# Reference Points for the Design and Delivery of Degree Programmes in Education

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## Tuning Educational Structures in Europe

The name *Tuning* was chosen for the project to reflect the idea that universities do not look for uniformity in their degree programmes or any sort of unified, prescriptive or definitive European curricula but simply for points of reference, convergence and common understanding. The protection of the rich diversity of European education has been paramount in the Tuning Project from the very start and the project in no way seeks to restrict the independence of academic and subject specialists, or undermine local and national academic authority.

# Content

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This booklet was prepared by all of the members of the Tuning Subject Area Group of Education. Much of the copy has emerged over time through the products of seminars and meetings, and special tasks that colleagues have undertaken. The authors of the report are thus the members of the SAG, details of whom appear in Appendix 3.

The various contributions were edited and amalgamated by an editorial team comprising

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# 1. General Introduction by the Tuning Management Committee

Tuning Educational Structures in Europe is a university driven project which aims to offer higher education institutions and subject areas a concrete approach to implementing the Bologna Process. Launched in 2000 and strongly supported both financially and morally by the European Commission, the Tuning Project now includes the vast majority of the Bologna signatory countries. The work of Tuning is fully recognized by all the countries and major players involved in the Bologna Process.

The Tuning approach, explained in more detail in the accompanying booklet, *'Tuning Educational Structures in Europe: Universities' contribution to the Bologna Process, an Introduction'* , consists of a methodology to (re-) design, develop, implement and evaluate study programmes for each of the three Bologna cycles. It has been tested in several continents and found to have considerable utility. Most importantly, Tuning has served as a forum for developing reference points at subject area level. These are relevant for making programmes of studies comparable, compatible and transparent. The reference points are expressed in terms of intended learning outcomes and competences.

Learning outcomes are statements of what a learner is expected to know, understand and be able to demonstrate after completion of a learning experience. According to Tuning, learning outcomes are expressed in terms of the *level of competence* to be obtained by the learner.

Competences represent a dynamic combination of cognitive and metacognitive skills, knowledge and understanding, interpersonal, intellectual and practical skills, and ethical values. Fostering these competences is the object of all educational programmes which build on the patrimony *of knowledge and understanding* developed over a period of many centuries. Competences are developed in all course units and assessed at different stages of a programme. Some competences are generic (common to any degree course); others are subject-area related (specific to a field of study). It is normally the case that competence development proceeds in an integrated and cyclical manner throughout a programme.

To make levels of learning comparable the subject area groups and Thematic Networks involved in the project have developed cycle descriptors, which are also expressed in terms of competences.

According to Tuning, the introduction of a three-cycle system has brought about a change from a staff centred approach to a student-oriented approach. It emphasizes the fact that it is the students who have to be as prepared as well as possible for their future roles in society. Therefore, Tuning included a Europe-wide consultation process in which students, employers, graduates and academic staff were asked to identify the most important competences they would expect to be developed in a degree programme. The outcome of this consultation process is reflected in the set of reference points – generic and subject specific competences – identified by each subject area.

Besides addressing the implementation of a three-cycle system, Tuning has given attention to the Europe wide use of the student workload-based European Credit Transfer and Accumulation System (ECTS). According to Tuning, ECTS is not only a system for facilitating the mobility of students across Europe through credit accumulation and transfer; it can also facilitate programme design and development, particularly with respect to coordinating and rationalising the demands made on students by concurrent course units. In other words, ECTS permits us to plan how best to use students' time to achieve the aims of the educational process, rather than considering teachers' time as a constraint and students' time as basically limitless.

The use of the learning outcomes and competences approach might also imply changes regarding teaching, learning and assessment methods which are used in a programme. Tuning has identified approaches and best practices used in member universities to form specific generic and subject specific competences.

Finally, Tuning has drawn attention to the role of quality assurance in the process of designing or re-designing, developing and implementing study programmes. The approach aims at quality enhancement, encompassing all elements of the learning chain. It has also developed a number of tools and has identified examples of good practice, which can help institutions to boost the quality of their study programmes

The conceptual framework on which the Berlin Communiqué is based is completely coherent with the Tuning approach. This is made evident by

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the language used, where the Ministers indicate that degrees should be described in terms of workload, level, learning outcomes, competences and profile. As a sequel to the Berlin conference, the Bologna follow-up group has taken the initiative of developing an overarching *Framework for Qualifications of the European Higher Education Area* (EQF for HE) which in both concept and language is in full agreement with the Tuning approach. This framework has been adopted at the Bergen Bologna follow-up conference of May 2005.

The EQF for HE has made use of the outcomes both of the Joint Quality Initiative (JQI) and of Tuning. The JQI, an informal group of higher education experts, produced a set of criteria to distinguish between the different cycles in a broad and general manner. These criteria are commonly known as the "*Dublin descriptors*". From the beginning, the JQI and the Tuning Project have been considered complementary. The JQI focuses on the comparability of cycles in general terms, whereas Tuning seeks to describe degree programmes at the level of subject areas.

An important aim of all three initiatives (EQF, JQI and Tuning) is to make European higher education more transparent. In this respect, the EQF is a major step forward because it gives guidance for the construction of national qualification frameworks based on learning outcomes and competences as well as on credits. We may also observe that there is a parallel between the EQF and Tuning with regard to the importance of initiating and maintaining a dialogue between higher education and society and the value of consultation—in the case of the EQF with respect to higher education in general; in that of Tuning with respect to degree profiles.

In the summer of 2006 the European Commission launched a European Qualification Framework for Life Long Learning (LLL). Its objective is to encompass all types of learning in one overall framework. Although the concepts on which the EQF for HE and the EQF for LLL are based differ, both are fully coherent with the Tuning approach. Like the other two, the LLL variant is based on the development of levels of competences. From the Tuning perspective both initiatives have their value and their roles to play in the further development of a consistent European Education Area.

This booklet reflects the outcomes of the work done so far by the Education Subject Area Group (SAG), encompassing both Teacher Education and Education SciencesSciences. The outcomes are presented in the

standard format developed to facilitate readability and rapid comparison across the subject areas. The summary aims to provide, in a very succinct manner, the basic elements for a quick introduction into the subject area. It shows in synthesis the consensus reached by a subject area group after intense, prolonged and lively discussions in the group.

(*The Tuning Management Committee*)

# 2. Introduction to the Subject Area: Education

This booklet is designed to make the work of the Education Subject Area Group accessible to a wide audience. It is hoped that it will be of interest to a general readership concerned about higher education, as well as to education colleagues working in the subject of Education throughout Europe.

The essence of education is that it is an open-ended process, one of becoming and developing. It is a fundamental human activity involving the creation and transmission of knowledge, the development and transmission of culture, the enhancement of problem-solving skills and personal development. It is an integral aspect of all societies in all epochs and places. It may take place in formal or non-formal settings. All of the subject groups in Tuning are concerned with education in this sense. However, the Education subject area brings, in a broader and at the same time deeper sense, a special expertise about teaching, learning and assessment to the work of Tuning.

In spite of its centrality to human societies, the first professorship of pedagogy was not established in Europe until 1779 – in Germany in the University of Halle (Kroksmark, 1993; Kansanen, 1995). The establishment of Education as a discipline followed slowly; for example, it was not until 1908 that the first Chair of Education was established in Sweden in Uppsala University and the subject only became widely established in the university systems in Europe in the late 19th and early 20th centuries when most of the leading universities established Chairs of Didactics, Pedagogy or Education, or Departments of Education. At this time colleges of Education specifically and exclusively devoted to the education and training of teachers were also established as part of many European higher education systems. Similar processes were under way in the United States with the establishment of the first permanent Chair of Education in 1879 in the University of Michigan, to be gradually followed by others, including Harvard in 1892 (Poret, 1936).h

The establishment of Education in the higher education systems of Europe and North America responded to the development of mass systems of formal education throughout each continent and the conse-

quent need to provide systematic education or training for the teachers who would staff the schools, and a scientific knowledge base which would inform professional practice and provide evidence for the expansion, evaluation and monitoring of systems. As it developed, Education as a discipline drew on and applied theories, conceptual frameworks and research methodologies from the social sciences and from a number of areas in the humanities. Education is a subject of study in a number of different disciplines.

However, it is also an academic discipline in its own right. It is sometimes described as a multi-disciplinary subject informed, as it is, by a range of other disciplines such as psychology, sociology, philosophy, applied linguistics, curriculum studies, social and policy studies, social anthropology and history. Education as a subject is primarily divided into two broad but closely linked fields: a scientific one 'Education Sciences'; and a professional one 'Teacher Education'. Other professional fields have also developed in Education such as guidance counselling and educational, or school, psychology. In some countries the latter may be included under the broad rubric of Teacher Education, while in others guidance counselling and educational psychology may be separately classified. Education is now a major subject in higher education (HE) in Europe, accounting for rather more than 10% of all students.

International organizations such as UNESCO, the OECD and the European Commission periodically assemble, compile and present statistics on education both within individual countries and internationally, including statistics on Teacher Education and those which may be utilized in the scientific analysis of education systems[1]. These statistics are very influential in policy development at national level. At the national level, governments both regulate and provide official statistics on their systems. Technical rationality, performance orientation and managerialism have increasingly come to dominate official commentary and debate on education in many European countries. However, because of the human focus of the subject in both Education Sciences and Teacher Education, moral and ethical values are highly prioritized and are of central importance to academics, practitioners, employers and the general public.

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1 For an understanding of how international statistics on education are compiled and compared for different education systems see *the International Standard Classification of Education (ISCED 1997)* classification; available online at: http://www.unesco.org/education/nfsunesco/doc/isced_1997.htm

## 2.1. Education Sciences

The Education Sciences are based on theory combined with rigorous scientifically-based quantitative, qualitative or mixed-method research. They involve the research and analysis of data on Education at all levels of the education system, including pre-school, primary, second-level, further, higher and adult education levels. In Europe pedagogy (or pedagogical practice) and didactics (or the methodology of teaching and learning) are important elements of the field. Education Sciences include critical policy analysis and evaluations of government or other educational programmes. They include curriculum development in non-vocational and vocational subjects. Educational assessment, testing and measurement are also incorporated within the remit of Education Sciences, as are the synthesis and dissemination of educational research.

In recent times there have been vigorous debates on the nature and role of Education Sciences. There are those who argue that educational policy and practice should be evidence-based in the sense which is typified in medicine and other health sciences. The Education Sciences, from this perspective, should draw much more heavily on quantitative and experimental methods in which randomized and rigorously matched experiments evaluating replicable programmes and practices become a basis for policy and practice in Education (Slavin, 2002). 'Evidence-informed' policy and practice is also a term used in this debate (Hargreaves, 1999). Critics of 'experimentism' in Education Sciences see it as a reassertion of the randomized experiment as the methodological gold standard. They argue that advocates of this view 'have ignored, not answered, long-standing criticisms of the randomized experiment: its frequent impracticality, its lack of external validity, its confinement to a regularity conception of causality, and its externalization of politics' (Howe, 2005: 307). On the other hand, strong arguments have been made in favour of incorporating rigorous, high standard qualitative research as part of Education Sciences (Freeman et al., 2007). The case for including practitioner research (Erickson and Gutierrez, 2002) and action research (Nolen and Vander Putten, 2007) as part of Education Sciences has also been strongly made. In the end, the most productive position is that the Education Sciences community should promote all types of educational research - regardless of its utility for policy makers - and, as part of this, that the educational research community should ensure that appropriate quality criteria are available for all approaches (Whitty, 2006).

The work of the research community in Education Sciences has been greatly facilitated by the establishment and growth of educational research associations at national level throughout Europe. Most countries now have national organizations dedicated to the promotion of research and quality in Education Sciences. These organizations work collaboratively with a number of international organizations committed to research and development in Education Sciences. For example, the European Educational Research Association (EERA) is an association of national educational research associations. It was founded in order to encourage collaboration amongst educational researchers in Europe; to promote communication between educational researchers and international governmental organisations such as the EU, Council of Europe, OECD and UNESCO; to improving communication amongst educational research associations and institutes within Europe; and to disseminate the findings of educational research and highlight their contribution to policy and practice (http://www.eera.ac.uk/web/eng/all/home/index.html). The Nordic Educational Research Association, Nordisk Förening för Pedagogisk Forskning (NFPF / NERA) is another important international research organization which supports research in Education Sciences in the five Nordic countries. This organization has played a key role in educational research in the Nordic countries and its congresses have been a yearly meeting-place for educational researchers (http://www.nfpf.net/). In addition to these there are a wide range of specialist national and international research associations catering for the various sub-fields and specialisms in Education Sciences.

With regard to programmes in higher education, there is considerable diversity in Education Sciences courses at first cycle level. Nevertheless, all involve the intellectually rigorous study of educational processes, systems and approaches, and the cultural, societal, political and historical contexts within which they are embedded. Notwithstanding the diversity of programmes, across Europe there is a broad similarity in content and focus of the core components of Education Sciences first degrees, taking into account that the particular content and focus of any given programme will vary according to its stated aims and rationale, but will be demonstrably appropriate to the needs of the students. Education Sciences programmes have also been well embedded at second cycle in most countries for many years. Second cycle programmes in Education Sciences may vary in the level of emphasis they give to the 'research' or 'taught' components but most have a very strong research focus. At third cycle, doctoral studies are an important growth area in Education Sciences.

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## 2.2.  Teacher Education

In many senses it is difficult to separate Teacher Education and the Education Sciences as the Education Sciences are fundamental to Teacher Education and there is considerable overlap between the two. Teacher Education involves the study of education in the broadest sense and includes many of the aspects described under Education Sciences. The principal difference between the two areas is the very specific professional focus of Teacher Education. Teacher Education is now at the heart of the European project and key policy documents have emphasized the necessity for it (and for teaching) to be firmly grounded in research and evidence from Education Sciences (see, for example, Europa, 2007; European Commission, 2005; Commission of the European Communities, 2007; OECD, 2005, Eurydice, 2004, Niemi, 2005). The Lisbon Agreement (2000) set out to make Europe the most competitive, digital, knowledge-based economy in the world by 2010, and it also aimed to bring about greater social cohesion through economic reform. It made specific mention of teachers and aimed to use community programmes to foster their mobility, to remove obstacles to mobility, to bring about greater transparency in the recognition of qualifications, and to attract high quality teachers (paragraph 26). The Bologna Declaration (1999) also aimed to increase competitiveness (specifically in higher education) but contained more overt and developed statements on the role of the knowledge society in fostering human growth, European citizenship and the development and strengthening of stable, peaceful and democratic societies. Teaching and Teacher Education have become key elements in delivering these European aims. One reason for this is that the size of the teaching workforce is considerable and teaching is an important source of employment for graduates in all European countries. On average, in OECD countries teachers constitute about 2.6% of the total labour force and teaching is the largest single employer of graduate labour (OECD, 2005: 27).

The European Commission has recently set out proposals to improve the quality of Teacher Education in the EU. The Commission has argued that high-quality teaching is a prerequisite for high-quality education and training, which are in turn a powerful determinant of Europe's long-term competitiveness and capacity to create more jobs and growth. Teacher Education provides a link between the economic and democratic projects of the EU (Commission of the European Communities, 2007). This has been clearly articulated at a European level by the work of the Education

and Culture section of the European Commission which has overseen a number of very influential research and policy reports (for details see: http://ec.europa.eu/dgs/education_culture/index_en.html).

The Commission has adopted a broadly-based competence approach to teaching and Teacher Education. In its 'Common European Principles for Teacher Competences and Qualifications' (2005) and in 'Improving the Quality of Teacher Education' (2007) the Commission envisages that teaching should be a high status, high reward, well-qualified profession in which every teacher should have the opportunity to continue their studies to the highest level. Teachers, it argues, should be lifelong learners and be able to understand the factors that create social cohesion and exclusion in society and be aware of the ethical dimensions of the knowledge society and Teacher Education should be an object of research. All of this would suggest an approach in Teacher Education which is reflective, analytical and critical and would be on a par with advanced studies in any of the professions. The analytical, research-based work of teacher educators, would, as envisaged in this document, be conducted in partnership and collaboration with schools and other stakeholders.

Teacher Education should, it is asserted, be multidisciplinary and research-based. It should ensure that teachers have extensive subject knowledge, a good knowledge of pedagogy, the skills and competences required to guide and support learners, and an understanding of the social and cultural dimensions of education. The teaching profession should be well qualified, i.e. teachers should be graduates from a higher education institution or equivalent (ibid.).

The Commission has further argued that it is now increasingly accepted that, as with any other modern profession, teachers have a responsibility to extend the boundaries of professional knowledge. They suggest that this might mean taking time to reflect upon the methods they use and adapt them if necessary; it might mean taking part in research in the classroom to find out in what ways methods are effective. It will certainly mean keeping up to date with the latest research in their fields, and in pedagogy and the science of teaching throughout their careers (Europa, 2007) and thus systems of education and training for teachers need to provide the necessary opportunities of preparation for this. Teacher Education should be seen as a continuum which includes initial Teacher Education, induction and continuing professional development (European Commission, 2005; see also OECD, 2005).

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These are important policy developments for higher education as, in all countries, initial Teacher Education is located in universities or other higher education institutions. The Commission has argued the need for reform of Teacher Education in order to achieve the ambitions of the Lisbon agenda (Eurydice, 2004). In fact, Teacher Education – and particularly initial Teacher Education – has been the subject of major reforms in many countries throughout the EU since the early 1990s. Changes in initial Teacher Education have included changes in admission requirements; in the structure, length and level of programmes; in course content; in institutional autonomy; and in professional training and quality standards (Eurydice, 2005). In the case of Teacher Education, reforms involve a number of subject areas apart from Education (e.g. mathematics, languages and literature, science, social sciences, arts, etc.) since teachers in formal education settings teach a subject or subjects at primary, lower and upper secondary or vocational levels[2]. Given the centrality of teaching and Teacher Education within rapidly changing European societies, the reform process for both continues to be on-going, and 'bottom-up' (i.e. generated through research and reflexivity within the profession) as well as 'top-down' (i.e. generated through official policy).

Teacher Education is strongly regulated in most member states of the EU, and internal regulations may not always be fully in tune with other regulations influencing higher education. Today in Europe all secondary school teachers, almost all primary school and many pre-school teachers are educated to first degree level or equivalent. In many, if not most countries the curricular components and standards of achievement follow national guidelines set by Ministries of Education or professional bodies such as Teaching Councils, lending a degree of homogeneity to programmes. In others, university autonomy takes precedence and there may be great disparities between courses in different universities. However, future teachers must acquire a range of competences comprising the knowledge, values and skills necessary for achieving the highest academic standards in their subject or areas of the curriculum, as well as being fully aware of the theory and practice of Education relevant to the age-group they are to teach; of national priorities in education; and of teachers' roles as professionals in fast changing and unpredictable social contexts. The Education and subject-specific elements of Teacher Education courses may be organised along concur-

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2 Initial Teacher Education courses at first or second cycle level are also provided for university teachers, vocational college teachers, nurse tutors, in 50% of the countries represented in the Education SciencesSciences working group.

rent or consecutive lines. A concurrent model is a programme in which academic subjects are studied alongside educational and professional studies throughout the duration of the course. A consecutive model means a programme of professional training in pedagogy and teaching of the academic subject(s) that is taken after having completed a first degree in the subject(s) taught in schools. Throughout Europe, consecutive models tend to be more common in preparing secondary teachers than primary teachers (OECD, 2005: 103-104). It is generally agreed that both models should be options within a flexible Teacher Education system (OECD, 2005). As is the case with Education Sciences, Teacher Education is promoted and supported at a European level by an international association. The Association for Teacher Education in Europe (ATEE) is involved in research, the promotion of best practice, and collaborative work in Teacher Education and has a membership in over 40 countries (see http://www.atee.org/).

There are important implications also from the European proposals outlined above for Teacher Education programmes at second and third cycles. Most countries provide programmes of continuing professional development for teachers, other Education professionals, health workers and others, but which do not always lead to a higher qualification[3]. However, degrees at second and third cycle level are widely available for those who wish to take them up. The European Commission has recently pointed out that, as with any other modern profession, teachers have a responsibility to 'extend the boundaries of professional knowledge through a commitment to reflective practice, through research, and through a systematic engagement in continuous professional development from the beginning to the end of their careers' (Commission of the European Communities, 2007). Throughout Europe higher education institutions make a key contribution to this policy goal through second and third cycle studies in Teacher Edu-

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3  All of the recent European and OECD official documents referring to teaching and Teacher Education place a very heavy emphasis on the importance of continuing professional development (CPD). The vast majority of European countries have policies which place a high value on CPD for their teachers and other educational professionals. In many, evidence of CPD is essential for advancement or promotion in the career and a substantial proportion of teachers and others engage in it. However, there is very great variation between countries in the degree to which CPD can be said to be mandatory for continued registration/recognition as a teacher or other educational professional. In over half of the European countries reviewed by the OECD there is no minimum requirement for teachers to engage in professional development (OECD, 2005: 123-4).

cation. Indeed many second cycle programmes in Teacher Education take a broader remit and might more properly be called Education Sciences. At third cycle also the distinction between Education Sciences and Teacher Education may often be somewhat blurred as doctoral studiesy in both Education Sciences and in Teacher Education may be oriented to scientific questions which have important professional dimensions. In a number of countries a new form of doctorate has been developed – the EdD - with a very explicit professional focus (see Section 14 for further detail).

## 2.3. Lifelong Education and Continuing Professional Development of Teachers

One of the key documents related to Teacher Education 'Common European Principles for Teacher Competences and Qualifications' (Commission of the European Communities, 2005) defines the teaching profession as 'a well qualified profession, a profession placed within the context of lifelong learning, a mobile profession and a profession based on multiple partnerships'. Lifelong learning is perceived as a continuum starting with initial Teacher Education, followed by induction as a beginning teacher followed by continuous professional development (CPD) in order to support individual needs and improve professional practice.

According to recent overviews of Teacher Education in Europe, the continuing education of teachers following initial Teacher Education shows a general tendency of being a shared responsibility between different stakeholders. It means that in most cases the responsibility for planning and choosing the continuing professional education lies with the individual, with local authorities or with individual schools while the providers of teacher CPD may maintain a high level of autonomy in creating curricula. The role of central authorities and their professional bodies is limited to providing broad guidelines for CPD in order to create meaningful links between initial and continuing Teacher Education as well as to ensure minimal quality standards. In-service Teacher Education providers are subject to regulations on accreditation and/or evaluation in the majority of EU countries (OECD 1998, Zaferiakou 2002, Eurydice 2004, Eurydice 2006).

Teacher continuing professional development comprises four categories:

— In-service education, mainly taking place in schools: comprising the initial induction processes, counselling and mentoring, action research, classroom observation, peer discussions and sharing good practice;

— Professional conferences and meetings and/or networking through professional associations and regional/local agencies or specialized educational centres;

— Non-certified or certified external seminars and workshops provided by external agents such as regional/local agencies, colleges of Education, universities, non-governmental organizations or individual experts;

— Further formal full- or part-time education at postgraduate level provided by higher education institutions (specialized faculties, departments and centres at universities, teacher colleges) offering special modules with certificates as well as accredited programmes leading to diplomas, masters/professional masters or to doctorates/professional doctorates.

Higher education institutions play an important role in meeting the needs for the upgrading and continuing development of the professional competencies of teachers at all levels, although their unique contribution lies in the area of higher education where they are in position to offer comprehensive in-depth programmes integrating educational theory, research and practical skills development. The relevant subjects for CPD and further education provided by universities usually cover topics such as

— advances in subject domain (i.e. the subject they teach)
— school leadership and management
— curriculum change and development
— early development
— ICT in teaching, learning and assessment
— special educational needs and behaviour management
— multicultural, intercultural and equality education
— school mentoring and coaching
— communication skills and professional networking
— educational research

(Vizek-Vidovic et al., 2005).

More recently the trend is for teachers in higher education to be professionally prepared for teaching, and to constantly sustain and update their professional knowledge throughout their careers. Education and Teacher Education departments play an increasingly important role in this developmental work in many EU countries.

In some countries there are now clear professional development paths for teachers, in which initial Teacher Education (pre-service), with outcomes often stipulated in terms of competences, forms the first of three phases; the second being induction, and the third in-service continu-

ing professional development. Northern Ireland provides a good example, among others. The GTCNI Review Of Teacher Competences And Continuing Professional Development, March 2005, sets out the structures there (see Annex on Professional Milestones) in gtcni.org.uk//publications/uploads/document/Teacher%20Education%20Report.pdf  pp 51FF. Such career path planning has been facilitated in some countries by professional organizations such as Teaching Councils, normally with the strong support of official bodies.

In Section 3 below there is detailed consideration of degree programmes in Education Sciences and Teacher Education in the participating countries. This is followed by an outline of typical employment opportunities for graduates, the role of Education in other degree programmes, learning outcomes and competences in Education, consultation processes, workloads and ECTS, issues relating to learning, teaching and assessment, quality enhancement, doctoral studies and, finally, further elaboration on European trends in Education.

# 3. Qualifications in Education

The Education Subject Area Group considered at length the typical degrees offered in Education in the represented member states of the EU. All countries offer degrees in both Education ScienceEducation Sciences (though the degree titles may often specify a sub-field of Education Sciences) and Teacher Education. At first cycle level most Teaccaher Education degrees include professional accreditation to beginner teachers, which is not the case in Education ScienceEducation Sciences programmes. The outline provided represents the result of the consultative process, and there may be some omissions since the range of programmes offered is very wide.

## 3.1. Typical degrees offered in Teacher Education

| 1. First cycle | **(for professional qualification)** |
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| | Programmes for the preparation of pre-school, primary and secondary school teachers, and for teachers in further and adult education include Education Sciences, subject-specific and/or domain specific pedagogical studies appropriate to the target learning domains, and an element of supervised teaching practice in the target domain, the length of which varies considerably across the EU. Students also normally study one or two academic disciplines either concurrently (more often in pre-school/primary) or prior (more often in secondary) to the Education component of the programme. |
| | All secondary school teachers must be educated to first degree level in their chosen teaching subject, and this may be prior to the Teacher Education element, as in the consecutive Teacher Education model of a degree followed by a one-year intensive programme such as is found in the U.K., Ireland and Spain. |
| | In some countries teachers must be educated to second cycle level in order to be awarded Qualified Teacher Status, e.g. Finland. In others primary and pre-school teachers may be educated to sub-first degree level initially. The trend, however, throughout Europe is towards an all graduate teaching profession at all levels of the Education sector. |

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| **2. Second Cycle** | A wide range of specialist programmes of continuing professional development are offered in Teacher Education, often leading to a Master's degree, but sometimes offering mid-points of completion at Diploma level. Second cycle study normally allows professionals to specialize further in their chosen fields or to obtain a qualification in a new area - e.g. a graduate in (pure) Mathematics (1st cycle) continues (2nd cycle) to become teacher of Mathematics. Typical second cycle degrees in Teacher Education include among others, Special Needs Education, Nurse Education, didactics related to specialist subjects in the curriculum, Teaching and Learning in Higher Education, Adult Education, Guidance and Counseling. Most second cycle programmes have a strong taught component, supported by an empirically and/or theoretically based thesis or dissertation which accounts for the final third (or more) of the programme. The taught component may include the development of professional skills such as systematic observation, testing, diagnosing and counseling, as well deepening or extending of knowledge and understanding.<br><br>In many countries a wholly research based second cycle degree is available, often, but not always, linked to third cycle study. |
| **3. Third Cycle** | (See pages 19 to 23 for a fuller discussion of doctoral study in Education). The traditional doctorate was gained wholly by research, usually requiring examination and defence of a substantial and original piece of research at an international level of excellence described in a comprehensive thesis. This type of academic doctorate is still the predominant model, although the ways in which it is supported have changed over the years. There is an expectation in many countries that part of the earlier years of study will comprise a taught element associated with the development of research knowledge and skills and the practical design of a research project for the empirical and or theoretical element of the degree.<br><br>In a few countries (Denmark, Ireland, Portugal, UK) a new form of doctoral degree has been, or is being, introduced, with a strong professional focus. Although these professional doctorates have a strong research basis and require the production of a thesis based on original research similar, but shorter than, the doctorate by research they also include an assessed component of advanced subject study. |

## 3.2. Typical degrees offered in Education Sciences

| 1. First cycle | First degrees in Education Sciences tend to be multidisciplinary, with a strong other-subject element. However, in some countries e.g. Spain, first degrees in Education Studies are single subject and focus on Education from a broad point of view and in all its complexity. |
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| | Programmes may draw on a wide range of intellectual resources, theoretical perspectives and academic disciplines to illuminate an understanding of Education and the contexts within which it takes place. Typical degrees would include Educational Principles, History of Education, Sociology of Education, Adult Education; Educational Psychology; Youth and/or Community Work; Curriculum Development; Educational Administration; Healthcare related work; Human Resource Management; Management of Information and Library Studies; Social Education; Special Needs Education; Educational Policy, Educational Innovation, School Management. There is an increasing trend for there to be a specific component of Educational Research at first degree level, including subjects such as Methodological Basis of Educational Research, Methods and Models of research in Education, and basic Statistics. |
| 2. Second Cycle | As with Teacher Education second cycle degrees, Education Sciences second cycle study normally allows professionals to specialize further in their chosen fields. Specialisms include Educational Psychology, Management of Education, Primary Health Care, Educational Anthropology, Philosophy of Education, and Educational Sociology. Most second cycle degrees contain a taught component, but normally at least 30% consists of a research based dissertation or an applied project. In some countries e.g. Spain, Finland, Ireland, UK (the latter two mainly for second cycle degrees in Educational Psychology), some second cycle degrees include practical work in professional settings. As with Teacher Education, it is possible to complete a second cycle degree wholly by research. Typical second cycle degrees in Education Sciences are: Special Education Needs, Third Age Education, Intercultural Education, Educational Evaluation, School Management, Leadership in Education, Adult Education, Leisure Education, Social Pedagogy |

| 3. Third Cycle | (See pages 19 to 23 for a fuller discussion of doctoral study in Education). The traditional doctorate was gained wholly by research, usually requiring examination and defence of a substantial and original piece of research at an international level of excellence described in a comprehensive thesis. This type of academic doctorate is still the predominant model, although the ways in which it is supported have changed over the years. There is an expectation in many countries that part of the earlier years of study will comprise a taught element associated with the development of research knowledge and skills and the practical design of a research project for the empirical and or theoretical element of the degree. |
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| | In a few countries (Denmark, Portugal, Ireland, UK) a new form of doctoral degree has been, or is being, introduced, with a strong professional focus. Although these professional doctorates have a strong research basis and require the production of a thesis based on original research similar, but shorter than, the doctorate by research they also include an assessed component of advanced subject study. |
| | Education Sciencesnormally Education Sciences |

The Education Subject Area Group also collated information regarding the occupational destinations of Education graduates. Even in Teacher Education this is not easy to do, since not all graduates remain in teaching, and with their range of skills are often sought after recruits to other professional fields. Graduates of Education Sciences are described with even greater caution, given the wide range of work destinations open to them. Furthermore, it was found that the tracking of graduates is not well developed in all European countries at institutional level.

Nevertheless a broad picture emerged of the occupations of Education graduates across the EU. It was beyond the scope of the work of the group to investigate issues of teacher migration and loss, although these are issues of concern in many European countries.

# 4. Typical occupations of the graduates in Education

| | |
|---|---|
| **1. First cycle** | **Teacher Education**<br><br>Teaching in schools and pre-schools, nurse education, further education, universities/other higher education institutions, vocational education, museum education. Teachers of certain school subjects (e.g. mathematics, computer sciences, languages, physical education) may find jobs outside the field of education (communication, business, leisure provision, etc).<br><br>**Education Sciences**<br><br>Education programmes of all kinds develop ways of thinking and doing that are highly transferable, and graduates of Education programmes are found in a wide range of professions. They are found in museum work, youth leadership, community work, publishing (designing and evaluating educational materials), local and national educational administration, counseling in education, educational management; educational services; teaching specific groups, such as adults, third age support, immigrant support work, and personnel management, the latter particularly salient in Sweden. |
| **2. Second Cycle** | **Teacher Education**<br><br>Teachers in schools (e.g. in Finland); Leadership and management roles; more specialist roles and supervisory roles in educational institutions; researchers; Guidance Counsellors; Special Education co-ordinators, Educational Psychologists (Ireland and UK); pre-school validation; Curriculum; development; policy and business; university work; further research.<br><br>**Education Sciences**<br><br>Access to promotion to more senior positions in their chosen fields, or to new positions related to their chosen specialization; researchers. |

| 3. Third Cycle | **Teacher Education & Education Sciences** |
|---|---|
|  | University, Polytechnic and College lecturers; researchers; Ministry and Teacher Education agency professionals; an increasing number find employment as researchers in independent research and developmental institutes; Research and Development positions in the administration of Education at national or municipal levels (National Board of Education, Regional Developmental Centres), Quality Assurance Agencies; senior posts in curriculum development; School headships; Leadership and management; teaching; business. |

# 5. The relationship of the subject area to other degree programmes

Higher Education is one of the sub-systems of the educational field, from both scientific and social points of view. Notably, educational research into Higher Education is a key issue for policy improvement, professional efficiency and citizenship satisfaction (Zajda, 2005).

The subject of Education is linked to every university degree. The existence of the Tuning Project, involving a wide array of subjects offered by European universities could hardly be understood without the contribution made from the advances in Education. The issue of competence-based learning and how this comprises an alignment of teaching, learning and assessment stems from research initiated by educationists, and most of the constructive criticism of and evidence based research into the competence model also derive from research based in Education as noted above in section 2.

Education is basic to both society and individuals. For this reason, it is a meeting point for many scientific disciplines and the degrees they support. The amount of interaction between Education and the wider academic world is pervasive. (Abell and Lederman 2007). In some countries where Teacher Education is conducted in other subject departments and faculties, this interaction is concrete and physical, creating regular contacts between educationists and other academic staff. It may be noted in passing that this arrangement does not readily facilitate change in Teacher Education, since many managerial decisions in such circumstances are dependent on the structural imperatives of the other subject.

Education content is also to be found in many degrees other than the Teacher Education and Education Scienceselement. It features among programmes with a vocational orientation that have to do with promoting personal well-being and personal and social development, such as some biomedical degrees, Nursing, Psychology, Sociology, Occupational or Speech Therapy, Anthropology and Social Work.

In addition, many students choose credits in Education to complete their degree workload. In many European countries, people with non-Educa-

tion Sciences degrees who wish to be teachers, usually in secondary or higher education, are only accredited after following a programme implemented through an Education department.

## To summarise

Teachers must have a subject base in their studies and so all subjects related to the school curricula have some relationship, direct or indirect, with Education.

In some countries the professional education of teachers of subjects for secondary or higher secondary teaching, occurs in subject departments.

Education Sciences may form part of a degree study programme in another subject area e.g. in history, business; or with a range of other subjects e.g. with history and business administration in Museum studies.

In many universities across Europe, students now have a free choice of a small component in their degree course, and many choose Education modules to fulfil this element, e.g. students from psychology, other social sciences (sociology, anthropology, political science), or subject areas where students may be considering the option of going into Teacher Education after completing their first degree.

In some areas of Education, e.g. Educational Psychology, an initial first-degree qualification in Psychology is followed by master's level work in Educational Psychology. Some professional clinical or teaching experience is also normally a requirement to be able to practice as Educational Psychologists.

Education units may form part of a wide range of programmes concerning Social and Human Sciences.

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# 6. Learning outcomes and competences

In the Tuning Project two different sets of competences were the focus. First, Tuning tried to identify competences which would be expected of any graduate in any subject area, and which are considered important by particular social groups (in this case former graduates and employers). These are competences such as the capacity to learn, the capacity for analysis and synthesis, etc., which are common to all or most degrees. In a changing society where demands tend to be in constant reformulation, these generic competences are very important because they can offer more possibilities for employment. Secondly, Tuning looked at those competences which are *subject-area related*. These are crucial for any degree and they are intimately related to specific knowledge of a field of study. They are referred to as academic-subject specific competences. These give identity and consistency to the particular degree programmes.

Thinking on competences has evolved in conceptual terms in higher education in the last two decades, particularly with regard to generic competences, largely as a result of demands to make graduates better equipped for the - rapidly changing - world of work. The nomenclature has evolved over time, including the terms Personal Transferable Skills (Drummond et al. 1998), Core and Generic Skills (Bennett, Dunne & Carré, 1999), Generic Capabilities (Bowden and Marton, 2000), Graduate Capability Development (Kift, 2002), Graduate Attributes Movement (Chanock, 2003), Graduate Skills (Chanock, 2004) and Generic Graduate Attributes (Barrie, 2005, 2006, 2007). Gairín and García-San-Pedro (forthcoming) understand competence as the ability to successfully address the demands of contexts of uncertainty, the product of an original and global act by the person (learning) that integrates their person and their knowledge. They agree that specific differences for their formulation in the context of higher education would assume the four traits proposed by Bowden and Marton (2002): they would a) be agreed by a 'university community'; b) be acquired during the time at university; c) transcend disciplinary knowledge; and d) prepare graduates as 'agents for the social good in an uncertain future'. They point out that competence is a construct that brings together knowledge, skills and public and private behaviour. In this way the term competence is a more encompassing one than skills. Friedson (2001) makes a cogent point in say-

ing that skill as such is the ability to complete a task, but this may exist without the underlying knowledge related to the skill. Competence, on the other hand, is a more generative and complete concept, involving skill *plus* the underlying knowledge and attitudes, and it is this definition which is closest to that of Tuning. Tuning distinguishes between learning outcomes and competences. While one may not agree with the recent proliferation of technical terms, particularly across a multilingual educational context such as HE in Europe, where translation can be extremely problematic, the distinction made here is clear.

The intended learning outcomes of a programme or unit of learning are formulated by academic staff. They may also be informed by the input of internal and external stakeholders, including - ideally - student representatives, but essentially they are what the academics intend the students to learn. Learning outcomes are thus statements of what the teacher intends that learner know, do, understand and be able to demonstrate after the completion of learning. Detailed intended learning outcomes inform a single course unit or module, while the requirements for award of credit for a whole period of study, for example, a first or a second cycle programme will be specified in more general terms.

Competences, on the other hand, are developed by students during the process of learning and represent a dynamic combination of knowledge, understanding, and skills and abilities that the student builds on and develops during a period of study. Fostering competences is the object of educational programmes. Competences will be developed over the course of a number of units and assessed at different stages.

A competence or a set of competences means that a person can accomplish a certain knowledge-based skill or set of skills to perform a task at a particular level of achievement. Competences can be developed and assessed. This means that, normally, persons do not either possess or lack a competence in absolute terms, but command it to a certain level, so that the level of achievement can be placed on a continuum and can be developed through practice and education. The important point for curriculum planning is that both learning outcomes and competences are accessible to assessment.

In the subject area of Teacher Education, the notion of subject specific competences has also developed over time. In most polities the notion is widely accepted that teachers-to-be learn a body of knowledge (of subject to teach and theory of pedagogy broadly speaking), that underpin a basic set of professional skills, and are expected to put these into prac-

tice both publicly in the workplace, and privately in an ethical stance. Teachers indeed are agents for social good in uncertain times.

The Education Subject Area Group acknowledges the debates that have occurred in the Education Sciences literature concerning models of competence-based learning and the epistemological problems attaching to some of them, particularly the more behaviourist/reductionist examples (Tarrant, 2000; Eynon and Wall, 2002; Burke, 2007), the most notable of which is the often quoted 'Florida Catalogue of Teacher Competencies' which listed 1,301 competencies for Teacher Education (Hilbert, 1981; Brundrett, 2000). Most of the criticisms have been levelled at competence models which are instrumentalist and employer-led, narrowly focussed on work-based competences (Hargraves, 2000; Canning, 2000) and characterised by 'tick-box' practices and fragmentation (Kelly and Horder, 2001).

Coolahan (2007) has argued in his review of EU and OECD policy on Teacher Education that, depending on the mode devised, the competency approach can be 'professionally positive and benign' or it can be of a narrow, 'check-list' character and be 'professionally malign'. The notion of a competence-based approach to teacher education is not new and, for example, has been in use in teacher education in a number of countries for some considerable time. It is a changing landscape and is subject to continuous review and debate – for example, in Northern Ireland, the General Teaching Council, after much debate among professionals has reduced an original list of some ninety-two competences down to twenty-seven (Loughrey, 2007).

However, the competences identified by Tuning, linked as they are to outcomes-based learning, and taking a holistic, integrative and reflexive approach, are accepted by critical analysts for professional formation for situations where complex and sensitive judgments must be made (Oser et al., 2006). Another obvious recommendation which has been made for the development of competence based curricula and assessments is to reduce complexity and to collapse competences into one or two well-articulated sets (Schmid and Kiger, 2003).

The use of the term 'competences' in the Tuning literature is not identical with the term as understood by many educationists. Rather it is a useful grouping of capabilities and capacities that students acquire or develop during a programme into a number of broad sets. They are useful because loosely described, since then the staff on a programme can use them as 'reference points' in curriculum design.

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In the design and redesign of programmes, universities education will have to take into consideration the changing needs of society, present and future employment possibilities, as well as their interest in subject knowledge and subject related skills and attitudes. All the Subject Area Groups in Tuning carried out two consultative processes, both of which utilized questionnaires. The first questionnaire tried to identify *generic* competences and how they were valued, first by graduates and employers and then by academics. The second focused on subject related competences. This formal consultation took place twice in Europe, once in 2001, and again in 2008.

## 6.1. Generic Competences

Initially Tuning drew up a broad list of generic competences, based on current thinking and consultation among all of the participant working groups, which were categorized as follows:

**Instrumental Competences**: Those having an instrumental function. These include:

*Cognitive abilities*, capacity to understand and manipulate ideas and thoughts.
*Methodological capacities* to manipulate the environment: organizing time and strategies of learning, making decisions or solving problems.
*Technological* skills related to use of technological devices, computing and information management skills.
*Linguistic* skills such as oral and written communication or knowledge of a second language.

**Interpersonal Competences**: Individual abilities relating to the capacity to express one's own feelings, critical and self-critical abilities. Social skills relating to interpersonal skills or team-work or the expression of social or ethical commitment. These tend to facilitate processes of social interaction and of co-operation

**Systemic competences**: those skills and abilities concerning whole systems. They suppose a combination of understanding, sensibility and knowledge that allows one to see how the parts of a whole relate and come together. These capacities include the ability to plan changes so as to make improvements in whole systems and to design new systems. Systemic competences require as a base the prior acquisition of instrumental and interpersonal competences.

In consulting stakeholders the questionnaires contained a list of generic competences which responders were asked to rate for utility and achievement. These were derived from investigation and discussion. However, a large scale investigation carried out by the Tuning Latin America Project (http://www.tuning.unideusto.org/tuningal/), in which government agencies were able to consult with large numbers of respondents, found that the final lists were highly comparable to the Tuning Europe list. (Information about the Latin American experience is available on the Deusto website). It should also be noted that the question focused on the relation of competences to work.

In 2008 the generic competences were reviewed through consultation and discussion. The list sent to informants was broadly similar to the earlier questionnaire, and translated into different languages where necessary. The original list of competencies can be seen on the Tuning website.

The new list of Generic Competences was as follows:

Ability for abstract thinking, analysis and synthesis
Ability to apply knowledge in practical situations
Ability to plan and manage time
Knowledge and understanding of the subject area and understanding of the profession
Ability to communicate both orally and through the written word in native language
Ability to communicate in a second language
Skills in the use of information and communications technologies
Ability to undertake research at an appropriate level
Capacity to learn and stay up-to-date with learning
Ability to search for, process and analyse information from a variety of sources
Ability to be critical and self-critical
Ability to adapt to and act in new situations
Capacity to generate new ideas (creativity)
Ability to identify, pose and resolve problems
Ability to make reasoned decisions
Ability to work in a team
Interpersonal and interaction skills
Ability to motivate people and move toward common goals
Ability to communicate with non-experts of one's field
Appreciation of and respect for diversity and multiculturality
Ability to work in an international context
Ability to work autonomously
Ability to design and manage projects
Commitment to safety
Spirit of enterprise, ability to take initiative
Ability to act on the basis of ethical reasoning
Ability to evaluate and maintain the quality of work produced
Determination and perseverance in the tasks given and responsibilities taken
Commitment to the conservation of the environment
Ability to act with social responsibility and civic awareness
Ability to show awareness of equal opportunities and gender issues

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An important omission in the Dublin Descriptors (see appendix 1) with regard to first cycle competences in Education is that they make little or no mention of three competences considered to be central for Education:

Teamwork and interpersonal skills (do not appear overtly in the Dublin descriptors).

Critical and self-critical competencies (are not made explicit enough).

Firm knowledge of a profession is not generic and so is not included in the Dublin descriptors, although it is a competence of great importance in Teacher Education, emphasizing in particular social and ethical competences.

## 6.2. Subject Specific Competences in Education

The Education Subject Area Working Group went through a similar process to develop the initial list of subject specific competences: research in the literature, consultation with national bodies, and discussion with other academics. From this an initial list of 30 sets was drawn up. A fairly large scale consultative process with former students, academics and employers (see below) endorsed this list. The initial list has been reformulated and re-tested through a process of consultation and debate, including with other Tuning initiatives in Latin America and Georgia. The Education Subject Area Group wishes to emphasize, however, that the competences that were identified in the subject area are indicative only, and can and will change over time. What was captured was a common core agreed to in the countries participating in the project at the time. The Education Subject Area Group also wish to state that the list of competences identified is not intended to be either exhaustive or definitive, and should not be used as such. Nor are the lists intended to suggest any order of priority.

### List for the 2008 consultation in Education

Ability to critically analyze educational theories and issues of policy in a systematic way

Ability to identify potential connections between aspects of educational theory and educational policies and contexts

Ability to provide education in values, citizenship and democracy and reflect on one's own value system

Ability to understand and apply educational theories and methodology as a basis for general and specific teaching activities

Ability to recognize and respond to the diversity of learners and the complexities of the learning process

Awareness of the different contexts in which learning can take place

Understanding of the structures and purposes of educational systems

Awareness of the different roles of participants in the learning process

Ability to do appropriate educational research in different contexts

Ability to manage educational/developmental projects

Ability to consult about various educational issues and counseling skills (psychological counseling, counseling learners and parents)

Ability to manage and evaluate educational programmes, activities and materials

Ability to understand processes of development and change in the community

Ability to lead or coordinate a multidisciplinary educational team

Ability to understand trends in education and be able to recognize their potential implications

Commitment to learners' progress and achievement

Competences in a number of teaching and learning strategies

Knowledge of the subject/subjects to be taught

Ability to communicate effectively with groups and individuals

Ability to create a climate conducive to learning

Ability to make use of e-learning and to integrate it into the learning environment

Ability to improve the teaching and learning environment

Ability to adjust the curriculum and educational materials to a specific educational context

Ability to design and implement varied strategies, based on specific criteria, to evaluate learning

Ability to design and implement education which integrates people with specific needs

As in all of the discussions the Education Subject Area Group held, what was sought was consensus around a core of understandings that could form a basic framework for continuing dialogue. Some countries have progressed rapidly in developing curricula that include the concept of competence development, while others have moved more slowly, since the change in structures and systems have been greater for them. In Education there was also a difference noted in progress between Teacher Education and Education Sciences, since the former has strong professional links in most countries and a practice based element which has been described under competences for some time.

The Education Subject Area Group members then worked together and in consultation with colleagues in their own institutions to map the competences onto the levels of study in the three cycles. This is work in progress, and as noted above is not intended to be seen as the definitive answer to competence acquisition in the subject area.

Many competences (generic and specific) are common to both Teacher Education and Education Sciences; some competences are specific to Teacher Education. Not all competences will be fully developed by the end of first cycle studies and will continue to develop over the continuum of professional life, often focused on during periods of in-service education and training, but not necessarily developed in a context of formal education. The ability of academics to assess competences will be of par-

ticular importance for those students who have acquired them through non-formal modes of education. It is a key concept for Lifelong Learning to be facilitated with routes in and out of formal education.

There are a number of examples in Europe which set out a 'map' of developing competences across a career, from initiation to expert. One in Teacher Education which is useful in its clarity is that from Northern Ireland (http://www.gtcni.org.uk/uploads/docs/GTCNI_Comp_Bmrk%20%20Aug%2007.pdf ) where competence development is clearly seen to take place over a number of years of initial training, induction and practice. There are also useful indications in the Northern Ireland document as to how the development of competences progresses over the period of education.

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| First Cycle | |
|---|---|
| **Key *SUBJECT SPECIFIC* competences Key *GENERIC* Competences** | |
| **Common to Both Teacher Education and Education Sciences/Studies** | **Common to Both Teacher Education and Education Sciences/Studies** |
| Teachers and trainers should be able to work effectively in three overlapping areas, as should graduates of Education Sciences programmes. They should be able to: | Capacity to learn; communication skills; team working skills; information technology skills; problem solving; autonomy; reflection skills; interpersonal skills; planning and time management; problem solving; decision-making; appreciation of diversity and multi-culturality; ethical commitment; critical and self-critical abilities; capacity to improve their own learning and performance, including the development of study and research skills; ability to analyse, synthesize, evaluate, to identify problems and work out solutions; firm knowledge of the profession in practice. |
| Work with information and knowledge of subject to be taught, and of educational issues and their theoretical bases | |
| Work with their fellow human beings - pupils/trainees, colleagues and other partners in Education. This includes the ability to analyse complex situations concerning human learning and development in particular contexts; | |
| Work with society - at local, regional, national, European and broader global levels including the development of appropriate professional values and the ability to reflect on practices and contexts; and develop abilities for reflection including the ability to reflect on their own and other's value systems, development and practices | |
| **Particular to Teacher Education** | |
| Competence in a number of teaching/learning and assessment strategies and understanding of their theoretical bases; | |
| Ability to create an equal and fair climate conducive to learning for all learners regardless of their socio-cultural-economic context. | |

| Second Cycle (Masters) | |
| --- | --- |
| **Key *SUBJECT SPECIFIC* competences** | **Key *GENERIC* Competences** |
| **Common to Both Teacher Education and Education ScienceEducation Sciences/ Studies**<br><br>Competence in collaborative problem solving of educational issues in a variety of contexts;<br><br>Ability to adapt practices to specific educational contexts;<br><br>Development of knowledge and understanding in their chosen area of professional specialization in a major educational field – educational management and administration; curriculum studies; educational policy; adult education; learning difficulties; children's literature;<br><br>Ability to use research appropriate to discipline to inform their practices;<br><br>Ability to reflect on values appropriate to educational activities. | **Common to Both Teacher Education and Education ScienceEducation Sciences/ Studies**<br><br>Research skills; leadership skills; communication skills, including ability to communicate in advanced professional registers; ability to reflect upon and evaluate own performance; development of advanced cognitive skills associated with knowledge development and creation. |

| Third Cycle Teacher Education & Education Sciences (Doctoral) | |
| --- | --- |
| **Key *SUBJECT SPECIFIC* competences** | **Key *GENERIC* Competences** |
| Acquisition and understanding of a substantial body of knowledge which is at the forefront of a field of learning in the field of Education; Exercise personal responsibility and largely autonomous initiative in complex and unpredictable situations, in professional or equivalent contexts related to Education as a broad field;<br><br>Learn to critique the broader implications of applying knowledge to particular educational and professional contexts;<br><br>Scrutinise and reflect on social norms and relationships within their particular field of Education and lead action to change them;<br><br>Capacity to conduct (original) research; demonstrate the ability to perform independent, original and ultimately publishable research in the different fields of Education and/or school pedagogy | The creation and interpretation of new knowledge, through original research, or other advanced scholarship, of a quality<br><br>to satisfy review by peers at national and international levels;<br><br>Ability to demonstrate a significant range of the principal skills, techniques, tools, practices and/or materials which are associated with a field of learning;<br><br>Develop new skills, techniques, tools, practices and/or materials;<br><br>Respond to abstract problems that expand and redefine existing procedural knowledge; Communicate results of research and innovation to peers;<br><br>Engage in critical dialogue; lead and originate complex social processes within their professional domain; critical competences, i.e. critical and self-critical abilities;<br><br>Presentation and defence in public of scientific studies;<br><br>Creativity. |

# 7. Consultation process with stakeholders

In the first and fifth phases of the Tuning project the Education Subject Area Group consulted stakeholders both within the profession, including students and former students, employers and other Education academics, and those concerned with governance of education, to ascertain their views on the range of generic and subject specific competences that are relevant to the subject areas of Teacher Education and Education Sciences. As noted above, this consultation resulted in the endorsement of an indicative list of competences. The Subject Area Group also consulted other academics from time to time during the Tuning phases one and two to elicit feedback from colleagues on issues as they arose, e.g. teaching, learning and assessment techniques, and calculating student workload.

The close links between Teacher Education Programmes and field-based student placements have continuously provided opportunities to consult stakeholders, i.e. teachers in schools or school principals as well as regulatory bodies about the relationships between theory and practice, and regarding which parts of the Teacher Education programmes might be improved to better fit to the 'realities of today's schools'. Other stakeholders include the users of educational services, e.g. parents, who, as citizens, choose schools for their children in an increasingly market-oriented society, thereby putting pressure on schools and higher education institutions to respond to their demands and educate teachers accordingly.

Other stakeholders routinely consulted in Teacher Education and Education Sciences are employers' groups such as national organisations of school principals or of educational psychologists, guidance and counselling organisations, teacher unions, ministry of education officials, local education administrators and so on. Other stakeholders within the governance of education were also consulted. The professions related to Education are represented by a wide range of professional bodies, learned societies, research associations, trade unions and regulatory bodies, many of which belong to European networks. Teaching Councils have now been established in several countries with remits similar to those of other regulatory professional bodies, such as Medical Councils. Where

such Councils or other accrediting bodies exist, higher education institutions running Teacher Education and Educational Science programmes which require professional accreditation must consult with these bodies and facilitate accreditation visits. Student stakeholders include national student bodies who may have representation on review and accreditation boards at national level in many countries.

Universities offering Education Sciences (possibly combined with studies in psychology, sociology, political science, journalism) are increasingly making use of questionnaires to former students, and consequently to their employers, to find out which professions they join, in order to be more targeted to the needs of the labour market. The Tuning group invited a number of external consultants, including a student representative, to discuss the validity of this report. Their names are listed in Appendix 2. They met with the Tuning Education Subject Area Group after having read the document, and then spent a period of some hours in private discussion. Following receipt of their comments this document was then revised. It will then be sent to groups of academics in each member country for further evaluation and feedback. Further consultation has taken place with other groups, for example the EU Teacher Education Cluster, and Education research and teacher education networks through conference presentations and round tables.

# 8. Workload and ECTS

The European Credit Transfer System (ECTS) has been developed and accepted by most European countries following the perceived need to restructure following the Bologna agreement and the commonly felt necessity to encourage student and staff mobility across the EU. ECTS is a student-centred system based on the notional student workload required to achieve the intended learning outcomes and competences of a programme of study. A student's workload for one year would comprise 60 ECTS credits, i.e. between 1500 and 1800 hours of study and other forms of engagement with the course; thus one ECTS credit stands for between 25 and 30 working hours. This workload consists of the time required to complete *all* planned learning activities such as attending lectures, seminars, independent and private study, preparing assessments, examinations, project work and work placements, etc. (See 'An Introduction to Tuning Educational Structures in Europe *Universities' contribution to the Bologna Process'* chapter 4 for a full discussion of student workload and ECTS credits).

The pre-Bologna first cycle could comprise up to five or more years of study, and indeed some academics boasted that their programme was 'so tough' that it could take students up to seven years to complete it. The discipline of allocating workload based credits to units of study means that students are now expected to complete an amount of work commensurate with the time available, and staff have to take this into account in their curriculum planning. The ECTS credit system allows staff to prioritise, for example, the topics covered in a degree and the competences to be developed, and to allow sufficient time for students to achieve the intended learning outcomes, *within a reasonable working period.*

This is one of the most sensitive areas for implementation, since academic staff are often very protective of their specific subject area and its importance in the degree programme. This is particularly sensitive in areas where a degree contains elements of more than one subject, which is often the case in Education. But it is also the case within any given subject. The emphasis on competence development as well as subject knowledge is one way into the discussion of workload and distribution of credits across a programme, but staff development conducted tactfully is much to be recommended.

One thing that is often under-emphasized is the amount of quiet awareness-raising that the Bologna changes demand. It is quite futile to expect

staff to take on board all of these subtle changes to their working culture without discussion and consultation. In fact, many academics already align teaching, learning and assessment and are quite well aware of the demands on the student. What is needed is more open discussion about unit and curriculum development to promote further transparency and fairness for both students and staff, and confidence among other academics and students, perhaps from institutions in other countries. Administrators in universities need also to be aware of the concept of student workload, since a barrier to progress is the continued insistence, in some universities in some countries, of calculating staff salary on the basis of contact hours.

New legislation leading to the adoption of a credit-based system is only partially implemented in Education (as in other subject areas) across both countries and cycles. However the following information has been collected from members of the Education Subject AreaW Group.

| First cycle | **Teacher Education** |
|---|---|
| | 180 to 240 ECTS if wholly located at first cycle level (i.e. 3 or 4 years of full-time study); where divided between first and second cycles the total is concomitantly greater, e.g. 300 mentioned by Croatia). For teaching at secondary school level, this may comprise a first degree of 180 to 240 ECTS plus a one-year Diploma course focused on preparation to teach of equivalent 60 – 80 ECTS. This Diploma course may be a second cycle element, but in some countries it counts as a first cycle level Diploma even though it is taken after a first cycle degree. For primary school qualified teacher status an integrated degree of 240 ECTs is more usual, although in some countries the consecutive model is also available for future primary school teachers, e.g. UK and Ireland. |
| | Education Sciences 180 – 240 ECTS |
| **Second Cycle** | **Teacher Education & Education Sciences** |
| | 60 – 120 ECTS – 1 or 2 years. Not all countries have separate first and second cycle programmes yet, as noted above. The one-year Diploma noted above can be a second cycle qualification, but is not always weighted in terms of ECTS credits. In some countries, e.g. Greece, the term 'Teacher Education' only exists at first cycle level, thereafter the term used for all is 'Education Sciences'. In some countries (UK, Ireland) there is a tradition of a 1 year Masters degree, but this differs from other cycles in that the academic year extends over longer than a full calendar year, thus allowing time for the accumulation of 90 ECTS credits. |

| Third Cycle | **Teacher Education & Education Sciences** |
|---|---|
| | 120 ECTS *post second cycle where the second cycle award is linked to the doctoral work,* otherwise, 180 – 240 ECTS, normally associated with 3-4 years' full-time study. In many countries the length of doctoral studies has not yet been specified in terms of credits, and completion times may be as long as 4-6 years' full-time study or longer, although there is increasing pressure to standardize the length of doctoral studies for financial reasons. |

The concept of ECTS is a powerful tool in considering Accredited Prior Experience and Learning (APEL) a crucial aspect of the drive to harmonize the concept of lifelong learning with the formal education systems, and to permit a range of entry and exit points during the routes of learning that students may adopt. There is an increasing trend in Education towards part-time study, a phenomenon reported across all Tuning Member countries.

## 8.1. Teacher Education and the Bologna Process

The Tuning Project Education Subject Area Group has identified an anomalous situation with regard to Teacher Education within the context of the implementation of first and second cycles of degree awards. This anomaly is particularly evident in consecutive models of Teacher Education where students study one or two academic disciplines (180-240 ECTS) prior to a postgraduate Teacher Education component of their studies (60-90 ECTS). Although students may have accumulated a total of 240 – 320 ECTS in order to obtain their initial Teacher Education qualification, in a number of countries 300+ ECTS accumulated in this way does not result in a second cycle award. This is in spite of the fact that the postgraduate component may, to a significant degree, meet the level descriptors for second cycle. In order to ensure that Teacher Education should be compliant with Bologna first and second cycle degree structures, and that it has comparability with other disciplinary areas, the Education Subject Area Group recognises that the structures of Teacher Education first and second cycle degrees should facilitate this. A number of possible pathways to second cycle awards are identified and could include:

A first cycle degree in the chosen subject(s) of 180-240 ECTS, followed by a consecutive Teacher Education award of 90-120 ECTS (a minimum of 90 ECTS where subject didactics or pedagogy is included in the first cycle degree), and including a first cycle degree in the chosen subject(s) of 180-240 ECTS, followed by a second cycle consecutive Teacher Education award of 60 ECTS, followed, within a specified time limit, by a second cycle award in Education Sciences or structured induction (to include research training) of 60 ECTS.

A first cycle integrated agree where the teaching subject(s) and Education components are offered concurrently comprising 240 ECTS, followed by a second cycle award in Education Sciences/structured induction (to include research training) of at least 60 ECTS.

Some examples of the attachment of a proportion of masters levels credits to second cycle consecutive initial teacher education programmes are to be found in a number of universities in the United Kingdom. Increasingly, teachers in the UK qualifying through the postgraduate certificate in education (PGCE) route are gaining masters-level credits. According to the Training and Development Agency for Schools, as long as they have not expired, these credits can be transferred and used as part of a post-

graduate professional development programme, contributing to a post-graduate award (http://www.tda.gov.uk/teachers/continuingprofession-aldevelopment/ppd_intro/ppd_faq.aspx?question=3&keywords=PGCE+masters+credits). These changes are in response to a government decision about the academic level at which PGCEs are set. That decision was based on the European Bologna Declaration (King, 2008).

# 9. Learning, teaching and assessment (TLA)

Education Sciences are centrally concerned with TLA, with many academics having a strong practitioner background as well as strong theoretical base in Education Sciences. It has also long been the tradition for academics in Education Sciences to consciously demonstrate good practices in their own teaching.

The Tuning approach of developing curricula and approaches to TLA around student competences has been well established in areas of Education such as Teacher Education for a considerable time, and valuable pedagogical practices founded on principles of adult learning and competence development have evolved over a number of years.

During the second phase of Tuning, the Education Subject Area Group consulted within their own universities in order to share examples of practices in these areas. What are listed below are three examples of good practices taken from Education which may have wider relevance across other disciplines.

## 9.1. Example one: first (or second cycle): Learning and teaching

### Competences intended to be worked on

Ability to analyse complex situations of human learning and development in particular contexts, including their own learning;

Ability to describe objectively what is observed, categorize and analyse this, and make theoretically well founded evaluations based on the observed incidents;

Ability to appreciate how own values and beliefs can influence observation;

Ability to use evidence from reading and research to support development of analysis and evaluation.

## Techniques of TLA

The overall method is often associated with a task-based or problem-based approach to teaching and learning, and aims to develop skills in observation. Observation is a key element of work placements and school practice. Practice in developing the different competences making up observation skills can begin with very concrete, easily observed and easily described (low inference) phenomena (who talks to whom, how many times does x occur, etc.) and gradually include events much less easy to 'see' or describe (high inference), such as what kinds of roles people are playing, what the aims of an activity is.

From tutor led observation activities, students can then move to real time observation in their placement area. Each early observation task is followed by an exercise in reflection in which students are required to share descriptions, categorise phenomena (analysis) and evaluate what has been observed and the role of their own values in influencing how they observe. Literature search is an important part of the follow up, particularly at second cycle level. Placement observations also have follow-up sessions with peers and placement tutors.

A wide range of formative **assessment techniques** can be developed, ranging, for example, from simple categorization exercises in which students list what has been observed and then categorize them, to real life observation activities in which the basic observed features are assessed, or their categorization, or their links thereafter to underlying theory etc, to academic assignments which encourage greater understanding of observation based on an in-depth study of the literature.

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## 9.2.  Example Two: first (and second cycle): Learning and assessment

### Competences intended to be worked on

Ability to reflect on own learning and select appropriate examples to demonstrate this

Autonomous decision making as part of self directed learning:

A range of competences appropriate to the unit or programme which is the basis of the portfolio.

### Techniques of TLA

Portfolio assessment normally forms part of a programme of study or section of a programme rather than a single module, and is based on a purposeful sample of student work, selected by the student on the basis of defined criteria related to the competences focused upon. Portfolios are constructed to highlight and demonstrate students' knowledge and skills in a range of competences. The portfolio also provides a means for reflection, offering the opportunity for auto-critiquing the student's own work and evaluating the effectiveness of interpersonal interactions in selected contexts.

A typical use might be on work placements, where the portfolio provides a record of the student's engagement with a range of learning activities. The completed portfolio may later be used to support preparation for job interviews.

Portfolios are usually selections of the total collection of data collected by the student (which may include assessed work, artefacts, learner profiles, diaries etc.) and demonstrate the *development* of competences over time. More recently IT has been used to produce web-based portfolios to demonstrate student development of IT skills as well as other competences.

## 9.3.  Example Three: (second and third cycle): Learning and assessment

### Competences intended to be worked on:

Understanding of research methods and the paradigms in which they fit;

Familiarity with a range of commonly used methods in educational research, and

Practice in how to set these up, analyse data etc;

Ability to develop feasible and researchable questions and select appropriate methods of researching them.

### Techniques of TLA

In Education most students undertake independent research projects, and do not normally work as part of a research team, although this may be changing for a minority. Coming from working backgrounds outside academia, many require initial support in developing an appropriate research proposal. Typical macro activities are:

discussing the nature of educational research; giving and seeking information about the main approaches to research in educational research; examining the nature of research questions;
discussing the main methods, techniques and instruments used to collect and analyse data, in accordance with the object and objectives of a particular research;
discussing how to design a research plan.

Students engage in a range of practical activities, such as defining research questions and objectives; developing appropriate instruments for data collection; developing and using methods of analysis for analysis of data, researching methods in the literature and evaluating their relevance to their own needs.

**Grading of achievement** is often based on a student developed research plan which can be used later as the basis for their research proposal.

# 10. Quality enhancement

One of the distinctive ways in which staff and others in both Teacher Education and Education Sciences enhance the quality of their programmes is through active partnerships with students, employers and professional bodies. Employers, through collaboration in work placements, turn a practical eye on the relevance of courses to the social needs of the time. Professional bodies, through their gate-keeping and regulatory functions may ensure that standards are upheld at national and, increasingly, international levels. The students themselves are *key partners*, since they are the link between all three of these groups, and are *the* dynamic element in the processes of their education. Such interaction with external partners is not yet true in all EU countries.

Since the processes of quality assessment are rather complex and demand a variety of tools and participants in Education there is also an active and continuing engagement of the students themselves in the processes of quality management and enhancement. This engagement is also widely perceived to be an important part of their development as reflective learners and practitioners. Academics from Education departments and faculties participate or lead in most research into the processes of quality assessment and enhancement in higher education (as well as other sectors of education) and so practices in Education are based on evidence.

A wide range of internal monitoring procedures are fed into open systems where implications for improvement are discussed, such as student satisfaction questionnaires; student discussions and focus groups, staff views, reviews of student assessment etc; annual programme review which may include students as well as the teaching team; non-judgemental peer observation. In some countries (e.g. UK, Ireland) external examiners at all degree levels are involved in this process to some extent.

In many Education departments, academic staff undertake continuing professional development through attendance on short courses, conferences and seminars. Across Europe Teacher Education for university teachers is becoming a common way of improving quality as part of a continuing learning strategy used by many institutions.

External evaluation by national quality assurance agencies, developed on a consultative basis, provides a focus for departmental and personal reflection and improvement, although most educationists in the European Tuning group favour a light external touch. It was felt that external agency evaluations are too often linked to future funding and 'value for money' or to the impressions of the political moment rather than to enhancement of student learning. Nevertheless, processes of peer review under the auspices of a national quality agency can provide a useful impetus for a consultative and positive review of teaching within an institution, and can serve as a reminder that universities are subject to the same rigorous links with the real world as any other institution.

One characteristic of Teacher Education is the amount of school based learning that it can contain. While there is a range of provision for this in terms of the proportion of credits, all countries include an element of school based learning in programmes of initial teacher education. Monitoring of quality in such circumstances is bound to vary, not only between, but within different countries. Best practice demonstrates close links between the school and the university based tutors, with clear guidelines for quality audit and enhancement. Enhancement activities can include away days for all school based tutors, their university colleagues, and student representatives; joint publications; conference roundtables etc. Nevertheless, this is an area of quality monitoring where much more information is required, so that all countries can benefit from some of the excellent models of school based learning that exist. This is not simply an issue for Education. Many subjects now contain elements of workplace learning, and so the need for a focus on how this important professional learning domain can be maximised, and its quality assured is of interest to many academics and professionals.

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# 11. Doctoral Study in Education

Until approximately fifteen years ago the only type of doctorate available in Education Sciences and Teacher Education in Europe was what is commonly known as the 'academic' doctorate. This was widely available across all EU member states, and remains the most common type of doctoral programme across all countries, highly valued by all members of the Education Subject AreaWorking Group. T, and this respect for the qualification was also reiterated by academics consulted during major European conferences . In Education this has traditionally been a wholly or nearly wholly research based degree - although a range of structures actually existed with a greater or lesser extent of taught elements available either compulsorily or optionally. Candidates were normally under the guidance of one, or occasionally two, academic(s). The time taken to complete the doctorate was often in excess of seven years, and few countries imposed a time limit.

While academic doctorates are still held in very high esteem among in Education, they are changing in approach and structure, with a strong trend towards a structured taught component for a varying proportion of the total in all countries (sometimes quite a small component); with much stricter regulations for completion within a stipulated time frame (normally 3 to 4 years of full-time study); with the creation of doctoral schools to provide a research-vibrant interdisciplinary context for candidates; and with more rigorous frameworks within which supervision takes place and supervisors are appointed. These changes follow similar changes in higher education generally, and, if anything, enhance the quality and rigour of the programmes, and ensure a surer link between the knowledge creation of the academic research undertaken and the broader knowledge base in Education.

The need to provide doctoral study that very clearly links into professional practice led, in the early 90s, to the creation of professional doctorates in Education, notably in the UK, where there are now more than forty programmes in Education, but also later in Denmark, Ireland, Portugal, and Sweden among others. Some countries have looked at the possibility of introducing professional doctorates and have decided not to do so, e.g. Slovenia. PThe introduction of professional doctorates in a wide range of other subjects, e.g. engineering, clinical psychology, nursing, pharmacy and business administra-

tion haveve developed as a result of the successful model introduced in Education.

The professional doctorate emerged in response to a number of pressures, including demands from professionals themselves and professional bodies for higher forms of learning and qualification, the perceived inadequacy of the existing academic doctorate for careers outside academia, pressures on universities to diversify, and demands for the recognition of other forms of knowledge and learning, particularly those of practitioners. A key characteristic of the professional doctorate, however, is that it attests to the capacity to effect innovation in a professional context.

### Admission criteria

For all types of doctoral degree the requirement is normally a second cycle degree of a good standard. For professional doctorates a substantial period of professional work is also normally required. Although in other subject areas students in some countries with first class first cycle degrees can be admitted directly to doctoral study, this is rare in Education, where a second cycle degree is the normal requirement, often with evidence of relevant professional practice. There is relatively little formal use of APL/APEL (accreditation of prior learning/accreditation of prior experiential learning) although it does exist.

### Duration in years of full time study

Normally 3 or 4 years full time; 5 to 7 years part time.

### Percentage of full time/part time candidates

No information is available for ratios of part time or full time candidates. The candidates for academic and professional doctorates may have different profiles, since most of the latter are offered in part-time modes to suit the professional needs of the type of person who wishes to undertake doctoral study in order to undertake more specialist professional work (normally senior professionals).

### Credit allocation

In Education most countries describe the numbers of ECTS credits allocated to academic doctorates at between 180 and 240, but this may be

a construct drawn from the credit weighting of first and second degrees. There was no feeling among the Education group that any sustained investigation into the award of credits for research work had been undertaken. Because professional doctorates have been developed recently it is more likely that they were credit rated from the outset, but this is not always the case. Similarly, the part-time taught part of the professional doctorate programme lends itself to quantification of workload as with other degree programmes. Again there may be some ambiguity (perhaps considerable) with regard to the research component in terms of credits.

## Learning outcomes, if stated

The Education Subject Area Group is almost unanimous in stating that academic doctoral programmes in Education do not yet have a set of learning outcomes as Tuning has come to understand them. However, most have a set of general expected outcomes, often written into prospectuses, sometimes merely tacitly understood. Nevertheless, implicit understandings, student Handbooks, and criteria for assessment closely reflect the Dublin descriptors for study at this level.

*'Qualifications that signify completion of the third cycle are awarded to students who:*

> *have demonstrated a systematic understanding of a field of study and mastery of the skills and methods of research associated with that field;*
> *have demonstrated the ability to conceive, design, implement and adapt a substantial process of research with scholarly integrity;*
> *have made a contribution through original research that extends the frontier of knowledge by developing a substantial body of work, some of which merits national or international refereed publication;*
> *are capable of critical analysis, evaluation and synthesis of new and complex ideas;*
> *can communicate with their peers, the larger scholarly community and with society in general about their areas of expertise;*
> *can be expected to be able to promote, within academic and professional contexts, technological, social or cultural advancement in a knowledge based society.'*

(Dublin Descriptors, 2004)

Professional doctorates tend to have clearer and more detailed statements of aims, which are usually accompanied by statements of learning outcomes, also closely linked to the Dublin descriptors. The specific approach to developing intended learning outcomes in professional doctorates may help to inform the development of the highest levels of Lifelong Learning qualifications under the Lisbon Declaration. *The Education Subject Area Group expressed a strong recommendation that there be a discernible coherence between Life Long Learning Qualifications and Higher Education qualifications.*

One example from a professional doctorate (EDD) in Educational Psychology in the UK illustrates how the specificity of intended learning outcomes is closely tied to the general Dublin descriptors as well as reflecting the professional imperatives of a particular group of educators.

> *'The expected learning outcomes are that, by the end of the programme candidates will:*
> *have current, relevant and confident knowledge of research evidence which informs professional practice.*
> *develop skills of analysis and reflection in relation to the design and interpretation of research.*
> *understand a wide range of theoretical issues affecting the growth and development of children.*
> *be able to justify their own professional practice in terms of evidence-based educational psychology.*
> *become familiar with theoretical models of supervision.*
> *develop skills of analysis and reflection in relation to professional practice.*
> *understand contrasting perspectives and role tension in the supervisory process*
> *develop strategies for generating effective supervision within their own professional contexts.*
> *be aware of current research and case law underpinning professional judgments.*
> *explore ethical dilemmas in relation to professional practice.*
> *analyze the status of evidence-based psychology applied to education.*
> *develop understanding of the ethical parameters affecting professional conduct.*
> *become familiar with theoretical frameworks for consultation drawn from systemic-interactionism.*
> *acquire knowledge of elements, skills, and issues in relation to consultation and professional practice.*
> *have considered case examples of consultative frameworks.*
> *develop strategies for generating effective consultation skills within their own professional contexts'* (from an EDD curriculum, UK)

## Other results expected

The issue of publication of new knowledge and research is central to doctorates of all types. A key criterion in the assessment process in all countries, in all doctorate types, is whether the results of the research are publishable in peer-reviewed outlets, in whole or in part.

Some countries insist on the submission of multi-copies of the dissertation which are then given to all university libraries (e.g. Sweden). Others put all doctoral theses on a website (Finland). All countries expect that the candidate will be able to defend the thesis in an oral debate, whether with a small audience of external and internal examiners, or with a wider audience of examiners, peers and invited personnel.

In some countries (e.g. Denmark), an added result is the accumulation of teaching experience as all doctoral candidates in Denmark are required to engage in teaching and supervision of first and second degree students as part of their doctoral programme. However, the amount of time that full-time doctoral candidates can spend in such professional work is normally strictly limited in all EU countries.

Evidence of the success of professional doctorates to innovate change in the profession is emerging, and it is an area where a separate research investigation is required. The Education Subject Area GWorking group were interested in this, but it was outside of the scope of the project.

## Learning activities provided

Structural learning experience such as taught courses and/or seminars, presentations, workshops and learning groups are included in all doctoral programmes in different combinations. Most doctoral programmes attach 30 to 90 European credits for these activities.

Most universities in all member states provide some research training, although some insist that the greater part of any research training should have been completed satisfactorily by the end of the second cycle (e.g. Croatia). Some countries expect candidates to undertake professional work as a credit rated part of the programme, either as teaching assistants or in other academic work within the university (e.g. Denmark).

## Learning environment provided

A range of environments exists. An increasing number of countries now provide Graduate Schools where candidates can participate in joint seminars, other learning activities and joint participation in a multi-disciplinary setting. Such schools may also provide research-training seminars.

Research teams in departments increasingly provide rich and supportive learning environments for the candidates they have selected, including access to current research project teamwork. At best, candidates work in a richly supportive and mixed learning environment, enriched by access to a range of seminars, senior researchers, projects and other candidates. On the other hand, but progressively less frequently in Education, the candidate works in virtual isolation with one supervisor. This can be an equally supportive environment, but it depends on the expertise and experience of the superviser and the ability of the student to handle the one to one relationship to their advantage. It also depends to some extent on time for consultation, an increasingly scarce commodity.

## Supervision

Supervision is normally provided by academics who are research-active in the area of the candidate's research. This supervisor may act alone, or be one of several, particularly when the research is interdisciplinary. Appointment is normally approved by a committee, either at Departmental or University level. Few universities give specific details of how much supervision can be expected, and the actual amount is negotiated between candidate and supervisor. Some countries allocate a minimum number of hours supervision that all candidates can expect during the year, this number including all reading the tutor can be expected to do. This is an area where there are undoubtedly great inequalities of provision in most countries, and even within the same university in a country, or even department within a university, and where existing good practice can and should be shared.

There has been a steady increase in the use of virtual environments for supervision, including for candidates in the third cycle. At this level the use of electronic and other modes of distance supervision complements face to face modes. Further research is needed in this area in Education Sciences before a definitive statement can be made.

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## Assessment

Practices vary. In academic doctoral study, there may be a system of annual or biannual review of progress, which may be assessed through a formal assignment by internal examiners. All such programmes have a final assessment of the thesis through a viva voce examination, usually with external examiners as well as internal ones. Professional doctorates and all programmes with coursework elements have continuous assessment of coursework as well as the normal viva voce examination of the final thesis.

The viva voce examination or public defence of the thesis may also include a formal lecture presentation to an external audience, with or without a system of formal opponents.

## Funding

There is a marked contrast between countries within the EU in the matter of funding. Scandinavian countries tend to target set numbers for doctoral studies who are then fully funded, and in Denmark, for instance, these candidates are full academic members of staff. Other countries admit on the basis of merit but candidates have to find their own funding, e.g. from competitive sources within or outside the university. Some countries do not charge fees, while others charge full fees. In some countries which enrol both full-time and part-time candidates, while full-time candidates are fully funded, part-time candidates have to find their own source of funding.

In most countries in Education Sciences there is a picture of limited sponsorship from government at this level.

## Employment opportunities

Academic doctorates will normally lead into careers in universities or similar institutions, perhaps governments or government agencies at senior levels, research institutes, public administration and so on.

There are some indications that employment of professionals with doctoral degrees may be a problem in some countries. Portugal, for example, is one country where candidates who receive grants to continue to

third cycle studies are finding it difficult to enter at appropriate points in the professional market. In countries with an ipso facto quota system this may be less problematic. It may be that this is an issue with academic doctorates, since most candidates in professional doctorates either have sponsorship or have a clearly perceived career need for undertaking the study.

# 12. Conclusions

A number of current trends underline the importance of the Education subject area within higher education. Some of these are:

— the role of Education academics in the preparation of university teachers. In 50% of the countries represented in Tuning initial education for teaching is now essential for university teachers;

— the emergence of teaching in higher education institutions as a distinct field of research;

— the many similarities and commonalities at a deeper level structure which belie the apparent national differences at a surface level in Education Sciences and Teacher Education across the member states. This makes the possibility of cross- European modules or courses feasible, and this is a trend that is beginning to be seen;

— the growth in evidence-based practice as the informing philosophy of Teacher Education. Although traditionally, and currently in many countries, Teacher Education has been based on theoretical and practical knowledge, many governments are now prioritising classroom-based research, assuming that it will be directly relevant for educational practice.;

— consequently a research component is included in programmes of initial Teacher Education in an increasing number of countries, although this element has not yet become an integral component of all models of initial Teacher Education in Europe at first degree level. However, a research component normally forms an integral aspect of all programmes at second cycle level;

— the growing trend in Education for part-time studies at all degree levels, especially for second and third cycles. This is associated with the parallel trend of self funding of post-first cycle study, already well established in some EU countries but spreading inexorably across Europe;

— the range of candidates entering Teacher Education is widening, professionals from other fields are turning to teaching for a number of reasons. These candidates are normally educated to degree level in other subjects, and often obtain accredited entry to the Teacher Education programme they choose. There is evidence that such mature candidates are positively regarded by academics and employers;

— the beginning of a trend related to the development of lifelong learning opportunities for professionals in the fields related to Education is perceived in the Professional doctorates which are beginning to appear within Europe (UK, Ireland, Portugal);

— the movement to limit the length of study at doctoral level to a reasonable number of years/workload (largely motivated by the analysis of the real costs of supervision in universities)

— the growing trend to offer on-line elements of programmes at second cycle level, and to make use of internet resources as part of teaching and learning strategies.

It is the view of the Education Subject Area Group that Education Sciences can (indeed already does) play a very important role in curriculum development and has the potential to make a very significant contribution to the further development and comparability of higher Education curricula though the use of systematic, large-scale, longitudinal and comparative studies in this area.

As we have outlined above, Education comprises two strands – Education Sciences and Teacher Education. It is difficult to separate these two, since the Education Sciences are fundamental to Teacher Education and there is considerable overlap between them. Education Sciences are based on theory combined with rigorous scientifically-based quantitative, qualitative or mixed-method research, while Teacher Education involves the study of education in the broadest sense and includes many of the aspects described under Education Sciences.. They involve the research and analysis of data on Education at all levels of the education system, including pre-school, primary, second-level, further, higher and adult education levels. It is the view of the Education Subject Area Group that the Education Sciences community should promote all types of educational research and that the educational research community should ensure that appropriate quality criteria are available for all approaches. Education is a multi-disciplinary field and drawing on insights from a number of disciplinary areas, including sociology, philosophy and psychology, especially in the Education Sciences.

Teacher Education and Education Sciences awards are now offered across Europe in all three cycles – Bachelors, Masters and Doctoral. Graduates from both Teacher Education and Education Sciences are to be found in a wide variety of occupations. Teacher Education graduates are found predominantly in teaching (which is the largest single employer of grad-

uate labour in Europe) but are also to be found in a number of other occupations. Education Sciences graduates are to be found in range of positions, including administrative, policy making and higher education. It can be argued therefore that this is a central subject in all universities in Europe.

Nevertheless, Education as an academic discipline in Higher Education has often been rather shamefaced because of its necessary focus on the vocational. It has however, as noted above, been at the forefront of developments into how and why people learn, contributing solid methodology and research to social and humanities sciences. It has been the subject par excellence where issues of part-time study for mature students have been tried out and solutions found. It is one of the few subjects where the aspect of developing competence as well as knowledge has been *articulated* for many years: in other words educationists have developed a way of talking about competence development that encompasses knowledge, skill, and reflection. Not only that, a major contribution of Education has been in both providing critical analysis and developing ways of assessing competences, recognizing and assessing prior learning, and seeing the importance of continuing professional development – lifelong learning.

Education and training are priorities of the Council of the European Union's policies. Strategic objectives for the development of education and training systems in the European Union have been defined and decisions taken on a detailed programme at European level. The European Commission, DG Education and Culture, sees Teacher Education and educational research as 'vital' to the achievements of the Lisbon objectives. This position was reiterated at the Madrid Council meeting, and also in the joint Council and Commission report *Education & Training 2010*. Knowledge-based and dynamic learning societies depend on highly qualified Education staff in a rich variety of contexts (e.g. lifelong learning, @-learning, inclusive education, university education). As a consequence, the initial education and continuous professional development of educators and those in Education-related professions have become subject to rapid expansion, diversification and professionalization.

A key area of concern for many academics post Bologna is the restructuring of programmes and elements of them in ways that fit with the ECTS system. The ECTS system only works logically if the key criteria of learning are shared across counties and universities. In the past we defined these in terms of content: notoriously difficult to compare at dif-

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ferent stages of the learning process. The change to a view of learning as the acquisition of competences as well as knowledge, and the exploration of how an alignment of teaching, learning and assessment can be achieved stems from research initiated by educationists, and most of the constructive criticism of and evidence based research into the competence model also derive from research based in Education. The Tuning approach of developing curricula and approaches to teaching, learning and assessment around student competences has been well established in areas of Education such as Teacher Education for a considerable time, and valuable pedagogical practices founded on principles of adult learning and competence development have evolved over a number of years. What the Tuning initiative has added is the insights into how the issue of student workload can be used as a dynamic element in programme and course design.

Tuning has also emphasised the importance of quality in programme design and implementation. Educationists from across Europe have significant contributions to make to this debate, and much practical experience to share. One of the distinctive ways in which staff and others in both Teacher Education and Education Sciences enhance the quality of their programmes is through active partnerships with students, employers and professional bodies. Since the processes of quality assessment are rather complex and demand a variety of tools and participants in Education there is also an active and continuing engagement of the students themselves in the processes of quality management and enhancement. This engagement is also widely perceived to be an important part of their development as reflective learners and practitioners. Academics from Education departments and faculties participate or lead in most research into the processes of quality assessment and enhancement in higher education (as well as other sectors of education) and so practices in Education are based on evidence. External evaluation by national quality assurance agencies, developed on a consultative basis, provides a focus for departmental and personal reflection and improvement, although most educationists in the European Tuning group favour a light external touch.

One trend that emerges across many subject areas is the demand for part-time study, whether at first cycle level, or later in the educational cycle. There is also a consequent demand for ways of assessing prior learning, which may be 'out of date' in terms of qualifications, or diversely represented through work based and informal learning. Education has been at the forefront of developments into how and why peo-

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ple learn, contributing solid methodology and research to social and humanities sciences. It has been the subject par excellence where issues of part-time study for mature students have been tried out and solutions found. It is one of the few subjects where the aspect of developing competence as well as knowledge has been *articulated* for many years: in other words educationists have developed a way of talking about competence development that does not detract from knowledge. Not only that, a major contribution of Education has been in both providing critical analysis and developing ways of assessing competences, recognizing and assessing prior learning, and seeing the importance of continuing professional development – lifelong learning. It is the view of the Education Subject Area Group that Education Sciences can (indeed already does) play a very important role in curriculum development and has the potential to make a very significant contribution to the further development and comparability of higher Education curricula though the use of systematic, large-scale, longitudinal and comparative studies in this area.

Education was the first subject area which introduced professional doctorates in Europe. These are now being offered in a range of other subject areas. While academic doctorates are still held in very high esteem among in Education, they are changing in approach and structure, with a strong trend towards a structured taught component for a varying proportion of the total in all countries (sometimes quite a small component); with much stricter regulations for completion within a stipulated time frame (normally 3 to 4 years of full-time study); with the creation of doctoral schools to provide a research-vibrant interdisciplinary context for candidates; and with more rigorous frameworks within which supervision takes place and supervisors are appointed. These changes follow similar changes in higher education generally and, if anything, enhance the quality and rigour of the programmes, and ensure a surer link between the knowledge creation of the academic research undertaken and the broader knowledge base in Education. In addition, in recent years, a number of countries have seen the emergence of the professional doctorate. This emerged in response to a number of pressures, including demands from professionals themselves and professional bodies for higher forms of learning and qualification, the perceived inadequacy of the existing academic doctorate for careers outside academia, pressures on universities to diversify, and demands for the recognition of other forms of knowledge and learning, particularly those of practitioners. There is, however, a marked contrast between countries within the EU in the matter of funding. Publication of new knowledge and re-

search is central to doctorates of all types. A key criterion in the assessment process in all countries, in all doctorate types, is whether the results of the research are publishable in peer-reviewed outlets, in whole or in part.

A number of key areas for further development remain, however.

We have seen earlier in the text (p.19) that stakeholder consultations are key to programme development. University education should take into consideration the changing needs of society, present and future employment possibilities, as well as what comprises relevant subject knowledge and subject related skills and attitudes. Stakeholder consultations linked to improvements in study courses and programmes will be increasingly important in the future. To be able to find and keep in touch with potential stakeholders for such consultations, methods should be developed and incentives created for graduates from Higher Education Institutions to be encouraged to sign up to Alumni Associations at the university from which they graduated. Some good models already exist for tracking alumnae, but these are limited.

We have noted the importance that Tuning has highlighted of measuring and comparing student workload as a vital component in unit and curriculum development aimed at increasing transparency among European universities. The work of the SAGs in Tuning suggest that this is an area where there is much to share, and Higher Education staff development in this area is strongly recommended (p.28).

Much has been written about assessing achievement in higher education, but this may be the weakest link in the chain of teaching, learning and assessment. Investment in the development and sharing of a wide range of new or revised assessment techniques to match the increased variations in approaches to teaching and learning in higher education are strongly recommended (p.30).

We noted that it is now becoming a trend for there to be an expectation that higher education academic staff should undergo some training in teaching learning and assessment. The introduction of more student-centred approaches to studies in HE in Europe presupposed by the specification of Learning Outcomes and Intended Study Results, will also require substantial changes in Approaches to Teaching, Learning and Assessments (TLA), and staff development in these areas, for existing as well as new staff. Members of Education Science and Teacher Education

Departments, based on their particular expertise in this area of how and why people learn and how such learning might be assessed, have the capacity to advise and influence the development and implementation of appropriate academic staff development programmes in the Higher Education Institutions (p. 32).

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http://www.eurydice.org/ressources/eurydice/pdf/0_integral/062EN.pdf

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# Appendix 1

## Report on: a Framework for Qualifications of the European Higher Education Area

### Descriptors of learning outcomes and competence

A key element in contemporary qualifications frameworks is the specification of outcomes. There are various ways in which the range of outcomes can be categorised and specified. Traditionally higher education was relatively explicit about the knowledge (outcomes) to be achieved, or at least the knowledge covered by the curriculum. It was however somewhat less explicit on the skills or competences required for the award a given qualification. Competences, such as those of critical evaluation, were and are embedded or implicit in the assessment values and practices. It is becoming increasingly widespread practice that as wide a range of the outcomes as possible are specified. Such explicit specification facilitates the comparison of qualifications.

The generic outcomes for a qualification, that is the learning outcomes common to all holders of a particular type of qualification, may be expressed in a 'qualification descriptor'. The descriptors for a European framework must of necessity be quite general in nature. Not only must they accommodate a wide range of disciplines and profiles but they must also accommodate, as far as possible, the national variations in how qualifications have been developed and specified. For practical purposes, the descriptors should be short and easy to understand. They should avoid technical language, bearing in mind that they will be used in reference to national qualifications systems expressed in a variety of languages.

After the Prague Ministerial Conference (2001), it became increasingly clear that the structure of cycles introduced through Bologna would have to be supplemented by more detail on the outcomes of these cycles if the objectives of transparency, recognition and mobility were to be met. An informal group of higher education specialists from a variety of countries met under the umbrella of the Joint Quality Initiative (www.

jointquality.org). This grouping developed a set of descriptors that have come to be referred to as the 'Dublin Descriptors'. The initial descriptors for the first and second cycle were commended to the ministers' meeting in Berlin by the Amsterdam Consensus. Subsequently the group has developed a descriptor for the third cycle. Recently, a descriptor for a short cycle (within the first cycle), following the pattern of the other three cycles, has also been produced. These descriptors (especially for the first and second cycles) have been found to be useful in various ways by national quality assurance agencies, developers of higher education standards, and designers of higher programmes. So far, no significant revisions have been proposed.

Qualification descriptors are usually designed to be read as general statements of the typical achievement of learners who have been awarded a qualification on successful completion of a cycle. The concept of typical qualification cycle descriptors was developed within the Joint Quality Initiative. This concept found wider acceptance and applicability than possible use of broader level descriptors. Level descriptors are typically more comprehensive and attempt to indicate the full range of outcomes associated with a level.

The Dublin descriptors have been developed as a set and are intended to be read with reference to each other. They are primarily intended for use in the alignment of qualifications and hence national frameworks. National frameworks may themselves have additional elements or outcomes, and may have more detailed and specific functions.

The Dublin descriptors were built on the following elements:

— knowledge and understanding;

— applying knowledge and understanding;

— making judgements;

— communications skills;

— learning skills.

The Dublin descriptors offer generic statements of typical expectations of achievements and abilities associated with qualifications that represent the end of each of a Bologna cycle. They are not meant to be prescriptive; they do not represent threshold or minimum requirements and they are not exhaustive; similar or equivalent characteristics may be added

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or substituted. The descriptors seek to identify the nature of the whole qualification. The descriptors are not subject specific nor are they limited to academic, professional or vocational areas. For particular disciplines the descriptors should be read within the context and use of language of that discipline. Wherever possible, they should be cross-referenced with any expectations/competencies published by the relevant community of scholars and/or practitioners. In adopting the Dublin descriptors the Working Group recognise that further elaboration of the existing elements and/or introduction of new elements will be part of the evolution of them as reference points to the framework for higher education qualification of the EHEA.

The Dublin descriptors (December 2004) include:

*Qualifications that signify completion of the higher education short cycle (within the first cycle) are awarded to students who:*

— have demonstrated knowledge and understanding in a field of study that builds upon general secondary education[4] and is typically at a level supported by advanced textbooks; such knowledge provides an underpinning for a field of work or vocation, personal development, and further studies to complete the first cycle;

— can apply their knowledge and understanding in occupational contexts;

— have the ability to identify and use data to formulate responses to well-defined concrete and abstract problems;

— can communicate about their understanding, skills and activities, with peers, supervisors and clients;

— have the learning skills to undertake further studies with some autonomy.

*Qualifications that signify completion of the first cycle are awarded to students who:*

— have demonstrated knowledge and understanding in a field of study that builds upon their general secondary education, and is typically at a level that, whilst supported by advanced textbooks, includes some

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4 General secondary education also includes vocational education with a sufficiently general component.

aspects that will be informed by knowledge of the forefront of their field of study;

— can apply their knowledge and understanding in a manner that indicates a professional[5] approach to their work or vocation, and have competences[6] typically demonstrated through devising and sustaining arguments and solving problems within their field of study;

— have the ability to gather and interpret relevant data (usually within their field of study) to inform judgements that include reflection on relevant social, scientific or ethical issues;

— can communicate information, ideas, problems and solutions to both specialist and non-specialist audiences;

— have developed those learning skills that are necessary for them to continue to undertake further study with a high degree of autonomy.

*Qualifications that signify completion of the second cycle are awarded to students who:*

— have demonstrated knowledge and understanding that is founded upon and extends and/or enhances that typically associated with the first cycle, and that provides a basis or opportunity for originality in developing and/or applying ideas, often within a research[7] context;

— can apply their knowledge and understanding, and problem solving abilities in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study;

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5 The word '**professional**' is used in the descriptors in its broadest sense, relating to those attributes relevant to undertaking work or a vocation and that involves the application of some aspects of advanced learning. It is not used with regard to those specific requirements relating to regulated professions. The latter may be identified with the profile / specification.

6 The word '**competence**' is used in the descriptors in its broadest sense, allowing for gradation of abilities or skills. It is not used in the narrower sense identified solely on the basis of a 'yes/no' assessment.

7 The word '**research**' is used to cover a wide variety of activities, with the context often related to a field of study; the term is used here to represent a careful study or investigation based on a systematic understanding and critical awareness of knowledge. The word is used in an inclusive way to accommodate the range of activities that support original and innovative work in the whole range of academic, professional and technological fields, including the humanities, and traditional, performing, and other creative arts. It is not used in any limited or restricted sense, or relating solely to a traditional 'scientific method'.

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— have the ability to integrate knowledge and handle complexity, and formulate judgements with incomplete or limited information, but that include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgements;

— can communicate their conclusions, and the knowledge and rationale underpinning these, to specialist and non-specialist audiences clearly and unambiguously;

— have the learning skills to allow them to continue to study in a manner that may be largely self-directed or autonomous.

*Qualifications that signify completion of the third cycle are awarded to students who:*

— *have demonstrated a systematic understanding of a field of study and mastery of the skills and methods of research associated with that field;*

— have demonstrated the ability to conceive, design, implement and adapt a substantial process of research with scholarly integrity;

— have made a contribution through original research that extends the frontier of knowledge by developing a substantial body of work, some of which merits national or international refereed publication;

— are capable of critical analysis, evaluation and synthesis of new and complex ideas;

— can communicate with their peers, the larger scholarly community and with society in general about their areas of expertise;

— can be expected to be able to promote, within academic and professional contexts, technological, social or cultural advancement in a knowledge based society.

# Appendix 2: @-*GOLDMINE:* List of useful documents and references

## 1. Institutions (networks etc.) of pre-service and in-service Teacher Education in Europe / World

**Austria**

PH OÖ – Die Pädagogische Hochschule Oberösterreich
http://www.ph-ooe.at

Programmes - English
http://www.ph-ooe.at/index.php?id=29

Karl-Franzens- Universität, Graz
http://www.kfunigraz.ac.at/E/

University of Graz (EN)
http://www.kfunigraz.ac.at/E/#

Institut für Erziehungswissenschaft
http://www-gewi.uni-graz.at/edu/index.html

**Croatia**

Ministry of Science, Education and Sports
http:// www.mzos.hr

Education and Teacher Training Agency
http://www.azoo.hr

Vocational Education Agency
http://www.aso.hr

National Center for External Evaluation of Education
http://ncvvo.hr

Center for Research and Development of Education
http://www.idi.hr/cerd

University of Zagreb, Teacher Faculty
http://www.uazg.hr/

University of Zagreb, Faculty of Philosophy
http://ww.ffzg.hr

**Denmark**

CIRIUS – Teacher Education and Training in Denmark
http://www.ciriusonline.dk/Default.asp?ID=3765

The Danish University of Education, Copenhagen
http://www.dpu.dk/site.asp?p=6515

**Finland**

Seven Finnish universities offer both Teacher Education and Education Sciences. Teacher Education is also offered in other institutions linked with a university. The co-location of the two branches of Education in universities ensures close links between these.

University of Helsinki (Helsinki)
http://www.helsinki.fi/university

Department of Teacher Education
http://www.helsinki.fi/sokla/english

University of Joensuu (Joensuu ja Savonlinna)
http://www.joensuu.fi/englishindex.html

University of Jyväskylä (Jyväskylä) (in Kokkola they is also offer adult education; under Jyväskylä University)
Department of Teacher Education
http://www.jyu.fi/tdk/kastdk/okl/english/

University of Lappland (Rovaniemi)
http://www.ulapland.fi/?deptid=24586

University of Oulu (Oulu ja Kajaani)
http://www.oulu.fi/english/

University of Tampere (Hämeenlinna)
http://www.uta.fi/english/

University of Turku (Turku ja Rauma)
http://www.utu.fi/en/

OPEKO – National Centre for Professional Development in Education (Finland)
http://www.opeko.fi/english/index.html

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### France

IUFM (Instituts Universitaires de Formation des Maîtres) (Teachers training institutes) Website of the 31 IUFM in France (in English) :
http://www.iufm.fr/connaitre-iufm/plaquettes-documents/en_IUFM1.html

Université Paris Ouest Nanterre
http://www.u-paris10.fr/

SUFOM (University Teachers Training Office)
http://www.u-paris10.fr/43836433/0/fiche___pagelibre/&RH=SERV

Département des Sciences de l'Education :
http://www.u-paris10.fr/73660164/0/fiche___pagelibre/&RH=univ-orgun

CNED – Centre national d'enseignement à distance (France)
http:www.cned.fr

INRP – Institut national de recherche pédagogique, Lyon
http://www.inrp.fr

### Germany

Universität Bremen
http://www.uni-bremen.de/studium/fachbereiche.html

DE: Fachbereich 12 - Erziehungs- und Gesellschaftswissenschaften
EN: FB 12 – Faculty 12: Pedagogy and Educational Sciences
Carl von Osietzky Universität
Fakultät I Erziehungs- und Bildungswissenschaften

http://www.uni-oldenburg.de/fk1/

Johann Wolfgang Goethe-Universität, Frankfurt/M Fachbereich Erziehungswissenschaften
http://www.uni-frankfurt.de/fb/fb04/index.html

### Greece

The Democritus University of Trace
http://www.duth.gr/index.en.html

Faculty of Educational Sciences / Pre-School
http://www.psed.duth.gr/

University of Patras, School of Humanities & Social Sciences
http://www.upatras.gr/index.php?lang=en

**Hungary**

Eötvös Loránd University, Budapest
Faculty of Special Education
http://www.barczi.hu/html/uj/angol/index.html

Faculty of Elementary and Nursery School Teachers Training
http://www.tofk.elte.hu/new/node/31

University of Szeged, Teacher Training College Division
http://www.jgytf.u-szeged.hu/en/index.html


**Ireland**

Department (Ministry) of Education and Science
http://www.education.gov.ie

Higher Education Authority
http://www.hea.ie

Irish Universities Association
http://www.iua.ie

Teaching Council
http://www.teachingcouncil.ie

National Council for Curriculum and Assessment
http://www.ncca.ie/

Educational Studies Association of Ireland
http://www.esai.ie/

Standing Conference on Teacher Education North and South
http://www.scotens.org

University College Dublin, School of Education and Lifelong Learning
http://www.ucd.ie/education

Trinity College Dublin, School of Education –
http://www.tcd.ie/education

(Associated Colleges of Education: Marino College, http://www.mie.ie/teacher_education/welcome/english.asp ; Froebel College, http://www.froebel.ie/ ; Church of Ireland College, http://www.cice.ie/ )

Dublin City University, School of Education Studies http://www.dcu.ie/education_studies/index.shtml (http://www.spd.ie)

(Associated Colleges of Education: St Patrick's College Drumcondra http://www.spd.ie ; Mater Dei Institute of Education, http://www.materdei.ie)

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Department of Education, National University of Ireland, Maynooth
http://www.nuim.ie/academic/education

Department of Education, University College Cork
http://www.ucc.ie/en/education

Department of Education, National University of Ireland, Galway http://www.nuigalway.ie/education/

(Associated College of Education: St Angela's College, Sligo, http://www.stangelas.com/)

College of Education, University of Limerick
http://www.ul.ie/education/eps.html

(Associated College of Education: Mary Immaculate College of Education, http://www.mic.ul.ie/ )

Art Education

National College of Art and Design, http://www.ncad.ie ; Cork Institute of Technology (Crawford College of Art and Design), http://www.cit.ie; Limerick Institute of Technology (Limerick School of Art and Design), http://www.lit.ie )


**Italy**

CONCURED (COnferenza Nazionale dei Centri Universitari di Ricerca Educativa e Didattica)
http://www.concured.it/docsingsc.htm

Università degli Studi di Genova, SSIS - Scuola di Specializzazione all'Insegnamento Secondario
http://www.ssis.unige.it/


**Kosovo**

University of Prishtina, Faculty of Education
www.uni-pr.edu


**The Netherlands**

Teacher Education in The Netherlands; by Marco Snoek and Douwe Wielenga
http://www.efa.nl/publicaties/unesco-cepes/fulltext.doc

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Hogeschool van Amsterdam
EHVA – Educatieve Hogeschool van Amsterdam
http://www.ehva.nl/ (English pages) http://www.ehva.nl/algemeen/
international.htm

## Norway

Hedmark University College
http://www.hihm.no/eway/default.aspx?pid=259

Faculty of Education and Science http://www.hihm.no/eway/default.asp
x?pid=259&trg=RightPage_7753&RightPage_7753=8422:0:&m=2

University of Oslo, Faculty of Education
http://www.uio.no/english/about_uio/org/units.html#education

The Norwegian University of Science and Technology (NTNU) in Trondheim
Faculty of Social Sciences and Technology Management
Department of Education http://www.svt.ntnu.no/ped/

Programme for Teacher Education
(Norwegian) http://www.plu.ntnu.no/
(English) http://www.plu.ntnu.no/Interexch/index.php

Faculty of Teacher Education and Deaf Studies
http://www.alt.hist.no/fag/inter/english/

Teacher Education 4 year structure
http://www.alt.hist.no/fag/inter/english/structure.php

## Portugal

Universidade de Aveiro, undergraduate studies
(Teacher Training, Primary School Education)
http://acesso.ua.pt/en/ensinoua.asp

## Serbia

University of Novi Sad, Teacher Faculty Sombor
http://www.ucf.so.ac.yu/

## Slovenia

University of Ljubljana, Faculty of Education
http://www.pef.uni-lj.si/~strani/index_en.html

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University of Maribor, Faculty of Education
http://www.pfmb.uni-mb.si/

University of Primorska,  Faculty of Education
http://www.pef.upr.si/

## Spain

Universidad de Deusto, Relaciones Internacionales
http://www.unideusto.org/tuning/

This web page offers an overview of the whole Tuning Project, Europe and South America. Many documents about it are available here.
Ministerio de Ciencia e Innovación
http://www.micinn.es/univ/

Ministry of Science and Innovation. You will find here a thorough overview of Spanish Universities, including many relevant data and laws on the Bologna process in this country.
Página Oficial de la Conferencia de Decanos y Directores de Magisterio y Educación
http://www.uned.es/decanoseducacion/

Deans and Principals Education Sciences and Teacher Education Official Web Page. The most authoritative point of view of Science Education and Teacher Education Universities Centres, about Bologna process in Spain, specially about first and second cycle studies.
Unversia. Red de Universidades, red de oportunidades
http://eees.universia.es/

This is a web page financed by a bank. Many information contained here can also be found in the two links above, but this one is more consumer-oriented.

## Sweden

In Sweden, Teacher Education Programs are offered by 14 public Universities and 22 public University Colleges. The programmes cover all stages from Early Childhood Education to Secondary School Education. The Swedish National Agency for Higher Education is responsible for matters relating to institutions of higher education.
http://www.hsv.se

University of Gothenburg, Faculty of Teacher Education;
http://www.ufl.gu.se/english

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Umeå University
http://www.umu.se/umu/index_eng.html

The Swedish National Agency for Education
http://www.skolverket.se/sb/d/190

The Swedish National Agency for Higher Education
http://www.hsv.se/2.539a949110f3d5914ec800056285.html


## United Kingdom

There are around 100 universities in the United Kingdom offering Education Science or Teacher Education programmes in other departments, including specialist second cycle programmes in a variety of Education related fields, e.g. applied linguistics for language teachers. A good source to identify these would be the Quality Assurance Agency's reports from the Education reviews held in 2000-2001.
http://www.qaa.ac.uk/reviews/reports/archive/oldSubjReports.asp?subjID=9

and for 2003 to 5
http://www.qaa.ac.uk/reviews/reports/SubjReports.asp?subjID=9

OFSTED, Office for Standards in Education,
http://www.ofsted.gov.uk/

Qualifying to Teach: Professional Standards for Qualified Teachers and Requirements for Initial Teacher Training,
http://www.tda.gov.uk/partners/ittstandards.aspx

Training and Development Agency for Schools
http://www.tda.gov.uk/

UCET – Universities Council for the Education of Teachers
http://www.ucet.ac.uk/

Teaching Councils in the UK which have good links to other sources
England: http://www.gtce.org.uk/
Northern Ireland: http://www.gtcni.org.uk/
Scotland: http://www.gtcs.org.uk/Home/home.asp
Wales: http://www.gtcw.org.uk/


## USA

ISTE– International Society for Technology in Education (USA)
http://www.iste.org/

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ISTE NETS – National Educational Technology Standards for Teachers
http://cnets.iste.org/teachers/

NCTQ - National Council on Teacher Quality (USA)
http://www.nctq.org/nctq/

## 2. European Networks and Associations

ATEE – Association for Teacher Education in Europe
http://www.atee.org/

EMEC - The European Masters in Early Childhood Education and Care
http://www.em-ec.eu/main.asp

/Project partners in Emec are Martin Luther University, Halle-Wittenberg, Germany; University of Strathclyde, Scotland; Göteborg University, Sweden; Oslo University College, Norway;L Dublin Institute of Technology, Ireland; University of Malta/

ENTEP - European Network of Teacher Education Policies
http://www.pa-feldkirch.ac.at/entep/

ETEN - European Teacher Education Network
http://www.eten-online.org

ETEN has 47 member institutions in 14 countries and was founded in 1988 and aims to promote a wide range of cooperation, exchange, research and publication possibilities for universities and institutions engaged in Higher Vocational Education/

EUDORA - European Doctorate in Teaching and Teacher Education, a Socrates/Erasmus Advanced Curriculum Development project
http://www.eudoraportal.org/

European Masters Programmes
Lifelong Learning: Policy and Management (ERASMUS-MUNDUS)
www.dpu.dk/malll

Inclusive Education
http://eumie.phlinz.at

Special Education Needs (MA SEN)
http://www.liu.se/cte/masters/

The Learning Teacher Network
http://www.learningteacher.org

Santander Group - European Universites Network
http://www.sgroup.be

The Santander Group has 38 members from 16 European countries and task forces on the Bologna Process (Sanbol) and in Education (Sanedu)/ Teacher Training Agency, United Kingdom
http://www.teach.gov.uk/php/read.php?sectionid=134

TEPE Teacher Education Policy in Europe (Network)
http://tepe.wordpress.com/

TNTEE - Thematic Network on Teacher Education, a Socrates/Erasmus Thematic Network
http://tntee.umu.se/

TUNING educational structures in Europe
http://www.relint.deusto.es/TuningProject/index.htm
http://www.rug.nl/let/tuningeu


## 3. General references

Bologna Process
2003-2005 Bergen http://www.bologna-bergen2005.no/
2005-2007 London http://www.dfes.gov.uk/bologna/

CEEPUS - Central European Exchange Programme for University Studies
http://wwwc.oead.ac.at/

Council of Europe - Education
http://www.coe.int/T/E/Cultural_Co-operation/education/

ECTS - European Credit Transfer System
http://europa.eu.int/comm/education/socrates/ectswww.html

EI – Education International
http://www.ei-ie.org/

ETF - European Training Foundation
http://www.etf.eu.int/

ETUCE - The European Trade Union Committee for Education
http://www.ei-ie.org/etuce/english/eetuceindex.htm

European Agency for Development in Special Needs Education
http://www.european-agency.org/

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EU - Education and Training 2010
http://europa.eu.int/comm/education/policies/2010/et_2010_en.html
http://europa.eu.int/comm/education/policies/2010/objectives_
en.html#training

EURYDICE - The information network on education in Europe
http://www.eurydice.org/

OECD - Directorate for Education
http://www.oecd.org/department/0,2688,en_2649_33723_1_1_1_1_,
00.html

OSI - Open Society Institute - Education Support Program
http://www.osi-edu.net/esp/

SEE ECN – South-east European Education Co-operation Network
http://www.see-educoop.net

TNTEE - The Thematic Network on Teacher Education
http://tntee.umu.se/

TDA - Training and Development Agency for Schools
http://www.tda.gov.uk/

UNESCO
http://www.unesco.org/education/educprog/wche/index.html

UNESCO / IBE - International Bureau of Education
http://www.ibe.unesco.org/

# Appendix 3 Members of Education Subject Area Group

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   * For Paedagogische Akademie des Bundes in Oberoesterreich, Linz, **Friedrich BUCH-BERGER** was the representative in Tuning I and II.

  ** For University of Prishtina, **Lema KABASHI** was the representative in Tuning III

 *** For Universidad de Deusto, **Maria José BEZANILLA** was the representative in Tuning I and II, and **Susana GORBENA ETXEBARRIA** was the representative in Tuning III

**** For University of Göteborg **Pia GLIMSTEDT** was the representative in Tuning III

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# Appendix 4 The Validation Process

The Tuning project has always been concerned to validate all areas of work through consultation with and partcipation from as wide a range of interlocutors as possible. During the development of the various stages of the Project, a strong thread of consultation ran through the processes, described earlier in this booklet.

## 1. Validation Panel

Once the various stages of the Project were nearing completion it was agreed to have a series of formal validation meetings in which panels of recognized experts from a range of countries were convened with the objective of reviewing the written account of the subject area groups' work – in its first draft format – and of discussing the draft with the SAG. The Education group appointed a small group of internationally recognized experts in Education, representing a spread of countries and areas of expertise; the group also included a student representative.

The members of the panel were:

Professor Sonia Blandford
Pro-Vice Chancellor Christchurch University, Canterbury, United Kingdom

Stinna Gammelgaard
Member of Committee on Commodification of Education in the European Students' Union (ESU); Student of Pedagogical, Educational and Social Science studies at Roskilde University, Denmark

Daniel Kallos
University of Umeå, Faculty of Teacher Education, Sweden

Åsa Lindberg-Sand
Lund University, Department of Education, Sweden

Jiménez Liso
University of Almería, Spain

Tatjana Plevnik
Ministry of Education and Sport, Slovenia

Vesna Vlahović-Štetić
University of Croatia, Zagreb, Croatia

Marco Snoek
Hogeschool van Amsterdam, the Netherlands

The validation panel were sent the draft document and then spent a full day with the group discussing how the description of the work undertaken could be further clarified for a wider audience. They were asked to consider the following five questions as a basis of their deliberations.

To invite comments of the Panel on the work of the Tuning and the Subject Area in a structured way the following list of questions has been prepared for the members of the Validation Panels of the Humanistic and Social Sciences:

1.  Is the description of the subject area complete, dear, relevant: what do the Panel members think about it?

2.  Degree profiles and occupations: how clear are they, is anything missing, etc.

3.  Relevance of subject specific competences: should certain competences be emphasized more, or less?

4.  Do the Panel members think that competences can (or should?) be used in the process of professional recognition?

5.  Relevance of generic competences: should certain competences be emphasized more, or less?

6.  In addition the Pane! members are asked what they think about the Tuning approach with regard to ECTS (workload), and, of specific relevance for the health care sector: how can ECTS be used in a professional context? How does this help professional recognition?

7.  Concerning Teaching. Learning and Assessment what do the Panel members think of the Tuning approach?

8.  With regard to Quality enhancement the Panel members are asked what they think of the Tuning approach?

The Chair sent a full and detailed report of the proceedings of the private discussion the validation panel had held prior to the feedback session with the Education SAG.

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The report consisted of a number of different categories of comment: suggestions about changing the format of the text in certain places, suggestions about adding to the content, suggestions about clarity, and suggestions about the overall Tuning approach.

The Education SAG then spent further time, both face to face and online discussing the significance of the diffeernt levels of suggestion.

Issues of format were, in general, left as they were, since the booklet had been designed to a common format. Nevertheless, where small changes were possible within this and where the changes suggested were sound, they were implemented.

The panel made some valuable suggestions with regard to the content. They felt that the earlier draft did not fully descibe the very important role that Education plays in the education sytems of all countries at all levels. Nor was the inter-relatedness of the two branches of Education Sciences and Teacher Education made clear enough. The subsequent drafting addressed this issue, and colleagues rewrote several key sections. They also suggested that the work of Tuning should be described within te broader context of what other things are happening in Europe; some adjustments added to this area of content. Finally, they thought that the section on competences should be clarified. We did this partly through adding sections from the general booklet, but mainly through redrafting the sections and linking the work of Tuning to the educational research that informs the development of the notion of competences.

The whole draft was edited by a small group of the SAG in order to give it a single register, and to enhance clarity. The document is likely to be read by a range of audiences and we have attempted to make the finished booklet as reader friendly as we could.

They sugegsted that we strengthen the then description of quality assurance in the Tuning approach, and this we have done.

Their comments overall were very positive. We had requested that their contribution would be most valuable to us if they could focus on what needed to be enhanced in the draft they received. On the underlying work that had gone into the production of the booklet they were unanimously positive.

## 2.  Consultation with experts at the draft stage

In addition to appointing a validation panel, the Education SAG also consulted experts in all member states – a few in each country. The comments were again extremely helpful. Since these experts received the re-drafted version, their lists of suggested changes were brief. The following represent a small selection of the responses we received.

a)  The Tuning Group are embarked on a really difficult exercise and it is obvious from the latest document that they have gone to a great deal of trouble and a massive amount of work in an effort to achieve a set of principles that will have EU-wide recognition, undoubtedly a hazardous undertaking. Overall, the Tuning Group deserve to be congratulated for this distillation of understandings and practices across the EU. They have generated an authoritative statement on the importance of education and therefore of teacher education; and they have strongly reinforced the distinction between *general* and *subject-specific* competences, the critical importance of CPD for teachers, and the need for teacher education programmes at each cycle to be theoretically well grounded. In all of these ways the document is impressive.

b)  The document is impressive in providing a comprehensive methodology for the design of education programmes in the interests of transparency and to help achieve comparability and compatibility across countries involved in the Bologna Process. The incorporation of references to ECTS is welcome and can provide a useful steer to those involved in course development. The Tuning team is to be commended on the production of the text which must reflect a considerable amount of work in accessing country specific sources and seeking agreement about commonalities.

c)  Quite clearly the booklet represents a very great deal of work ,as this comparative data gathering and analysis is difficult and time -consuming .I think that the Tuning group has done a great service in making this document available .It should help greatly in increasing understanding ,fostering cooperation and promoting mobility between systems .Incidentally it also promotes Education as a subject area which can be confident of its own processes .
I found the document to be very informative and a useful overview of the current state of play .The document is particularly valuable in drawing discriminations between concepts and processes .The

issue of Competence is well handled ,and the emphasis on capacities and capability is well done .The distinction between Outcomes and Competence is valuable ,and one hopes that it will be reflected in discourse and the literature .I was not so sure about the distinction between Teacher Education and Education Science ,but I can understand the necessity to incorporate different academic traditions

Overall ,I would say well done to all involved .They have done a worthwhile service

d) This report. It is extremely thorough and grapples with complex issues. I would like to congratulate the Group on producing an accessible and well balanced Report. The only point I would like to see emphasised just a bit more is that there is considerable overlap in 'Education Sciences' and 'Teacher Education', how TE involves the study of education in the broadest sense and includes many of the aspects described under 'Education Sciences'.

The notion of competences that the Report endorses is helpful – I for one am very pleased that the dynamic and holistic nature of expertise/learning/competence is acknowledged.

## 3.  Consultation through conferences

The Tuning Education SAG have presented their findings at a number of International conferences in order to obtain feedback on the work undertaken. Two recent conferences were ECER 2008 in Groningen, and ETEE 2006 in Brussels, where well attended roundtables were presented. In addition Tuning organized a conference in 2008 in which participants from a wide variety of countries within and outside Europe shared in a two day workshop to discuss the findings of the subject area groups.

# Contact us

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