eqf/eqf08_en.pdf

XVI SLT education across Europe is diverse, vibrant and constantly evolving. The profession finds itself at differing stages of development in different countries. However there is a commonality of purpose and profound commitment of SLTs and SLT educators to ensuring they produce the best graduates to provide the best practice and service to people who are in need of SLT professional help. This has shone through the entire period of the NetQues project. With this level of commitment, and expertise, the future of the profession and its service to people who can benefit from SLT is bright.

CHAPTER 1 Introduction to the NetQues Project

1 Background

Curricular structure, level of initial education and terminology in speech and language therapy (SLT) education programmes vary across EU countries, making it a challenge to compare expectations of competences of the qualified SLT in the European work force. With this in mind the Comité Permanent de Liaison des Orthophonistes/Logopèdes de l'Union Européenne (CPLOL), the Standing Liaison Committee of Speech and Language Therapists and Logopaedists, which is the EU umbrella organisation of professional associations of SLTs across Europe, initiated an EU-wide project, aimed to allow easier comparisons and understanding of similarities and differences in academic programmes and of the qualified SLT professionals' profiles. The project *Network for Tuning Standards and Quality of Education Programmes in Speech and Language Therapy/Logopaedics across Europe (NetQues)* is the work of a multilateral academic and professional network of 65 partners from 31 European countries. A major aim is to share good practice in professional education across Europe, with the goals of quality improvement and enhancement. The outcomes of the project will also increase opportunities for exchanges between SLT professionals, student SLT professionals and academic staff and enable greater mobility of appropriately qualified professionals. Additionally the networking opportunities created will stimulate research activity within the discipline and profession. The three-year long project (2010–2013) received 75% funding from the European Commission's ERASMUS Life Long Learning Programme through the Educational Audiovisual and Culture Executive Agency (EACEA). The partner organisations have shown their commitment by funding the additional 25% of the costs of the project.

Partners have agreed that the term used throughout to describe the profession should be the English language term 'speech and language therapist', and SLT to be the acronym used. In Europe, the professional is also more commonly known as a 'logopaedist' and in French the term 'orthophoniste' is used.

This project sets out to establish agreements on areas of commonality in SLT education and also look at its differences. It will delineate the agreed common core competences which are both essential and desirable for a newly qualified SLT to be able to practise the profession safely and effectively.

2 Origins of the project

The SLT discipline - logopaedics - is a rapidly evolving, globally recognised, scientific and specialist discipline. It is crucial in the identification, evaluation, intervention and management of disorders of communication. Sharing of educational, clinical and research expertise will enable European citizens to access good quality, appropriately educated SLT professionals. Providing consensus guidelines for programmes across Europe will enable standards to be driven to meet the need for a dynamic professional workforce, which adapts to the changing demands of society and knowledge. NetQues sets out to facilitate sharing of best and innovative practice in teaching, learning and

assessment. The key focus of the project, however, is to articulate SLT educational benchmarks, following the now well-documented, tested and recognised Tuning Methodology[3] commencing with a comparative study of relevance of Subject Specific and Generic Competences across all countries' programmes.

SLT is globally recognised as an **autonomous profession** with legal **regulation** at national level in many countries. As the European Union has developed and increased in its membership, so also has the accompanying legislation to encourage cross border mobility and recognition of qualifications across member states. This has led to a definite need to be able to assess and analyse education programmes within the EU and beyond. As the recognised professionals to assess, diagnose, treat and manage onward referrals and discharge of persons with communication disorders it is vital to ensure the "users" of SLT services, i.e. patients/clients and their families, can access appropriate high quality, safe, effective and efficient SLT services wherever they reside. This professional competence also extends in many countries to the management and intervention for people with swallowing difficulties which is included in the pre-qualifying education. Not only will better transparency of the profession be for the benefit of "service users"/patients and employers, but it will also facilitate easier movement of professionals. It should also lead to better understanding of the role of SLT and the profession.

However the challenge of bringing together professionals across Europe must not be underestimated. SLTs come from a wide range of experiences, education, cultures and health care and education systems and of course linguistic backgrounds. Fortunately there are many similarities in professional goals and practice and common characteristics in the professionals, regardless of their education and cultural backgrounds.

There has been limited research regarding the characteristics of the education of the SLT profession in Europe and accurate information has not been easy to locate. Establishing facts rather than impressions or hearsay is important. As a result of the interest of member countries of CPLOL and their many links with SLTs across Europe, it has become obvious that the establishment of common standards is increasingly important. CPLOL decided therefore to enhance its activities in creating opportunities for networking, professional collaborations, sharing of key information regarding SLT education and promoting cross EU quality standards in the profession. CPLOL agreed to seek to pursue an all-EU inclusive project and engage with an even wider range of interested stakeholders especially from the higher education (HE) sector in addition to its own members.

CPLOL comprises delegates from professional associations across EU member states. It is entirely self-funded and as many of its member professional associations of SLTs are quite young in terms of their existence and have relatively few members they are thus unable to contribute much towards running costs. As a result, external funding was crucial to the success of such an extensive project. In order to examine properly the education of the profession across all Europe, and ensure engagement with all relevant stakeholders, it was important also to have direct contact with academic institutions where SLT is taught.

[3] González, J. and Wagenaar, R. (2003). *Tuning educational structures in Europe*. Bilbao: University of Deusto, retrieved 01 Oct. 2010 http://www.relint.deusto.es/TUNINGProject/documentos/Tuning_phase1/Tuning_phase1_full_document.pdf

3 Key concepts and underpinning of the project

3.1 Tuning and the Bologna Process

NetQues was conceived, as noted above, not only as the establishing of a network but also incorporated key elements of the well documented framework of the Tuning approach in order to understand and compare curricula. **Tuning**[4] first began in 2000 and is described as being the approach developed to reflect the idea that universities do not and should not look for uniformity in their degree programmes and emphasises that it does not suggest that there should be any sort of unified, prescriptive or definitive European curricula. It was initially a project to link the political objectives of the Bologna Process[5] and its sequelae, developed by and for comparisons and quality enhancements across higher education institutions.

The Tuning approach was inbuilt into the design of the current NetQues project. The protection of the rich diversity of European education has been paramount in Tuning and in no way seeks to restrict the independence of academic and subject specialists or to undermine local or national authority. This is important for the SLT profession as it thus focuses on educational structures, with emphasis on the subject area, i.e. in this case the content and delivery of programmes that enable a graduate to function properly as an SLT. Educational systems are acknowledged as being primarily the responsibility of governments with educational structures and content that of higher education institutions (HEI) and their academic staff[6]. Thus engagement with the HEIs is key to the project.

The work of Tuning is fully recognised by all the countries and major players involved in the Bologna Process. The Bologna Process, launched with the 1999 Bologna Declaration, is one of the main voluntary processes at European level. It is now implemented in 47 states which define the European Higher Education Area (EHEA). Members of the Bologna Process are the 47 countries, together with the European Commission and the consultative members, namely the Council of Europe, UNESCO, EUA, ESU, EURASHE, ENQA, Education International and BUSINESSEUROPE[7].

The Tuning project has addressed several of the Bologna action lines and notably has facilitated the adoption of a system of comparing degrees, across many subject disciplines, the adoption of a system based on the first two (Bologna) cycles articulating higher education in undergraduate and graduate studies and the establishment of a system of credits. The Tuning project contributes also to the realisation of the other Bologna action lines (see below).

The NetQues project has embraced the Tuning principles of looking for points of reference, convergence and common understanding, to serve as "a platform for

[4] González, J. and Wagenaar, R. (2003) *Tuning educational structures in Europe*. Bilbao: University of Deusto, available from Internet: http://www.relint.deusto.es/TUNINGProject/documentos/Tuning_phase1/Tuning_phase1_full_document.pdf

[5] For information on Bologna process and follow up ministerial conferences/communiques see: http://www.ehea.info/

[6] www.unideusto.org/tuningeu/images/stories/key documents

[7] For glossary of Bologna /EHEA terminology and acronyms see: http://www.ehea.info/article-details.aspx?ArticleId=123

developing reference points at subject area level"[8]. This approach is relevant for the purpose of making SLT education comparable, compatible and transparent, using terms of 'learning outcomes' and 'competences' to be met as reference points while acknowledging the need for flexibility and autonomy in curricular design and construction[9].

3.2 Learning outcomes

Learning outcomes are statements of what a learner is expected to know, understand and be able to demonstrate after completion of a learning experience/process. A fuller definition appears in the Recommendation of the European Parliament and of the Council on the establishment of the European Qualifications Framework (EQF) for lifelong learning (2005)[10].

3.3 Competence

Competence means the proven ability to use knowledge, skills and personal, social and/or methodological abilities in work or study situations and in professional and personal development[11]. According to the above mentioned Recommendation of the European Parliament and of the Council on the establishment of the European Qualifications Framework (EQF) for lifelong learning (2005)[12], competence includes:

i) **cognitive competence** involving the use of theory and concepts, as well as informal tacit knowledge gained experientially
ii) **functional competence** (skills or know-how), those things that a person should be able to do when they are functioning in a given area of work, learning or social activity
iii) **personal competence** involving knowing how to conduct oneself in a specific situation
iv) **ethical competence** involving the possession of certain personal and professional values.

"The aspect of self-direction is critical to the concept as this provides a basis for distinguishing between different levels of competence. Acquiring a certain level of competence can be seen as the ability of an individual to use and combine his or her knowledge, skills and wider competences according to the varying requirements posed by a particular context, a situation or a problem. Put another way, the ability of an individual to deal with complexity, unpredictability and change defines/determines his or her level of competence."

[8] González, J. and Wagenaar, R. (2003). *Tuning educational structures in Europe*. Bilbao: University of Deusto, retrieved 15-06-2013 http://www.relint.deusto.es/TUNINGProject/documentos/Tuning_phase1/introduction page 1
[9] see also *Credit and HE Qualifications. Credit Guidelines for HE Qualifications in England, Wales and Northern Ireland,* published in November 2001 by CQFW, NICATS, NUCCAT and SEEC
[10] http://ec.europa.eu/education/policies/educ/eqf/com_2006_0479_en.pdf
[11] http://www.eucen.eu/EQFpro/GeneralDocs/FilesFeb09/GLOSSARY.pdf
[12] http://ec.europa.eu/education/policies/educ/eqf/com_2006_0479_en.pdf

Other key concepts within the definition of competence above include **knowledge** (reflecting element **i. cognitive** above), **skills** (reflecting element **ii. functional**) while **competences** reflecting elements **iii. personal** and **iv. ethical** are seen as wider integral aspects of overall competence.

It should be noted that the term "(overall) competence" is an all-encompassing integration of knowledge, skills, and competences[13]. Professional competence is thus the dynamic complex combination of expertise, where knowledge, skills, understanding and application of theory to practise, encompassing personal and ethical values and behaviour, are integrated and used appropriately in the professional context.

In areas of practice such as SLT, as in other disciplines and professions, such specialised professional competence is vital for the safety and well-being of those with whom the clinician works. Fostering relevant competences to enable graduates to become "fit for purpose" is the object of all educational programmes. Educational programmes are designed to develop competences within and across course units and are usually assessed at different stages of a programme. With reference to professional programmes in SLT, the fitness for purpose therefore must encompass fitness for both the academic and professional award which enables entry to the SLT profession and the workforce. This also leads to a definition of quality that allows institutions/educational programmes to define their purpose so "quality" is demonstrated by achieving these and by producing graduates who are adequately educated to meet society's needs.

4 Specific and generic competences

As outlined in the Tuning process, some competences are subject-area related (**specific** to a field of study) and others are **generic** (common to any degree course). It is typically the case that courses are designed so that competence development proceeds hierarchically and in an integrated and cyclical manner throughout a programme. To make **levels of learning** comparable, subject area groups undertaking the Tuning process have developed **cycle** (academic level) **descriptors** which are also expressed in terms of competences. Descriptors of the competences required for any particular profession's "fitness for practice" can therefore also be looked at in terms of the cycle to which academic level/cycle descriptors are best assigned. In this project a post hoc analysis of the agreed competence descriptors of "fitness for SLT practice" could thus be conducted to show the best fit of academic level at which individual competences may be achieved. (The concept of "level" is addressed below in section 1.6 on qualification frameworks and in the results and discussion of the study in chapters 7 and 8).

Through the use of the learning outcomes and competences approach, changes and innovations regarding the teaching, learning and assessment methods which are used in different programmes may also be compared and shared. Educational practice has largely changed over time from a staff centred teaching approach to a more student centred learning approach. This shift of emphasis encourages students to take more

[13] also sometimes written as competen**cies,** to distinguish between an individual competen**cy** and the overarching competence which comprises several different sets of competencies. In much of the literature the term "competency" and "competence" are used interchangeably in the singular form. This report adopts the forms "competence" (singular) and "competences" (plural).

responsibility for their own learning, to be more reflective and an independent thinker and problem solver. These are skills necessary for the SLT in developing as an autonomous practitioner. The role of employers, graduates and academic staff/faculty to identify the most important competences that should form or be developed in a degree programme has been acknowledged through Tuning and indeed in many national educational reforms/changes. The NetQues project, acknowledging the importance of these perspectives, includes consultation with all these groups in examining the set of reference points - generic and subject specific competences - identified by the SLT subject area.

5 Quality Assurance

The Tuning approach also has highlighted the key role of quality assurance and quality enhancement in the process of programme developments[14]. An implicit tenet of Bologna is the encouragement of European cooperation in quality assurance of higher education, with a view to developing comparable criteria and methodologies.

> *"Quality is the necessary condition for trust, pertinence, mobility, compatibility and attractiveness of higher education institutions, partners in the European Higher Education Area." (Salamanca, 2001)*[15]

The influence of the European Standards and Guidelines for quality assurance in higher education (ESG) is increasing and is gaining acceptance as a shared reference point for all actors in European higher education. Currently the European Quality Assurance Register (EQAR)[16] lists 24 agencies in 23 countries, compliant with the ESG, which can perform evaluations in any country of the EHEA.

However, the fundamental responsibility for quality continues to rest within the higher education institutions. Internal quality assurance is a duty of the institution and the development of an effective "quality culture" is clearly linked with their degree of operational autonomy.

6 Framework for Qualifications of the European Higher Education Area[17]

The Bologna follow-up group took the initiative of developing an overarching Framework for Qualifications of the European Higher Education Area (EQF for HE) (adopted at the Bergen Bologna follow-up conference of May 2005), which is in full alignment with the Tuning approach. EQF has led to the construction of national qualification frameworks based on learning outcomes and competences as well as on credits such as the European Credit Transfer System (ECTS)[18], a key tool of Bologna.

[14] More information and the complete conclusions from the Irish Presidency Conference on the role of Quality Assurance can be accessed from the QQI website at www.qqi.ie
[15] http://www.accreditation.org/accords.php?page=Salamanca
[16] http://www.eqar.eu/index.php?id=32
[17] http://ec.europa.eu/education/lifelong-learning-policy/eqf_en.htm
[18] http://ec.europa.eu/education/lifelong-learning-policy/ects_en.htm

In a corresponding approach, also with the aim of making European higher education more transparent, a complementary set of criteria to distinguish between the different cycles in a broad and general manner were first proposed in 2002 and further developed in 2004 by the Joint Quality Initiative (JQI)[19] following the Berlin Communiqué 2003. These are commonly known as the 'Dublin Descriptors' and focus on the comparability of cycles in general terms in higher education, from entering undergraduate to doctoral study.

More commonly within European projects such as Tuning, programmes may be described at the level of subject areas and align these with the European Qualifications Framework levels. As a Lifelong Learning Framework, this extends below undergraduate and moves through levels to doctoral level study.

The EQF aims to relate different countries' national qualifications systems to a common European reference framework. Agreed upon by the European institutions in 2008, countries are encouraged to relate their national qualifications systems to the EQF so that all new qualifications issued from 2012 carry a reference to an appropriate EQF level. An EQF national coordination point has been designated for this purpose in each country. The core element of the EQF is a set of **eight reference levels**. Each of the eight levels is defined by a set of descriptors indicating the learning outcomes relevant to qualifications at that level in any system of qualifications, i.e. what the learner knows, what the learner understands and what the learner is able to do, regardless of the system under which a particular qualification was awarded. Specifically, the EQF descriptors at levels 5-8 refer to the higher education descriptors agreed under the Bologna Process[20].

Unlike systems which guarantee academic recognition based on the duration of studies, the EQF (a voluntary framework) covers learning as a whole, not least learning which takes place outside formal education. It is designed as an instrument which can be applied in the promotion of lifelong learning. The EQF encompasses general and adult education, vocational education and training as well as higher education. The eight levels cover the entire span of qualifications from those achieved at the end of compulsory education to those awarded at the highest level of academic and professional or vocational education and training.

While according to EQF each level should in principle be attainable by way of a variety of education and career paths, in practice this is not always easily articulated in programmes such as SLT which are designed for the structured hierarchical integration of theory into clinical practice settings. However SLT programmes in recent years have shown a variety of routes to qualification as evidenced in the diversity of programmes both within and across countries (see chapter 6).

Key competences regarded as essential at the point of entry to the profession involve complex interactions of acquired knowledge, skills and competences. It is not therefore always easy nor practically viable to tease out and assess each component skill because as is commonly recognised the whole is often greater than the sum of the parts.

Nevertheless programmes must enable the student's hierarchy of learning and assess their progress at various points, i.e. how far along the path to professional competence a

[19] http://www.eua.be/fileadmin/user_upload/files/EUA1_documents/dublin_descriptors.pdf
[20] http://europa.eu/legislation_summaries/education_training_youth/vocational_training/c11104_en.htm

learner is expected to be within that programme. There is of course considerable variation in how this may be demonstrated and assessed.

As recently as March 2013 the Irish Presidency Conference emphasised the need for the European Commission, the European Qualifications Framework (EQF) Advisory Group and the Bologna Follow Up Group (BFUG) to look at ways of facilitating greater dialogue between the main actors in Vocational Education and Training (VET) and HE on the topic of quality and qualifications frameworks. Providers in both sectors were urged to make their quality assurance arrangements mutually intelligible and share good practice in implementation of learning outcomes. However further discussion of the relationships between VET and HE and how this might apply in SLT is outside the scope of the current project.

7 Summary

The Tuning process has been adopted by the NetQues project as the most suitable approach to identify the competences necessary for a new graduate in SLT to demonstrate to be “fit for practice”, i.e. to join their chosen profession. The chapter has outlined how Tuning methodology has been applied to the SLT professional education context. The next chapter gives brief historical information about the profession and subsequent chapters track the methodology and results from the project.

CHAPTER 2 Historical Perspectives

1 The early years of the profession in Europe

Observation and treatment of speech and language disorders dates far back in history, one of the earliest apparent interventions being that of Demosthenes using pebbles to help overcome a speech problem. Speech and language disorders have been documented for many thousands of years (for reviews see Hunt, 1857[21], van Thal, 1945[22]), while McGovern (1994)[23] traced modern SLT in the UK back to the eighteenth century. Across Europe, the nineteenth century saw a number of practitioners emerging from different professional backgrounds. Stuttering aroused the interest of surgeons as well as elocutionists (Hunt, 1857[21], Rockey, 1980[24]). Hearing impairment also attracted a great deal of interest (McGovern, 1994[23]). Neurologists began ground-breaking work in identifying areas of the brain involved in speech production, studying the results of cerebro-vascular accidents (CVA) (van Thal, 1945[22]) and the physician John Wyllie wrote, lectured on and treated "the various defects of speech which are usually in this country classed together as stammering" (Coleman, 1895[25] p 1419, MacMahon, 1983[26]). Thus by the end of the nineteenth century there was, across Europe and beyond, a body of knowledge and a small number of practitioners who were involved in the study and remediation of disorders of speech.

Since those early days, and notably in the twentieth and into the twenty-first centuries, development of the profession of speech and language pathology/therapy or logopaedics has been steady and well documented. The International Association of Logopedics and Phoniatrics (IALP) was established in Europe (in Vienna) in 1924, and is the oldest international organisation bringing SLTs across the globe together. The EU wide organisation, CPLOL, was founded 25 years ago on 6 March 1988 as a result of increased collaboration of European SLT professional associations, following the Single European Act establishing the European Economic Community which entered into force on 1st July 1987[27]. The SLT speciality has developed into an independent academic scientific field. SLT globally, and not least in Europe, has developed a specialised education to advance theoretical and practical skills, defined codes of ethics and in many countries established a professional body and national regulation of professional behaviour.

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[21] Hunt, J. (1857). *A Treatise on the Cure of Stammering (3rd ed).* London: Longman, Brown, Green, Longmans & Roberts.
[22] van Thal, J. (1945). A short history of speech therapy. I: Past History. *Speech,* IX(1), 7-8.
[23] McGovern, M.A. (1994). Speech and language therapy education in Edinburgh 1764-1993. *History of Education Society Bulletin,* 54 (Autumn), 34-43.
[24] Rockey, D. (1980). *Speech Disorder in Nineteenth Century Britain. A History of Stuttering.* London: Croom Helm.
[25] Coleman, W. (1895). A lecture on stammering and other impediments of speech, and their treatment on physiological principles. *Lancet,* 8 (June), 1419-1421.
[26] MacMahon, M. (1983). John Wyllie and the development of speech therapy in Scotland. *Proceedings XIX Congress of the International Association of Logopaedics and Phoniatrics Edinburgh, August 1983* London: College of Speech Therapists.
[27] http://europa.eu/legislation_summaries/institutional_affairs/treaties/treaties_singleact_en.htm

In the early twentieth century the main focus for many early European SLTs was speech disorders and speech correction, particularly for those practitioners coming from an education/teaching background, but very soon also voice problems and the inter-relationships with a range of auditory problems appeared in the practice. Language disorders (such as developmental and acquired aphasia and dyslexia) are also documented from the very beginning as well as stuttering (Duchan, 2001)[28]. SLT is therefore a relatively young profession growing up over the 20th century. The first international congress of the profession took place in Vienna in 1924 (IALP)[29] and since then many national and international congresses have followed. Some of what are now the largest national associations in the EU of speech and language therapists/logopaedists were formed in the first half of the 20th century when SLT professionals from backgrounds in education and medicine came together. These include the Danish Society of Speech and Hearing founded in 1912, The Dutch Association (NVLF) in 1927 and the UK (CST now RCSLT) in 1945. More recent associations specifically of SLTs such as those in Croatia, Estonia, Malta, Slovakia, Latvia and Lithuania have been formed in the last two decades. One of the newest is that of SLTs in Romania: Asociaţia Specialiştilor În Terapia Tulburărilor De Limbaj Din România (Association of Specialists In Speech Language Therapy in Romania).

2 History of the development of speech and language therapy professional education

The SLT professional is educated to provide a service to meet the needs of the entire age range of the population. European history and its rich diversity, however, is such that the influence of the different cultures, education and health systems are still reflected in the focus and perspectives of SLT education programmes. While this can be seen as a strength, bringing together knowledge and experience from a range of backgrounds, it also presents challenges. Initially it could be said that early therapists trained themselves, using their existing professional backgrounds and experience as a starting point and coming mainly from the two different strands of medicine and education. The earliest formal education programmes date back to the first decade of the twentieth century. Many profession specific programmes have developed from an eclectic approach, bringing together different theoretical disciplines and perspectives from health and education to address the understanding of speech, language and communication development and breakdown and the interactions with cognition, social and other behaviour. Historically in Eastern and Central European countries SLT has been mainly based in special education, drawing on the rich academic foundations established in that discipline, in particular Vygotskian theory and approaches to cognitive development and language. In other parts of Europe SLTs have been seen as health professionals with their education drawing from medical and health systems, although often also working within education systems. Comparisons of the education and scope of practice of SLTs across north, south, east and west of Europe are thus challenged by this diversity.

[28] Duchan, J. (2001). *A History of Speech - Language Pathology, Twentieth Century* http://www.acsu.buffalo.edu/~duchan/history.html.

[29] The International Association of Logopedics and Phoniatrics (IALP) was established in Vienna, 1924. Its scientific publication is 'Folia Phoniatrica', since 1947.

Across the EU there continues to be a wide range of SLT qualifications and levels of practice. SLT has been established as an autonomous profession and has been developing now for over a century, but it should be noted that in some countries the relationship between SLT and others working in related fields has meant there are some hybrid courses/qualifications. For example ear, nose and throat medicine has led to a medical specialty in voice called phoniatry. Also in some countries psychologists or teachers in schools may gain a qualification in "speech/language teaching" and may even be called "speech therapists," but may not have the full range of competences of the SLT professional. This can occur especially where EU countries or others do not have legally protected titles and defined scope of practice for SLT. It is extremely important to realise therefore that programmes may exist which do not meet the high standards in terms of curriculum content and level together with sufficient supervised clinical practicum essential for the scope of practice of the recognised SLT professional. Regulation of the profession and the legal protection of titles to be used only by those with approved qualifications from quality assured programmes is crucial for the protection of the public.

In some countries programmes have also been designed to offer a dual qualification/joint degree such as in education or psychology and SLT which may in fact allow the graduate to practise either profession. It is important to establish that these meet both academic and clinical education professional standards to enable the graduate to be fit for purpose.

Across Europe, however, there has largely been a shift from SLT being a part of educational or medical education, or having SLT as a joint programme of study (with for example audiology, psychology or education) to an independent SLT education. This has occurred most recently in countries such as in Slovakia and many former Eastern European countries, acknowledging the key role for SLT to be appropriately educated to work independently across the entire population with speech, language, voice and communication needs notwithstanding the collaborative and trans-disciplinary work which is essential with professionals in other fields.

SLT education has now developed into profession-specific, specialised academic and clinical educational programmes of study with clinical education practicum, normally integrated with the academic study. SLT programmes are usually of 3 - 5 years or, in some cases, 6 years, in most countries around the world today. The structures and entry level into the programmes and then upon completion of these into the SLT profession vary; some are first (bachelors) and others second (masters) cycle programmes. Thus, some European SLTs have qualified as such after completion of a first cycle SLT specific programme while others may have reached professional entry level after a second cycle level, i.e. masters level award. In some countries both types of programme exist. To complicate matters further, in some countries there are postgraduate programmes designed especially for graduates of other specific professions to convert to SLT or to have an accelerated entry to the SLT clinical/professional studies.

While this study includes a comparison of the different routes to qualification as an SLT, the main focus is on addressing what is required of the individual for entry to the profession. This thus subsumes what is required of the programmes to allow the individual to achieve this professional competence. Through defining core competences and threshold standards (profession benchmarking) this will also aid clarity for the public with speech, language and communication needs which will enable them to access services from appropriately educated and skilled professionals.

Professional associations of speech and language therapists/pathologists have been established in most countries throughout the world and have worked both independently and together for the development and synchronisation of the profession, academically and globally, to set up and develop clinical and academic guidelines for the profession, its education programmes and its scientific approach to the understanding and treatment of human communication disorders.

3 Professional collaborations in European SLT education

CPLOL was formed on 6 March 1988 in Paris by SLT professional and scientific organisations representing thirteen European countries seeking greater unity and harmonisation of standards across Europe. Since its inception it has grown to encompass 33 national professional organisations of speech and language therapists/logopaedists in 30 European countries and its member organisations represent more than 80,000 professionals. Key educational objectives include: promoting and enabling freedom of movement and the right of members of the profession to practise in the countries of the EU; **the equivalence of qualifications**; the **exchange of scientific knowledge** and **research** in the fields of speech and language therapy-logopaedics and **the harmonisation of standards** and **quality of initial** and **continuing education**.

Moll[30], in comparing the educational status in logopaedics/SLT in 1983 with previous surveys (Segre, 1950[31] and 1971[32]), summarised the changes in the field in the following manner:

> "*First, there appears to be a general shift from diploma programs into universities. Second, the length of training programs has been increasing and programs required for basic professional training are moving to more advanced levels (e.g. undergraduate vs. graduate programs). These two general trends potentially reflect a changing concept of logopaedics."* (Moll, 1983:217)[33]

A survey by Lesser (1992)[34], motivated by European mobility goals and opportunities, looked at 43 countries world-wide in order to compare qualifications and benchmarking criteria. It confirmed the finding of Moll's study from the 1980s of continuous upgrading in educational standards. However Lesser also noted that the heterogeneity of the clinical practice and training within the programmes is a major problem for the mobility of SLT professionals both in Europe and internationally. A survey conducted in 1997 within an EU Socrates' Thematic Network on Education in Phonetics, Speech and Language Therapy and Speech Engineering, which included all countries in Europe at that time, showed 151 programmes in Europe awarding the SLTs with a diploma or a degree from a higher education institution (HEI) after 3 to 6 years of study (Bloothooft et al. (1997),

[30] Moll, K. (1983). Training programs in logopaedics. *Folia Phoniatrica et Logopaedica*, 35, 198-219.
[31] Segre, R. (1950). Present situation of logopaedics and phoniatrics in various countries. *Folia Phoniatrica et Logopaedica*, 2, 173-202.
[32] Segre, R. (1971). The current world status of logopaedics and phoniatrics. *Folia Phoniatrica et Logopaedica,* 23, 155-197.
[33] Moll, K. (1983) TrainingpPrograms in logopaedics. In *Folia Phoniatrica et Logopaedica*, 35, 198-219.
[34] Lesser, R. (1992). The making of logopaedists: an international survey. *Folia Phoniatrica et Logopaedica*, 44, 105-125.

88-91)[35]. With the expansion of Europe since then, the challenge for mobility of the workforce and educational opportunity is even greater and it is essential to be able to define and describe meaningfully the heterogeneity of the education and the variability of SLT clinical practices.

While CPLOL has worked to bring together professional associations within and across Europe, there have also been some notable professional and academic collaboration such as INTERREG projects related to sharing SLT skills and expertise and curriculum developments. All these have served to create stronger European professional identity but have also emphasised the need for a harmonised approach. The expansion of Europe and the consequent increase to the heterogeneity of the professional education makes the present NetQues project timely.

4 Summary

SLT as a profession can trace is origins back to the nineteenth century, while formal SLT education commenced in some European countries in the early years of the twentieth century. While the heterogeneity of its origins and its development into an established profession can present challenges for harmonisation of SLT education, SLTs have actively sought to work across national boundaries to collaborate internationally in research and development for better understanding of communication impairment and the education of appropriately qualified professionals. CPLOL as the EU professional organisation has been influential in promoting SLT professional and educational development across Europe since 1988. The next chapter describes the SLT scientific discipline and profession.

[35] Bloothooft, G. et al. (1997). The landscape of future education in speech communication sciences. Part 1. Analysis of European Education in Phonetics, *Spoken Language Engineering, Speech and Language Therapy.* Utrecht: OTS Publications.

CHAPTER 3 Speech and Language Therapy: Scientific Discipline and Profession

1 Science and practice

Speech and language therapy (SLT) as described through its early development above can also be seen from two different angles. On one hand it is a scientific **discipline,** a specific area of research, on the other hand it is a unique **profession**, an area of practice.

> "*Speech Language Pathology/Logopaedics is both a scientific domain and an autonomous profession. As a science, it is at the intersection of medical, linguistic, educational and psychological sciences and focuses on aetiology, assessment (including screening, identification, evaluation, and diagnosis) and intervention (including promotion, prevention, counselling, treatment, consultation, management, (re-)habilitation and education) of communication and swallowing disorders.*" (CPLOL)[36]

2 The discipline

The SLT discipline is concerned with human communication and swallowing, their processes, development and disorders and in particular the description, assessment and treatment of voice, speech, language, and swallowing disorders. Human communication involves processes associated with the comprehension and production of oral and written language, as well as appropriate forms of non-verbal communication. SLT is concerned with all linguistic levels of language, i.e. the **form** or "building blocks" – sound (phonology, including prosody), word (lexicon), sentence (grammar) and text, both regarding the **content**, i.e. factors such as meaning (semantics), including vocabulary and word and world knowledge and **language function/use** (pragmatics).

SLT is truly cross-disciplinary with its bases in medicine, linguistics, psychology and education science. Across Europe, the academic placement of the discipline thus varies between medical, linguistic, psychological and teaching faculties/schools. As a consequence of its unique blend of scientific knowledge, it also rests on different theoretical models drawn from medicine, behavioural sciences and linguistics. In many countries the medical model is prominent in the general framework, procedure of investigation and terminology (anamnesis, diagnosis, aetiology, prognosis etc.), whereas the way to carry out intervention is more influenced by behavioural/cognitive-neuro-psycho and socio-linguistic models. The theoretical framework which is most prominent also varies depending on the area of practice. For example, research and practice in swallowing and voice disorders and cleft lip and palate are more likely to be oriented towards medicine, stuttering towards psychology, aphasia towards neuropsychology and developmental language disorders and dyslexia towards linguistics and cognitive science. However, each phenomenon can be studied and treated from several perspectives and in many areas there is an openness to combine perspectives (e.g.

[36] http://cplol.eu/profession/general-info.html

genetic studies of dyslexia and developmental language disorders also taking into account linguistics and cognition perspectives). Important dichotomies in defining and treating human communication, which illustrate some key issues are: organic vs. functional; acquired vs. developmental; disorder vs. delay; speech vs. language; comprehension vs. production.

3 The profession

"***SLT is an established profession, in constant and dynamic development***" *(CPLOL)*[37]

The SLT is the professional fully competent in the prevention, assessment, treatment and scientific study of human communication and related disorders. SLTs are in most countries autonomous professionals able to independently diagnose and provide service for individuals with communication and swallowing disorders. Thus, in most countries SLTs are independent professionals, whose services are not prescribed or supervised by some other professional (ASHA)[38]. Whereas the assessment of individuals with communication disorders is a very complex process which often involves inter-professional collaboration, SLTs can *independently* establish a diagnosis through objective testing and clinical observation and formulate a hypothesis about the nature and duration of intervention as well as about prognosis. The aim of SLT intervention is to bring clients to the highest possible level of functioning and communication which is appropriate to their social, educational and working environment, in order that they may achieve or maintain an independent lifestyle. An essential part of intervention is also the evaluation of efficacy of intervention (CPLOL)[39]. Speech and language therapists/ pathologists also serve as educators, administrators, and researchers.

4 The scope of practice of SLT

In Europe the SLT has the same significant scope of practice as colleagues in other parts of the globe including North America where they are usually referred to as speech-language pathologists and have the largest national federal organisation, American Speech–Language-Hearing Association (ASHA).

> "*The speech-language pathologist (therapist) is the professional who engages in clinical services, prevention, advocacy, education, administration, and research in the areas of communication and swallowing across the life span from infancy through geriatrics."* (ASHA)[40]
>
> *Speech-language pathologists may work directly with clients, and/or with their caregivers or other persons who regularly interact with them (e.g. friends, relatives, professionals, colleagues, supportive personnel etc.),*

[37] http://cplol.eu/profession/general-info.html .
[38] http://www.asha.org
[39] http://cplol.eu/files/congress/sommaire_en.htm
[40] http://www.asha.org

for the purpose of creating environments that promote optimal communication and swallowing." (CPLOL)[41]

5 Professional settings

Speech and language therapists-logopaedists across Europe may practise in different sectors and settings, according to the particular socio-economic circumstances in their own country, in the health or education sector, in the charity sector and/or in independent/private practice. In the health sector SLTs mainly practise in hospitals, rehabilitation centres, special institutions and centres for children or adults with disabilities and may also provide domiciliary services. In the education sector they are involved in mainstream schools as well as in special schools across the entire school age range and in those schools and centres which integrate children with disabilities[42].

6 Summary

The cross-disciplinary academic SLT discipline is concerned with human communication and swallowing, their processes, development and disorders and in particular the description, assessment and treatment of voice, speech, language and swallowing disorders. As a professional, the SLT is able to independently diagnose and provide service for individuals with communication and swallowing disorders, practising in the health sector or in education.

The next chapter will deal with recent developments in SLT due to changes in society, and advances in knowledge, science and technology.

[41] Lubinski, R. (2013). Speech therapy or speech-language pathology. In J.H. Stone and M. Blouin (Eds) *International Encyclopedia of Rehabilitation.* Available online: http://cirrie.buffalo.edu/encyclopedia/en/article/333/

[42] Crystal, D. and Varley, R. (1993). *Introduction to Language Pathology* (third edition). London: Whurr Publishers.

CHAPTER 4 Recent Developments in Speech and Language Therapy Education and Practice

1 Introduction

Development in speech and language therapy (SLT) has always been influenced by and embraced developments in contributing disciplines and practice. Expertise is frequently developed first by SLTs specialising in particular fields of practice, with access to additional knowledge and skill gained in specific post qualifying education and experience. Continuing professional development is a prerequisite in many countries to allow SLTs to continue to practise. Many such developments do subsequently become embedded into regular scope of practice and into pre-qualifying education (for example work with swallowing disorders). It must, however, be acknowledged that there will always be many areas of expertise which are above and beyond the threshold knowledge and skills of new graduates. These should be developed in the post graduate/CPD context alongside intensive skills and knowledge enhancement. This is common to most professions, especially those where advancements in research and knowledge are constantly taking place and significantly inform practice. SLT practice has also changed as a result of changes in society and in thinking and advances in the related fields of medicine, psychology, linguistics, sociology and education.

2 Current issues

2.1 Demographics

Demographics across Europe have changed substantially in recent times. Advances in medicine have enabled very premature infants to survive and many to thrive. However there has been an increase in the prevalence and complexity of communication impairments and intellectual, physical and medical complications in some of these children which can challenge the skills of the profession. At the upper end of the age scale, prophylactic medication has been one of many influences on the extended length and quality of life in old age. This means that the SLT clientele may be very much older before suffering a stroke and frail when they become patients, while dementia is increasingly a challenge for carers and professionals to manage.

2.2 Diagnostics

Diagnosis has also progressed as a result of medical knowledge. A genetic basis for many conditions has been established, sometimes as clear cause (as with some syndromes), sometimes as part of a multi-factorial basis (as with stuttering and specific language impairment[43]) while genetic testing has led to a change in the prevalence of some conditions such as Down syndrome, in some countries.

[43] Newbury D.F Monaco A.P. (2010). Genetic advances in the study of speech and language disorders. *Neuron*, 68(2), 309-320, 21 October 2010. Available http://dx.doi.org/10.1016/j.neuron.2010.10.001

The scientific knowledge base in these areas has stimulated research and subsequent approaches to assessment and diagnosis of communication disorders. Medical advances also mean that childhood diseases which used to have high morbidity and mortality are rare as a result of widespread uptake of inoculation. Thus the clientele changes and complex communication difficulties may now be met more frequently than in the past.

2.3 Technological advances

Technology influences current SLT practice and has the potential to change the SLT service in profound ways in the near future. The increased availability and use of brain scanning techniques for children as well as adults has informed thinking on neuroanatomical and neurophysiological functioning in a range of neurological conditions. This equipment has also enabled rapid interventions which can reduce the impact of brain injury, such as laser surgery for aneurysms. Audiology is now able to assess infants' hearing at birth, giving the optimal opportunity for hearing impaired infants to have aided hearing, which gives them access to spoken language from early on, reducing the risk for impaired language development. Cochlear implants are also widely available for infants, children and adults who have sensori-neural hearing impairment, while speech science technology such as nasometry and electropalatography has increased understanding about normal articulation and voice and is available to be used in therapeutic intervention. In each of these fields, ethical issues are raised and there are strongly held opinions about the benefits and disadvantages of such interventions, which the profession along with other members of multi-disciplinary teams must address. A wide range of augmentative and alternative communication devices are also available, enabling people who previously had very limited opportunities to express themselves to be able to do so, using computers and switches. It should be noted that many of these technological advances are expensive and not available in every country in Europe. This may have influenced the responses to the surveys carried out for this NetQues project, as seen in chapter 7 below. Approaches to identifying communication disorders and subsequent interventions for these disorders are therefore constantly evolving as the knowledge base expands.

2.4 Communications technology

Communications technology has changed dramatically over the past few years. Most SLTs (and many clients) have access to the internet, with its explosion of accessible information, conflicting advice and sometimes spurious assertions. SLTs therefore now need to be able to direct clients to reliable on-line sources of information. All the SLT professional bodies in Europe, not least CPLOL, have their own web sites, some being small, while others are extensive. In addition, very many patient support groups host web sites with information about the condition or syndrome of interest. SLT can now be delivered at a distance using not only telephone, but e-mail and real-time face to face communication, through such media as VOIP/Skype. Telemedicine applications are feasible for SLTs. Using high-speed interactive video and remote computing applications is increasingly being employed to provide efficacious SLT services to consumers living in underserved areas. As the visual images improve and the technology is more reliable, detailed assessment and diagnosis will become even more accessible. Smart phones

and other technological advances are enabling rapid, high quality communication to be the norm in many countries of Europe, although, again, coverage is not universal. New inventions and applications are being tailored to help meet the needs of people with communication impairment across the age spectrum - such as those with dyslexia, aphasia and other speech, voice and language impairments.

2.5 Sociological changes

Increasing European cross border and global mobility has led to many challenges for SLTs in working with multilingual and multicultural populations. The inclusion of multilingual/multicultural content in the professional education of SLTs is now a necessity. Changes in society across Europe have led to an attitudinal change towards seeking professional help with a reduction in the automatic respect previously expected by professionals. There is also an increased active involvement of the individuals themselves who require help, often referred to as “service users” and acknowledgement of their role and rights in making decisions about their treatment choices as partners, not just recipients of care. The views of service users and their significant others are important, as these are the individuals who live with communication difficulties and family, friends and colleagues are also affected by the communication difficulties. The nature of the impairment can also mean that the person with communication difficulties may need specific help to enable them to make sure their own opinion is taken into account. If they are not convinced about the interventions they receive, therapy will be unsuccessful. Service user involvement is also very much part of SLT education in a number of EU countries, with clients giving classes to students, forming advisory groups to courses, helping to interview prospective students and in some cases being involved in both teaching and assessment of the student SLT. Service delivery is influenced by government policies across Europe, but also by professional aspiration. Increasingly collaborative interdisciplinary and transdisciplinary work is considered desirable especially in the fields of education and rehabilitation. Here, professionals work closely together in order to meet the needs of their clients in the most effective and efficient manner. Increasing understanding of differing professionals’ roles enables SLTs and others to share good practice and work to the best benefit of their clients.

2.6 Scope of practice developments

The scope of practice of SLTs has gradually extended, with changing priorities and focus within the differing EU countries. As a result the early interest in speech articulation, stuttering, voice and acquired neurological conditions across Europe has expanded with recognition of the key role of SLTs across a wide range of speech, language, voice and communication impairments and their prevention. In some countries there is considerable involvement in working with dyslexia/reading and writing disorders and acknowledgement of the value of SLT expertise and understanding of the relationships between learning and language development and disorder. In many countries SLTs spend increasing amounts of time in the management of dysphagia (swallowing disorders). Some SLTs work with new entrants to their countries, who do not speak the indigenous language and in several countries a growing number are working with youth justice systems and prisoners in prevention and treatment, as the link between language disorders and social behaviour has been increasingly identified.

3 Summary

As described in this chapter, in all areas of SLT work, the impact of basic science, medical, linguistic, psychological, technological and sociological change have an immediate and on-going impact on the structure and practice of the profession. These together with local, national and international policies need to be reflected in the education necessary to enter the profession.

The next chapters describe the methodology and results of the NetQues project following the Tuning process for SLT education in Europe.

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CHAPTER 5 NetQues and the Tuning Process

1 Tuning Lines and NetQues Project design

For the purpose of NetQues each of the lines of the Tuning Methodology[44] was built into the design of the project. These lines are outlined below in sections 5.2.1 and 5.2.2 in relation to how they were incorporated. Annex I presents the benchmarks resulting from this project.

A total of 65 partners were recruited from all 27 EU countries, plus Liechtenstein, Norway and the EU-candidate countries of Iceland and Turkey. Partners were mainly from academic institutions but also included some professional associations. These key stakeholders give the perspective of the interface between the profession, the public need, and the service delivery in the national and European context.

Project coordination was undertaken by the lead partner, CPLOL, which comprises expert clinicians and academics representing each European country. Partners were allocated to six work package (WP) teams, each taking responsibility for one or more elements of the work. Criteria for allocating partners to WP teams were to obtain a mix of nationalities, geographical spread and experience in SLT education/practice. Targets which aligned with the Tuning process lines were then assigned to each of the work teams.

WP1 (Management) comprised the steering group (experts from partners representing a range of EU countries, academic and professional contexts) and was responsible for oversight and financial management and for organisation of the meetings for all partners.

WP2 (Tuning 1) was responsible for designing and circulating surveys on generic and subject specific competences.

WP3 (Tuning 2) in cooperation with WP2 had overall responsibility for analysing the outcomes of the data collected with the surveys and in producing the resulting benchmarks.

WP4 (Quality Assurance) was responsible throughout for ensuring quality assurance of the project, its management and the integrity of its processes.

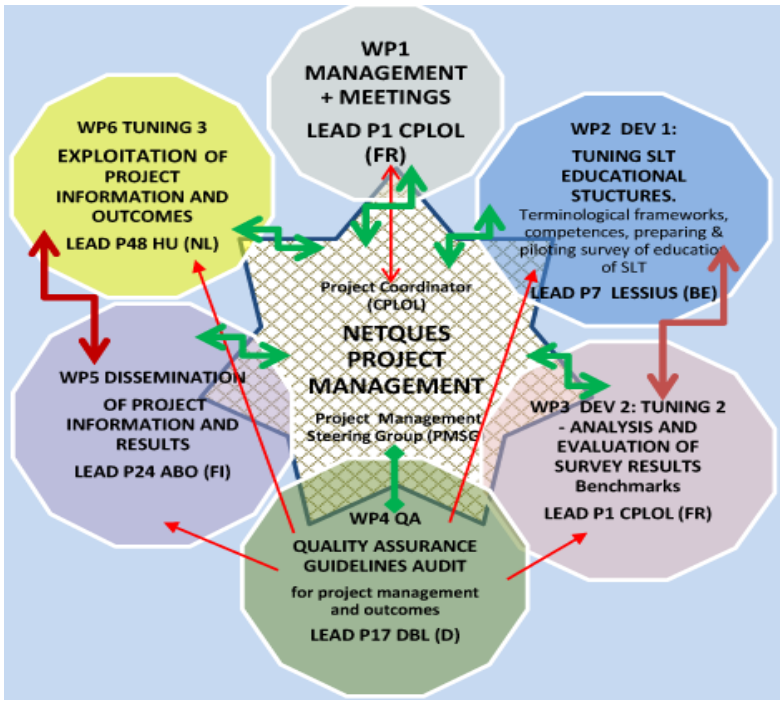
WP5 (Dissemination) focused on ensuring that information about the project, its goals and promotion of best practice in EU SLT education were made as widely available to as many key stakeholders and interested parties as possible.

WP6 (Exploitation) focused on making the best use of the resulting products, working closely with WP5 on gathering and disseminating examples of best practice as well as looking to ways of making sure that positive outcomes would be used, sustained and continue to be developed and influence change where necessary.

[44] See Chapter 1 above for Tuning Methodology outline and references

Figure 5.1 below gives a diagrammatic overview of the organisation of the project into teams and responsibilities.

Figure 5.1 Organisation following Tuning lines, showing interrelationships of Work Package (WP) teams



2 Addressing the Tuning lines

2.1 Tuning Lines 1, 2 and 3

Tuning Lines 1, 2 and 3 are as follows:

- defining, checking and finalising generic (general academic) competences
- defining, checking and finalising subject specific competences
- gathering data on the role of ECTS[45] as an accumulation system, related to the notion of learning outcomes.

WP2 (data gathering) in collaboration with WP3 (data analysis) were responsible for working with Tuning lines 1, 2 and 3. The SLT state of the art at European level was first discussed and reflected upon at the opening meeting of partners and then followed up in the WP teams. An ethnographic research approach was adopted using the broad range of expert participants as key informants. Evidence from experts from the partner educational institutions and professional associations and relevant web based and paper based documents were sought from SLT globally and reviewed. Contributors were experienced in course design, delivery and evaluation across a range of educational backgrounds and geographical locations. In order to ensure a pan European perspective, all 65 partners were invited to submit documents and provide references

[45] http://ec.europa.eu/education/lifelong-learning-policy/ects_en.htm

detailing programme descriptions (competence based and/or curriculum based) and regulatory frameworks used in course design, general academic and subject benchmarking and regulation in their own countries (see bibliography of key reference documents).

Following a review of the collected data, the group of experts within WP2 agreed upon the items for a survey to test the relevance for the SLT professional of each of the generic and subject specific competences documented and submitted. The item lists were pilot tested and refined by several reiterations around wider groups both internal and external to the project, using a modified Delphi technique (McKillip, 1987[46], Linstone and Turoff, 2002[47]) until the comprehensive set was agreed upon by the European network. Once agreement was reached on the items to include, they were translated into all necessary EU languages by SLT partners. This process of translation into 24 European languages also generated further clarifications and refinements to ensure precision of meaning. This in itself contributed to creating understanding, context and conclusions which could be valid at the European level.

Information on the use of ECTS across programmes and countries was gathered from two surveys (surveys A and B referred to below in chapter 6) – at departmental level of EU wide educational institutions through partner leads and colleagues in each country and at country level through the professional bodies in each country.

2.2 Tuning Lines 4 and 5

Tuning Lines 4 and 5 are:

- approaches to learning, teaching, assessment and performance
- the role of quality enhancement in the educational process (based on a system of an internal institutional quality culture).

These were addressed through networking across partners. WP5 and WP6 took responsibility to create opportunities for disseminating and exploiting examples of innovation and good practice.

2.3 Tuning and project outcomes

All together, the five lines of approach were thus incorporated in the project aims and method. Tuning is acknowledged to allow universities to "*tune*" their curricula without losing their autonomy and their capacity to innovate. The results provide information which will allow SLT programmes to be designed and reviewed following the Tuning process, i.e.

[46] McKillip, J. (1987). *Need Analysis: Tools for the Human Services and Education*. Newbury Park, CA: Sage Publications.
[47] Linstone H.A. and Turoff, M. (Eds) (1975) *The Delphi Method: Techniques and Applications*. Addison-Wesley Publishing Company, London. Retrieved 31-01-2011 http://is.njit.edu/pubs/delphibook/

1. to define academic and professional profiles of SLT
2. to describe the objectives of the programme as well as the learning outcomes (in terms of knowledge, understanding and skills) that have to be met
3. to identify the generic and subject specific competences which should be obtained in the programme.

From the detail of the integrated academic and clinical requirements for safe practice as an SLT, it should also be possible for those designing and delivering SLT programmes to use the information:

4. to translate these desired outcomes into the curriculum content (topics to be covered) and structure (modules and credits)
5. to decide upon the most suited approaches to teaching and learning (types of methods, techniques and formats) as well as the methods of assessment
6. to translate into educational units the activities to achieve the defined learning outcomes
7. to ensure quality assurance is built into the programme.

3 Summary

The project was organised in six WP teams. One WP was responsible for defining subject specific and generic competences and for gathering data, another for analysing data, a third for dissemination of information on the project and its results and a fourth for exploitation. In addition, one WP was responsible for quality assurance and one for management. The five lines of Tuning methodology were incorporated in the project with the aim to provide information which will allow SLT programmes to be designed and reviewed.

CHAPTER 6 Speech and Language Therapy Education in Europe: A State of the Art

1 Introduction

As noted in chapter 1, curricular structure, level of initial education in speech and language therapy (SLT) and terminology used in SLT education programmes can vary considerably across EU countries. In order to provide as complete an overview as possible of this diversity and map the current state of the art of SLT education programmes, two surveys were conducted:

- a departmental survey of a sample of educational institutions offering SLT programmes in each country (survey A)
- a biennial survey of national statistics of educational programmes in each country (survey B).

In the surveys the terms Bachelor, Masters and PhD are used throughout in correspondence to the EQF/EHEA cycle system, which is analogous to First, Second and Third Cycle Level under Bologna. However this may differ from national academic/professional title names. As SLT has grown up from several different models (as discussed earlier in chapter 2), the titles of both the profession and the academic award have also been influenced by their roots.

The surveys explored the diversity of both academic awards and titles given to the qualification in SLT. Despite efforts to clarify through the use of Bologna terminology and ECTS, it was clear from discussions within the work groups and subsequently from some responses and questions raised by partners and respondents, that the use of titles Bachelor/Bachelor with Honours, Master and Doctor still have some different connotations for different nationalities, as well as the use of terms like Certificate and Diploma - largely depending on their historical use but also influenced by the translations between languages. Whether or not the award was classed within Arts or Sciences or given a unique professional title such as Certificate/Diploma/Bachelor of Speech – Language Sciences/Orthophonie/Logopaedics etc. also raised issues for debate. The design of the survey instruments was carefully structured with explanations made available to attempt to gather data on some of these issues.

2 Departmental survey: design and method

A list of questions was drawn up in order to obtain a snapshot of the range of SLT programmes in Europe and the departments where they are taught[48]. The departmental survey consisted of 71 questions concerning the structure of SLT education across Europe. Data gathered included information on curriculum structures, curriculum design (e.g. modular/in semesters), level/content of programmes of study (e.g. Certificate/ Bachelor/Masters), number of years of study, approaches to learning, teaching and assessment, credit system and number of credits awarded, quality assurance processes

[48] See Annex IV for a copy of the survey instrument in each language

and how these are assessed (e.g. who validates the programme and how), national, regulatory and other frameworks influencing programme delivery etc. In this survey, respondents were able to choose which questions they answered and omit any which were not relevant to them.

This online survey was distributed in English and was sent to all the departments involved in the NetQues project. Through the lead partners in each country the link to the online survey questionnaire was cascaded to other SLT departments in their country. This snowball approach was used to gather responses from both partners and non-partners in the project.

Each country of the European Union plus Norway, Iceland, Turkey and Croatia completed both surveys, with the exception of Liechtenstein and Luxemburg, which have no SLT education programmes. Both Liechtenstein and Luxemburg however supplied some basic data on numbers of SLTs. The most represented EU countries in this survey (Belgium, Germany, the Netherlands, Portugal, Sweden, and the United Kingdom) each provided five or more submissions. Of the 93 respondents who completed the survey, all but one provided information about the institution they represented.

3 Biennial statistics survey: design and method

This survey[49] was prepared by NetQues partners in conjunction with CPLOL representatives who are tasked with updating national data biennially. This method was selected in order to allow these important data to continue to be collected in a systematic manner after the end of the project and allow European and national trends in student SLT numbers and programmes to be recorded.

As in preparing Survey A, a range of questions was agreed and piloted then revised and the survey instrument was created for online completion using SurveyMonkey. This survey contained 30 questions regarding national data on numbers and types of SLT programmes, numbers of students, graduates, numbers in employment, population data and details of state regulation. It was translated by bilingual English-French speakers and distributed for completion online in either English or French. This allowed data to be gathered from all European countries.

The online survey was distributed through the national professional associations and through CPLOL's education commission, the delegates from which were briefed and given opportunities to ask questions, check understanding etc. as required. For those countries where no delegate was available (Poland, Hungary and Turkey), contact was made with colleagues in each country to invite them to complete the survey and enable gathering of the key data.

4 Departmental and biennial statistics surveys: results

See Annex III for a list of survey respondents by country. Survey A provided specific data on curricula at programme level and from this a number of trends emerged. Survey

[49] See Annex IV for a copy of the survey instrument

B conducted by CPLOL and completed mainly by their national education representatives allowed some descriptive statistics on the overview of SLT education nationally in each country across Europe to be derived.

A summary profile was drawn up by a process of triangulation, merging the data from surveys A and B. The resultant "snapshot" of each country's SLT education profile was subsequently recirculated for member checking and verification and where there were any discrepancies or missing information this was rationalised by following up with semi structured interviews with key respondents from the profession in that country. This summary profile is included in Annex II[50]. The tables give a brief description of the nature and type of SLT education in each participating European country with education programmes and includes also Switzerland and Turkey. It is not necessarily comprehensive, nor indeed intended to be, but captures a snapshot overview of the current state of the art of education for SLTs across Europe and provides a tool for further enquiry or comparisons.

4.1 Location of initial education

SLT programmes which responded to the Departmental Survey include at least one from each country and several from countries which have a higher number of programmes. The summary profile encompassing data from both surveys shows that all but Liechtenstein and Luxemburg have at least one educational programme leading to a professional qualification in SLT (and many have considerably more).

The sample of 92 academic programmes across Europe showed the following trends:

- initial SLT education programmes are mainly situated at universities (74.2%, N=69) or other institutions of higher education (25.8%, N=24)
- most programmes are state funded (93.5%), with only a few of the respondents privately funded or independent of state funding (5.4%, N=5; 1 in Cyprus, 2 in Germany, 2 in Portugal) and 1 from Austria stated it was funded in some other way
- most are set up in faculties/divisions/departments or post graduate institutes along with other programmes
- more than half of all SLT programmes are sited within Health Faculties including Medicine, Rehabilitation Sciences, Nursing (60.6%), 26.6% are within Education Faculties and 27.7% are aligned with disciplines such as psychology or linguistics
- a small percentage are in uniquely designated SLT Faculties/Departments/ Institutes. In particular, among those SLT programmes that are based alongside other programmes, health programmes are the most represented (54.4%), followed by social sciences and psychology (43.3%), nursing (38.9%), education (34.4%), science (16.7%) or in a small number of cases include business (4.4%).

In summary, SLT programmes in Europe are typically within universities, mainly state funded and predominantly organised in faculties with other health related programmes although links also with education and related disciplines such as linguistics and psychology also influence where programmes may be sited in university structures.

[50] Annex II Summary Profile of Key Features of SLT Education by EU Country

There are two specific caveats to this information being construed as complete. Outside of this project, intelligence from professional networks indicates that there are other programmes known to exist within private institutions of education (mainly not within mainstream higher education) which often are outside of the national regulatory systems and controls of professional bodies. Their views are not captured in the current data. Additionally professional associations, while being representative of their members in some countries, may not have strong links to all the academic institutions in their country and therefore may have incomplete data.

This has underlined the importance of a project such as NetQues reviewing the profession from both professional associations and academic programme perspectives; as well as enabling and encouraging, through the network, stronger links between them.

4.2 Title/type of academic award that allows a graduate to practise as an SLT

The title of the award that enables SLTs to practise varies. Most frequently the award is that of a bachelors degree (61.6% overall), which may be a profession specific programme of study. Other titles include Professional Bachelor (30.2%), Bachelor of Arts (9.3%), Bachelor of Science (17.6%), Bachelor of Science with Honours (10.6%). 30.5% are designated Masters awards: Master of Science (17.6%), Master of Arts (12.9%).

For a small number of institutions the graduate may be allowed to practise after completing a PhD or a clinical doctorate. These are from departments which offer several levels of award leading to the qualification to practise as an SLT, with the majority in Eastern European countries: two in Czech Republic; two in Bulgaria; one in each of Germany, Hungary, Slovakia and Turkey.

Three countries included in this project are not aligned with the Bologna process, but offer their own local qualification. In these cases, a certificate (4.7%) or a diploma (7%) is the qualifying award for practising as an SLT.

4.3 Duration of initial education

The duration of SLT qualifying programmes also differs across countries. Bachelors programmes are typically between three and four years. Eight countries offer a bachelors degree in three-year programmes, and four-year programmes are standard in 12 countries. Across the bachelors programmes, 80% are four-years duration and 20% three-year. Programmes leading to Bachelor of Science with Honours (BSc Hons) typically have a minimum duration of three and a half to four years and postgraduate diplomas a minimum of four years. Four countries offer masters degrees in four-year programmes, whereas 10 countries offer a five-year masters degree. The five-year programmes are exclusively masters programmes and correspond to 8% of all programmes. 69% of the masters programmes last five years and 31% are of four-year duration. For an overview of duration of programmes, see Figure 6.1 overleaf.

However it must be noted also that academic entry level and qualifications required for acceptance on to a programme can vary and some findings on this are set out below. Some data provided suggests that more than 100 German initial education training programmes exist which are not within the HE sector but assigned to general upper

secondary level education/abitur/vocational education-training (EQF level 4). Others may exist but, in all other countries surveyed, no programmes at this level were declared. In those countries where there is state regulation the professional entry point requires an SLT profession specific award at least at bachelors or masters level.

Again, and reflecting the changing picture, since analysis of the data explicitly collected for this project, the French Ministry of Health has this year (25 January 2013) acknowledged the necessity to raise the requirement for all its SLT programmes from four year bachelors level and decreed that from 2013 entry they will be at five year masters level.

Certificate and diploma courses are four-year courses in most cases (60% and 70% respectively of all certificate/diploma programmes). An alternative route offered to obtain the qualification to practise is that of a Master of Science (MSc) fast track for persons holding a bachelors degree. This is consistently offered as a two-year course of post graduate study.

Doctorate programmes, where established, normally have a three-year full time post graduate duration. This was specified as the norm in more than half of the cases (57.1%).

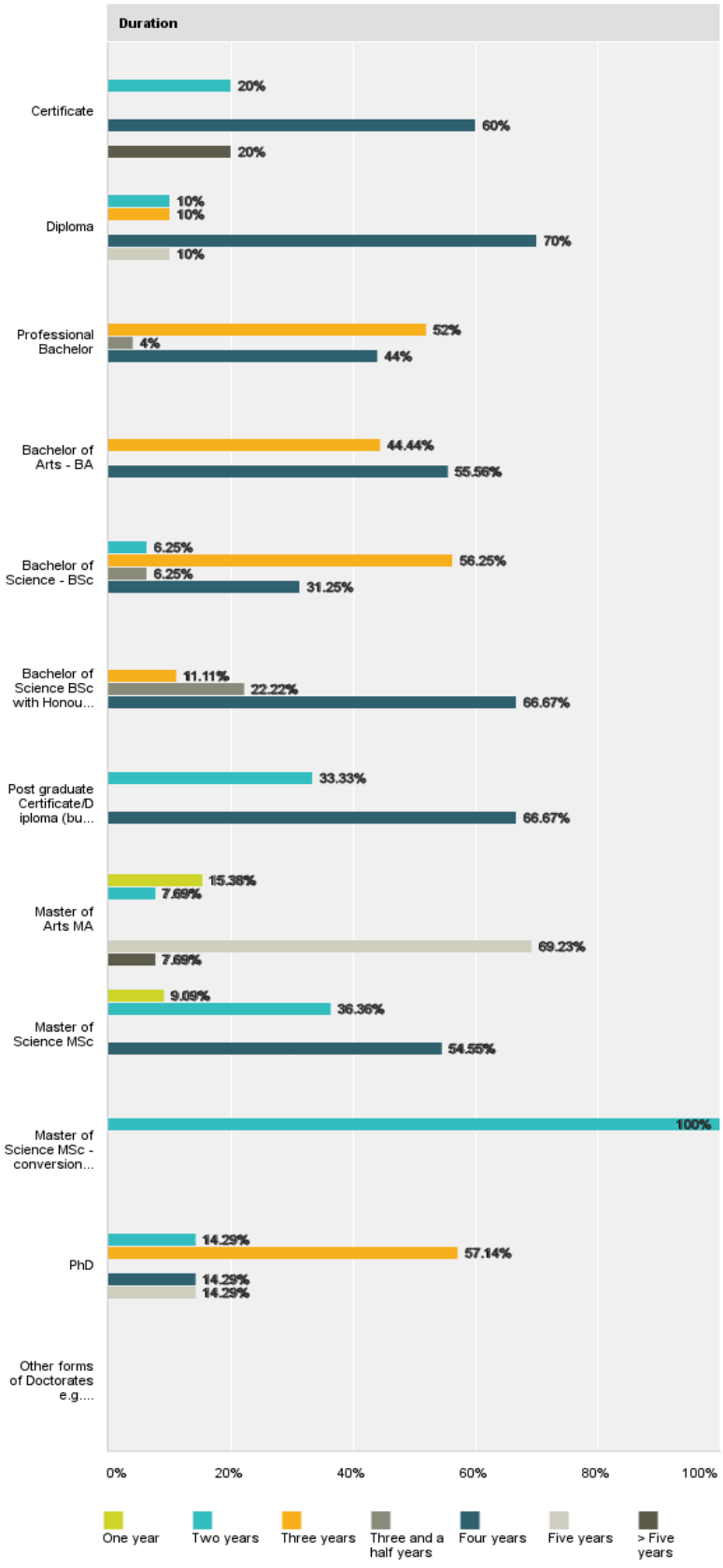
In summary, SLT professional qualification can only be achieved in most countries with a minimum of a bachelors degree, which is awarded in most countries after four years. In eight of the European countries, SLT students acquire their licence to practise as an SLT only by completion of the masters degree. In the following EU countries a masters degree is required in order to start to practise as an SLT - Estonia, Finland, Iceland, Norway, Slovenia, Slovakia, Sweden and francophone Switzerland. However not all have state regulation. The masters degree is awarded typically after five years whereas a few countries award a masters degree after four years. Only three countries have country-specific professional qualifications. The current situation demonstrates that most European countries have implemented the Bologna process and applied it to SLT education.

4.4 ECTS

Where used, normally 60 ECTS credits are awarded per academic year. In around half of the cases (46%) programmes award 240 ECTS after fulfillment of initial education in SLT. These 240 ECTS credits are awarded primarily for four-year bachelors degree programmes, e.g. in Ireland, Netherlands, Portugal, francophone Switzerland, United Kingdom.

In some countries a masters degree in SLT may be achieved with 240 ECTS in order to start to practise. A few programmes award a bachelors degree with 180 ECTS for accomplishment of a three-year professional study programme, e.g. Austria, Belgium, German speaking Switzerland. Three year UK programmes, however, have a requirement for an extended academic year and advanced level studies (Bachelors with

Figure 6.1 Duration of programme by award



Honours level) as the minimum entry level to the profession, set by the regulatory body. These programmes may offer credits equivalent to between 180 and 240 ECTS.

Using the year as a measure can therefore be misleading unless the length of the academic year and whether or not the clinical placements are included in the calculation of time spent as study or as additional are clearly specified.

The allocations of ECTS or analogous credit systems can lead to some misleading data. The evidence from the surveys would suggest that countries count credits in different ways. When students are admitted on to SLT education programmes, some may take account of earlier gained ECTS especially if these are conversion type programmes. In some cases they may receive additional ECTS for time spent in clinical practicum. Therefore caution should be taken in interpreting the following results. The number of ECTS by type of award is set out in Figure 6.2 overleaf.

23% of the programmes stated they accrue 300 ECTS, e.g. in Croatia, Estonia, Finland, Norway. These programmes predominantly lead to a masters degree in SLT after four years. The Czech Republic, as in some other countries which have joined Europe more recently, has a more varied range of routes to SLT qualification. Czech programmes combined with teaching qualifications are explained thus: "the non-teaching SLT programme was 240 ECTS (4 years) thus far, now it is 5-year (300 ECTS), but educational SLT programmes can be structured - BA (3) and MA (+ 2), or just MA for 5 years (special needs education for primary school programme)".

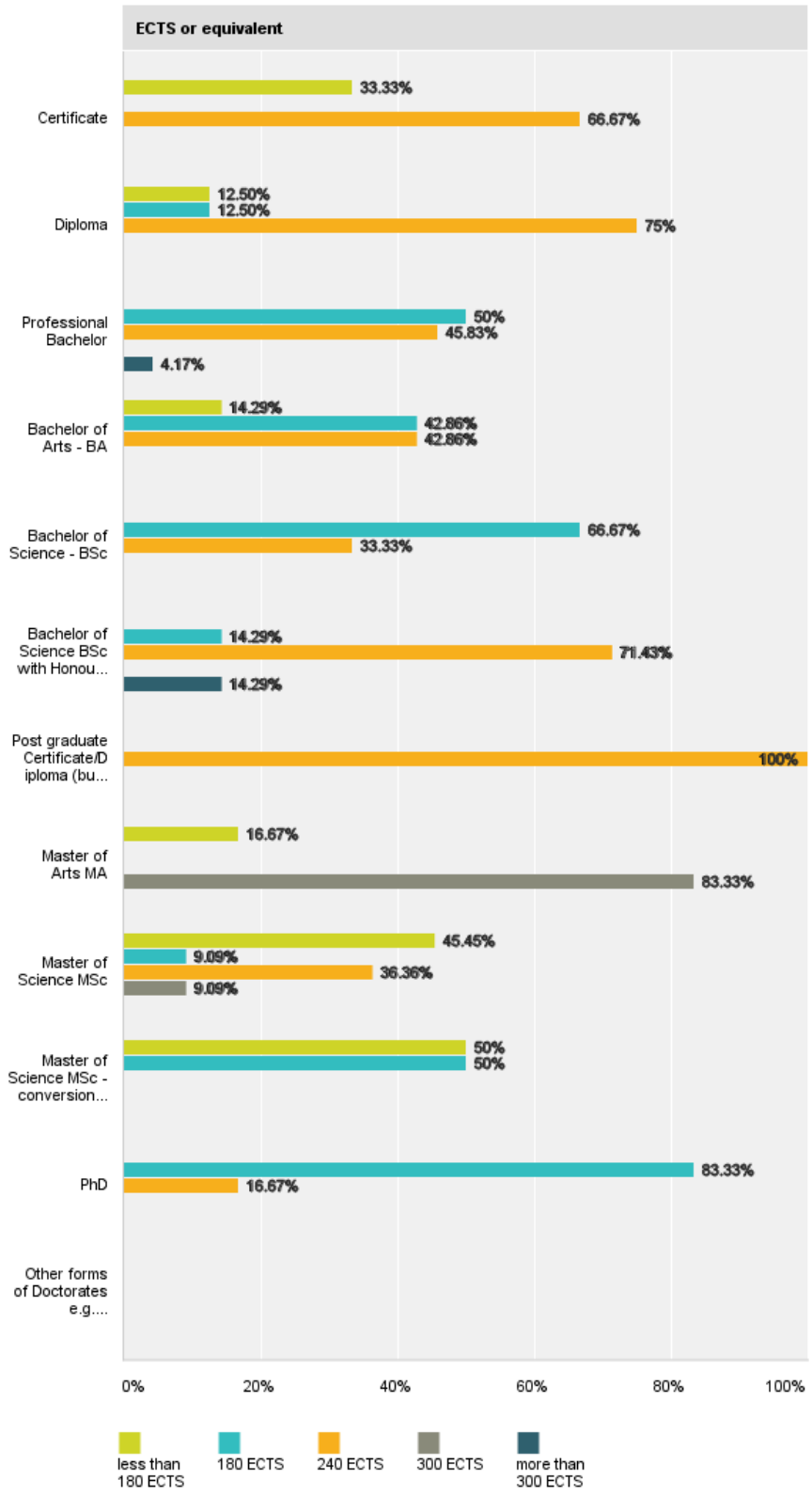
4.5 Upgrading academic awards alongside professional qualifications

Specific upgrading programmes for SLTs who qualified before the introduction of SLT graduate programmes in their particular country/context are provided in only a quarter of the surveyed departments (25.9%). However in some countries graduate-only entry has been possible for some considerable number of years and therefore such programmes are not required. Those which do exist can be specifically designed conversion programmes or may be designed so that SLTs can upgrade to achieve a bachelors or masters degree alongside upgrading clinical/academic knowledge and skills through additional examinations or credit schemes. In around half of the cases (47.7%) the programme provides access specifically to the SLT profession, whereas other access routes to SLT professional qualifications are represented by courses designed to include prior qualifications in audiology (N=6), special education (N=8) and psychology (N=1).

4.6 Eligibility for studying for higher awards

Graduates of SLT first cycle programmes can often directly proceed to further SLT studies at masters level (95.5%). Alternatively, SLT graduates are eligible to proceed to other masters programmes (89.2%) or PhD programmes (77.8%). Professional doctorates are available in more than half of the cases (57.1%). In only 26.7% of the departments studied, graduates from other disciplines have access to a conversion or fast track SLT programme. Most of those post graduates pursuing SLT have an academic background in education/teaching followed by linguistics, psychology or medicine.

Figure 6.2 Number of ECTS by award on qualification as SLT



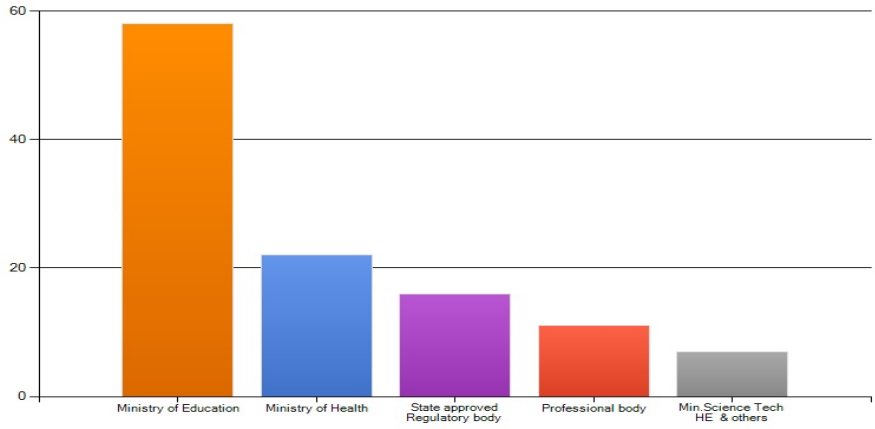
The highest level of award which is designed specifically for SLTs in any institution varies from those which only offer bachelors programmes to those which have specifically

designed programmes for higher academic awards in SLT. At almost half of all surveyed institutions (47.5%), the highest academic degree that can be achieved specifically in SLT is Bachelors, followed by PhD or Clinical Doctorate (37.5%) and masters (15%). Those departments offering doctorate programmes seem to include post graduate studies for all levels of SLT qualification, i.e. those with bachelors and masters. Responses from several departments particularly in Eastern European countries showed they offer a range of prequalifying programmes at different levels.

4.7 Approval and regulation of the programmes

Almost all established programmes at the surveyed departments are regulated by the state or the government (96.4%), either by the Ministry of Education or the Ministry of Health or both (see Figure 6.3 below). In some countries the regulator may be the Ministry of Science/Science and Technology or Science, Technology and HE. In some cases, regulation is by a state approved regulatory body (19.3%). Over half (54%) involve the professional body (PB) either conjointly or separately. In less than 5% is the institution alone the sole decision maker regarding approval of the programme.

Figure 6.3 Professional/statutory bodies which approve/regulate SLT programmes



Programmes almost always have to be approved or validated by their host institution (98.9%) and need to be reviewed periodically. The interval between internal revisions is highly variable, showing little agreement across institutions and ranges from annual revisions (27.3%) to more than five years (15.6%). Most institutions revise their programmes every year or every five years. Some do this only in conjunction with the state approval while most do it as an institutional requirement.

4.8 Number of students and university programmes per country

It should be noted that the following figures may be estimates as many countries do not keep national statistics of students by subject of study whereas in others this information can be made available.

As the second largest EU country, France appears to have the highest number of student SLTs (3,200 in four year programmes) for a population of 62 million. Obviously numbers

which can be accommodated in each programme are affected by the number of years of the programme. Belgium, however, also has large numbers (3,000 Francophone and 2,200 Flemish) with a population of 10.8 million (6.25 million in Flanders). Although the United Kingdom (population 62 million) is one of the highest populations in European ranking, it has a lower number of students (1450) across 18 universities than the Netherlands (population 16.78 million) which has 2,500 across eight HEIs. The larger number of students per capita in the Netherlands may be partly explained by their catchment area extending into Germany to meet the needs of neighbouring German SLTs wishing for an academic bachelors degree, which they may not currently be able to access in Germany. The highest numbers of university programmes are located in Italy, France, UK and Spain.

The highest number of students per programme can be found in the Netherlands, with an average of 313 students per programme. In France on average 178 students are in each programme. Greece follows with 153 students per programme. The majority of the programmes have an average of ≤ 36 students per year group but there is considerable variation.

4.9 Entry requirements for initial SLT education programmes

Entry requirements vary. In three out of four cases the academic entrance requirements are Advanced level or Baccalaureat (75%) (Level 3). In some institutions an Ordinary Certificate (Level 2) is sufficient to enter a qualifying SLT programme (11.3%). In a few cases there are no entry requirements (7.5%). In contrast, in some institutions the entry requirement for initial SLT education is a bachelors (11.3%) or masters degree (3.8%). In many cases, written entrance examinations (60.7%), speech and voice tests (55.7%) and/or interviews (54.1%) are required before acceptance to an SLT programme. Moreover, in some cases oral entrance examinations (36.1%), hearing tests (34.4%) and/or language competence tests (34.4%) are required. Only in a few cases tests on foreign language competences (13.1%) and/or numeracy competences (3.3%) are obligatory in order to enter initial SLT education programmes. Finally, more than two thirds of institutions (70.7%) have a cap on student numbers (numerus clausus).

The number of students completing the education programme is usually ≥ 90%, which may reflect the competitive nature of entry and selection procedures, but may also be related to the motivation of students and/or the academic and clinical support offered to students once they join a programme.

4.10 Staff

Staff who teach SLT programmes are distributed over full time and part time as well as external visiting staff. 92.8% of the teaching staff are full time qualified SLTs employed by the institution. 52% of the institutions have academic teaching staff holding a doctorate or masters degree. Among part time teaching staff, the percentage of those who hold only a bachelors degree is higher, in particular in clinical SLT staff.

The departmental SLT academic teaching staff are often supported by lecturers in psychology (75%), anatomy and physiology (69.1%), medicine (66.2%) and linguistics (66.2%). In approximately one third of the SLT programmes (38.2%), staff from

education/teaching departments complement the SLT staff. In almost every SLT department (93.4%), practising clinicians are involved in teaching and there are generally opportunities for all staff members to engage in research (91.4%) and in continuing professional development (95%).

4.11 Learning and teaching within SLT education

The pedagogical models employed involve a range of methods. Teaching through lectures is used by most programmes in the study (97.3%), followed by practical sessions (89%), seminars (83.6%), case-based teaching sessions (72.6%) and individual research project work (72.6%). Other forms of teaching and learning include small discussion groups, individual tutorials, self-study sessions, problem-based learning sessions and student-led project work (ranging from 47.9% to 67%) across programmes.

Biomedical sciences are mainly distributed over the first and the second course year. In particular basic biomedical sciences are more often present during the first course year, while specific biomedical sciences are mainly introduced during the second course year. First year ECTS in biomedical sciences mainly range from 4 to 20, while second year ECTS mainly range from 0 to 12.

Language sciences are usually taught during the first and second year, with higher percentages generally in the first year. First year ECTS in language sciences mainly range from 4 to 20, while second year ECTS mainly range from 2 to 10.

Behavioural sciences are also mainly taught between the first and the second year. First year ECTS on this topic mainly range from 4 to 12, while second year ECTS mainly range from 2 to 7.

SLT sciences are usually less present within the first year courses and mainly taught during the second, third and fourth years. First year ECTS mainly range from 6 to 24, while second and third year ECTS are mainly 30 or above.

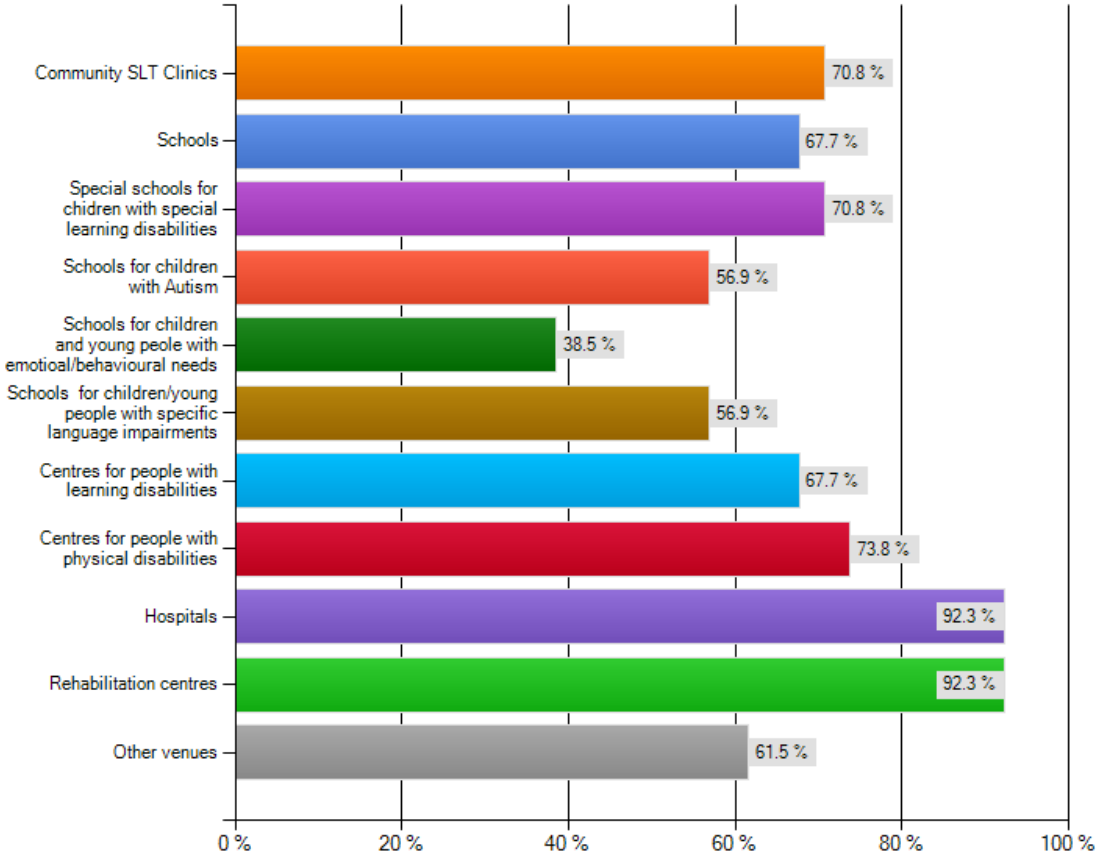
Research skills are mainly taught during the second, third and fourth year. First, second and third year ECTS mainly range from 0 to 10. Fourth year ECTS is higher, mainly ranging from 18 to more than 30.

Public health lectures are almost equally divided over the first three years. First year ECTS on this topic mainly range from 0 to 4, second and third year ECTS mainly range from 0 to 7. In the fourth year ECTS in public health remain stable, ranging from 0 to 5.

4.12 Clinical placements and work experience

Clinical placements/practicum take place predominantly in clinical settings outside the institution (97.1%). In particular, placements are found in hospitals and rehabilitation centres (92.3% each), followed by centres for people with physical or learning disabilities (ranging from 67.7% to 73.8%), community SLT clinics (70.8%), schools and special education schools (ranging from 38.5% to 70.8%), private practices (66.2%) and settings for the elderly (56.9%). For an overview, see Figure 6.4 below.

Figure 6.4 Venues for clinical experience by % of programmes



While all programmes include supervised/mentored clinical practicum as a key component of the route to qualification and professional competence there is a considerable range of the quantity of this built into the prequalification programme. This may reflect the model adopted – from that of a very tightly controlled environment with closely supervised practice by experts throughout to those models encompassing some supervision followed by more experiential learning.

Hours of clinical practice inside the institution range from 0 to 950 and show a progressive increase with the years of education. Thus, during fourth and fifth year (where they exist), there is usually a considerable increase in the number of hours of clinical practice (range = 16 - 950 and range = 40 - 600). The number of hours of clinical practice outside the institution is generally higher and all students have to complete a minimum of external clinical practice in order to graduate (range = 70 to 1360).

Supervision during internal or external clinical placements is provided in most cases by a combination of SLTs from academic and clinical specialist staff and those in clinical practice (86.4%) within the institution, who also complete the clinical assessment of the student (76.9%). The majority of supervisors in clinical practice are not required to undergo lengthy specific training in supervising/mentoring (62.9%) and although some clinicians are required to do so, their training is often shorter that one week (62.5%); in a few cases training lasts one month or longer (17.4%).

4.13 Research within the SLT programme

Research projects carried out by students as part of the programme are known to be required in almost two thirds of programmes studied overall. Out of 93 departments surveyed, 67 answered the question “Do students conduct a research project as part of their studies?” Within these 67 departments, approximately 90% of both bachelors and masters level include a student led research study - 52 Bachelors level programmes, 33 masters level programmes and 21 doctoral level programmes. (Some departments have more than one level of programme running concurrently.)

However it must be noted that approximately 30 departments did not answer this question. For those who do include a research project, ECTS given to research studies tend to increase progressively between educational levels, ranging from 10-20 ECTS at bachelors level, to 30-40 at masters level and to more than 40 at doctoral level. The number of ECTS awarded to research projects also varies across programmes and are shown overleaf in Figure 6.5.

All types of research or study projects are represented at different educational levels (see Figure 6.6 overleaf). For Bachelors level, literature reviews (83.3%) and design of research study without collecting data (78.6%) are often required whereas during masters level qualification, empirical studies using clinical data and/or based on laboratory data are most often required (46.8% and 51.2% respectively). With regards to Doctoral level qualification, the publication of students’ own research is required (43.9%).

Topics of research units/modules included in the curricula were in varying amounts: research skills; research methodologies; data collection; qualitative research methodologies; quantitative methods; use of statistical packages; transcription measurement and analysis; reporting.

Generally students are required to work individually on their projects, especially for masters and doctoral level, whereas pairs or group work are sometimes considered at bachelors level. Ethical approval is granted by the staff members (53.1%) or by students themselves (52%). Supervision is provided by members of the SLT department in most of the cases (92.5%). Sometimes joint supervision by SLT department and other departments may be provided (47.8%). Depending on the aim and purpose, supervision is guaranteed by other staff members of the institution (35.8%), by external researchers (31.3%) or even by external clinicians (26.9%).

All students who are required to undertake research in their programme are normally trained in statistical packages and/or other software to support quantitative and qualitative analysis (93.8%). Results of students’ projects are mainly disseminated through national conferences (79.1%), are available in the institution archive or library (73.1%) or published as journal articles (70.1%). In some cases depending on the level of education (e.g. masters or doctoral) are they presented at international conferences (50.7%) or disseminated only within the institution (44.8%). In very few cases they are not disseminated at all (7.5%).

Figure 6.5 Values in ECTS to student research projects across programmes studied

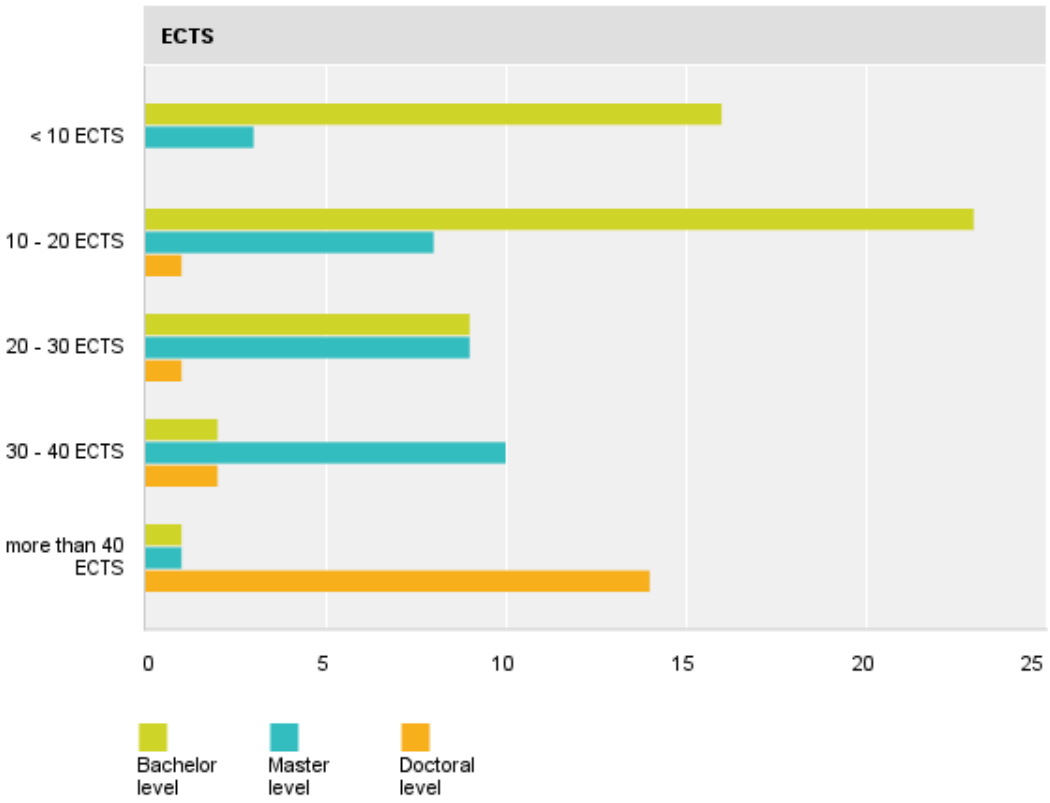
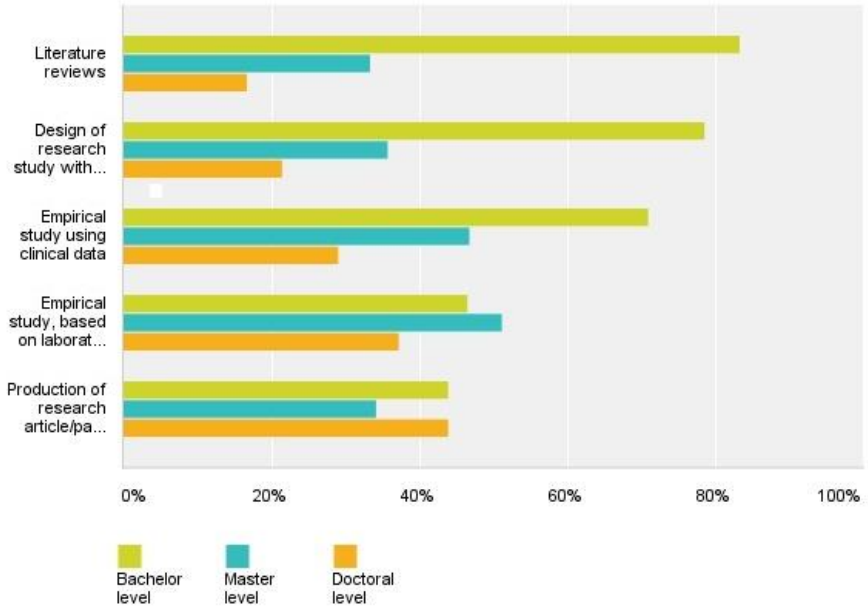


Figure 6.6 Types of student research project across SLT programmes



4.14 Assessment

Programmes include a wide range of forms of assessment. The most preferred methods are written examinations (in 97% of programmes), practical examination of skills (91.9%) and viva voce examinations (89.5%). Reflective account of experience, portfolio of competences, clinical practice exams, video-analysis and student self-assessment are also used (see Figure 6.7 overleaf for an overview).

Clinical competence is mainly evaluated by clinical supervisors. Methods for assessment may differ widely and include written assessment, viva voce assessment, observation and evaluation form, portfolio or case examples. Students are usually examined by SLTs in the department (90.5%) or by local SLTs (74.6%). In some cases external examiners are involved (25.4%) and in a few cases students are examined by non-SLTs. External examiners for clinical competence are usually local clinical colleagues (90.6%) or in some cases a clinician from another part of the country, examiners from other SLT departments or examiners from the country's professional body. Academic knowledge is usually examined by SLTs from the department (97%). In other cases non-SLTs from the department or external examiners are involved. External examiners for quality assurance in the majority of cases originate either from another SLT programme (58.8%) or from another department in the relevant discipline (52.9%). Less frequently they are from another department in the institution or another SLT programme in another EU country.

5 Summary

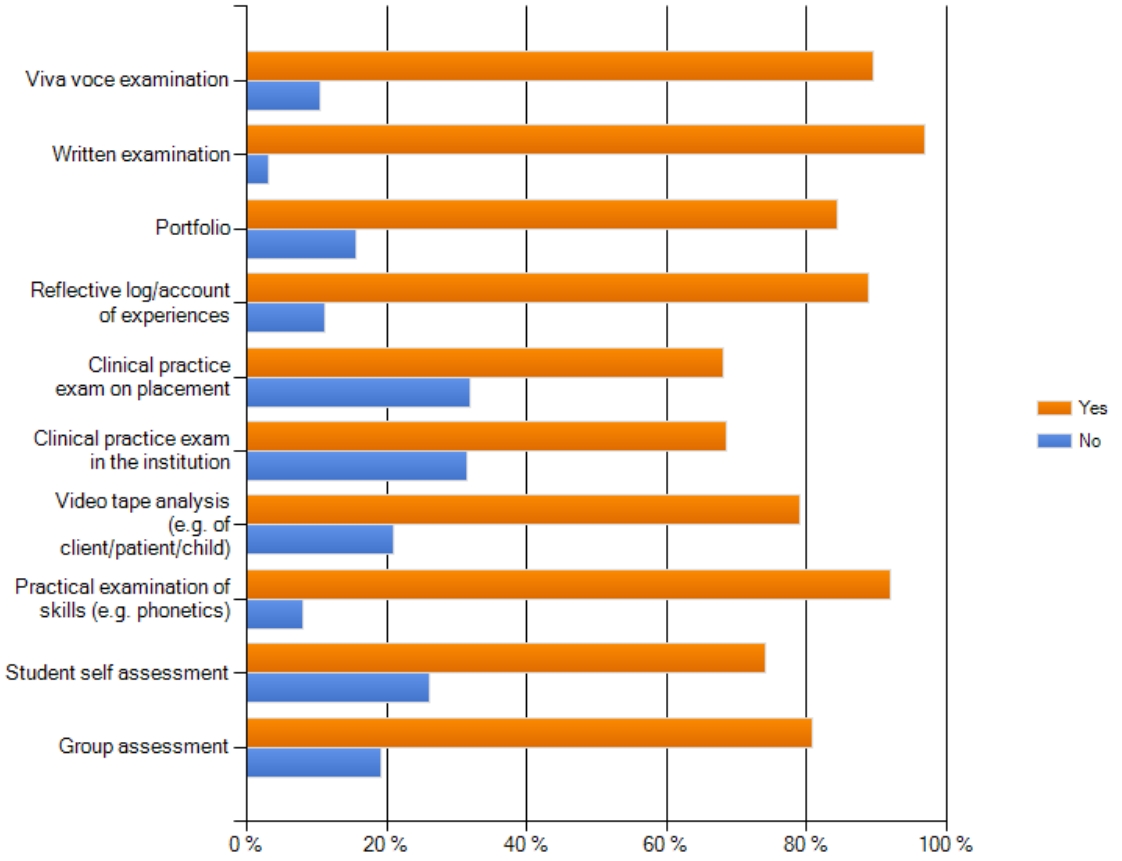
SLT programmes in Europe are typically placed in universities, mainly state funded and predominantly organised in faculties with other health related programmes. On the whole, the level of qualification that enables an SLT to practise is at least a bachelors degree, accomplished after at least three years of initial education. A masters degree (level 7) may be accomplished after a total of five years of higher education (three years at bachelors and two years at masters). Doctorate programmes on average take an additional three years. A progression from bachelors via masters to doctorate degree is available in almost every EU country.

Specific SLT programmes for students who have already graduated in another (related) discipline are available in some institutions. In some EU countries specific programmes for SLTs who have graduated from non-academic courses that offer the possibility for academic requalification are provided. The total number of students differs widely, depending on the individual institution, demonstrating an average of 36 students per programme.

In addition to academic prerequisites, other entrance prerequisites are applied in almost all cases, e.g. written examinations, interviews, oral examinations, speech and voice tests, language competence tests. As for other particularly sought-after areas of studies, numerus clausus is commonly applied to limit the number of candidates to the maximum feasible. The availability of supervised clinical placement is frequently cited as a limiting factor. Staffing is mainly represented by full time SLT qualified staff employed by the institution. The qualification of full time academic teaching staff is usually masters degree or doctorate, whereas part time clinical SLT teaching staff more often are bachelors

degree holders. In almost all programmes practising clinicians are involved in teaching students.

Figure 6.7 Forms of assessment used across SLT programmes



CHAPTER 7 Expected Competences Required by Newly Qualified Speech and Language Therapists

1 Introduction

Fostering competences is the object of educational programmes. As outlined in chapter 3, speech and language therapy (SLT) is a complex scientific discipline and field of practice. It is important that the range of learning outcomes for the new SLT are described in a way that covers the range of competences deemed necessary. It was also considered desirable by all experts consulted that they emphasise the integration of different competences in practice covering:

1. the technical competences expected with regards to how the SLT approaches his or her task
2. how the SLT uses knowledge and understanding with appropriate attitude and decision-making strategies
3. the on-going development of the individual as a person and as a professional.

Professional competence has often been described in terms of "doing the right things", "doing the right thing in the right way" and "the right person doing it" - see Harden's description of medical education (2002) [51,52] and Adam's (2006) [53] introduction to learning outcomes in the EUA Bologna Handbook.

In Tuning, competences are described as reference points for curriculum design and evaluation, not as straight-jackets. They allow flexibility and autonomy in the construction of curricula. At the same time, they provide a common language for describing what curricula are aiming at.

The Tuning methodology identifies competence in terms of **generic** competences or transferable skills, i.e. those abilities not confined to the learning or application of a specific subject and **subject specific** competences that are directly related to the discipline or subject, in this case SLT.

For this project focusing on SLT, project partners agreed that it is most expedient for the comparison of programmes to focus on what the SLT graduate, that is the newly qualified independent professional, must be able to do. Competence was recognised and defined in this context, as it is in others, to encompass not only being able to do something but to do so with understanding, flexibility, using higher order cognitive skills such as analysis and synthesis. It also encompasses being able to seek, select and appropriately use information, i.e. employing reflective critical thinking, as well as choosing the best action based on all evidence in the most appropriate way, for the best reasons. Professional competence thus encompasses a range of skills: knowledge - cognitive/intellectual, psychomotor/physical skill and, in the affective domain, attitudes, feelings and emotions.

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[51] Harden, R. M. (2002a). Developments in outcome-based education. *Medical Teacher*, 24(2), 117-120.
[52] Harden, R. M. (2002b). Learning outcomes and instructional objectives: is there a difference? *Medical Teacher*, 24(2), 151-155.
[53] Adam, S. (2006) An introduction to learning outcomes. In Froment E., Kohler J., Purser L. and Wilson L. (Eds), EUA Bologna Handbook article B.2.3-1. Berlin: Raabe.

Consequently, the project focuses on identifying those subject (profession) specific competences which are crucial in newly qualified[54] SLTs, as these serve to differentiate SLTs from other graduates and in particular graduates from other professions. Generic academic competences are also included, and are indeed required as a foundation for the development of the profession specific competences, but are examined separately from the subject specific ones.

Further, the results reported below separate out subject specific knowledge, skills and attitudes as identified by respondents to the surveys (see Annex IV), in order first to identify the competences considered core for new graduates and those considered desirable for effective and efficient SLT practice across the EU and second to identify the degree to which competences in these three domains (i.e. knowledge, skills and attitudes) are inter-related and lead to competence.

This project describes the specific integration of knowledge, understanding, subject specific skills and abilities used by the SLT to function according to the demands that are put upon him/her in the specific SLT context (health/education/social sector). NetQues goals with regards to the SLT perspective therefore complement and closely resemble the objectives of the EQF (see Table 7.1).

Table 7.1 Comparison of Objectives of EQF and NetQues

Objectives	
EQF	**NetQues**
• qualification more readable and understandable across different countries and systems in Europe • promote citizens' mobility between countries and to facilitate their lifelong learning • increase the transparency of qualification	• to agree on common standards and benchmarks for newly qualified SLTs • to facilitate greater mobility of qualified professionals across countries • to facilitate the development of the profession • to provide guidance to higher education institutions and main stakeholders regarding the education of SLTs in all countries of Europe • to enable European citizens to access the service of appropriate qualified SLTs

2 Method

As already described in Chapter 5, a team of experts in SLT education generated a set of subject specific and generic competences following an extensive review of existing documentation of education programmes, regulatory frameworks, reference points and benchmarking documents from across Europe, as well as SLT competence based

[54] newly qualified = one who has successfully completed the SLT programme and is ready to work independently as a speech and language therapist

frameworks globally including documents used in USA (ASHA)[55], Australia (SPA)[56], Canada (CASLPA)[57] and the IALP guidelines[58]. These proposed items were piloted and refined iteratively using a modified Delphi technique, by involving wider groups of experts from colleagues in SLT education and clinical practice. This effort resulted in an agreed set of 60 subject specific and 38 generic competences (see Annex IV for survey items).

The subject specific competences were related to the following eight areas:

- scope of practice
- assessment and identification of communication and swallowing difficulties
- planning and implementation of intervention
- planning, maintaining and evaluating services
- prevention
- quality assurance
- research
- professional development, continuing education and specific ethical responsibilities.

The generic competences were related to the following three areas:

- instrumental competences
- interpersonal and intrapersonal competences
- systemic competences.

The total set of 98 competences formed the basis for a questionnaire (in English) which, together with a glossary, was sent to the lead partner in each country for arranging translation by SLTs competent in their own language and English. The survey and glossary were then prepared in all required European languages (24 in total) using back translations as checks. Finally, the online survey tool SurveyMonkey[59] was used for the completion by respondents in their preferred language.

The survey was sent out to three groups of key stakeholders in each country:

1. academic teachers/lecturers/researchers of SLT programmes

2. recent graduates (last five years) from SLT programmes

3. employers of SLTs (including health service managers).

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[55] ASHA (2009) *Standards and Implementation Procedures for the Certificate of Clinical Competence in Speech-Language Pathology Revised March 2009* American Speech-Language-Hearing Association Retrieved from: http://www.asha.org/certification/slp_standards/

[56] SPA (2010) Code of ethics. Retrieved from http://www.speechpathologyaustralia.org.au/library/CodeofEthics.pdf

[57] CASLPA (2008) *Canadian Association of Speech-Language Pathologists and Audiologists (CASLPA) Scope of Practice for Speech-Language Pathology*. Retrieved from: http://www.caslpa.ca/PDF/Scope_of%20Practice_SLP_english_2008.pdf

[58] **I**ALP Guidelines for Initial Education in Speech Language Pathology. *Folia Phoniatrica et Logopaedica*. 2010, 62(5), 210-16.

[59] www.surveymonkey.com (Pro Gold version)

Respondents were asked to judge the competences as:

- not essential to be able to practise (work) *as a newly qualified SLT*
- desirable but not essential to be able to practise (work) *as a newly qualified SLT*
- essential to be able to practise (work) *as a newly qualified SLT.*

A newly qualified SLT was defined as 'one who has successfully completed the SLT programme and is ready to work independently as an SLT'.

The data, i.e. the responses to the survey, were analysed by Work Package Team 3 partners. The data analysis was generated using SAS software[60] and Excel[61] to provide descriptive statistics and also statistical analyses of results by respondent groups and characteristics.

3 Results and key findings

A total of 4383 responses were received by the closure of the SurveyMonkey link. Of the 4383 responses received 2863 (65%) were fully completed and used for analysis. The 1520 responses with missing data were rejected.

3.1 The most significant subject specific competences

The 25 subject specific competences most frequently cited as "essential" by all three respondent groups are listed in Table 7.2 overleaf.

It can be seen that those subject specific competences most often cited as essential are related to six of the eight areas identified above (see 7.2 above), namely

- scope of practice
- assessment and identification of communication disorders and swallowing difficulties
- planning and implementation of intervention
- planning, maintaining and evaluating services
- prevention
- professional development, continuing education and specific ethical responsibilities.

Respondents thus considered that initial education in SLT should particularly emphasise competences that relate to assessment, diagnosis, treatment, prevention and counselling in order to start to practise as an SLT.

[60] SAS Version 9.3 (TS1M0) of the SAS System for Unix. Copyright © 2002-2010 by SAS Institute Inc. SAS and all other SAS Institute Inc. product or service names are registered trademarks or trademarks of SAS Institute Inc., Cary, NC, USA.
[61] EXCEL Microsoft for Windows/Mac

Table 7.1 The 25 subject specific competences most frequently cited as essential

	Most frequently cited as essential Subject Specific Competence Descriptors
1.	Can assess, diagnose and intervene in speech and language disorders
2.	Understands the professional roles and boundaries of a speech and language therapist
3.	When necessary, refers client to other professionals in a timely and appropriate manner
4.	Provides appropriate feedback on interpretation of assessment results to the client and significant others, in a way they can understand easily
5.	Implements appropriate therapy techniques using the necessary materials and instrumental equipment
6.	Can produce oral and written reports of assessment results, including analysis and interpretation of assessment information
7.	Integrates assessment results with other relevant information to set goals
8.	Observes the code of ethics of the national professional body and/or as prescribed by the employer and/or the national/state government
9.	Understands rationales and principles that underlie specific therapy methods
10.	Discusses long-term outcomes and decides, in consultation with the client, whether speech and language therapy is appropriate or required (includes key people in these discussions)
11.	Identifies gaps in information needed to understand the client's disorders and seeks information to fill those gaps
12.	Analyses and interprets assessment results accurately and integrates information from case history and other relevant sources into findings
13.	Makes reasoned decisions to initiate, continue, modify or cease the use of chosen techniques, treatments or procedures and records the decisions and reasoning appropriately
14.	Selects and plans appropriate and effective therapy interventions involving key people in the client's environment
15.	Establishes rapport and facilitates participation in the assessment and differential diagnosis process
16.	Prepares a client for discharge from therapy appropriately, agreeing a point of closure with the client and significant others and follows relevant agency discharge procedures
17.	Documents response to intervention and any changes in intervention plan
18.	Contributes to the prevention of the occurrence or the development of communication, eating, drinking or swallowing difficulties by early intervention in disorders
19.	Identifies the influence of different situations, environments or contexts on clients' problems
20.	Develops personal growth as a speech language therapist through insight into, and further development of, a range of interpersonal and communication skills
21.	Recognises the effect of the disorders on the psychosocial well-being, social and medical status of the client and significant others
22.	Collects information, including qualitative and quantitative data, to evaluate the effectiveness of therapy
23.	Understands the roles of other members of the inter-/trans-disciplinary team and produces intervention plans in consultation with them
24.	Keeps legible and accurate contemporaneous records in accordance with professional and legal requirements and uses only accepted terminology
25.	Understands the concepts of efficacy and efficiency in relation to SLT intervention

3.2 Common features across stakeholders

Academics, graduates and employers expressed very similar preferences concerning the majority of their top five out of the 60 rated subject specific competences. Despite the high number of possible choices of competences, there was a considerable level of agreement concerning the competences perceived to be essential or desirable. Table 7.3 below shows the five competences most frequently cited as essential by 206 employers, 476 academic staff and 2181 graduates who completed their initial education within the past five years.

Table 7.2 The five subject specific competences most frequently cited as essential in each of the three stakeholder groups

Most cited subject specific competences by stakeholders		
Employers	**Academics**	**Graduates**
1. Can assess, diagnose and intervene in speech and language disorders	1. Can assess, diagnose and intervene in speech and language disorders	1. Can assess, diagnose and intervene in speech and language disorders
2. Understands the professional roles and boundaries of a speech and language therapist	2. Provides appropriate feedback on interpretation of assessment results to the client and significant others, in a way they can understand easily	2. Understands the professional roles and boundaries of a speech and language therapist
3. Provides appropriate feedback on interpretation of assessment results to the client and significant others, in a way they can understand easily	3. Can produce oral and written reports of assessment results, including analysis and interpretation of assessment information	3. When necessary, refers client to other professionals in a timely and appropriate manner
4. Implements appropriate therapy techniques using the necessary materials and instrumental equipment	4. Understands the professional roles and boundaries of a speech and language therapist	4. Provides appropriate feedback on interpretation of assessment results to the client and significant others, in a way they can understand easily
5. When necessary, refers client to other professionals in a timely and appropriate manner	5. When necessary, refers client to other professionals in a timely and appropriate manner	5. Implements appropriate therapy techniques using the necessary materials and instrumental equipment

3.3 The least significant subject specific competences

The ten subject specific competences that were least often cited as essential for being able to start to practice as an SLT are shown in Table 7.4 overleaf.

Table 7.3 The ten subject specific competences least frequently cited as essential for a newly qualified SLT by the total number of respondents (least =1)

	Least often cited as essential Subject Specific Competence Descriptor
1.	Can administer, record and interpret the instrumental measurement of nasometry/stroboscopy/nasendoscopy/laryngography/videofluorouscopy/ tympanometry/acoustical analysis
2.	Contributes to the development of the discipline and of the profession by undertaking and publishing research and case studies
3.	Is familiar with statistical packages
4.	Collaborates in research initiated or supported by others
5.	Can administer, record and interpret the instrumental measurement of audiometry
6.	Makes suggestions for developing or acquiring new resources, or introducing new methods
7.	Evaluates formal and informal assessment tools and intervention resources and methods in relation to current research
8.	Once experienced and preferably trained, assists and tutors students of the profession
9.	Contributes to the prevention of the occurrence or the development of communication, eating, drinking or swallowing disorders by education of the public and other professionals
10.	Contributes to the generation of data for quality assurance programmes

Obviously these competences require post qualifying experience in the field of SLT and are therefore not cited as essential for a newly qualified SLT.

3.4 The most significant generic competences

The 25 generic competences most frequently rated as “essential” by all three respondent groups are shown in Table 7.5 overleaf.

Considering all the 38 generic competences, all items in the area of interpersonal and intrapersonal competences included in the survey were among the 25 that were most often cited as essential by all categories of respondents. Among the ten generic competences most often cited as essential are those related to intrapersonal competences such as the *demonstration of a behaviour which is honest, sincere and reliable*, as well as the *ability to be self-critical and to reflect on one’s own performance*. Interpersonal skills most often cited were the *ability to provide accurate feedback in a comprehensible and sensitive manner* and to *empathise with clients and colleagues*, followed by systemic competences and instrumental competences, which were in general considered as less important.

To sum up, the results demonstrate that inter- and intra-personal generic competences were perceived as most crucial. Therefore, these generic competences should be

carefully promoted within the initial education in order to enable SLTs to practise. Following these personal competences, which are definitely highly relevant, mainly instrumental competences appear to be perceived as essential.

Table 7.4 The 25 generic competences most frequently cited as essential by the total number of respondents

	25 most frequently cited essential Generic Competence Descriptor
1.	Demonstrates behaviour which is honest, sincere and reliable
2.	Demonstrates the ability to be self-critical and reflects on their own performance
3.	Provides accurate feedback in a comprehensible and sensitive manner
4.	Empathises with clients and colleagues
5.	Takes responsibility for developing their own knowledge and skills throughout their lifespan
6.	Demonstrates positive attitude and proactiveness
7.	Is able to extract information from informants efficiently and sympathetically
8.	Uses appropriate, effective skills and materials in written, oral and visual communication of information and instruction
9.	Adapts own behaviour and approach to fit new situations
10.	Identifies the important factor in a problem and suggests possible solutions
11.	Expresses the preferred solution/decision in a comprehensible way and outlines the concrete actions required
12.	Appreciates diversity and multiculturalism
13.	Uses knowledge, such as identification of the important factors in a problem, its possible solutions and risks associated with each, to select the most appropriate solution for the particular circumstances
14.	Demonstrates resilience in coping with the demands of the profession in a way which enables them to maintain self-esteem and manage stress
15.	Demonstrates social skills such as assertiveness, cooperation, negotiation
16.	Analyses information to draw appropriate conclusions and recognises the implications of these conclusions
17.	Synthesises information from diverse sources to select an appropriate course of action or to answer a question
18.	Applies legal and ethical principles in managing information and protects integrity, reliability and authenticity of records
19.	Identifies the risks or pitfalls associated with each possible solution
20.	Divides tasks into concrete steps and sets time schedules with realistic aims, taking into account all other demands
21.	Works independently
22.	Meets goals or delivers products of work on schedule
23.	Conducts a search of the scientific literature to find the most relevant information to answer a question
24.	Formulates creative and original solutions for novel situation
25.	Gathers data using various methods including literature review, interviewing, questionnaires and observation

3.5 Common features across stakeholders

As in the judgement of subject specific competences, academics, graduates and employers again expressed very similar preferences concerning the majority of their top five out of 38 rated generic competences. There was thus a considerable level of agreement concerning the generic competences perceived to be most important. Table 7.6 below shows the top five results from 206 employers, 476 academic staff and 2181 graduates, who completed their initial education within the past five years.

Table 7.5 The five generic competences most frequently cited as essential in each of the three stakeholder groups

Most cited generic competences by stakeholders		
Employers	**Academics**	**Graduates**
1. Demonstrates behaviour which is honest, sincere and reliable	1. Provides accurate feedback in a comprehensible and sensitive manner	1. Demonstrates behaviour which is honest, sincere and reliable
2. Provides accurate feedback in a comprehensible and sensitive manner	2. Demonstrates behaviour which is honest, sincere and reliable	2. Demonstrates the ability to be self-critical and reflect on their own performance
3. Empathises with clients and colleagues	3. Demonstrates the ability to be self-critical and reflect on their own performance	3. Empathises with clients and colleagues
4. Takes responsibility for developing their own knowledge and skills throughout their lifespan	4. Empathises with clients and colleagues	4. Provides accurate feedback in a comprehensible and sensitive manner
5. Demonstrates the ability to be self-critical and reflect on their own performance	5. Uses appropriate, effective skills and materials in written, oral and visual communication of information and instruction	5. Takes responsibility for developing their own knowledge and skills throughout their lifespan

3.6 The least significant generic competences

The ten generic competences which were least often cited as essential in order to be able to start to practise as an SLT are listed in Table 7.7 overleaf.

Systemic competences are more often considered as desirable or not essential. That is, eight out of ten competences which were considered as not essential are systemic competences. It is clear that being *able to write professional documents, scientific articles and make professional presentations in a foreign language* (which generally means publishing research) would not typically be judged as a requirement for starting to practise as an SLT, though may well become more necessary as the SLT's career progresses.

The finding that being *able to read and comprehend professional documents, scientific articles and professional presentations in a foreign language*, and *use of a foreign language* are two of the generic competences least often cited as essential or desirable,

may be due to the reality that most of the profession's scientific literature is written in English and that likewise the stakeholders in English-speaking countries (or even where it is widely used) find it less essential to specify that a newly qualified SLT is able to comprehend or express himself or herself in a foreign language.

Table 7.6 The ten generic competences least frequently cited as essential by the total number of respondents

Least often cited as essential Generic Competence Descriptors	
1.	Is able to write professional documents, scientific articles and make professional presentations in a foreign language
2.	Design and implement a research project to answer a particular question effectively
3.	Direct others as appropriate
4.	Manage others to achieve consensus
5.	Educate new entrants and other members of the team
6.	Use e-learning applications and adapt to new educational technologies
7.	Is able to read and comprehend professional documents, scientific articles and professional presentations in a foreign language
8.	Engage in new enterprise or follow a difficult course of action, if required
9.	Provide appropriate education and training for members of other professions or significant others involved with their clients
10.	Evaluate the methodology, results and analyses of reported research projects to judge their worth

4 Discussion and implications of findings

It is clearly evident that subject specific competences related to the assessment, diagnosis, treatment, prevention and counselling in the area of communication disorders and swallowing difficulties are crucial and should be emphasised in initial SLT education. Academics, graduates and employers showed a high degree of agreement that the overarching competence *can assess, diagnose and intervene in speech and language disorders* is essential in order to be able to start to practise as a newly qualified SLT. While there was strong agreement across the specific competences required there was also some variation between the different groups' priorities across the 60 subject specific competences. For example academic staff placed slightly more emphasis on items such as *can produce oral and written reports of assessment results, including analysis and interpretation of assessment information*, whereas graduates and employers more frequently cited *understands the professional roles and boundaries of an SLT*.

Regarding generic competences, inter- and intra-personal competences are most frequently considered essential for initial SLT education and thus should carefully be promoted within the initial education. Instrumental competences are considered either essential or desirable, while systemic competences linked to management and research are considered at best desirable but not essential for the newly qualified SLT. The generic competence that was most frequently cited as essential for a newly qualified SLT among graduates, employers, and academic staff was *demonstrates behaviour which is honest, sincere and reliable.* Academics cited the ability to *provide accurate feedback in*

a comprehensible and sensitive manner first, compared with second by employers and fourth by graduates.

Similarly, the generic competence *empathy with clients and colleagues* was equally frequently cited as essential by graduates and employers (third), slightly less frequently (fourth) by academics.

There is also some other variations across the groups. Employers and graduates cite the competence of *taking responsibility for developing their own knowledge and skills throughout their lifespan* as essential for starting to work as an SLT more often than academics. Academics more often cited *uses appropriate, effective skills and materials in written, oral and visual communication and instruction* than employers and graduates. This variation may well reflect the perceptions of each category of respondents of the relative importance of when these key generic competences must be demonstrated in the SLT's development.

Differences can also be attributed to differing expectations of the relative importance of certain or emerging competences, for example those related to research activity. Expectations are that the new SLT graduate should be able to demonstrate some competence in this area – but the level of this may vary. Expectations may also reflect the entry level and type of programme(s) available in that country. From the departmental survey it was evident that the relative amounts of time and depth of study of research methods across programmes vary considerably. As might be expected, the academic respondents put more emphasis on the knowledge base (underpinning competence), whereas employers seem more concerned with the skills demonstrated by SLTs.

5 Conclusions

5.1 Theory and practice

The education of SLTs demands achieving and being able to demonstrate competences which are a complex interaction of theory and practice together with a range of interaction skills necessary for effective evidence-based practice. The nature of the profession and the science of SLT demand an initial SLT education programme that enables those who successfully complete it to have achieved a series of subject specific and generic competences that will allow them to practise safely and effectively in their profession. A most striking (and indeed reassuring) feature of the overall results comparing the importance of the subject specific and generic competences needed in order to start to practise SLT, was the extent of agreement between academics, graduates and employers.

Subject specific competences are all related to effective assessment, diagnosis, treatment, prevention and counselling of clients and their significant others in the area of communication disorders and swallowing difficulties. The generic competences particularly relevant for the newly qualified SLT are related to inter- and intra-personal competences. Attitudinal and people oriented skills such as empathy and understanding are essential for being effective in therapeutic relationships with clients and colleagues,

for gathering client data and in making appropriate client and evidence based clinical judgement.

5.2 Learning in, on and through clinical placement

Supervised and mentored clinical placements are crucial in providing the environment in which the student SLT can learn, practise and develop the necessary competences to become a qualified professional. The quality and timing of placements should be carefully planned to allow the student SLT to build up the necessary expertise with reflection and understanding of the complexity of good clinical decision making based on gathering and weighing up the evidence in each situation. Thus we have also seen from the manner in which SLT professional programmes are designed across Europe and internationally (see chapter 6) that an integrated curriculum which incorporates clinical learning in the real world situation throughout is the norm. While the amounts of in-house and work based learning may vary considerably there is universal agreement that it is an essential factor and must be carefully structured into the learning process.

5.3 Benchmarks for SLT education: European standards to practise SLT

The set of competences essential for a newly qualified SLT which were most often cited across all key stakeholder groups are listed in Annex I. This document can be regarded as the EU-wide agreed common standards which every SLT must meet in order to practise the profession. These also provide benchmarks for SLT initial education and should be addressed in all European SLT education programmes.

5.4 Fitness for practice, fitness for purpose and fitness for the future

Having demonstrated threshold competences and qualified, the new practitioner achieves the status of being ready for independent practice. However lifelong learning and professional development will still be crucial to further development and maintenance of currency and appropriateness of all that an SLT does in practice. This must be fostered throughout the career and in the early years post qualification the SLT will benefit greatly from a supportive work environment with mentoring to allow this to happen. As has been referred to above SLT is an ever-evolving, dynamic profession which needs to adapt to meet changing needs of society and incorporate new scientific and technological advances, therefore continuing professional development is essential for the qualified SLT professional to go on being fit for purpose and fit to practise. Likewise the set of threshold competences required at point of entry to the profession should not be seen as timeless but should be reviewed and updated regularly through robust processes, to reflect developments in education and in the profession.

CHAPTER 8 Beyond the NetQues Project: Discussion on EQF-Levels and Learning Outcomes in The Speech and Language Therapy Context

1 NetQues and the European Qualifications Framework

The list of benchmarks for speech and language therapy (SLT) education in Europe (see Annex I and chapter 7) identifies threshold competences which need to be demonstrated to ensure that the SLT is "fit to practise the profession". Current SLT programmes in Europe, as described in chapter 6, show that these are offered at different educational levels. In Europe, as in other parts of the world, there are those programmes which are designed largely to combine a first degree with a professional qualification. Such programmes are often taken by students shortly after leaving school or by mature students re-entering study. There are, however, several other models. These other options include programmes of varying lengths designed for graduates to take the professional qualification within a masters programme while some are designed for conversion or fast tracking those who have specific qualifications in professions which have some elements in common with SLT, such as psychology, linguistics, medicine and education. This diversity allows both young and more mature entrants to select and follow programmes of study suited to their previous academic and life experience and in some cases to change careers. It also allows the profession to develop and be enhanced by having a diverse range of professionals.

This multiplicity of existing models of SLT education programmes means that, both within and across countries, the student SLT may start from very different points in terms of knowledge, experience and generic competences. This inevitably can affect some expectations in terms of the level of competence to be demonstrated, for example the level of competence in research activity. While some comparisons and contrasts can be made of different models of reaching the threshold for entry to the profession, the NetQues project did not set out to promote one model or type of programme over another.

The expected competences which have been shown to be essential reflect a range of levels, the vast majority of which have been judged to culminate at levels 6 and 7 of the European Qualifications Framework[62] (EQF). This may well also provoke further debate over whether or not SLT competences should be aligned as falling within bachelors or masters levels programmes. The reality is that the SLT needs to be able to show competences that straddle both levels and the decision regarding which award is the best fit may take account of other factors.

Common standards to be applied to new entrants to the profession are therefore important to ensure that no matter which route is followed to become an SLT professional, for the protection of the public, they are competent to practise. Regardless of the background of the new SLT, the programme of study undertaken or the name of the award, there needs to be a form of gatekeeping which only permits through those who are safe and efficient practitioners.

[62] http://ec.europa.eu/education/policies/educ/eqf/eqf08_en.pdf

By including the application of the EQF, the list below is presented to stimulate further discussions aiming at differentiating learning outcomes that might be assigned to a particular EQF level and by doing so to a reference level or what may be referred to as Bologna first/second/third cycle level (see Table 8.1 overleaf). Annex V shows a possible allocation of the agreed competences to EQF levels. However such transcriptions always have an element of arbitrariness and individual interpretation and can provoke considerable debate.

In the EQF, learning outcomes are defined as statements '"what a learner knows, understands and is able to do on completion of a learning process.." (EQF, 2008), whereas competence means "the proven ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations and in professional and personal development…". Competences are therefore closer to capabilities of a person that are shown in action.

The EQF classifies learning outcomes into knowledge (facts, principles and concepts), skills (cognitive and practical) and competences (such as ability to take responsibility and show autonomy). It is a guiding mechanism to inform general education reforms. The emphasis is on defining key competences and learning outcomes to shape the learner's experience, rather than giving primacy to the content of the subjects that make up the curriculum. Learning outcomes are meant to be used to point the way to modernising schooling systems, thus acting as a renewing and reforming influence at different levels – governance, systemic reform, curriculum, pedagogy and assessment.

The complexity of the work of an SLT, requiring the integration of knowledge, skills and competences, applying theory in practice, to a certain extent makes the task of judging and assigning levels to the learning outcomes somewhat arbitrary.

As noted in the EQF (p.6), "The use of learning outcomes is well supported by arguments from policy and practice. It is arguably one of the strong and common policy trends across Europe. However, it is just one method for defining the expectations of learning. The necessary efforts of education and training professionals to deliver high quality learning programmes are another way of looking at these expectations. These teachers and trainers take it as their task to use their knowledge and experience to interpret standards and broad aims to create the right environment for the development of competent people. It can be argued that learning outcomes alone cannot fully capture the qualities of the learner and of the learning process delivered through programmes."

It is therefore crucial that each programme designer should keep in mind:

- the challenge of designing a programme which is comparable with others across the EU
- and meets the standards required for its graduates to be "fit for practice" and "fit for purpose"
- while taking into account the national and local needs of the populations served by SLTs.

Table 8.1 European Qualifications Framework descriptors indicating learning outcomes and levels

Set of descriptors indicating the learning outcomes relevant to qualifications at the EQF Level in any system				
EQF Level	**Reference Level**	**Knowledge** In the context of EQF, knowledge is described as theoretical and/or factual	**Skills** In the context of EQF, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) and practical (involving manual dexterity and the use of methods, materials, tools and instruments)	**Competence** In the context of EQF, competence is described in terms of responsibility and autonomy
6	Bachelors level (Bologna First Cycle Level, typically include 180-240 ECTS credits)	advanced knowledge of a field of work or study, involving a critical understanding of theories and principles	advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study	manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts, take responsibility for managing professional development of individuals and groups
7	Masters level (Bologna Second Cycle Level, typically include 90-120 ECTS credits, with a minimum of 60 credits at the level of the Second cycle)	highly specialised knowledge, some of which is at the forefront of knowledge in a field of work or study, as the basis for original thinking and/or research, critical awareness of knowledge issues in a field and at the interface between different fields	specialised problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields	manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research
8	PhD level (Bologna Third Cycle Level, typically include 90 ECTS per year for a minimum of three years)	knowledge at the most advanced frontier of a field of work or study and at the interface between fields	the most advanced and specialised skills and techniques, including synthesis and evaluation, required to solve critical problems in research and/or innovation and to extend and redefine existing knowledge or professional practice	demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research

It should also be emphasised that the quality and timing of clinical placements, properly supervised and mentored are crucial to providing the environment in which the student

SLT can learn, practise and develop the necessary competences to become a reflective and competent professional. Quality experiential practice-based learning opportunities are essential to aid understanding and help students apply theory to practice in safe, supportive contexts. There they should be able to both observe and practise clinical and professional skills. The institutions have a key role to play in ensuring that students prepare effectively for practice-based learning and that the placement providers are also clear as to how they can facilitate the student's learning and understanding.

To assist programme designers and others, the project network has set up mechanisms for examples of best practice, innovations in teaching, learning and assessment to be shared and to be available on the NetQues website. Examples related to all aspects of the curriculum including clinical placement have been gathered and will continue to be made available through the network and CPLOL after the project is concluded. See www.netques.eu and www.cplol.eu for details and updates.

Once qualified and having passed through the gate from student to novice practitioner, professional development and clinical expertise will still need to be enabled and fostered through experience and lifelong learning. At all stages but especially in the early years post qualification, the SLT will benefit greatly from opportunities being made in a supportive work environment to allow this development to take place. In some countries there are structured frameworks, mandatory CPD and other controls in place for ensuring the professional continues to develop and remain competent. While the further investigation of this is beyond the scope of this project the project team have noted that there is a common theme across Europe valuing the importance of statutory and self-regulatory CPD for SLT professionals.

National reports on the application of National qualifications to the European meta-frameworks – the European Qualifications Framework (EQF) and/or the Framework for Qualifications of the European Higher Education Area (FQ-EHEA, or EHEA, also known as the 'Bologna Framework') have been published over the last few years. Member States who have already developed their own National Qualifications Frameworks (NQFs) based on learning outcomes and have referenced these to the EQF include Belgium (Flanders), France, Ireland, Lithuania, Latvia, Malta, Netherlands. The commentaries contained within each of these reports (available from the EQF Internet portal[63]) illustrate the complexity of the task of assimilation of different systems coherently to take into account national characteristics such as additional levels and entry points. A future project might consider mapping SLT education more specifically onto these European frameworks.

2 Conclusion

SLT education across Europe is diverse, vibrant and constantly evolving. The profession finds itself at differing stages of development in different countries. The commonality of purpose and the commitment of SLT educators to ensuring they produce the best graduates to provide the best practice and service to people who are in need of SLT professional help has shone through the entire period of the NetQues project. With this

[63] http://ec.europa.eu/education/lifelong-learning-policy/eqf_en.htm

level of commitment and expertise, the future of the profession and its service to people who can benefit from SLT is bright.

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ANNEX I Benchmarks for Speech and Language Therapy Education in Europe (Key subject specific and generic competencies which form common standards for European SLT initial education)

SUBJECT SPECIFIC COMPETENCES FOR THE NEWLY QUALIFIED SPEECH AND LANGUAGE THERAPIST	
	The newly qualified speech and language therapist must be able to:
Scope of practice	assess, diagnose and intervene in speech and language disorders
	assess, diagnose and intervene in eating, drinking and swallowing disorders
Assessment and identification of communication needs and swallowing problems	establish rapport and facilitate participation in the assessment and differential diagnosis process
	identify the influence of different situations, environments or contexts on client's problems
	analyse and interpret assessment results accurately and integrate information from case history and other relevant sources into findings
	provide appropriate feedback on interpretation of assessment results to the client and significant others, in a way they can understand easily
	produce oral and written reports of assessment results, including analysis and interpretation of assessment information
	identify gaps in information needed to understand the client's disorders and seek information to fill those gaps
	recognise the effect of the disorders on the psychosocial wellbeing, social and medical status of the client and significant others
	when necessary, refer client to other professionals in a timely appropriate manner
Planning and implementation of intervention	integrate assessment results with other relevant information to set goals
	understand the rationales and principles that underlie specific therapy methods
	discuss long-term outcomes and decide, in consultation with the client, whether speech and language therapy is appropriate or required by including key people in these discussions
	select and plan appropriate and effective therapy interventions involving key people in the client's environment
	understand the roles of other members of the inter-/trans-disciplinary team and produce intervention plans in consultation with them
	implement appropriate therapy techniques using the necessary materials and instrumental equipment
	make reasoned decisions to initiate, continue, modify or cease the use of chosen techniques, treatments or procedures and record the decisions and reasoning appropriately
	document response to intervention and any changes in intervention plan
	keep legible and accurate contemporaneous records in accordance with professional and legal requirements and use only accepted terminology
	collect information, including qualitative and quantitative data, to evaluate the effectiveness of therapy
	prepare a client for discharge from therapy appropriately, agreeing a point of closure with the client and significant others, and following relevant agency discharge procedures
	understand the concepts of efficacy and efficiency in relation to speech and language therapy intervention

Prevention	prevent communication and swallowing disorders from occurring or developing, including early intervention in disorders
Professional development, continuing education and specific ethical responsibilities	understand the professional roles and boundaries of a speech and language therapist
	observe the code of ethics of the national professional body and/or as prescribed by the employer and/or the national/state government
	develop personal growth as a speech and language therapist through insight into, and further development of, a range of interpersonal and communication skills

GENERIC COMPETENCES FOR THE NEWLY QUALIFIED SLT	
Interpersonal and intrapersonal competences	demonstrate behaviour which is honest, sincere and reliable
	demonstrate empathy with clients and colleagues
	extract information from informants efficiently and sympathetically
	provide accurate feedback in a comprehensible and sensitive manner
	demonstrate advanced social skills such as assertiveness, cooperation, negotiation
	appreciate diversity and multiculturalism
	show positive attitude and proactiveness
	be self-critical and reflect on their own performances
	demonstrate resilience in coping with the demand of the profession in a way which enables him/her to maintain self-esteem and manage stress
Systemic competences	take responsibility for developing his/her own knowledge and skills throughout his/her lifespan
	work independently and autonomously
	adapt his/her own behavior and approach to fit new situations
	formulate creative and original solutions for novel situations
	conduct a search of the scientific literature to find the most relevant information to answer a question
Instrumental competences	use appropriate, effective skills and materials in written, oral and visual communication of information and instruction
	gather data using various methods including literature review, interviewing, questionnaire and observation
	identify the important factor in a problem and suggest possible solutions
	express the preferred solution/decision in a comprehensible way and outline the concrete actions required
	identify the risks or pitfalls associated with each possible solution
	use this knowledge to select the most appropriate solution for the particular circumstances
	analyse information to draw appropriate conclusions and recognise the implications of these conclusions
	synthesise information from diverse sources to select an appropriate course of action or to answer a question
	apply legal and ethical principles in managing information and protect integrity, reliability and authenticity of records
	divide tasks into concrete steps and set time schedules with realistic aims, taking into account all other demands
	meet goals or deliver products of work on schedule

ANNEX II Summary Profile of Key Features of Speech and Language Therapy Education by EU Country

The following tables give a brief description of the nature and type of speech and language therapy (SLT) education in each participating European country.

These data have been extracted from surveys conducted of the SLT education processes and programmes which exist and were completed by key respondents from education establishments and professional bodies in each country, using the best data available.

They are not necessarily comprehensive, nor indeed intended to be, but are representative and capture a snapshot view of the current state of the art of education for SLTs in Europe.

AUSTRIA

1.	Type and number of education establishments with SLT programmes of study	Institutions of Higher Education – 6
2.	Faculty	Health related
3.	Level, duration and credits of SLT programmes	BA/BSc, 3 years, 180 ECTS
4.	Post graduate education for students from another discipline	NO
5.	Official recognition of programmes (accreditation by state)	Ministry of Health, Ministry of Education
6.	Numerus clausus[64]	YES-some; set by HEI
7.	Total number of students in training across all SLT programmes[65]	>128
8.	Research studies (ECTS)[66]	YES - all Bachelor level 10-20 ECTS
9.	Number of SLTs with PhD in country (approx.)[67]	6
10.	Officially recognised post qualification (providing bodies)	NO
11.	Total number of qualified SLT in employment (approx.)[68]	1400
12.	Number of inhabitants	8 000 000
13.	Sources	FachhochschuleGesundheitsberufe OÖ GmbH FH JOANNEUM Fachhochschule Wiener Neustadt Fhg - ZentrumfürGesundheitsberufe Tirol GmbH Logopädieaustria

[64] Limitation of the number of new students admitted each year into SLT programmes
[65] Spring 2013
[66] Literature reviews, design of research study without collecting data, empirical study using clinical data, empirical study, based on laboratory data, production of research article/paper for publication
[67] Spring 2013
[68] Spring 2013

BELGIUM (FRENCH SPEAKING)

1.	Type and number of education establishments with SLT programmes of study	Universities - 3 Institutions of Higher Education – 5[69]
2.	Faculty	Health related, Other (Linguistics, Psychology etc)
3.	Level, duration and credits of SLT programmes	Professional Bachelor, 3 years, 180 ECTS MA, 5 years, 300 ECTS
4.	Post graduate education for students from another discipline[70]	YES from education/teaching
5.	Official recognition of programmes (accreditation by state)	Ministry of Health, Ministry of Education
6.	Numerus clausus	NO
7.	Total number of students in training across all SLT programmes (approx.)	~ 3000
8.	Research studies (ECTS)	YES - some Bachelor level 10-20 ECTS Master level 30-40 ECTS Doctoral level> 40 ECTS
9.	Number of SLTs with PhD in country (approx.)	~ 100
10.	Officially recognised post qualification (providing bodies):	NO
11.	Total number of qualified SLT in employment (approx.)	3500
12.	Number of inhabitants	4 300 000
13.	Sources	Université Catholique de Louvain Université de Liège Haute Ecole Leonard de Vinci Haute Ecole Robert Schuman Union Professionnelle des Logopèdes Francophones - UPLF

[69] SLT programmes are attended by students from Luxembourg. Luxembourg does not have their own SLT programme. Approximately100 qualified SLTs are employed in Luxembourg.

[70] Where applicable – further details of disciplines ECTS etc

BELGIUM (DUTCH SPEAKING)

1.	Type and number of education establishments with SLT programmes of study	Universities - 2 Institutions of Higher Education (University Colleges) – 4
2.	Faculty	Health related
3.	Level, duration and credits of SLT programmes	Professional Bachelor, 3 years, 180 ECTS BA/BSc, 3 years, 180 ECTS MA/MSc, 1 year, <60 ECTS
4.	Post graduate education for students from another disciplines	NO
5.	Official recognition of programmes (accreditation by state)	Ministry of Health, Ministry of Education
6.	Numerus clausus	NO
7.	Total number of students in training across all SLT programmes (approx.)	2200
8.	Research studies (ECTS)	YES - all Bachelor level 10-20 ECTS Master level 10-20 ECTS
9.	Number of SLTs with PhD in country (approx.)	>20
10.	Officially recognised post qualification (providing bodies):	YES Professional body, Educational Institution, Educational Institution(s) and Professional Association jointly, other
11.	Total number of qualified SLT in employment (approx.)	4000
12.	Number of inhabitants	6 250 000
13.	Sources	Catholic University College Bruges-Ostend (KHBO) KULeuven Artevelde University College, Ghent Thomas More University College University College Ghent / Hogeschool Gent Vlaamse Vereniging voor Logopedisten (V.V.L.)

BULGARIA

1.	Type and number of education establishments with SLT programmes of study	Universities - 3
2.	Faculty	Health related, Education related
3.	Level, duration and credits of SLT programmes	Certificate/Diploma, 4 years, 240 ECTS BA/BSc, 4 years, 240 ECTS MA/MSc, 1.5-2 years, < 180 ECTS PhD, 3-4 years, 180 ECTS
4.	Post graduate education for students from another discipline	YES from psychology, linguistics, medicine, education 1.5-2 years, MSc
5.	Official recognition of programmes (accreditation by state)	State approved regulatory body
6.	Numerus clausus	YES – some 25 per programme set by Ministry of Education and Science
7.	Total number of students in training across all SLT programmes (approx.)	560
8.	Research studies (ECTS)	YES - some Bachelor level 10-20 ECTS Master level 10-30 ECTS Doctoral level > 40 ECTS
9.	Number of SLTs with PhD in country (approx.)	15-20
10.	Officially recognised post qualification (providing bodies):	YES Educational Institution
11.	Total number of qualified SLT in employment (approx.)	350-400
12.	Number of inhabitants	7 364 570
13.	Sources	New Bulgarian University Sofia University“St. Kl. Ohridski” South West University "Neophit Rilski" Bulgarian National Association of Logopedists

CROATIA		
1.	Type and number of education establishments with SLT programmes of study	University - 1
2.	Faculty	Education and Rehabilitation Sciences
3.	Level, duration and credits of SLT programmes	BA/BSc, 3 years, 180 ECTS MA/MSc, 3+2 years, 300 ECTS
4.	Post graduate education for students from another discipline	NO
5.	Official recognition of programmes (accreditation by state)	Ministry of Education
6.	Numerus clausus	YES 30-50 per programme set by Faculty of Education and Rehabilitation Science
7.	Total number of students in training across all SLT programmes (approx.)	213
8.	Research studies (ECTS)	YES - some
9.	Number of SLTs with PhD in country (approx.)	35
10.	Officially recognised post qualification (providing bodies)	YES Educational Institution
11.	Total number of qualified SLT in employment (approx.)	660
12.	Number of inhabitants	4 200 000
13.	Sources	University of Zagreb Croatian Logopedics Association

CYPRUS

1.	Type and number of education establishments with SLT programmes of study	University - 2
2.	Faculty	Other (Linguistics, Psychology etc.)
3.	Level, duration and credits of SLT programmes	BA/BSc, 4 years, 240 ECTS
4.	Post graduate education for students from another discipline	NO
5.	Official recognition of programmes (accreditation by state)	State approved regulatory body, Professional body
6.	Numerus clausus	YES 35 per year set by University
7.	Total number of students in training across all SLT programmes (approx.)	80
8.	Research studies (ECTS)	YES - all Bachelor level 20-30 ECTS
9.	Number of SLTs with PhD in country (approx.)	4-5
10.	Officially recognised post qualification (providing bodies)	NO
11.	Total number of qualified SLT in employment (approx.)	200-240
12.	Number of inhabitants	952 100
13.	Sources	European University Cyprus Association of Registered Speech Pathologists of Cyprus

CZECH REPUBLIC 		
1.	Type and number of education establishments with SLT programmes of study	Universities - 4
2.	Faculty	Education related
3.	Level, duration and credits of SLT programmes	Certificate/Diploma, 5 years, 240 ECTS Professional Bachelor, 3 years, 180 ECTS BA/BSc, 3 years, 180 ECTS MA/MSc, 5 years, 300 ECTS PhD, 3-4 years, 180-240 ECTS
4.	Post graduate education for students from another discipline	YES from education, engineering 2-3 years Certificate, Professional Bachelor, MA
5.	Official recognition of programmes (accreditation by state)	Ministry of Education
6.	Numerus clausus	YES set by Ministry of Education, University, and Faculty
7.	Total number of students in training across all SLT programmes (approx.)	200
8.	Research studies (ECTS)	YES – some Bachelor level <10ECTS Master level <10 ECTS Doctoral level 10-20 ECTS
9.	Number of SLTs with PhD in country (approx.)	15
10.	Officially recognised post qualification (providing bodies)	YES Educational Institution(s) and Professional association jointly
11.	Total number of qualified SLT in employment (approx.)	500
12.	Number of inhabitants	10 520 000
13.	Sources	Masaryk University Palacky University Association of clinical logopedists

DENMARK

1.	Type and number of education establishments with SLT programmes of study	Universities - 2
2.	Faculty	Other (Linguistics, Medicine, etc.)
3.	Level, duration and credits of SLT programmes	Bachelor, 3 years, 180 ECTS Cand.mag., 5 years, 300 ECTS
4.	Post graduate education for students from another discipline	YES at University Colleges (mainly) from education 50 ECTS, Diploma
5.	Official recognition of programmes (accreditation by state)	NO
6.	Numerus clausus	YES 80 per year set by the universities
7.	Total number of students in training across all SLT programmes (approx.)	340 (in university programmes)
8.	Research studies (ECTS)	YES - all Bachelor level 10-20 ECTS Master level 20-30 ECTS Doctoral level > 40
9.	Number of SLTs with PhD in country (approx.)	< 10
10.	Officially recognised post qualification (providing bodies)	NO
11.	Total number of qualified SLT in employment (approx.)	>1000
12.	Number of inhabitants	5 600 000
13.	Sources	University of Southern Denmark

ESTONIA 		
1.	Type and number of education establishments with SLT programmes of study	University - 1
2.	Faculty	Education related
3.	Level, duration and credits of SLT programmes	MA, 3+2 years, 300 ECTS
4.	Post graduate education for students from another discipline	NO
5.	Official recognition of programmes (accreditation by state)	Ministry of Education and Research
6.	Numerus clausus	YES 10-12 (vary from year to year) Ministry of Education and Research
7.	Total number of students in training across all SLT programmes (approx.)	50
8.	Research studies (ECTS)	YES - all Bachelor level <10 ECTS Master level > 30 ECTS
9.	Number of SLTs with PhD in country (approx.)	5
10.	Officially recognised post qualification (providing bodies)	YES Professional Association
11.	Total number of qualified SLT in employment (approx.)	380
12.	Number of inhabitants	1 294 236
13.	Sources	University of Tartu Estonian Logopedists' Union

FINLAND

1.	Type and number of education establishments with SLT programmes of study	Universities - 5
2.	Faculty	Other (Linguistics, Humanities, Psychology, etc.)
3.	Level, duration and credits of SLT programmes	MA, 5 years, 300 ECTS
4.	Post graduate education for students from another discipline	NO
5.	Official recognition of programmes (accreditation by state)	State approved regulatory body
6.	Numerus clausus	YES 10-30 per university set by Ministry of Education and Culture
7.	Total number of students in training across all SLT programmes (approx.)	400
8.	Research studies (ECTS)	YES - all Bachelor level 10-25 ECTS Master level 30-50 ECTS Doctoral level > 40 ECTS
9.	Number of SLTs with PhD in country (approx.)	30
10.	Officially recognised post qualification (providing bodies)	YES Educational Institution National Supervisory Authority for Welfare and Health
11.	Total number of qualified SLT in employment (approx.)	1100
12.	Number of inhabitants	5 406 000
13.	Sources	Abo Akademi University University of Helsinki, Institute of Behavioural Sciences University of Tampere University of Turku Finnish Association of Speech Therapists (FAST)

FRANCE

1.	Type and number of education establishments with SLT programmes of study	Universities–19[71]
2.	Faculty	SLT Health related Education related Other (Linguistic, Psychology, etc.)
3.	Level, duration and credits of SLT programmes	Certificat de capacité d'orthophonie (CCO), 4 years 240 ECTS 5 years 300 ECTS[72]
4.	Post graduate education for students from another discipline	NO
5.	Official recognition of programmes (accreditation by state)	Ministry of Health Ministry of Education
6.	Numerus clausus	YES 800 per year set by HEI
7.	Total number of students in training across all SLT programmes (approx.)	3200
8.	Research studies (ECTS)	YES - all Master level 10-30 ECTS
9.	Number of SLTs with PhD in country (approx.)	20-30
10.	Officially recognised post qualification (providing bodies)	NO
11.	Total number of qualified SLT in employment (approx.)	18000
12.	Number of inhabitants	62 000 000
13.	Sources	Institut d'orthophonie Gabriel Decroix- Faculté de médecine- Université de Lille 2 Université de Lorraine Universite Nice Sophia Antipolis, centre de formation des orthophonistes Université Picardie Jules Verne Federation Nationale des Orthophonistes

[71] SLTs programmes are attended by students from Luxembourg.
[72] Initial education in France will change to 5 years, 300 ECTS in 2013

GERMANY

1.	Type and number of education establishments with SLT programmes of study	University – 2 Institution of Higher Education – 4 Other non HE > 50
2.	Faculty	SLT Health related Other (Linguistics, Psychology, etc.)
3.	Level, duration and credits of SLT programmes	BA/BSc, 3-4 years, 180-240 ECTS MA/MSc, 2 years, < 180 ECTS Non HE, 3 years
4.	Post graduate education for students from another discipline	NO
5.	Official recognition of programmes (accreditation by state)	Ministry of Science and Culture Ministry of Health (by state, by country) Ministry of Education
6.	Numerus clausus	YES – some 20-30 set by HEI
7.	Total number of students in training across all SLT programmes	No data
8.	Research studies (ECTS)	YES - some Bachelor level 10-30 ECTS Master level 10-20 ECTS
9.	Number of SLTs with PhD in country	No data
10.	Officially recognised post qualification (providing bodies)	NO
11.	Total number of qualified SLT in employment	No data
12.	Number of inhabitants	81 702 329
13.	Sources	University Hospital Aachen and RWTH Aachen University HAWK Hochschule Hildesheim / Holzminden / Göttingen Hochschule Fresenius Hochschule für Gesundheit Bochum Stiftung Hochschule Osnabrück Deutscher Bundesverband fuer Logopaedie e. V. (dbl)

GREECE

1.	Type and number of education establishments with SLT programmes of study	University - 3
2.	Faculty	SLT Health related Other (Linguistics, Psychology, etc.)
3.	Level, duration and credits of SLT programmes	Certificate/Diploma, 4 years BA/BSc, 4 years, 240 ECTS
4.	Post graduate education for students from another discipline	YES from any subject/discipline – no restriction 2-4 years, MA
5.	Official recognition of programmes (accreditation by state)	Ministry of Education
6.	Numerus clausus	YES 100 per programme set by Ministry of Education
7.	Total number of students in training across all SLT programmes (approx.)	> 900
8.	Research studies (ECTS)	YES - all Bachelor level 20-30 ECTS
9.	Number of SLTs with PhD in country (approx.)	12
10.	Officially recognised post qualification (providing bodies)	NO
11.	Total number of qualified SLT in employment (approx.)	2500
12.	Number of inhabitants	11 000 000
13.	Sources	Technological Education Institute of Epiros Techological Educational Institute of Kalamata Techological Educational Institute of Patras University of Athens Medical School Panhellenic Association of Logopedists (PAL)

HUNGARY

1.	Type and number of education establishments with SLT programmes of study	Universities - 3
2.	Faculty	Education related
3.	Level, duration and credits of SLT programmes	Professional Bachelor, 4 years, 240 ECTS BA/BSc, 4 years, < 180-240 ECTS MA/MSc, 2 years PhD, 3 years
4.	Post graduate education for students from another discipline	YES from any subject/discipline – no restrictions 4 years, Diploma
5.	Official recognition of programmes (accreditation by state)	Ministry of Education State approved regulatory body
6.	Numerus clausus	YES – some 20 - 100 per year? set by HEI accepted by Hungarian Accreditation Committee
7.	Total number of students in training across all SLT programmes (approx.)	161
8.	Research studies (ECTS)	YES - all Bachelor level 10-30 ECTS
9.	Number of SLTs with PhD in country (approx.)	No data
10.	Officially recognised post qualification (providing bodies)	No data
11.	Total number of qualified SLT in employment (approx.)	No data
12.	Number of inhabitants	9 942 000
13.	Sources	ELTE University Kaposvár University University Szeged

ICELAND		
1.	Type and number of education establishments with SLT programmes of study	University - 1
2.	Faculty	Health related
3.	Level, duration and credits of SLT programmes	MSc, 5 years, 180 ECTS undergraduate + 30-60 ECTS preparation course + 120 ECTS master's programme
4.	Post graduate education for students from another discipline	YES from any subject/discipline all BA/BS/Bed: 3 years of undergraduate studies + 1 year preparation (for the SLT programme) + a 2 year-masters programme in SLT
5.	Official recognition of programmes (accreditation by state)	Directorate of Health (Landlæknisembættið), issued by the Ministry of Welfare
6.	Numerus clausus	YES 15 per year set by the University
7.	Total number of students in training across all SLT programmes (approx.)	20
8.	Research studies (ECTS)	YES Master level 30 ECTS
9.	Number of SLTs with PhD in country (approx.)	5
10.	Officially recognised post qualification (providing bodies)	NO
11.	Total number of qualified SLT in employment (approx.)	50
12.	Number of inhabitants	320 000
13.	Sources	University of Iceland The Icelandic Association of speech and language therapists

IRELAND		
1.	Type and number of education establishments with SLT programmes of study	Universities - 4
2.	Faculty	Health related Other (Linguistics, Psychology, etc.)
3.	Level, duration and credits of SLT programmes	BA/BSc, 4 years, 240 ECTS MSc, 2 years, 180 ECTS
4.	Post graduate education for students from another discipline	YES from any subject/discipline – no restrictions 2 years, MSc
5.	Official recognition of programmes (accreditation by state)	Professional body
6.	Numerus clausus	YES 25-32 per programme set by University and Department of Health
7.	Total number of students in training across all SLT programmes (approx.)	360
8.	Research studies (ECTS)	YES - all Master level 30 ECTS
9.	Number of SLTs with PhD in country (approx.)	No data
10.	Officially recognised post qualification (providing bodies)	YES
11.	Total number of qualified SLT in employment (approx.)	No data
12.	Number of inhabitants	4 600 000
13.	Sources	University College Cork University of Limerick Irish Association of Speech and Language Therapists

ITALY

1.	Type and number of education establishments with SLT programmes of study	Universities – 25-30
2.	Faculty	Health related
3.	Level, duration and credits of SLT programmes	Professional Bachelor (Laurea in Logopedia), 3 years, 180 ECTS MSc (Laurea in Scienze della Riabilitazione), 2 years, 120 ECTS
4.	Post graduate education for students from another discipline	NO
5.	Official recognition of programmes (accreditation by state)	Ministry of Health Ministry of Education Professional body
6.	Numerus clausus	YES 10-35 per programme set by Ministry of Education and Ministry of Health, Professional body
7.	Total number of students in training across all SLT programmes (approx.)	1500
8.	Research studies (ECTS)	YES - all Bachelor level <10 ECTS Master level <10 ECTS
9.	Number of SLTs with PhD in country (approx.)	0
10.	Officially recognised post qualification (providing bodies)	YES 60 ECTS after Bac University
11.	Total number of qualified SLT in employment (approx.)	8000
12.	Number of inhabitants	61 000 000
13.	Sources	Sapienza Università di Roma Università Degli Studi di Siena Università di Roma “Tor Vergata” Università di Modena e Reggio Emilia Federazione Logopedisti Italiani

LATVIA 		
1.	Type and number of education establishments with SLT programmes of study	Universities – 3 Institutions of Higher Education - 1
2.	Faculty	Health related Education related
3.	Level, duration and credits of SLT programmes	Professional Bachelor, 4 years, 240 ECTS MA/MSc, 2.5 years, > 180 ECTS
4.	Post graduate education for students from another disciplines	YES from psychology, linguistics, medicine, education 2-2.5 years, Diploma
5.	Official recognition of programmes (accreditation by state)	Ministry of Education
6.	Numerus clausus	NO
7.	Total number of students in training across all SLT programmes (approx.)	180
8.	Research studies (ECTS)	YES - all Bachelor level 10-30 ECTS Master level 10-20 ECTS
9.	Number of SLTs with PhD in country (approx.)	3
10.	Officially recognised post qualification (providing bodies):	NO
11.	Total number of qualified SLT in employment (approx.)	500
12.	Number of inhabitants	2 217 053
13.	Sources	Liepaja University University of Latvia Speech Therapists' Association of Latvia

LITHUANIA

1.	Type and number of education establishments with SLT programmes of study	University - 1
2.	Faculty	Education related
3.	Level, duration and credits of SLT programmes	BA/BSc, 4 years, 240 ECTS MA/MSc, 1.5 years, <90 ECTS PhD, 4 years, 30 ECTS
4.	Post graduate education for students from another discipline	YES from psychology, linguistics, medicine, education, 2 years, BSc from other disciplines without higher (university) education, 3 years, BSc
5.	Official recognition of programmes (accreditation by state)	Ministry of Education
6.	Numerus clausus	NO
7.	Total number of students in training across all SLT programmes (approx.)	261
8.	Research studies (ECTS)	YES - all Bachelor level 12 ECTS Master level 30 ECTS
9.	Number of SLTs with PhD in country (approx.)	6
10.	Officially recognised post qualification (providing bodies)	NO
11.	Total number of qualified SLT in employment (approx.)	2000
12.	Number of inhabitants	3 000 000
13.	Sources	Siauliai University Lithuanian Logopedist Association

MALTA

1.	Type and number of education establishments with SLT programmes of study	University - 1
2.	Faculty	Health related
3.	Level, duration and credits of SLT programmes	BSc (Hons), 4 years, 240 ECTS
4.	Post graduate education for students from another discipline	YES MSc (Audiology), 3 years part-time, Human Sciences degree PhD programme of studies in Communication Therapy
5.	Official recognition of programmes (accreditation by state)	State approved regulatory body
6.	Numerus clausus	15
7.	Total number of students in training across all SLT programmes (approx.)	60
8.	Research studies (ECTS)	YES - all Bachelor level 10 ECTS Doctoral level < 40
9.	Number of SLTs with PhD in country (approx.)	7[73]
10.	Officially recognised post qualification (providing bodies)	NO
11.	Total number of qualified SLT in employment (approx.)	100
12.	Number of inhabitants	400 000
13.	Sources	University of Malta Association of Speech-Language Pathologists of Malta

[73] 4 SLTs with PhD, 3 SLTs with professional doctorate in a related field

THE NETHERLANDS

1.	Type and number of education establishments with SLT programmes of study	Institutions of Higher Education - 8
2.	Faculty	Health related
3.	Level, duration and credits of SLT programmes	Level 6, Bachelor, 4 years, 240 ECTS
4.	Post graduate education for students from another discipline	YES from psychology, linguistics, education 2-3.5 years, Professional Bachelor, MSc
5.	Official recognition of programmes (accreditation by state)	Ministry of Education
6.	Numerus clausus	NO
7.	Total number of students in training across all SLT programmes (approx.)	2500
8.	Research studies (ECTS)	YES - all Bachelor level 20-30 ECTS Master level 20-30 ECTS Doctoral level unknown ECTS
9.	Number of SLTs with PhD in country (approx.)	80
10.	Officially recognised post qualification (providing bodies)	YES Professional body, Educational Institution, Educational Institution(s) and Professional association jointly, Commercial organisation(s)
11.	Total number of qualified SLT in employment (approx.)	6000
12.	Number of inhabitants	16 782 300
13.	Sources	Fontys University of Applied Sciences (FPH) HAN University of Applied Sciences Hanze University of Applied Sciences (UAS), Groningen Rotterdam University of Applied Sciences University of Applied Sciences Utrecht (HU) Zuyd University of Applied Sciences Windesheim University of Applied Sciences Dutch Association of Speech and Language Therapy and Phoniatrics (NVLF)

NORWAY		
1.	Type and number of education establishments with SLT programmes of study	Universities - 5
2.	Faculty	Health related Education related
3.	Level, duration and credits of SLT programmes	BA/BSc, 3 years, 180 ECTS MSc, 2 years, 120 ECTS
4.	Post graduate education for students from another discipline	YES from psychology, linguistics, medicine, education 2 years, MA
5.	Official recognition of programmes (accreditation by state)	Ministry of Education
6.	Numerus clausus	YES 90 per year set by HEI
7.	Total number of students in training across all SLT programmes (approx.)	180
8.	Research studies (ECTS)	YES - all Master level 30 ECTS Doctoral level unknown ECTS[74]
9.	Number of SLTs with PhD in country (approx.)	40
10.	Officially recognised post qualification (providing bodies)	NO
11.	Total number of qualified SLT in employment (approx.)	1200-1400
12.	Number of inhabitants	5 000 000
13.	Sources	University of Bergen University of Nordland University of Oslo University of Tromsoe Norwegian Association of Speech and Language Therapists

[74]No doctoral programme specifically for SLT, but SLTs follow doctoral programmes in linguistics, psychology, special needs education

POLAND 		
1.	Type and number of education establishments with SLT programmes of study	Universities - 11
2.	Faculty	Health related, Education related, Other (linguistic, psychology)
3.	Level, duration and credits of SLT programmes	BA/BSc, 3 years, 180 ECTS MA/MSc, 2 years, 120 ECTS
4.	Post graduate education for students from another discipline	YES from psychology, linguistics, medicine, education 2 years, Certificate/Diploma
5.	Official recognition of programmes (accreditation by state)	Ministry of Health Ministry of Education
6.	Numerus clausus	NO
7.	Total number of students in training across all SLT programmes (approx.)	800
8.	Research studies (ECTS)	YES – all Bachelor level 17 ECTS Master level 33 ECTS
9.	Number of SLTs with PhD in country (approx.)	> 60
10.	Officially recognised post qualification (providing bodies)	NO
11.	Total number of qualified SLT in employment (approx.)	3000
12.	Number of inhabitants	38 000 000
13.	Sources	UMCS Polish Logopaedic Society

PORTUGAL

1.	Type and number of education establishments with SLT programmes of study	Universities – 4 Institutions of Higher Education - 7
2.	Faculty	Health related
3.	Level, duration and credits of SLT programmes	BSc (Hons), 3,5 - 4 years, 210-240 ECTS Master in SLT 1,5 - 2 years, 90–120 ECTS PhD programmes 3-4 years - are either in Health Sciences or Language Sciences
4.	Post graduate education for students from another discipline	NO
5.	Official recognition of programmes (accreditation by state)	Ministry of Higher Education Ministry of Health State regulatory body
6.	Numerus clausus	YES 22-35 per programme set by H.EI
7.	Total number of students in training across all SLT programmes (approx.)	242- 385 per each academic year (for eleven institutes)
8.	Research studies (ECTS)	YES - some Bachelor level 10-30 ECTS Master level 20-40 ECTS Doctoral level > 40 ECTS
9.	Number of SLTs with PhD in country (approx.)	10
10.	Officially recognised post qualification (providing bodies)	YES Higher education institutions
11.	Total number of qualified SLT in employment (approx.)	2400
12.	Number of inhabitants	10 500 000
13.	Sources	Escola Superior de Saúde do Alcoitão from Santa Casa da Misericórdia de Lisboa Escola Superior de Saúde do Instituto Politécnico de Setúbal Escola Superior de Saúde do Instituto Politécnico do Porto Escola Superior de Saúde do Instituto Egas Moniz Escola Superior de Saúde do Instituto Politécnico do Porto Escola Superior de Saúde do Instituto Politécnico de Leiria Escola Superior de Saúde do Instituto de Saúde do Vale do Ave Escola Superior de Saúde da Universidade Fernando Pessoa-Oporto Escola Superior de Saúde da Universidade de Aveiro Escola Superior de Saúde da Universidade do Algarve Escola Superior de Saúde da Universidade Atlântica Associação Portuguesa de Terapeutas da Fala

ROMANIA 		
1.	Type and number of education establishments with SLT programmes of study	University - 4
2.	Faculty	Education related
3.	Level, duration and credits of SLT programmes	BA/BSc, 3 years, 200 ECTS[75] Master programme 2 years, 130 ECTS, title awarded - specialist in SLT
4.	Post graduate education for students from another discipline	NO
5.	Official recognition of programmes (accreditation by state)	Ministry of Education
6.	Numerus clausus	NO
7.	Total number of students in training across all SLT programmes (approx.)	150
8.	Research studies (ECTS)	YES – all Bachelor level 20 ECTS Master level 30 ECTS
9.	Number of SLTs with PhD in country (approx.)	50
10.	Officially recognised post qualification (providing bodies)	NO
11.	Total number of qualified SLT in employment (approx.)	568
12.	Number of inhabitants	21 000 000
13.	Sources	Babes-Bolyai University, Cluj

[75] In Romania one can become an SLT after graduating in Special Education, Psychology, Social Assistance, Primary and Preschool Education, Pedagogy. These six specialisations are offered in four important University centres - Cluj, Bucharest, Iasi, Timisoara.

SLOVAKIA 		
1.	Type and number of education establishments with SLT programmes of study	University - 1
2.	Faculty	Education related
3.	Level, duration and credits of SLT programmes	MA/MSc, 5 years, 300 ECTS
4.	Post graduate education for students from another discipline	NO
5.	Official recognition of programmes (accreditation by state)	Ministry of Education
6.	Numerus clausus	YES 20 per year set by University
7.	Total number of students in training across all SLT programmes (approx.)	87
8.	Research studies (ECTS)	YES - all Master level 10-20 ECTS Doctoral level 30-40 ECTS
9.	Number of SLTs with PhD in country (approx.)	18
10.	Officially recognised post qualification (providing bodies)	YES Educational Institution(s) and Professional association jointly
11.	Total number of qualified SLT in employment (approx.)	250
12.	Number of inhabitants	5 404 555
13.	Sources	Comenius University, Bratislava Slovak Association of Logopaedists

SLOVENIA

1.	Type and number of education establishments with SLT programmes of study	University - 1
2.	Faculty	Education related
3.	Level, duration and credits of SLT programmes	Certificate/ Diploma, 4 years, 240 ECTS MA/MSc, 1 years, < 180 ECTS
4.	Post graduate education for students from another discipline	NO
5.	Official recognition of programmes (accreditation by state)	State approved regulatory body
6.	Numerus clausus	YES 20-30 per year set by Faculty of University
7.	Total number of students in training across all SLT programmes (approx.)	78
8.	Research studies (ECTS)	YES - all Bachelor level < 10 ECTS Master level 10-20 ECTS Doctoral level > 40 ECTS
9.	Number of SLTs with PhD in country (approx.)	7
10.	Officially recognised post qualification (providing bodies)	YES Educational Institution
11.	Total number of qualified SLT in employment (approx.)	160
12.	Number of inhabitants	2 055 527
13.	Sources	University of Ljubljana

SPAIN 		
1.	Type and number of education establishments with SLT programmes of study	Universities–15
2.	Faculty	SLT related
3.	Level, duration and credits of SLT programmes	BA/BSc, 4 years, 240 ECTS
4.	Post graduate education for students from another discipline	YES from any subject – no restrictions 1-2 years, Master en Logopedia
5.	Official recognition of programmes (accreditation by state)	Ministry of Health Ministry of Education Professional body
6.	Numerus clausus	YES 30-120 per programme set by University
7.	Total number of students in training across all SLT programmes (approx.)	3000
8.	Research studies (ECTS)	YES - all Bachelor level <10 ECTS
9.	Number of SLTs with PhD in country (approx.)	No data
10.	Officially recognised post qualification (providing bodies):	YES Educational institution, Professional body
11.	Total number of qualified SLT in employment (approx.)	No data
12.	Number of inhabitants	47 190 493
13.	Sources	Complutense University of Madrid University of Castilla-La Mancha A.G.D.U.L. (Asociación de Graduados y Diplomados Universitarios en Logopedia)

SWEDEN

1.	Type and number of education establishments with SLT programmes of study	Universities - 6
2.	Faculty	Health related
3.	Level, duration and credits of SLT programmes	Certificate/ Diploma, 4 years, 240 ECTS MA/MSc, 4 years, 240 ECTS
4.	Post graduate education for students from another discipline	NO
5.	Official recognition of programmes (accreditation by state)	Ministry of Education State approved regulatory body
6.	Numerus clausus	YES 25-35 per programme set by government and the Medical Faculty based on the calculations made by the Swedish National Board of Health and Welfare
7.	Total number of students in training across all SLT programmes (approx)	> 500
8.	Research studies (ECTS)	YES – all Bachelor level <10 ECTS Master level 30-40 ECTS Doctoral level > 40 ECTS
9.	Number of SLTs with PhD in country (approx.)	>65
10.	Officially recognised post qualification (providing bodies)	NO
11.	Total number of qualified SLT in employment (approx.)	1400
12.	Number of inhabitants	9 400 000
13.	Sources	Göteborg University Karolinska Institutet Linköping University Lund University Umeå University Uppsala University Svenska Logopedförbundet

SWITZERLAND[76]		
1.	Type and number of education establishments with SLT programmes of study	Universities - 3 Institution of Higher Education - 3
2.	Faculty	Education related
3.	Level, duration and credits of SLT programmes	BA/BSc, 3 years, 180 ECTS MA/MSc, 5 years, 300 ECTS
4.	Post graduate education for students from another discipline	YES from psychology, linguistics, education, special education 3 years, MSc in SLT
5.	Official recognition of programmes (accreditation by state)	Ministry of Education State approves regulatory body Professional body
6.	Numerus clausus	YES
7.	Total number of students in training across all SLT programmes (approx.)	150
8.	Research studies (ECTS)	YES-some Master level – 24 ECTS
9.	Number of SLTs with PhD in country (approx.)	35
10.	Officially recognised post qualification (providing bodies)	YES Educational Institutions
11.	Total number of qualified SLT in employment (approx.)	1100
12.	Number of inhabitants	7 952 000
13.	Sources	ARLD - DLV - ALOSI (C/APSL = conference of the 3 associations in Switzerland)

[76] 22 SLTs in Liechtenstein are members of the German Swiss Association, DLV.

TURKEY

1.	Type and number of education establishments with SLT programmes of study	University - 1
2.	Faculty	SLT Professional Health Science related
3.	Level, duration and credits of SLT programmes	BSc, 4 years, 240 ECTS MSc, 3.5-4 years, 120-180 ECTS PhD, 4-5 years, 240 ECTS
4.	Post graduate education for students from another discipline	YES from psychology, linguistics, medicine, special education, physiotherapy, biology, audiology, related fields 3.5-4 years (included 1 year preparation) MSc Professional
5.	Official recognition of programmes (accreditation by state)	YES State approved regulatory body, Higher Education Board
6.	Numerus clausus	YES 30-40 per year for BSc 20 per year for MSc
7.	Total number of students in training across all SLT programmes (approx.)	89
8.	Research studies (ECTS)	YES – all Master level 30-40 ECTS Doctoral level > 40 ECTS
9.	Number of SLTs with PhD in country (approx.)	14
10.	Officially recognised post qualification (providing bodies)	YES Higher Education Board
11.	Total number of qualified SLT in employment (approx.)	120
12.	Number of inhabitants	73 000 000
13.	Sources	Anadolu University Association of Speech and Language Pathology Professionals of Turkey -DKBUD

UNITED KINGDOM

1.	Type and number of education establishments with SLT programmes of study	Universities – 18
2.	Faculty	Health related Education related Other (linguistic, psychology, etc.)
3.	Level, duration and credits of SLT programmes	BSc (Hons), 3-4 years, 180-240 ECTS BSc/BSc (Hons), 3.5-4 years, 210-240 ECTS BSc Joint Hons (PSP), 4 years, 240 ECTS BA (Hons), 3.5 years, 210 ECTS B Med Sci (Hons), 4 years, 240 ECTS MA/MSc, 2 years, 180 ECTS M Med Sci, 2 years, 180 ECTS PG Dip, 2 years, 180 ECTS PG Dip/MSc, 2/2.5, 180/210 ECTS
4.	Post graduate education for students from another discipline	YES from psychology, linguistics, medicine, education, BA/BSc 2 years, Post graduate Diploma, MSc
5.	Official recognition of programmes (accreditation by state)	Ministry of Health State approved regulatory body Professional body
6.	Numerus clausus	YES - 14-42 per programme set by Commissioning body
7.	Total number of students in training across all SLT programmes (approx.)	1450
8.	Research studies (ECTS)	YES – some Bachelor level 10-40 ECTS
9.	Number of SLTs with PhD in country (approx.)	100
10.	Officially recognised post qualification (providing bodies)	YES Educational Institutions, Commercial organisations
11.	Total number of qualified SLT in employment (approx.)	14 003
12.	Number of inhabitants	62 000 000
13.	Sources	Manchester Metropolitan Univeristy University College Plymouth St Mark & St John University of East Anglia University of Greenwich/Canterbury Christ Church University University of Manchester University of Strathclyde The Royal College of Speech and Language Therapists

ANNEX III Respondents to Departmental Survey by Country

Country	Number of responses
Austria	4
Belgium	11
Bulgaria	2
Cyprus	1
Czech Republic	3
Denmark	1
Estonia	1
Finland	5
France	4
Germany	7
Greece	2
Hungary	4
Iceland	1
Ireland	2
Italy	6
Latvia	2
Lithuania	1
Malta	1
Netherlands	7
Norway	3
Poland	1
Portugal	6
Romania	1
Spain	1
Slovakia	1
Slovenia	1
Sweden	7
Turkey	1
United Kingdom	6

ANNEX IV NETQues Newly Qualified Speech and Language Therapist Competences - Possible Allocations of Expected Competences to EQF Levels

As discussed in the NetQues report final chapter (Chapter 8), the project's work team responsible for analysing the data gathered suggested possible allocations of EQF levels to SLT competences descriptors. It is acknowledged that allocation of the more complex interactions of skills, knowledge and competences to these categories can be quite arbitrary and more debate is required on such issues. Depending on the complexity of the SLT clinical decision making necessary and individual circumstances, the required competence may be regarded as either level 6 or 7. **These preliminary proposals are therefore presented here as a starting point for further discussion and are not a definitive judgement.** A future study might well wish to take up this point and debate it further.

Possible allocations of EQF levels to expected subject specific and generic competences of newly qualified SLTs

SLT Specific Competence	Competence descriptor	EQF level
Scope of practice	assess, diagnose and intervene in speech and language disorders	6
	assess, diagnose and intervene in eating, drinking and swallowing disorders	6
Assessment and identification of communication and swallowing needs	establish rapport and facilitate participation in the assessment and differential diagnosis process	6
	identify the influence of different situations, environments or contexts on clients problems	7
	analyse and interpret assessment results accurately and integrate information from case history and other relevant sources into findings	6-7
	provide appropriate feedback on interpretation of assessment results to the client and significant others, in a way they can understand easily	6
	produce oral and written reports of assessment results, including analysis and interpretation of assessment information	6
	identify gaps in information needed to understand the client's disorders, and seeks information to fill those gaps	6
	recognise the effect of the disorders on the psychosocial wellbeing, social and medical status of the client and significant others	6
	when necessary, refer client to other professionals in a timely appropriate manner	6
Planning and implementation of intervention	integrate assessment results with other relevant information to set goals	6-7
	understand the rationales and principles that underlie specific therapy methods	6-7
	discuss long-term outcomes and decide, in consultation with the client, whether speech and language therapy is appropriate or required by including key people in these discussions	7
	select and plan appropriate and effective therapy interventions	6

	involving key people in the client's environment	
	understand the roles of other members of the inter-/trans-disciplinary team and produce intervention plans in consultation with them	6
	implement appropriate therapy techniques using the necessary materials and instrumental equipment	6
	make reasoned decisions to initiate, continue, modify or cease the use of chosen techniques, treatments or procedures, and record the decisions and reasoning appropriately	6
	document response to intervention and any changes in intervention plan	6
	keep legible and accurate contemporaneous records in accordance with professional and legal requirements and use only accepted terminology	6
	collect information, including qualitative and quantitative data, to evaluate the effectiveness of therapy	6-7
	prepare a client for discharge from therapy appropriately, agreeing a point of closure with the client and significant others, and follows relevant agency discharge procedures	6
	understand the concepts of efficacy and efficiency in relation to SLT intervention	7
Prevention	prevent communication and swallowing disorders from occurring or developing, including early intervention in disorders	6
Professional development, continuing education and specific ethical responsibilities	understand the professional roles and boundaries of a speech and language therapist	6
	observe the code of ethics of the national professional body and / or as prescribed by the employer, and / or the national / state government	6
	develop personal growth as a speech and language therapist through insight into, and further development of, a range of interpersonal and communication skills	6

Generic Competence	**Competence descriptor**	**EQF level**
Interpersonal and intrapersonal competences	demonstrate a behavior which is honest, sincere and reliable	6
	demonstrate empathy with clients and colleagues	6
	extract information from informants efficiently and sympathetically	6
	provide accurate feedback in a comprehensible and sensitive manner	6
	demonstrate advanced social skills such as assertiveness, cooperation, negotiation	6
	appreciate diversity and multiculturalism	6
	show positive attitude and pro activeness	6
	be self-critical and reflect on their own performances	6
	demonstrate resilience in coping with the demand of the profession in a way which enables him/her to maintain self-esteem and manage stress	7

Systemic competences	take responsibility for developing his/her own knowledge and skills throughout his/her lifespan	7
	work independently and autonomously	6-7
	adapt his/her own behavior and approach to fit new situations	6
	formulate creative and original solutions for novel situations	7
	conduct a search of the scientific literature to find the most relevant information to answer a question	6-7
Instrumental competences	use appropriate, effective skills and materials in written, oral and visual communication of information and instruction	6
	gather data using various methods including literature review, interviewing, questionnaire and observation	6-7
	identify the important factor in a problem and suggest possible solutions	6-7
	express the preferred solution/decision in a comprehensible way and outline the concrete actions required	6
	identify the risks or pitfalls associated with each possible solution	6-7
	use this knowledge to select the most appropriate solution for the particular circumstances	6
	analyse information to draw appropriate conclusions and recognise the implications of these conclusions	7
	synthesise information from diverse sources to select an appropriate course of action or to answer a question	6-7
	apply legal and ethical principles in managing information and protect integrity, reliability and authenticity of records	6
	divide tasks into concrete steps and set time schedules with realistic aims, taking into account all other demands	6
	meet goals or deliver products of work on schedule	6

ANNEX V Surveys and Glossaries available by hyperlink on the project website

Survey of competences in Bulgarian
Survey of competences in Czech
Survey of competences in Danish
Survey of competences in Dutch
Survey of competences in English
Survey of competences in Estonian
Survey of competences in Finnish
Survey of competences in French
Survey of competences in German
Survey of competences in Greek
Survey of competences in Hungarian
Survey of competences in Icelandic
Survey of competences in Italian
Survey of competences in Latvian
Survey of competences in Lithuanian
Survey of competences in Norwegian
Survey of competences in Polish
Survey of competences in Portuguese
Survey of competences in Romanian
Survey of competences in Slovak
Survey of competences in Slovene
Survey of competences in Spanish
Survey of competences in Swedish
Survey of competences in Turkish
Glossary of terms used in Bulgarian
Glossary of terms used in Czech
Glossary of terms used in Danish
Glossary of terms used in Dutch
Glossary of terms used in English
Glossary of terms used in Estonian
Glossary of terms used in Finnish
Glossary of terms used in French
Glossary of terms used in German
Glossary of terms used in Greek
Glossary of terms used in Hungarian
Glossary of terms used in Icelandic
Glossary of terms used in Italian
Glossary of terms used in Latvian
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Glossary of terms used in Romanian
Glossary of terms used in Slovak
Glossary of terms used in Slovene
Glossary of terms used in Spanish
Glossary of terms used in Swedish
Glossary of terms used in Turkish

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