



Porto Bologna Seminar

Learning Outcomes and ECTS: indispensable elements for teaching, learning and assessment in present day degree programmes ?

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Robert Wagenaar
Joint co-ordinator Erasmus, Tempus and
Alfa Tuning Projects
– University of Groningen (NL) –



university of
 groningen



Learning Outcomes and ECTS

Outline of presentation

1. Change of paradigm in HE teaching and learning: From staff oriented to student centred degree programmes
2. Basing degree programmes on learning outcomes: opportunities and obstacles
3. The role of time in the learning process
4. The Tuning approach in theory: the relationship between competences, learning outcomes and student workload based ECTS credits
5. The Tuning approach applied: the implications for teaching, learning and assessment approaches and strategies
6. Some conclusions





Learning Outcomes and ECTS

1. Change of paradigm in HE teaching and learning: From staff oriented to student centred degree programmes

London Communiqué (2007):

“Efforts should concentrate in future on removing barriers to access and progression between cycles and on proper implementation of **ECTS** based on **learning outcomes** and **student workload**.”

“They should also help HEIs to develop modules and study programmes based on learning outcomes and credits, and improve the recognition of qualifications as well as all forms of prior learning.”

Obvious need !



Learning Outcomes and ECTS

Two main incentives for change:

- **New pedagogical approaches towards (the effectiveness of) learning**
 - From staff oriented to student centred
 - New strategies of students to learn (role of ICT / multi-tasking)
- **Accountability of degree programmes**
 - Contribution to needs of society
 - Balance between costs and benefits



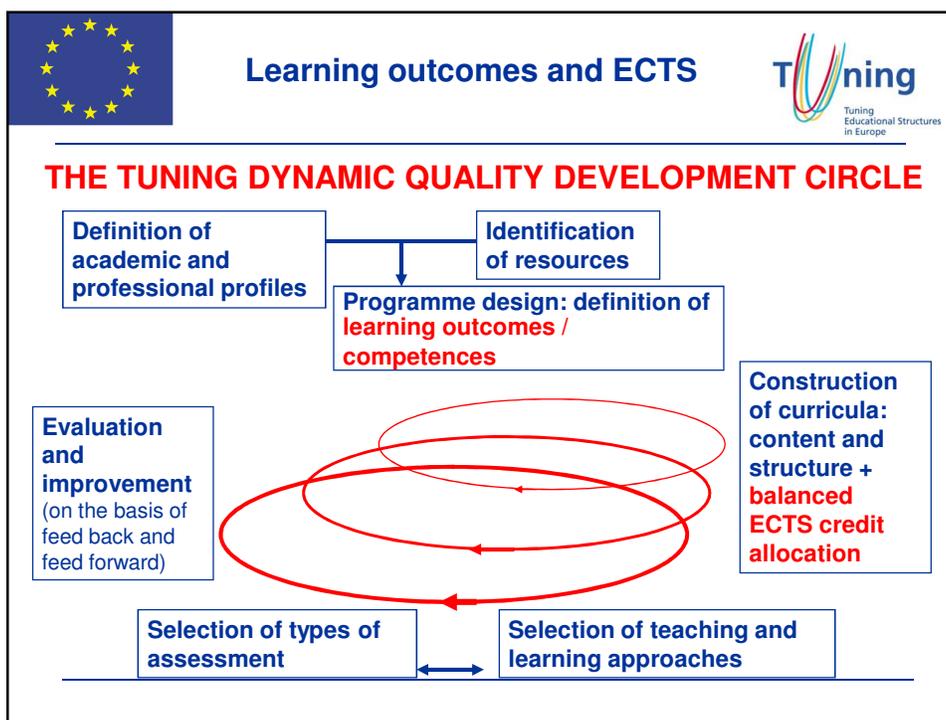
Learning Outcomes and ECTS

From staff oriented to student centred degree programmes

Key factors for a necessary change of paradigm:

- Focus on employability and citizenship
- National and international cooperation in higher education: recognition of periods of studies
- Development of transnational integrated programmes
- Introduction and acceptance of (the Dublin / LLL) cycle level descriptors as a basis for degree programmes and Qualifications Frameworks
- Need for flexibility and more tailor made pathways in degree programmes
- More precise methods for recognition of prior learning / periods of studies

Reflected in **Tuning methodology**: degree programmes based on academic and professional profiles, cycle level descriptors, learning outcomes / competence, time-based ECTS credits and appropriate TLA approaches





Learning Outcomes and ECTS



From the Tuning glossary (November 2006):

Degree profile

“A description of the character of a degree programme or qualification. This description gives the main features of the programme which are based on the specific aims of the programme, how it fits into the academic map of disciplines or thematic studies and how it relates to the professional world”.

Can this definition be refined?

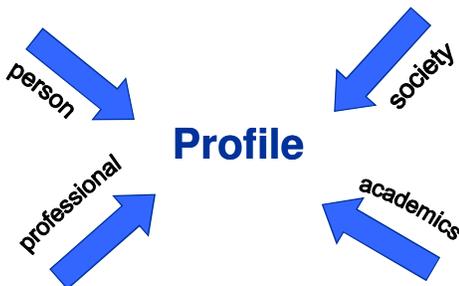


Learning Outcomes and ECTS



Profiles have to serve different purposes

A good profile takes into account different users' perspectives & interests



The diagram illustrates the concept of a 'Profile' as a central point. Four blue arrows point towards this central point from different directions. The arrows are labeled: 'person' (top-left), 'professional' (bottom-left), 'society' (top-right), and 'academics' (bottom-right). The word 'Profile' is written in a large, bold, blue font in the center.



Learning outcomes and ECTS



Degree profile (professional and/or academic)

Key elements:

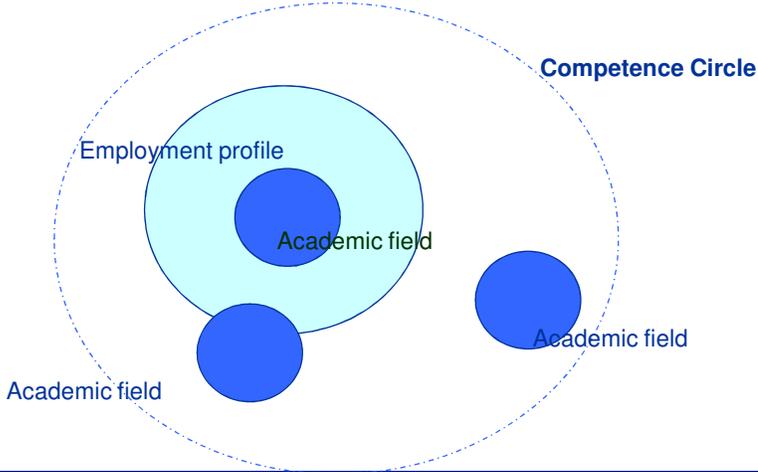
- Orientation: theoretical or applied
- Subject related knowledge/ know-how (mono, multi, inter)
- Generic competences
- Subject specific skills
- Level of qualification (role of descriptor(s))
- Employability (regulated / non-regulated)
- Social and professional responsibility
- Particular focus / specialisation
- Approach(es) towards TLA



Learning outcomes and ECTS



Academic area vs. professional area and competences



The diagram illustrates the relationship between academic fields, employment profiles, and competences. It features a large dashed blue circle labeled 'Competence Circle'. Inside this circle, there is a light blue circle labeled 'Employment profile'. Within the 'Employment profile' circle, there is a smaller solid blue circle labeled 'Academic field'. Additionally, there are two other solid blue circles labeled 'Academic field' positioned outside the 'Employment profile' circle but still within the 'Competence Circle'.

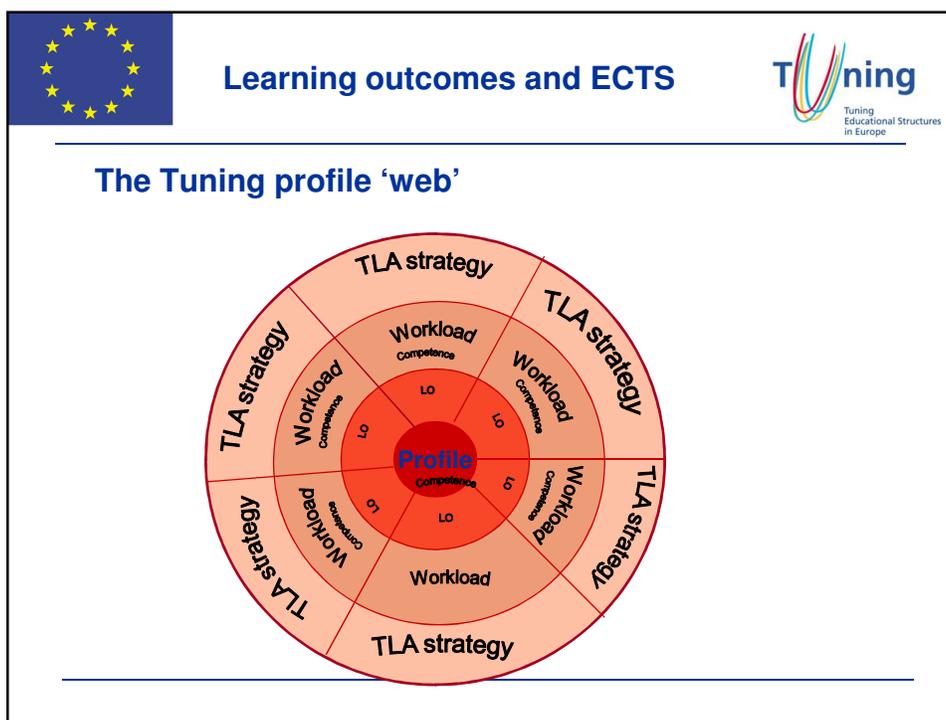


Learning outcomes and ECTS



Key generic competences according to Tuning surveys

Competence	LATINAMERICA				EUROPE 2008			
	ACA	STU	EMP	GRA	ACA	STU	EMP	GRA
Ability for abstract thinking, analysis and synthesis	1	2	2	2	1	2	2	2
Ability to apply knowledge in practical situations	2	1	1	1	2	1	1	1
Knowledge and understanding of the subject area and underst. of the world	3	3	3	4	3	4	4	4
Ability to identify, pose and resolve problems	5	4	5	3	4	3	3	3
Capacity to learn and stay up-to-date with learning	7	5	8	5	5	7	9	5
Capacity to generate new ideas (creativity)	10	13	14	16	6	8	8	9
Ability to be critical and self-critical	12	14	18	19	7	9	17	11
Ability to communicate both orally and through the written word in native language	8	9	13	13	8	13	12	12
Ability to search for, process and analyse information from a variety of sources	15	19	19	18	9	12	14	8
Ability to undertake research at an appropriate level	4	6	7	6	10	18	20	15
Ability to work in a team	11	15	6	9	11	5	5	7
Interpersonal and interaction skills	23	24	20	22	12	14	11	14
Ability to work autonomously	24	25	24	24	13	15	15	17
Ability to plan and manage time	17	17	9	14	14	6	6	6
Ability to adapt to and act in new situations	20	20	21	20	15	10	7	10
Ability to make reasoned decisions	13	8	12	8	16	16	10	13
Ability to act on the basis of ethical reasoning	6	7	4	7	17	22	22	23
Ability to communicate in a second language	19	10	22	15	18	11	16	16
Skills in the use of information and communications technologies	14	12	15	10	19	19	21	20
Ability to motivate people and move toward common goals	22	22	17	21	20	17	13	19
Ability to work in an international context	26	23	26	23	21	20	24	21
Ability to evaluate and maintain the quality of work produced	16	18	11	11	22	23	19	22
Ability to act with social responsibility and civic awareness	9	11	10	17	23	25	23	24
Ability to design and manage projects	18	16	16	12	24	21	18	18
Appreciation of and respect for diversity and multiculturality	21	21	23	25	25	24	26	25
Commitment to the conservation of the environment	25	26	25	26	26	26	25	26





Learning outcomes and ECTS

2. Basing degree programmes on learning outcomes: opportunities and difficulties

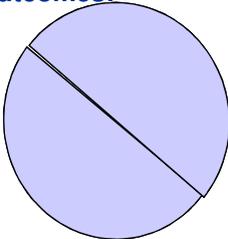
Workload / time based credits and learning outcomes:
two sides of the same coin!

Opportunities

- Learning outcomes allow for better comparison and recognition of periods of successful learning
- Time required to achieve expected learning outcomes can be expressed in ECTS credits
- Learning outcomes allow for different approaches to reach the same results

Difficulties

- Formulating learning outcomes requires tremendous expertise
- Learning outcomes should express reality
- Learning outcomes should always be measurable





Learning outcomes and ECTS

ECTS key features

Student centeredness is also the basis for ECTS as expressed in its most recent agreed features

ECTS KEY FEATURES - 21 December 2007 (final)

ECTS is a **learner-centred system** for credit accumulation and transfer based on the transparency of learning outcomes and learning processes. It aims to facilitate planning, delivery, evaluation, recognition and validation of qualifications and units of learning as well as student mobility. ECTS is widely used in formal higher education and can be applied to other lifelong learning activities.

The new workload / learning outcomes based ECTS was developed in the framework of the Tuning Project



Learning outcomes and ECTS



3. The role of time in the learning process

Some notions

- Time is an unchangeable dimension
- Time is the basis for organising live
- Becoming competent requires effort and time (experience)

Although time is absolute, it is relative at the same time

What (really) counts is productivity: what can be done in a given timeframe depends on many factors.

The concept of **productivity** is related to the concept of learning outcomes

Tuning works with the concepts of notional learning time and the typical student to obtain the expected learning outcomes





Learning outcomes and ECTS



Tuning distinguishes different types of interrelated elements that influence productivity, that is the time to obtain the required level of competence:

- Diversity of traditions
- Curriculum design and context
- Coherence of curriculum
- Teaching and learning methods
- Methods of assessment and performance
- Organization of teaching and learning
- Ability and diligence of the student
- Personal and material means available



Learning outcomes and ECTS



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Notional learning time and the typical student

Definition: *the notional learning time is the time an average student will need to meet the expected learning outcomes. These learning outcomes can be formulated at threshold (minimum) level or at desired level*

These concepts are used to design a degree programme or a course unit or module and **to select the TLA approaches:** a realistic estimation for calculating time

However the average student does not exist in reality

Warning!

The notional learning time is not the actual time that any particular learner needs to spend. The actual time will differ from student to student

ECTS credits are also a tool for planning !



Learning outcomes and ECTS



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Length of degree programmes

Time is absolute in terms of the length of formal degree programmes

Formal programmes serve as the main indicator for informal / non-formal learning and different types of programmes like part-time, distance learning

Surveys executed by Tuning, the European Commission and others show us that the vast majority of countries have programmes that fit in the range

1500 – 1600 hours per academic year (9 months programmes)

And although we have concluded that time is relative in terms of productivity this has implications



Can we do without the factor time?



ECTS Workload Survey 21 December 2007			
Countries	hours range/academic year	hours range/credit	status of the proclamation
Austria	1500h	25h	Law
Belgium (Fl)	1500/1800h	25/30h	Decree (law on the Flemish level)
Belgium (Fr)	1440h	24h	Decree (law of the French Community)
Czech Republic	1887h	25/30h	Recommendation disseminated by National Coordinator
Denmark	1650h	27/28h	letters from the Ministry
Estonia	1560h	26h	University Act law
Finland	1600h	27h	Act of the Council of State
France	1650h	25/30h	Recommendation
Germany	1800h	30h	recommendation and good practices
Greece	1500/1800h	25/30	Ministerial decision
Hungary	1620/1800h	30h	Act on Higher Education and attaching Governmental Decree
Iceland	1500/2000h	25/33h	In Educational Act, nr. 63/2006
Ireland		20/30h	Recommendation on the principles and operational guidelines devised by the National Qualifications Authority of Ireland
Italy	1500h	25h	Ministerial Decrees
Lithuania	1600h	26h	Law and Decree
Malta	1500h	25h	in Educational Act, 2004
Netherlands	1690h		Law
Norway	no range per academic year proclaimed / decision of universities	no range per credit proclaimed	Law
Poland	1500/1800h	25/30h	Decree
Romania	1520/1640h	25/27h	Order of the Ministry of Education (from 1999)
Slovakia	no range per academic year proclaimed	25/30h	good practice, recommendation of ECTS Key Features
Spain	1500/1800h	25/30h	Royal Decree (law)
Sweden	1600h	26/27h	Regulation from the Ministry of Education
Switzerland	1500/1800h	25/30h	CRUS Regulation for the implementation of Bologna and Recommendations
Turkey	1500/1800h		Law
United Kingdom	1200h	20h	National Qualification (and Credits) Framework



Learning outcomes and ECTS



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ECTS credits, competences and learning outcomes

- Tuning has integrated the concepts of time-based ECTS credits for transfer and accumulation purposes, **generic and subject specific competences** and learning outcomes
- The objective of each degree / learning programme is to make the learner more **competent** to be able to execute certain tasks
- Tuning has raised awareness for the relationship between learning outcomes and the workload (expressed in time-based credits) required to achieve these
- Tuning has shown that it is crucial to find the correct balance between the expected learning outcomes, the units to develop these and the time available both for programme and unit
- Degree programmes should be **feasible!**

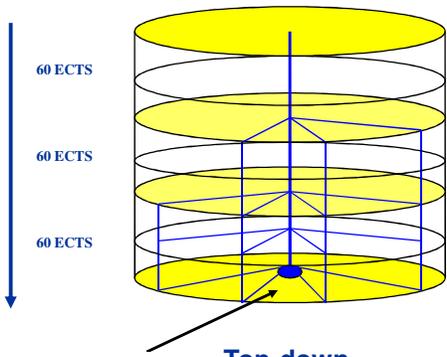


Learning outcomes and ECTS



Tuning model

FIRST CYCLE PROGRAMME



60 ECTS

60 ECTS

60 ECTS

↓

COURSE UNIT

Top-down

Degree programme according to the Tuning methodology:

- Programme based on profile, sets of competences to be obtained, desired learning outcomes to be achieved, ECTS credits to be awarded
- Programme design is team work, based on consultation, discussion, cooperation
- Learning outcomes / competences to be developed are the basis for credit allocation
- Teaching, learning and assessment approaches respect credit allocation: feasibility is key factor



Learning outcomes and ECTS



What is a learning outcome according to Tuning?

Level of competence is expressed in terms of Learning outcomes:

- Statements of what a learner is expected to know, understand and be able to demonstrate after completion of learning.
- They can refer to a single course unit or module or else to a period of studies, for example, a first or a second cycle programme.
- Learning outcomes specify the requirements for award of credit.

[learning outcomes are formulated by academic staff]



Learning outcomes and ECTS

The real revolution:

- Accommodating Learning, Teaching and Assessment approaches to the new LO / ECTS model

Requires:

- More variety in modes of delivery
- Well thought through course syllabi
- Appropriate assessment methods
- Appropriate educational activities (teaching and learning techniques)
- Appropriate allocation of ECTS credits



Learning outcomes and ECTS



PLANNING FORM FOR AN EDUCATIONAL UNIT/ MODULE

Programme of Studies:

- Name of the module / course unit:
- Type of course (e.g. major, minor, elective):
- Target group (e.g. BA, MA, PhD):
- Prerequisites:
- Number of ECTS credits:
- Competences to be developed:

- 1.....
- 2.....
- 3.....
- 4.....
- 5.....
- 6.....

Learning Outcomes	Educational Activities	Estimated student work time in hours	Assessment



Learning outcomes and ECTS

6. Some conclusions

- The introduction of the Learning Outcomes / ECTS model seems to be the only presently exiting approach to find answers to the challenges of the HE
 - Degree programmes which are ‘fit of purpose’ (meets expectations)
 - Degree programmes which are ‘fit of purpose’ (meets aims)
 - Which allow for more structured mobility and recognition mechanisms (including prior learning) in a LLL context
 - Facilitate progression routes / indicates levels
 - Facilitate flexibility / tailor made programmes which suit new ways of learning of learners more effectively

However

- Still a very long way to go:
 - Implementation process at university level has just started
 - Using new concepts requires training of trainers and then academic staff
 - **Achilles heel** is the writing of learning outcomes



Learning outcomes and ECTS



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 **Learning Outcomes and ECTS** 

Web sites:

Tuning Europe: <http://tuning.unideusto.org/tuningeu>
www.rug.nl/let/tuningeu

Tuning América Latina: <http://tuning.unideusto.org/tuningal/>

Tuning Kyrgyz Republic: <http://www.bolognakg.net/>

Tuning Russia: <http://www.iori.hse.ru/tuning/>



 **Learning Outcomes and ECTS** 

Thank you for your attention !