HERE seminar "Modularization of curriculum"

Venue: Rectorate of the University of Montenegro
April 26, 2016

9.00-9.30 Registration of participants
9.30–9.50 Opening session
Rectorate of the University of Montenegro, representative
Vanja Drljević, National Erasmus+ Coordinator
9.50–10.05 Modularization of curricula in Montenegro from the prospective of legislator, Ministry of Education representative
10.05–10.25 Current situation with respect to the modularization of curricula at UoM, Prof. Aleksandar Vujović, University of Montenegro, Center for Teaching and Quality Control
10.25–10.55 Moduarization at private universities in Montenegro, tbc
10.55–11.25 Modularisation in the EHEA (Learning and Teaching), Prof. Volker Gehmlich, Fachhochschule Osnabrück–University of Applied Sciences
11.25–11.40 Discussion
11.40–11.55 Modularisation in the EHEA (Learning Outcomes and Assessment), Prof. Volker Gehmlich, Fachhochschule Osnabrück–University of Applied Sciences
11.55–12.25 Discussion
12.25–12.45 Coffee break
12.45–13.15 Modularisation in the EHEA (ECTS and recognition), Prof. Volker Gehmlich, Fachhochschule Osnabrück–University of Applied Sciences
13.15–13.45 Modularisation in Practice (Examples and Procedures), Prof. Volker Gehmlich, Fachhochschule Osnabrück–University of Applied Sciences
13.45–14.05 Discussion
14.05–15.05 Group work - How to prepare a module in different disciplines
15.05–15.30 Discussion
15.30–16.00 Conclusions and recommendations
16.00–17.00 Lunch

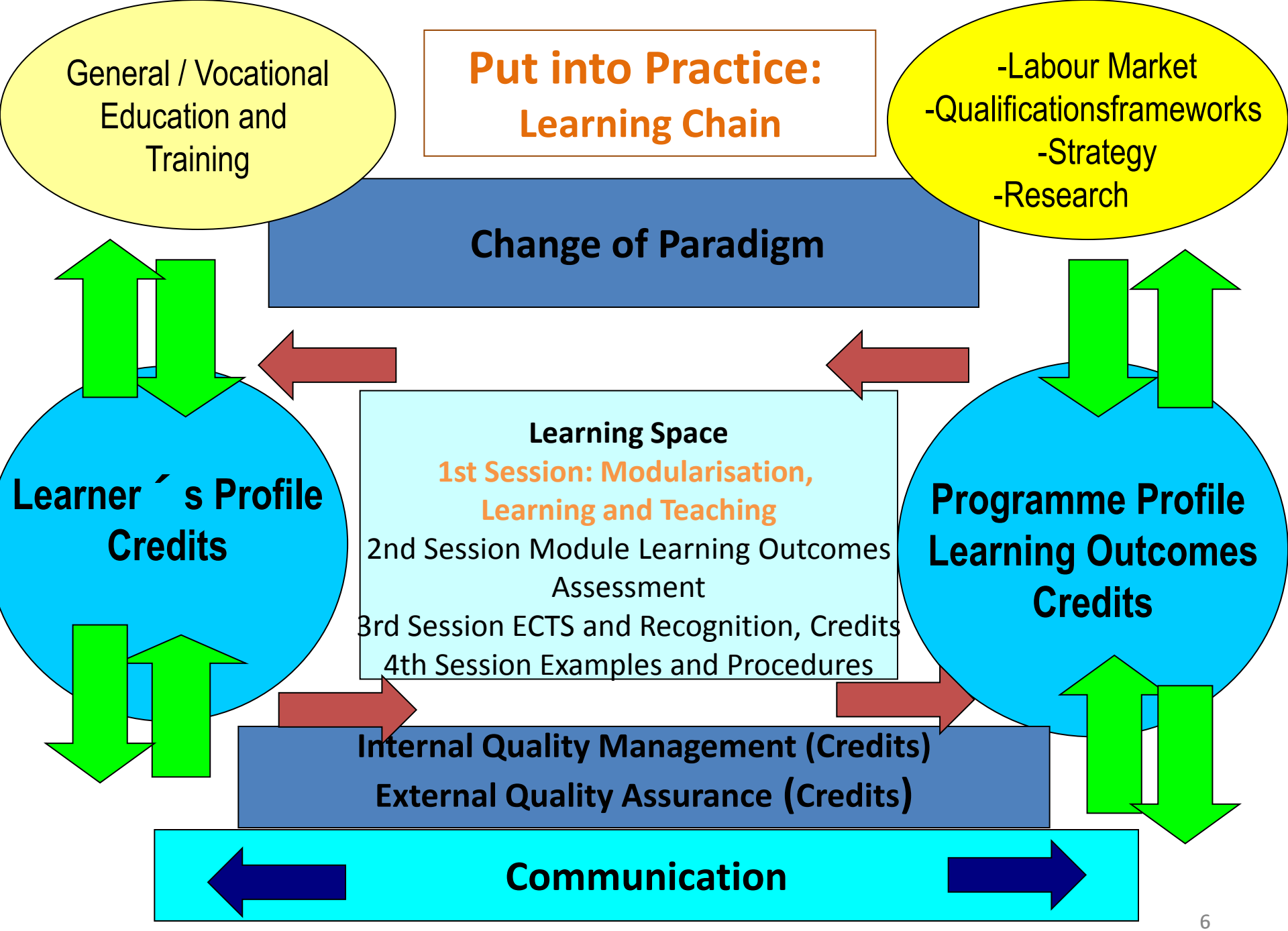
Modularisation in the EHEA
Session 1: Learning and Teaching

HERE seminar “Modularisation of curriculum”

Podgorica April 26 / 2016

v.gehmlich@hs-osnabrueck.de


THE MAGIC ROUNDABOUT
Town centre
Cirencester
(A 419)
A 4289
R
R
Wroughton
Devizes
B 4289 (A 4361)
End of bus lane


General / Vocational Education and Training
Put into Practice:
Learning Chain
-Labour Market
-Qualificationsframeworks
-Strategy
-Research
Change of Paradigm
Learner ´ s Profile Credits
Learning Space
1st Session: Modularisation, Learning and Teaching
2nd Session Module Learning Outcomes Assessment
3rd Session ECTS and Recognition, Credits
4th Session Examples and Procedures
Programme Profile Learning Outcomes Credits
Internal Quality Management (Credits)
External Quality Assurance (Credits)
Communication

Definition (ECTS User´s Guide)

Educational Component

- Most general term for course, unit, module…

Module

- A course unit in a system in which each course unit carries the same number of credits or a multiple of it

Module

- ***Scope***

  A module comprises a self-contained, formally structured learning process with theme oriented learning and teaching.

- ***Prerequisite***

  Defined coherent learning outcomes,

  predefined volume of study with required workload, expressed in credits, with unambiguous criteria of assessment

  Facilitate

  Modularisation

  Profile description of individual study-programmes,

  Differentiated study-programmes on one defined level.

Module Template I (2 pages max.)

(Provide details of the module for students, staff and quality assurance purposes)

Short Module Details

1. Full Module Title
2. Module Code
3. Module Level
4. **ECTS credits**
5. Length
6. Module leader
7. Host Course
8. **Module status (obligatory/option)**
9. Pre-requisites (if appropriate)
10. Co-requisites (if appropriate)
11. Access restrictions
12. **Assessment**
13. Date validated

Module Template 2 (2 pages max.)

(Provide details of the module for students, staff and quality assurance purposes)

14. **Module aims (3-6 aims the professor hopes to achieve)**
15. **Learning outcomes (4-8 LO – perspective of student: „On successful completion of this…“)**
16. Indicative syllabus content (brief description of the module content)
17. **Learning delivery (teaching/learning methods + study mode)**
18. **Assessment rationale (explanation of the assessment methods)**
19. **Assessment criteria (generic assessmet criteria)**
20. **Assessment weighting (weighting of each assessment component)**
21. Essential reading (list of key texts, web reference, journals…)
22. Intranet web reference (if applicable)
23. Validation date (if applicable)

Objectives of Modularisation

- **To improve what is good!**
  - Increase study success-rate
    - Motivation of learners and teachers
    - Learning culture
  - Improve transparency / improved understanding
    - Mobility (vertical, horizontal, lateral)
    - Recognition (APL, APEL)
    - Counting towards the degree
  - Simplify comparability / Readability / Profiling
    - Institutional
    - National
    - International
  - Increase „employability“
    - Education
    - Continuing education
    - Professional development

Module

- ***Additionally,***
  modules facilitate/allow for

  Programme design (Modularisation)

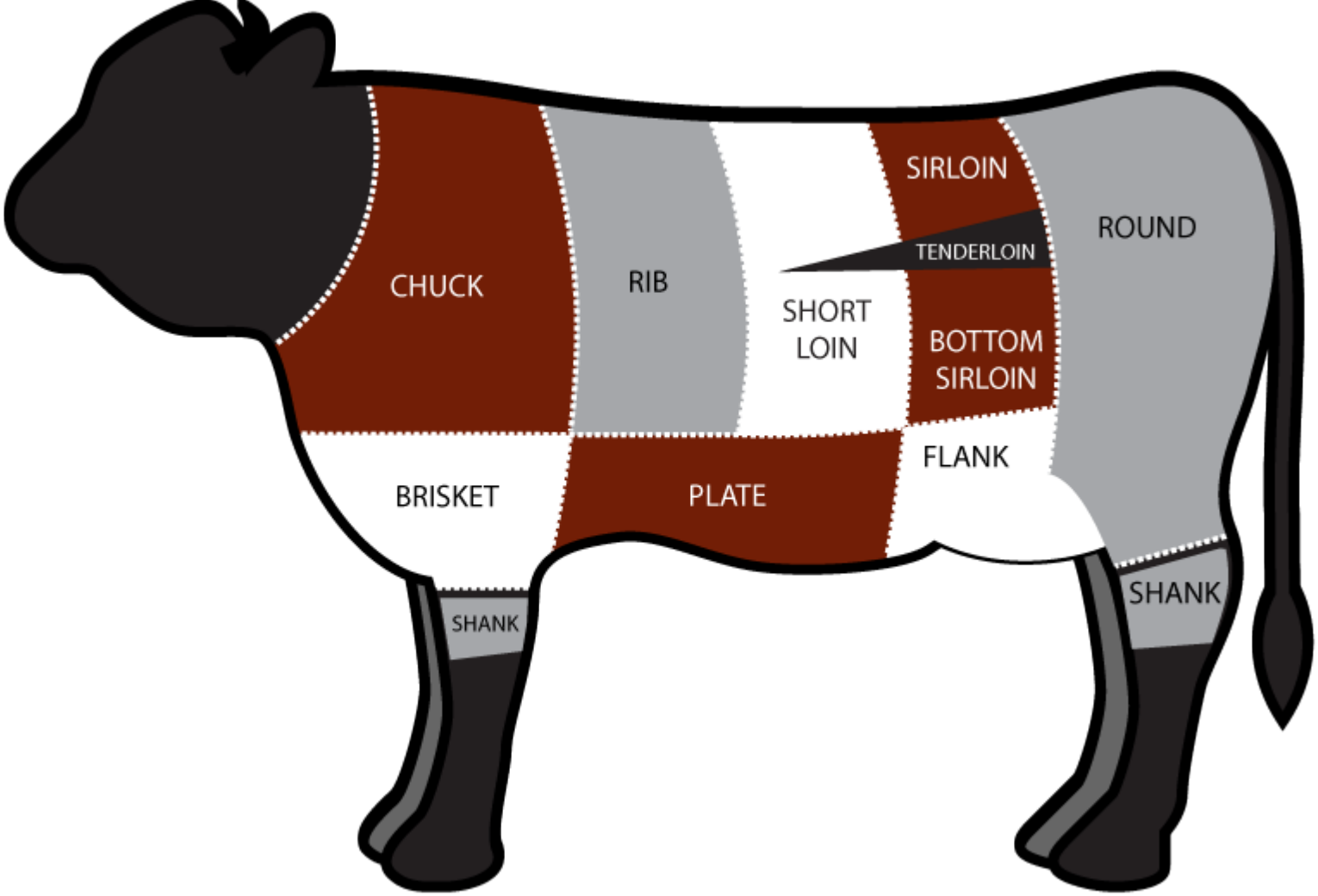
  Profile description of individual study-programmes

  Polyvalency (on a defined level)

  Recognition as a stand-alone

  Reduction of the number of examinations

  Learning outcomes oriented assessment



This is an organisational chart that shows the differnt parts of a cow.
In a real cow the parts are not aware that they are parts.
They do not have trouble sharing information. They smoothly and naturally work together, as one unit. As a cow. And you have only one question to answer.
Do you want your organisation to work like a chart? Or a cow?
(Anderson & Lemke, NY, advertisement for SAP, Canada)

Characteristics

- **Quantitative**
  - Minimum size: 5 or 6 or a multiple (HS Osnabrueck)
  - Maximum size: 30 (Master thesis, work placement…)
- **Qualitative**
  - Defined learning outcomes, of which the volume and respective time of learning makes up the workload, being expressed by credits.
  - Evaluation has to prove the
    - qualitative learning outcomes
    - quantitative „learning windows“
  - Evaluation refers to learning, teaching and learning progress (examinations)

Evaluation is not always popular – Point of time/sequence are important!

Good Practice

- Modules are not a prerequisite for introducing ECTS; however, they facilitate it
- A module carries credits as a whole. It is impossible to receive credits for part of a module
- Recognition refers to whole modules, not part of them

Good Practice

- It is recommended:
  - A module should stretch across a defined period of time
  - Preferably not longer than 1 semester
  - A module should neither be „too small“ nor „too big“
  - Proposal:
    - Not less than 5 Credits
    - Per module 5 Credits or a multiple

Types of Modules (Usage)

- Compulsory-, Elective-, Optional modules
- Basic (basics of the science)
- Profiling (Specialisation)
- Structuring (Mobility window, Placement)
- Platform building (for several study-programmes in a faculty)
- Polyvalency (for several study-programmes at the institution)

Activity 1
Structuring of Modules

Programme Design

Step to be taken: raise questios

Key questions:

1. ***Which syllabi are the essential characteristics of this degree programme?***

Without which module would no one consider this as the identified degree programme?

Conclusion: **Core modules**

Step (cont.)

2. ***Which areas could be identified – vertically, horizontally or laterally – for further useful studies (profiling)?***

(***vertical***: specialisation in a narrow sense = deepening; backward/forward integration;

horizontal: interdisciplinary = enlargement;

lateral: unrelated diversification)

Conclusion**: Specialisation modules / major / minor / electives / options**

Step (cont.)

3. ***What else is needed to understand issues, identify and to express them in various ways?***

To which extent can a quantitative approach help to explain these issues?

Conclusion: Support modules

4. ***How can I learn and organise myself?***

How can I present / express best what I want to say

Conclusion: Organisation and Communication modules

Step (cont.)

5. ***How does theory relate to practice?***
How can I relate theory to practice?
What are the methods?
Conclusion: Transfer modules

Result of Step To be taken

- Structuring of degree programmes into

  Core modules

  Objective of Learning Outcomes:

  - **Knowledge Acquisition and Widening**

  Specialisation modules (level dependent)

  Objective of Learning Outcomes:

  - **Knowledge Acquisition and Deepening**

Result of Step

Support modules

Organisation and communication modules

Transfer modules

Objective of Learning Outcomes:

Methodology: Skills / Competences to learn and transfer

Knowledge acquisition (independent learning), developing and creating

»zeitenwechsel«

Change of time

Seitenwechsel

Swap sides

Change of Perspective

Learning and Teaching

Student-centred

- Learner-centred learning focuses much more on the relationship between learning, teaching and assessment.

- Learning outcomes are the first logical step towards a learner-centred learning and teaching and have an impact on all levels and types of learning.

Definition ECTS User´s Guide

Student-Centred Learning (SCL) is a process of qualitative transformation for students and other learners in a learning environment, aimed at enhancing their autonomy and critical ability through an outcome-based approach.

Key elements are:

- Reliance on **active** rather than passive learning
- Emphasis on **critical and analytical** learning and understanding
- Increased **responsibility and accountability** on the part of the student
- Increased **autonomy** of the student
- A **reflective approach** to the learning and teaching process on the part of both the student and the teacher

Challenge at Programme level

In outcome-based education the educational outcomes are clearly and unambiguously specified.

These determine the curriculum content and its organisation, the teaching methods and strategies, the courses offered, the assessment process, the educational environment and the curriculum timetable.

They also provide a framework for curriculum evaluation.

(Harden et al., 1999a)

What to do to pass the driving test?:
(remember: The Roundabout)

Starting Point:

- Students today are neither better nor worse than in the past. They have different:
  - backgrounds
  - socialisation
  - interests
- And there are many more students of an age-group (~5% versus 30-50% in ~60 years), fortunately
- Overall objective: learn to learn
- Widening of term: from student to learner
  - Students are involved in a formal learning process
  - Learners are involved in a learning process

Learning Culture

Teacher centred	Student centred
Principal guideline: selecting stressing directing learn for the exam	Principal guideline: supporting encouraging respecting learn for yourself
 Find out what a student does not know Exam is the main thing	 Find out what the student knows and is able to do Exam is a by-product

What to do to pass the driving test?/:

- Information about the student within the rules of data protection
  - Knowing more about
    - Background (prior learning, work experience)
    - Expectations
    - Performance
    - Social environment / integration (accommodation, week-ends, festivities…)

What to do to pass the driving test?/:

- Alignment of programme profile – learning outcomes – forms of learning, teaching and assessment (constructive alignment)

Principles for learning and teaching

General Principles - ECTS User´s Guide 2015:

- Open Dialogue and Participation
  - All Stakeholders
- Transparency and Reliability
  - Course Catalogue
- Consistency
  - Constructive Alignment)
- Flexibility
  - Personal Learning Pathways

Questions left

- Still questions?
  - Write them down for the discussions to come today
  - Write them down and send them to me (v.gehmlich@hs-osnabrueck.de)

Modularisation in the EHEA
Session 2: Module Learning Outcomes and Assessment

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Learning Space
1st Session: Modularisation,
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Assessment
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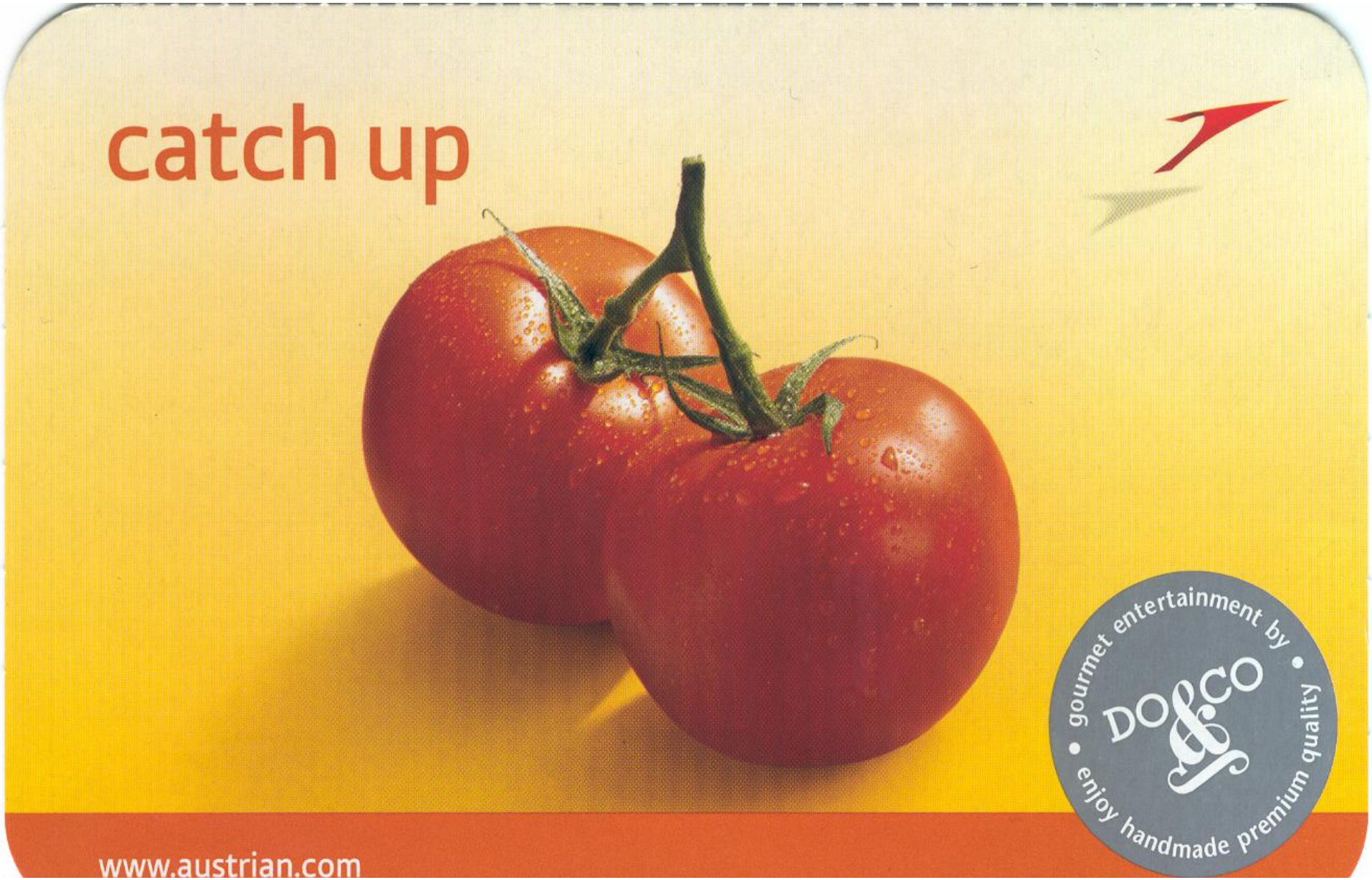

catch up
gourmet entertainment by
DO & CO
enjoy handmade premium quality
www.austrian.com

Challenge

- Qualifications have to be characterised by **Learning Outcomes** which are described unambiguously to allow for:
  - Evidence of compability between the various national, sectoral… and European qualifications frameworks
  - Reliable validation of national frameworks

Goal: **Qualification Template 1**

(Handbook: essential information for student, staff and quality assurance purposes and other stakeholders

1. Introduction to the discipline and qualification (brief -1 to 2 paragraphs)
2. Rationale statement (explanation of the uniqueness – 1-2 paragraps)
3. **Overall qualification learning outcomes (Profile – 4-8)**
   - **3.1 Reference to the NQF (identification of level and its description)**
   - **3.2 Reference to the European Qualifications Framework for Higher Education**
4. Structure of the qualification – include information on:

4.1 List of core and subject specific option modules (include module codes)

4.2 Explanation of module relationships (levels, pre-requisites, co-requisites and credit values, diagram)

4.3 Free choice module information (if applicable)

4.4 Progression routes within the qualification (if applicable)

4.5 Information on module scheduling (if appropriate)

Qualification Template 2

5.Teaching and learning methods statement (overall rationale of approach)

6. **Assessment rationale (overall logic and range of assessments employed)**

7. Generic assessment criteria (expressed in generic learning outcomes)

8. Learning resources (brief description of suject specific resources)

9**. Employability and transferable skills (if appropriate, link to university policy via matrix)**

10. Student support (academic and pastoral tutoring arrangements)

11. Linkages to external reference points (Qualifications Frameworks)

Context

- ***Learning outcomes*** are concerned with the ***achievements of the learner*** rather than the intentions of the teacher (expressed in the aims of a module or course). They can take many forms and can be broad or narrow in nature (Adam, 2004).

- Learning outcomes and ***'aims and objectives'*** are often used synonymously, although they are not the same.

- Adam (2004) notes that ***"aims" are concerned with teaching and the teacher's intentions*** whilst ***learning outcomes are concerned with learning'***.

- Moon (2002) suggests that one way to distinguish aims from learning outcomes is that ***aims*** indicate the ***general content, direction and intentions behind the module from the designer/teacher viewpoint.***

ECTS User´s Guide 2015

Learning Outcomes

are statements of what the individual knows, understands and is able to do on completion of a learning process.

The achievement of learning outcomes has to be assessed through procedures based on clear and transparent criteria.

Learning outcomes are attributed to individual educational components (Step 2) and to programmes as a whole (Step 1).

They are also used in European and national qualifications frameworks to describe the level of a specific qualification.

Activity 2
Learning Outcomes

How to write programme and module LO

How to write Learning Outcomes

From the definition of LO it becomes

obvious, the focus is

- on the learner
- His/her ability to do something

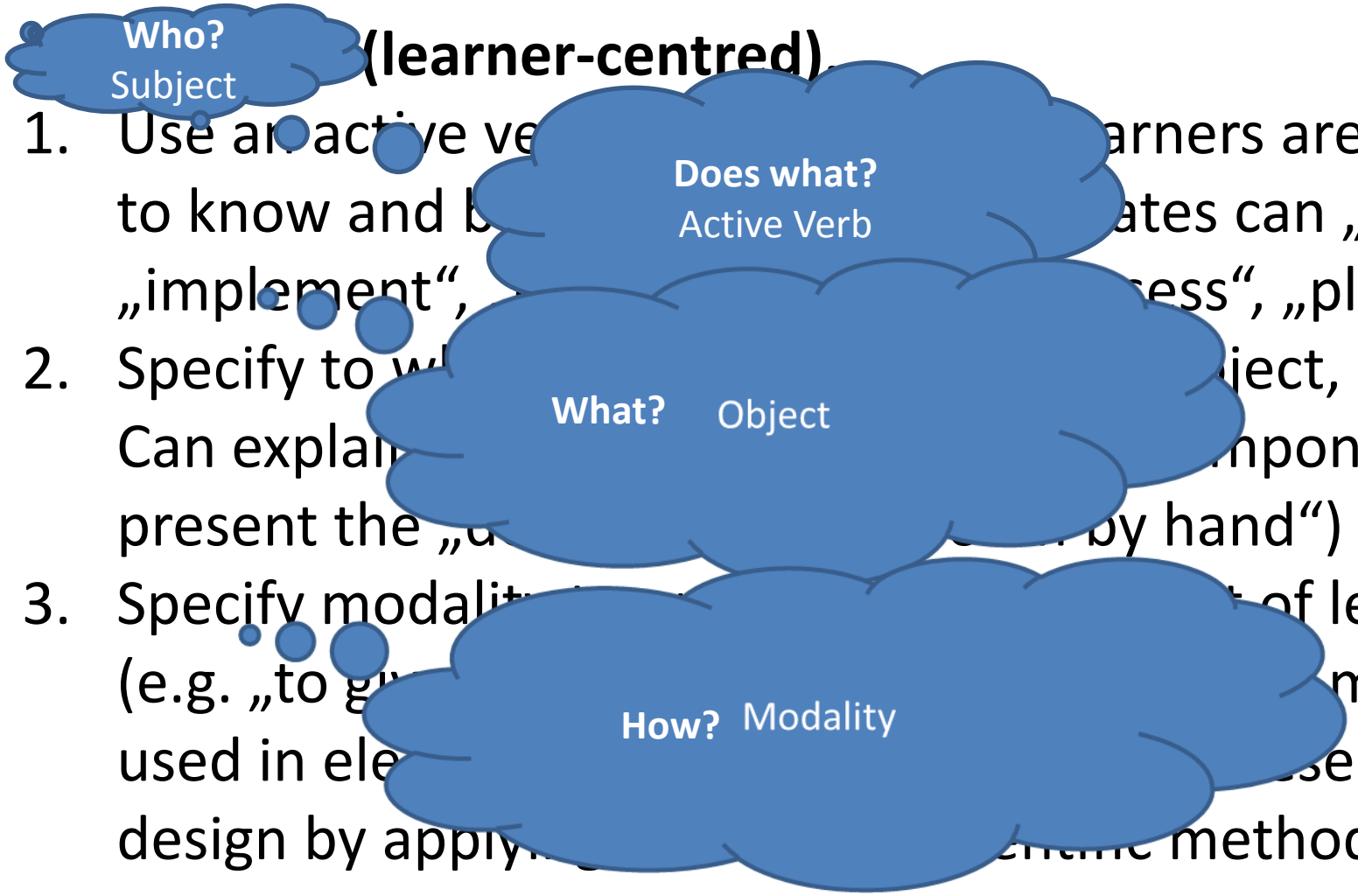
While aims and objectives of ***teaching*** are e.g. to know, understand, be familiar with

Learning focuses on the ability of the learner to define, list, recall, analyse…

Well formulated learning outcomes comprise at least three essential elements (see Moon 2004):

(learner-centred)

1. Use an active ve… arners are expected to know and b… ates can „describe“, „implement“, … sess“, „plan“…)
2. Specify to w… ject, skill, e.g. Can explai… nponents“; can present the „d… by hand“)
3. Specify modalit… of learning (e.g. „to g… most often used in ele… search design by apply… methods“, etc…



Example: Postgraduate Computer Science Degree (Declan Kennedy)

On completion of this programme the student will be able to:

- Perform problem solving in academic and industrial environments
- Use, manipulate and create large computational systems
- Work effectively as a team member
- Organise and pursue an scientific or industrial research project
- Write theses and reports to a professional standard, equivalent in presentational qualities to that of publishable papers
- Prepare and present seminars to a professional standard
- Perform independent and efficient time management
- Use a full range of IT skills and display a mature computer literacy

Student Subject	Does what? Active verb	Directed to? Object	How? Specification/Modality
…will be able to…	perform	academic industrial environments	solve problem
	Use, manipulate, create	computational systems	large
	Work	team member	effectively
	Organise, pursue	scientific or industrial research project	
	Write	theses, reports	professional standard
	Prepare, present	seminars	professional standard
	perform	Time management	independent, efficient
	Use, display	IT skills , computer literacy	mature

Example: undergraduate engineering degree

On completion of this programme, the student will be able to:

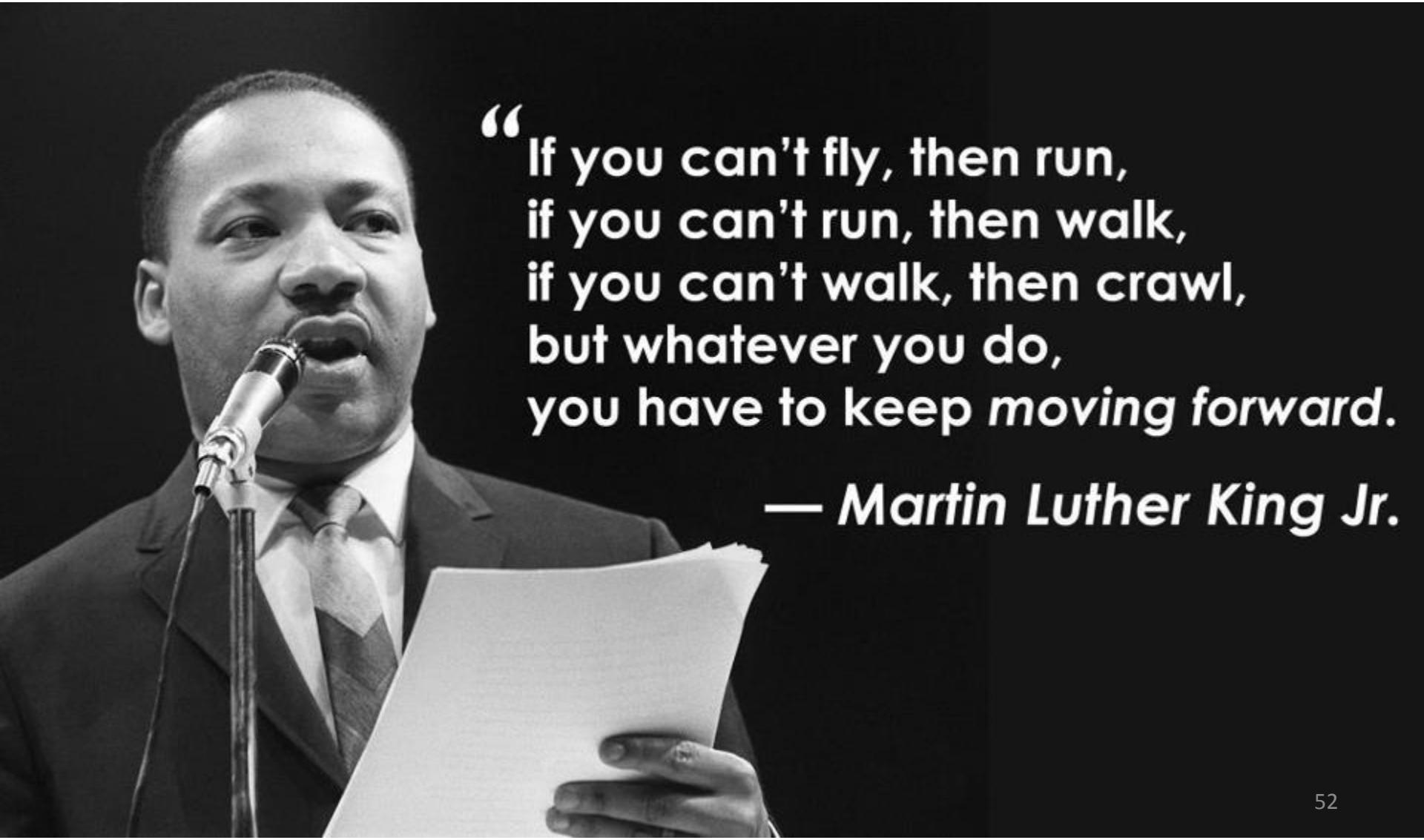
- Derive and apply solutions from knowledge of sciences, engineering sciences, technology and mathematics
- Identify, formulate, analyse and solve engineering problems
- Design a system, component or process to meet specific needs and to design and conduct experiments to analyse and interpret data
- Work effectively as an individual, in teams and in multi-disciplinary settings together with the capacity to undertake lifelong learning
- Communicate effectively with the engineering community and with society at large

Student Subject	Does what? Active verb	Directed to? Object	How? Specification/Modality
…will be able to…	Derive, apply	Solutions	from knowledge of sciences, engineering sciences, technology, mathematics
	Identify, formulate, analyse, solve	engineering problems	
	Design Conduct Analyse, interpret	System, component, process Experiments data	meet specified needs
	Work	Engineering community, wth society at large	Effectively
	Communicate	Engineering community, with society at large	effectively

Example of Mapping

PRLO	EduComp 1	EduComp 2	EduComp 3	EduComp 4
Derive, Apply			x	x
Identify, Formulate Analyse Solve	x	x	x	x
Design Conduct, Analyse Interpret		x		x
Work		x	x	x
Communicate	x		x	x

NB:
PRLO = Programme Learning Outcome
EC = Educational Component 1, 2…etc….


“If you can’t fly, then run,
if you can’t run, then walk,
if you can’t walk, then crawl,
but whatever you do,
you have to keep *moving forward*.
— *Martin Luther King Jr.*

Test: Before your meal

According to EQF (LLL):

Learning Outcomes: Burger

Knowledge

- ***Layers***

Skills

- ***Getting into your mouth***

Competence

- ***Responsibility for your stomach***

According to HEA-QF (Dublin Descriptors):

Knowledge

- ***Layers***

Applying knowledge

- ***Getting into your mouth***

Making judgements

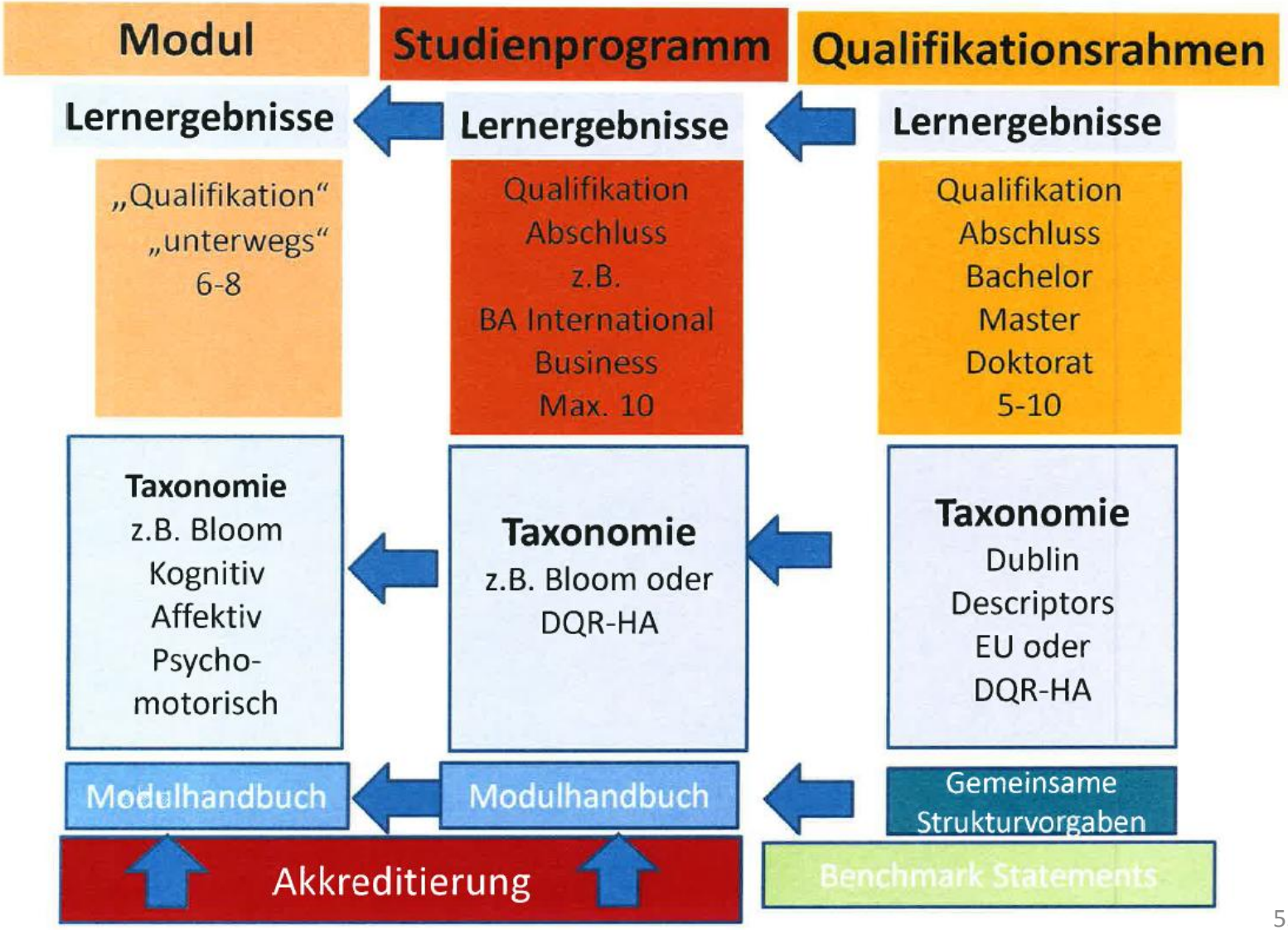
- ***Hmmmmm (?)***

Communicate

- ***Friends…***

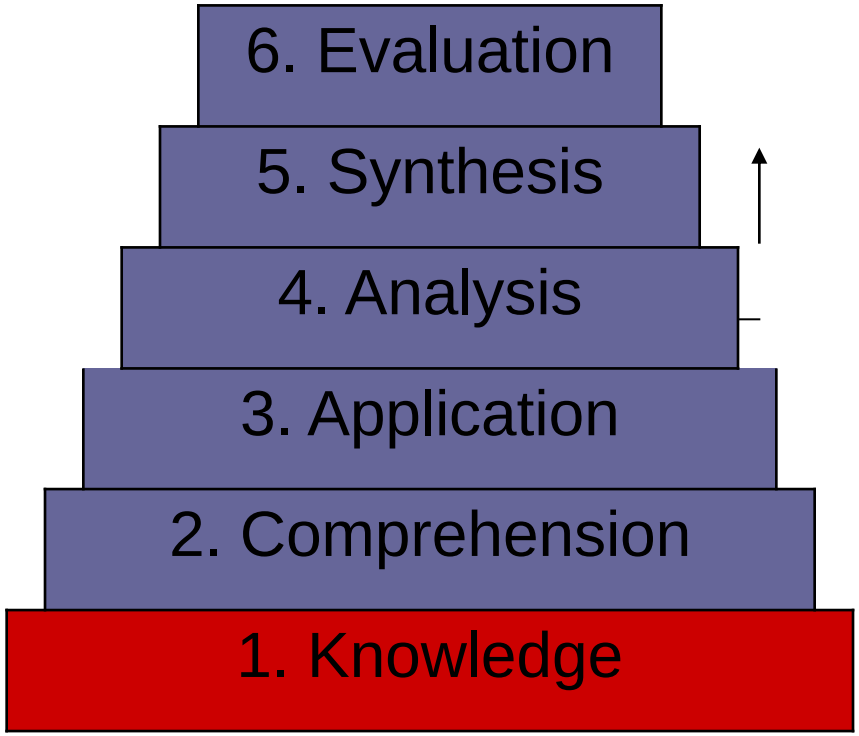
Learn to learn

- ***Criteria for (fast)food***



Bloom´s Taxonomy
No categorisation
Presents processes of thinking hierarchically.
Each level of the hierarchy is determined by the ability of the learner to operate on this level or the ones below.

Cognitive Domaine



Examples of verbs to assess knowledge

Arrange, collect, define, describe, duplicate, enumerate, examine, find, identify, label, list, memorise, name, order, outline, present, quote, recall, recognise, recollect, record, recount, relate, repeat

Activity 3
Competence-oriented Assessment

How to assess?

ECTS User´s Guide 2015: What is new?

Structual Changes

Hardly noticed as not part but application of ECTS:

- **Short Cycle is part of the European Qualifications Framework for Higher Education**

  In an 8-level framework like Montenegro it would be level 5

But:

- Not sure what the impact will be

User´s Guide 2009	User´s Guide 2015
1. EHEA	1. Key Features
2. Key Features	2. EHEA – Student centred Learning, Outcome approach: APL/APEL; World of Work; Mobility
3. K.F. explained	3. ECTS for Programme Design, Delivery, Monitoring
4. Implementing in HE	4. ECTS for Mobility, Credit Recognition Grade Distribution - Grade Conversion
5. Quality Assurance	5. ECTS and LLL
6. Key Documents	6. ECTS and QA
7. Further Reading	7. Supporting Documents
8. Glossary	
Annexes 1. Learner´s Perspectives 2. Guidelines for Recognition: Bilateral Agreements 3. Grading Table 4. Key Documents 5. National Regulations	**Annexes** 1. Glossary 2. **Examples:** Grade Conversion 3. Recommended Reading List 4. **Examples:** Programme Profiles 5. **Examples**: Learning Outcomes

SHOULD

Info on Success rate

COULD

Essential Question of Examinations

Can the exam validate the achievement of the learning outcomes?

At the level of

- **Student**
- **cohort**
- **moving cohort**
- **external**

Objectives of compentence-oriented assessment

SMART

- Specific
- Measurable
- Adequate
- Relevant
- Timely

MEANS

- Unambiguous
- Feasible
- Acceptable
- Realistic, competence oriented
- In which / at which time

Potential Conflicts

Potential Conflicts

Qualifications

- Qualificationsframework
  - Levels
  - Parallel (professional / academic)

Bundle of learning outcomes

- Sum of learning outcomes matches a level
- All documented learning outcomes have to be validated
- Examinations have to correspond to a respective level
- Variety of examinations

Learning outcomes of a defined level have to be validated

Assessment Criteria
Potential Conflicts (Examples)

Smart criteria

- Relevance versus Measurable
- Measurable versus Suitability /Fairness
- Relevance / Realistic versus demanding /adequate

  versus timeline

Learning outcomes

- Ability to work in teams
  - Group work?
- Ability to speak
  - Written examination?
- Proposals to act
  - Level bachelor thesis
  - 6-Weeks

Assessment Requires

- **Forms / Types**
  - Written
  - Oral
  - On-line
  - Theoretical
  - Practical
  - QA
  - Report
  - Essay…

- **SMART Criteria** eg **Weighting**
  - Context (5%)
  - Research Question (10%)
  - Methodology (15%)
  - Analysis (20%)
  - Conclusion (20%)
  - Recommendations (20%)
  - Literature (5%)
  - Presentation, Language, Quotation (5%)

Beware: No weighting according to the number of credits

Knowledge widening

-present tools to design a strategy and to develop business organisations strategically

-interpret alternative tools to make a choice

-outline consequences of strategic decisions

Knowledge deepening

-apply tools to implement a strategic development successfully

-identify and interpret strategic issues in different contexts

-realise how strategy development can be seen, how processes can be understood and what the implications are for strategy development

-differentiate between strategic management in different contexts

Capability – Knowledge accessing / opening / developing

Instrumental (methodological) capability

-apply techniques of strategic analysis

-apply techniques to select adequate strategies

-apply techniques to implement strategy

Communicative / interpersonal capability

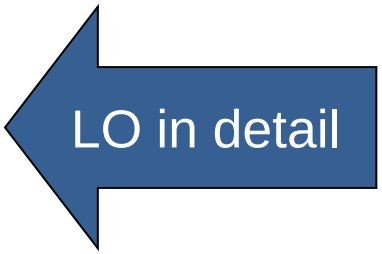
-use different viewpoints on strategy to explain observable processes in organisations

-explain implications of diffrent scenarios and different strategies

Systemic capability

-to demonstrate the impact of national and organisational culture on strategy formulation and implementation

-to apply techniques in specific business positions



BA-level 6-1
Knowledge
-Widening
-Deepening
Capability
Accessing/
Opening /
Developing

66

Knowledge widening
-present tools to design a strategy and to develop business organisations strategically
-interpret alternative tools to make a choice
-outline consequences of strategic decisions
Knowledge deepening
-apply tools to implement a strategic development successfully
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Systemic capability
-to demonstrate the impact of national and organisational culture on strategy formulation and implementation
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Forms of Assessment

-Quizzes („best two“)
-Oral Presentation (Case Study-Group)
-Oral exam (20 min. Individual)
-Case Study („Open Book Exam“-Notes)

Example

Criteria	<40	<50	<60	<70	<80	80+	Comments
Clarity and relevance of terms of reference/aims and objectives and these have been fully met							
Demonstration of knowledge, understanding and critical evaluation of relevant literature							
Justification and use of appropriate methods and data collection							
Evidence of systematic data collection and clear presentation and findings							
Critical analysis and interpretation of findings linking both secondary and primary research							
Appropriateness of conclusions and, where required, realistic and appropriate recommendations							
Evidence that personal learning has been reviewed – skills reflection							
Satisfactory presentation of material, consistent and appropriate referencing and clear and accurate use of English							
Overall Grade							

Business in Context (2004/2005)

Assignment

Criteria	Weighting %	70%+	60-69%	50-59%	40-49%	Fail
Generic: Communication	5	Communicates to reader succinctly with very good clarity and coherence. There is good physical presentation.	Small element of distinctive coherence and structure and presentation missing.	Clear presentation of basic arguments and structure. Poor elements can be compensated by other good work.	Some element of coherent argument and structure.	Difficult to read and follow arguments. Very untidy physical presentation.
Knowledge & Understanding	20	Comprehensive, clear demonstration of required concepts and practical knowledge and understanding. Wide reading used	Mainly clear and comprehensive: small element missing or elementary.	Basic knowledge and understanding of material across board or incomplete compensated by good elements.	Elementary knowledge and understanding displayed. Incomplete.	Demonstrates no or very limited knowledge or understanding or required material.
Analysis	30	Demonstrates clear incisive ability to assess range of information analytically.	Demonstrates overall effective analysis of material, with some element missing allowed.	Basic analysis of material and comparisons.	Mainly descriptive: little analysis.	Descriptive only - no analysis.
Synthesis/ Creativity/ Application	10	Distinctive display of creativity and ability to synthesise material	Significant element of synthesis and creativity.	Small element of sunthesising arguments and showing creativity displayed.	Limited/elementary creativity and synthesis.	No creativity or synthesis of material displayed.
Evaluation	30	Demonstrates clear, incisive ability to evaluate information in all forms.	Some (significant) element of incisive, clear eveluation, above basic level.	Basic evaluation of information and appropriateness of concepts and models.	Only elementary evaluation of material presented.	Extremely limited evaluation of material - both practical and concepts.
Assignment Parameters	5	Follows parameters/guidelines exactly as asked.	Small element of guidelines missing or inadequate.	Satisfactory, basic adherence to all guidelines or compensation by some distinctive element.	Small element of parameters/guidelines followed.	Parameters not followed.
Total	100					

Requirements

„Blind Double Marking“

Consistency

Feed-back

Explanation

Transparency

Professional training / work placements

Learning
Teaching
Assessment

„Constructive alignment“

Transcript of Records

Assessments only : „pass“ or „passing grade“

All assessments

Credits

Grades

Grading scale

p. – n.p.

Information:
Learning outcomes **achieved!**

Information:
How were they achieved?

Frequent misunderstanding, therefore to be taken into account:
Credits are **NOT** weighting factors for grades

Grades and Grading Transfer

- National Grading System
- System of relative grades/marks – Percentage based
- Passing grades of modules and study-programmes
  - Additional information
  - No conversion tables
  - Reference: Moving cohort

Activity 4

Grade Distribution Table Option Grade Conversion

How to do?

Design of a Grade Distribution Table

Steps to be taken

1. Grading scale (national / institutional)
2. Explanation of the system
3. Statistical distribution table of the **passing grades** awarded in the programme / field of study/module
4. Allow for comparison with parallel reference groups of other institutions at home or abroad
5. Additional information – not part of the distribution table: success rates

Example of an illustrative grading table (ECTS User´s Guide)

A	B	C	D
Grades used in institution (from highest to lowest passing grade)	Number of passing grades awarded to the reference group	Percentage of each grade with respect to the total passing grades awarded	Cumulative percentage of passing grades awarded
10	50	5%	5%
9	100	10%	15%
8	350	35%	50%
7	300	30%	80%
6	200	20%	100%
	1,000	100%	

Example

- Student G

Bachelor degree
Total grade 7 (30% / 80%)

i.e.

30% of the reference group have achieved this grade/

80% of the reference group have achieved this grade or a better one.

Example of positioning of relative grades (TU Darmstadt)

Grade-category	Number	Number accumulated	%-rang	Grade-category	Number	Number accumulated	%-rang :	Grade-category	Number	Number accumulated	%-rang
Sehr gut				gut				befriedigend			
1,0	0	0	0.00%	1,6	6	32	5.45%	2,6	53	374	63.71%
1,1	0	0	0.00%	1,7	9	41	6.98%	2,7	45	419	71.38%
1,2	1	1	0.17%	1,8	30	71	12.10%	2,8	48	467	79.56%
1,3	8	9	1.53%	1,9	18	89	15.16%	2,9	38	505	86.03%
1,4	8	17	2.90%	2,0	21	110	18.74%	3,0	43	548	93.36%
1,5	9	26	4.43%	2,1	37	147	25.04%	3,1	24	572	97.44%
				2,2	29	176	29.98%	3,2	8	580	98.81%
				2,3	48	224	38.16%	3,3	3	583	99.32%
				2,4	52	276	47.02%	3,4	2	585	99.66%
				2,5	45	321	54.68%	3,5	2	587	100.00 %

Result

- Transparent possibility to understand the grade by the „receiver“
- No further calculation needed
- Documentation in the Diploma Supplement

In case of grade conversion

Basically possible:

Within an institution – between institutions– nationally and internationally

- Needed: Grade distribution scale of a parallel reference group of another study-programme, another institution ….
- Comparison of the position of a grade between, for example, two grade distribution scales in question
- Most likely: Overlaps, therefore it is useful whether the weakest, average or best comparative grade should be taken

Example

- Student G – as above (7 (30%/80%)

Compared with a grade distribution scale of another bachelor programme abroad

Grade conversion

Institution I			
A	**B**	**C**	**D**
10	50	5%	5%
9	100	10%	15%
8	350	35%	50%
7	300	30%	80%
6	200	20%	100%
	1,000	**100%**	

Insitution II (Comparison)			
A	**B**	**C**	**D**
1,0	150	3%	3%
1,3	300	6%	9%
1,7	800	16%	25%
2,0	1,300	26%	51%
2,3	1,500	30%	81%
2,7	500	10%	91%
….	…	…	…
	5,000	**100%**	

Attention: The lesser the degree of scaling, the more imprecisely the conversion

Usable

- **From the perspective of a student (e.g.)**

final grades, in particular for
- vertical mobility
- labour market
- recognition (formal)
- self-esteem…

educational component,
- learning progress
- financial support (grant, accommodation
- ability to perform
- ability to learn (management, learn to learn…)
- motivation…

Usable

- **From the perspective of the teacher**

Learning
Assurance
Esteem
Basis for monitoring
Possibility to compare
Quality assurance and enhancement
Normality…

Hope for a change of paradigm
Punishment  **Support**

Part of Social Responsibility

+ Fairness
+ Transparency
+ Coherence
+ Comparability
  – internally / externally of the institution
+ Trust…

suitable, acceptable, feasible, sustainable

Requirements

- Representative number of students
- Sufficient number of examinations
- Min. 100 graduates
- This means for example: BA-programme of 3 years with six module exams per semester = 3600 exams.
- In addition to the quantitative aspects the qualitative comparability of the reference group has to be safeguarded (for example in case of change of examination regulations).

That is not too difficult – or?


Do it!

Questions left

- Still questions?
  - Write them down for the discussions to come today
  - Write them down and send them to me (v.gehmlich@hs-osnabrueck.de)

Modularisation in the EHEA
Session 3: ECTS and Recognition, Credits

HERE seminar “Modularisation of curriculum”

Podgorica April 26 / 2016

v.gehmlich@hs-osnabrueck.de

Learning Space

1st Session: Modularisation,
Learning and Teaching

2nd Session Module Learning Outcomes
Assessment

3rd Session ECTS and Recognition, Credits

4th Session Examples and Procedures

Guidelines

- The guiding principles for ECTS are the

  Key Features

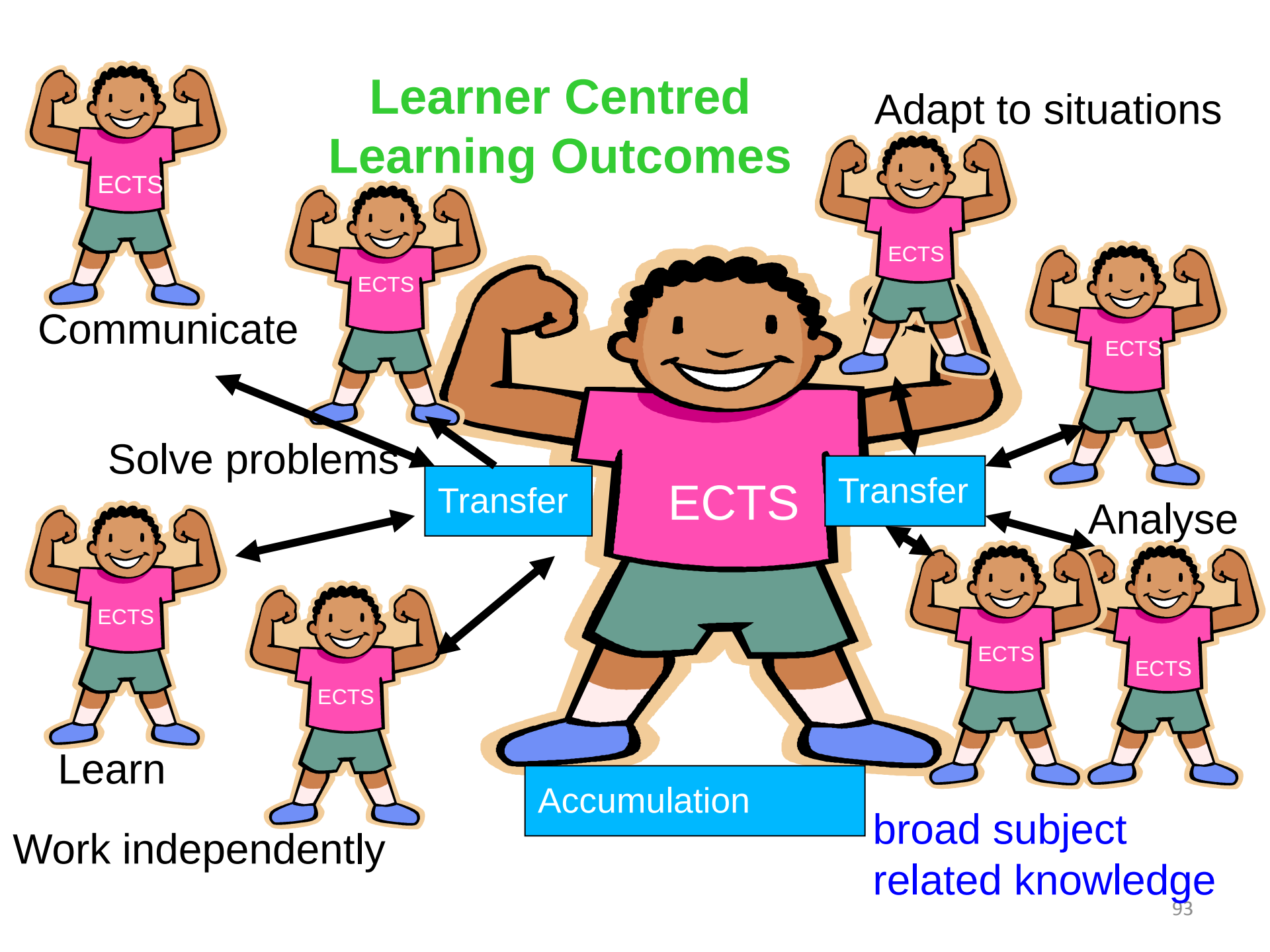
- The guiding principles for learning outcomes are the

  Qualifications Frameworks,

  specified within a changing environment (PESTEL), the capabilities of the learner and the expectations of the society (stakeholders).

ECTS and Learning Outcomes

- **ECTS credits** reflect
  - assessed learning outcomes.
- **Learning outcomes** state
  - what the learner is expected to know and able to do at an identified stage of the learning process.
- **ECTS credits** reflect upon the time
  - an average learner needs to achieve the specified learning outcomes.
  - This does not exclude that individual learners may need much more or much less time to achieve the learning outcomes.


Learner Centred
Learning Outcomes
Adapt to situations
Communicate
Solve problems
Learn
Work independently
Analyse
Transfer
Transfer
ECTS
Accumulation
broad subject
related knowledge

ECTS and Learning Outcomes

- ECTS credits
  - are a **quantified measure of the learning outcomes**
  - document that the learner has achieved
    - the learning outcomes of components of formal learning programme
    - the learning outcomes of the whole programme (degree)
- These learning outcomes may also be achieved through non-formal and informal learning
  - Recognition of prior learning (APL)
  - Recognition of prior and experiential learning (APEL)

ECTS and Learning Outcomes

- Credits specify the **quantity of learning (workload)**
- Learning outcomes specify **the quality of learning.**
- **Bundles of learning outcomes make up a qualification (degree e.g.)**.

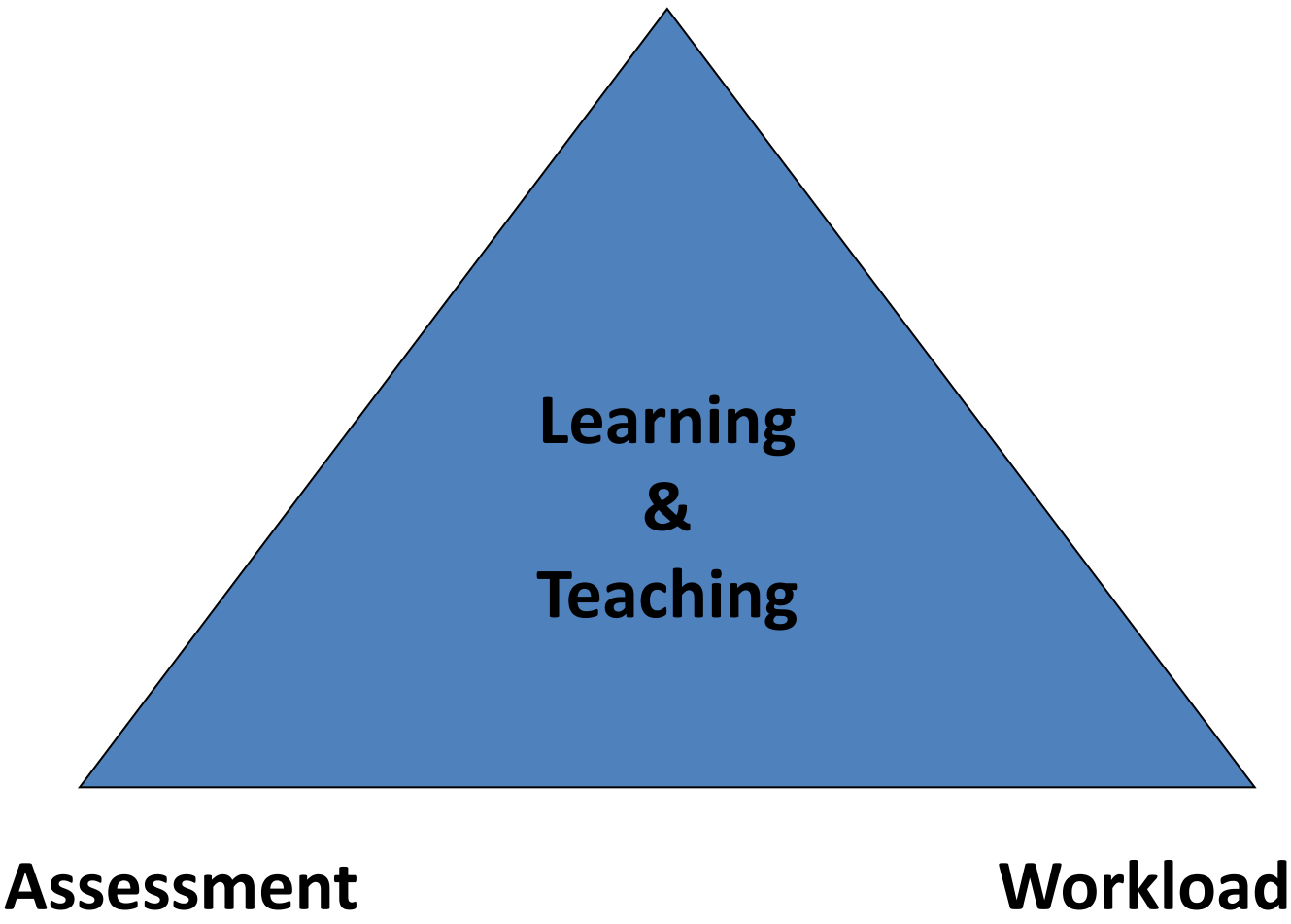
ECTS and Learning Outcomes

- **Credits on their own** don´t mean anything –
  - they receive their value through the learning outcomes and the respective level.
- **Learning outcomes on their own** have a meaning,
  - in particular in relation to qualifications frameworks.
- However, to this extent credits are like a **currency:**
  - Their parity is achieved through the learning outcomes (in the past: gold standard of a currency; today: belief in the state of the economy).

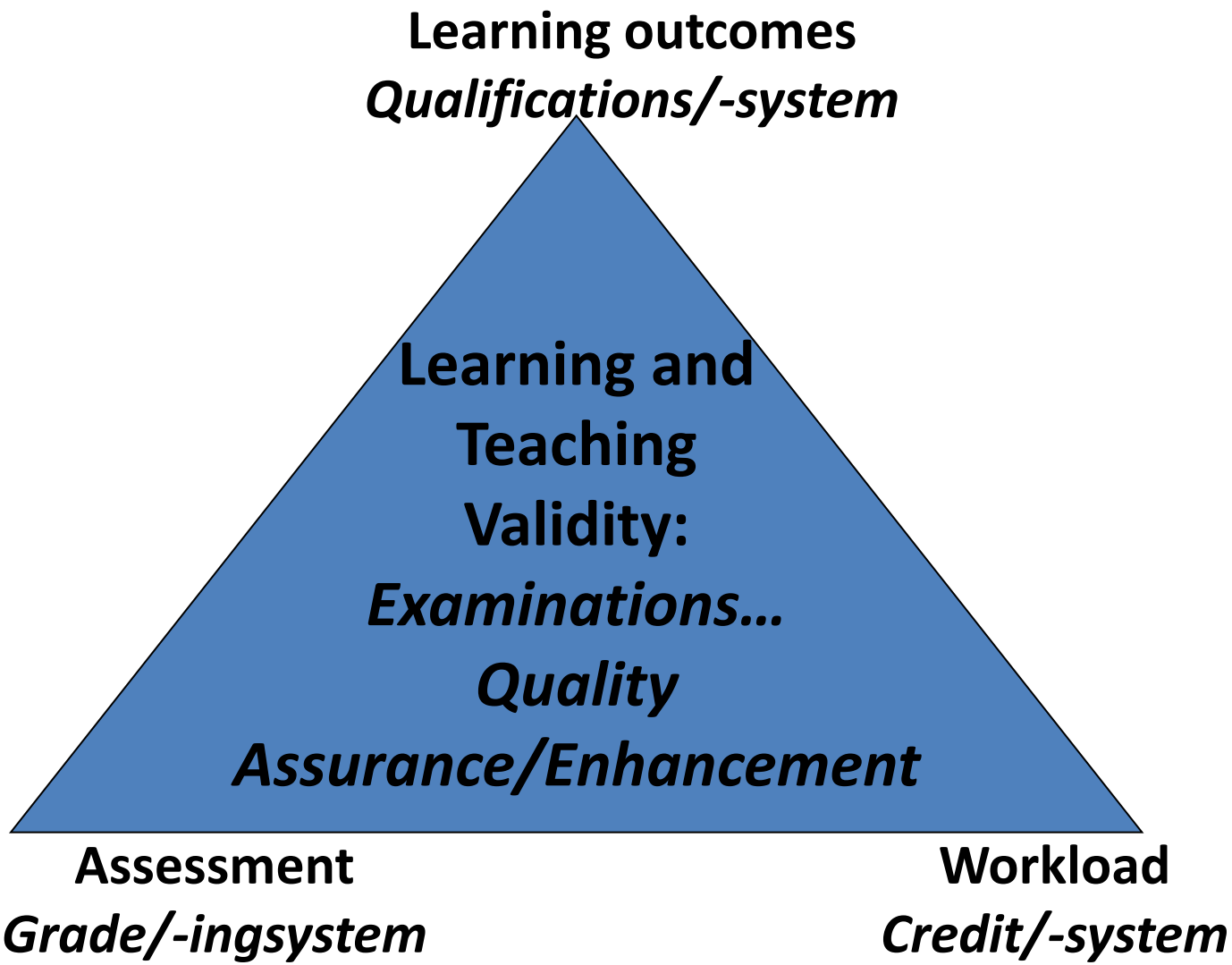
Elements of ECTS Credits

- In a formal programme ECTS credits are always related to an identified level of a qualification
  - e.g. Bachelor, Master...in the EQF-HE or level 1-8 in the EQF-LLL
- or even to a sub-level
  - e.g. first stage in a Bachelor-programme where this part / module forms a step towards a qualification
- The levels are described and specified by learning outcomes according to the qualifications framework (national, European…)

THE BERMUDA TRIANGLE

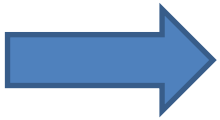


THE BERMUDA TRIANGLE dissolved by referencing



Do we need credits?

- Enough to say 1 credit = 25-30 learning hours
- 60 credits = 1 year = 1,500 – 1,800 learning/working hours

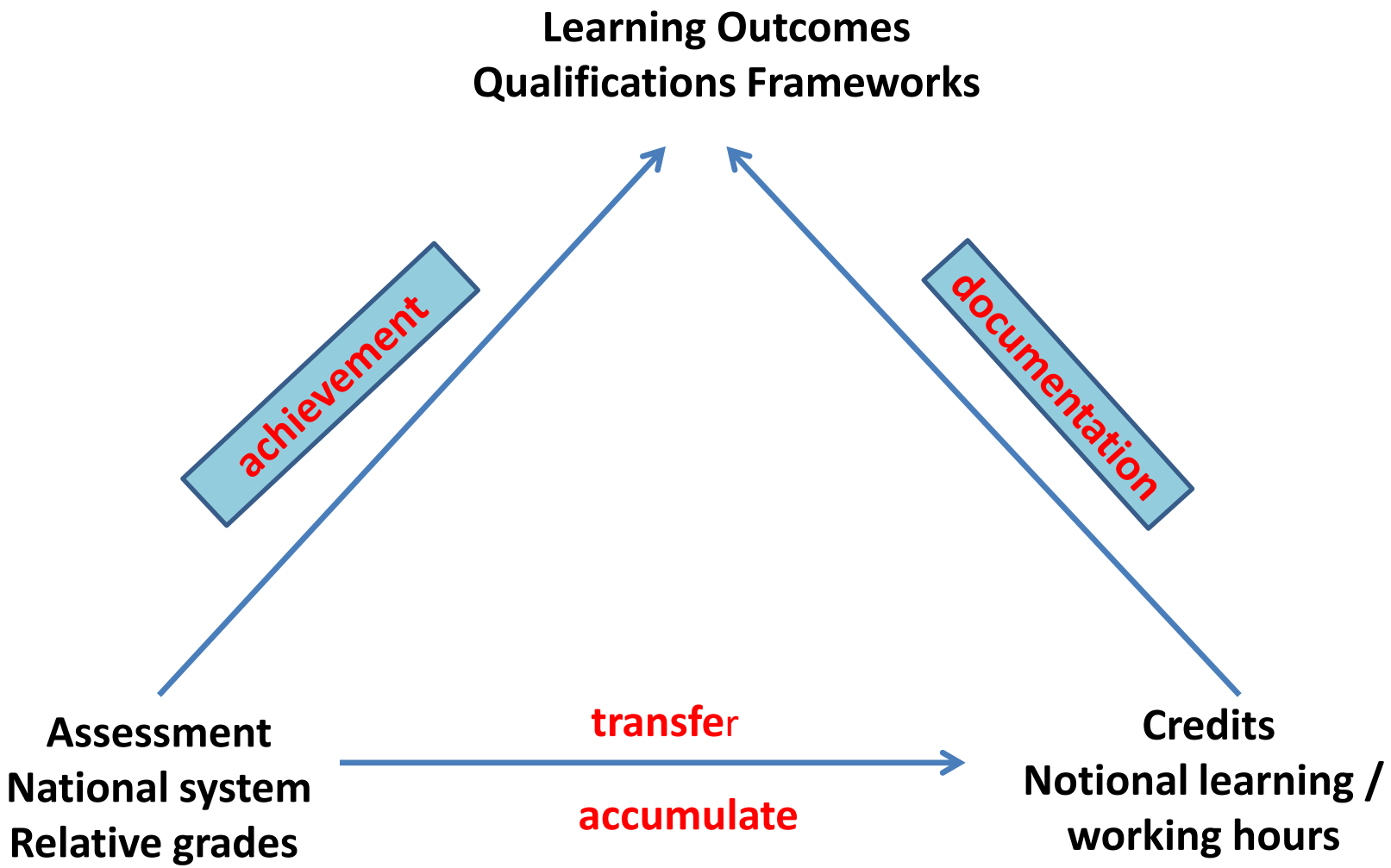


Indicative only

- Integrate credits into levels – orientation: formal programmes

Do we need credits?

- Credits are relative – not absolute
- Credits do not achieve compatibility on their own (fake correctness)
- Link with LO essential - Credits cannot do without learning outcomes
- Quality assured


Learning Outcomes
Qualifications Frameworks
achievement
documentation
Assessment
National system
Relative grades
transfer
accumulate
Credits
Notional learning /
working hours

Activity 5
Allocation of Credits

How to allocate credits

Methods to allocate credits

- Evaluation Method
- Percentage Method
- Determination Method

Suitable / Acceptable / Feasible / Sustainable?

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Evaluation Method Applied

Problem 1 = Feeling hungry and being alone at home

- **Objective** = to satisfy hunger
- **Means** = „To do something against it“ (to cook, to eat)

  → to work
- **Work** = energy/effort x distance

Example : Walk to the Mensa (refectory) – about 200m, join the queue, eat

Result: *having eaten* = ***Output***

Problem 2 = Starving and being alone at home

- **Objective** = kill hunger ***quickly***
- **Means** = to do something quickly - in 15 minutes (to cook, to go to…)
- **Achievement** = energy/effort x distance within a unit of time

Example: anticipated (target) achievement / performance:

Walk to the Mensa, about 200m in 2 min., queueing for 10 min., eating 3 min.

Result: Having eaten in 15 minutes (target=actual situation)

= **Output**

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Learning Outcome

Starting from here I can have eaten in the Mensa within 15 minutes

This has to be checked / evaluated over a longer period of time – variations in both directions are possible

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Outcome = Always alone at home and hungry?

Planned Outcome:

-Feeling well-fed

(additional quality – performed achievement which hopefully is sustainable for some time)

Acquired Learning Outcomes:

-you can eat in the Mensa and feel well-fed *(knowledge broadening)*

-I can have eaten in the Mensa in 15 minutes if I jump the queue *(knowledge deepening)*

-I know how to jump the queue (knowledge accessing and developing – *instrumental (pushing), communicative (asking), systemic – (I have observed how others do it and use their „method“)*

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2. Percentage Method

- Tested: Tuning Project – Business Group

1. Define categories of subject areas

- e.g.: Core subjects – electives – options
- or: Subject related – Non-subject related (Generic)
- Generic subject areas might be subdivided into: supporting – complementing – not related
- or: knowledge broadening – knowledge deepening – knowledge accessing (instrumental – communicative - systemic)

2. Discuss with experts the % share of the overall programme
3. Translate % into number of credits
4. Rounding / Aligning the figures
5. Discuss with experts (your colleagues) the further breakdown, i.e. allocating credits to the indidividual subjects within the group of programme areas

3. Determination method

1. Fix a basic size of module / learning component / learning unit and allocate a fixed number of credits.
2. Only this basic size or a multiple of it can be used for learning units
3. Design adequate learning outcomes for these fixed units across the whole institution (imagine across Europe – think again about the Euro: face value is categorised – one or a multiple – difference, however, is the purchasing power)

Allocation of Credits

	Advantages	**Disadvantages**
Any size	Open discussion	Subjective non-ECTS elements (importance, etc)
Fixed size	No fights	Top-down

Both are possible: in the first case the teachers discuss the **contents** first, then allocate credits; likely result: too many / domino-effect.

In the other case the teacher has to restrict the **learning outcomes** according to the credits available respecting the LO of the whole programme/qualification

Do we need credits?

- **We do not need a specific number of credits for recognition**
- *We only need them for:*
  - Confirmation that specified learning outcomes have been achieved – at module and at programme level
  - As structuring element for learning programmes as in working life

Recognition

The Lisbon Recognition Convention (1999) *(see also ECTS User´s Guide)*
Of qualifications
„…**only substantial differences** in view of the purpose for which recognition is sought (e.g. academic or de facto professional recognition) should lead to partial recognition or non-recognition of the qualification
Of **foreign qualifications**
„…**should be granted unless a substantial difference can be demonstrated** between the qualification for which recognition is requested and the relevant qualification of the State in which recognition is sought.“

The European Area of Recognition Manual (2012) explains

„By **focusing on the five key elements that together make up a qualification** (*level, workload, quality, profile, learning outcomes*) and by taking substantial differences into account,

competent recognition authorities have transformed their approach

from expecting foreign qualifications to almost exactly the same as those offered in their own countries, **to focusing on „recognition“ by accepting non-substantial differences.“**

Recognition (ECTS User´s Guide)

It is unlikely that the credits and learning outcomes of a single educational component in two different programmes will be identical.

Advice:

Recognition is based on compatibility of learning outcomes – not on course content

Consequence:

Recognition means that the number of credits gained for compatible learning outcomes somewhere will replace number of credits that are allocated for compatible learning outcomes at the awarding institution

Recognition of degrees (ECTS User´s Guide)

The difference in the number of ECTS credits gained after successful completion of a qualification are not a consideration

The programme learning outcomes should be the main factor

Consequence:

A comparable Bachelor degree should be recognised for the purpose of consideration for admission to a Master´s programme,
independently of whether it is based on 180 or 240 credits

Recognition of credit mobility

Supporting documents:

course catalogue, learning agreement, transcript of records, traineeship certificate

The GOLDEN RULE:

All credits gained during the period of study/training abroad or during the virtual mobility (see LA and ToR)
should be transferred **without delay** and
counted towards the student´s degree **without any additional work or assessmen**t of the student.

Overview

Credits	Credits are awarded to the student for a defined performance	The awarding indicates that the student was successful
Grade	The teacher additionally grades the student in relation to his performance	The grading indicates how successful the student was within a defined grading table
Local / National Grade	The grade is part of the local/natioal grading systen	It is related to the respective study- and examination regulations or other transparent rules
ECTS Grading Table	Locally referenced grading table against local, national or international grade transfer	The grades are regularly referenced according to a moving cohort

Questions left

- Still questions?
  - Write them down for the discussions to come today
  - Write them down and send them to me (v.gehmlich@hs-osnabrueck.de)

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Activity 1
Structuring of Modules

Programme Design

Module Template I (2 pages max.)

(Provide details of the module for students, staff and quality assurance purposes)

Short Module Details

1. Full Module Title
2. Module Code
3. Module Level
4. **ECTS credits**
5. Length
6. Module leader
7. Host Course
8. **Module status (obligatory/option)**
9. Pre-requisites (if appropriate)
10. Co-requisites (if appropriate)
11. Access restrictions
12. **Assessment**
13. Date validated

Module Template 2 (2 pages max.)

(Provide details of the module for students, staff and quality assurance purposes)

14. **Module aims (3-6 aims the professor hopes to achieve)**
15. **Learning outcomes (4-8 LO – perspecive of student: „On successful completion of this…“)**
16. Indicative syllabus content (brief description of the module content)
17. **Learning delivery (teaching/learning methods + study mode)**
18. **Assessment rationale (explanation of the assessment methods)**
19. **Assessment criteria (generic assessmet criteria)**
20. **Assessment weighting (weighting of each assessment component)**
21. Essential reading (list of key texts, web reference, journals…)
22. Intranet web reference (if applicable)
23. Validation date (if applicable)

Structuring of Modules

Programme Design

Step

Key questions:

1. ***Which syllabi are the essential characteristics of this degree programme?***

Without which module would no one consider this as the identified degree programme?

Conclusion: **Core modules**

Step 1 (cont.)

2. ***Which areas could be identified – vertically, horizontally or laterally – for further useful studies (profiling)?***

(***vertical***: specialisation in a narrow sense = deepening; backward/forward integration;

horizontal: interdisciplinary = enlargement;

lateral: unrelated diversification)

Conclusion: Specialisation modules / major / minor / electives / options

Step 1 (cont.)

3. ***What else is needed to understand issues, identify and to express them in various ways?***

To which extent can a quantitative approach help to explain these issues?

Conclusion: Support modules

4. ***How can I learn and organise myself?***

How can I present / express best what I want to say

Conclusion: Organisation and Communication modules

Step (cont.)

5. ***How does theory relate to practice?***
How can I relate theory to practice?
What are the methods?
Conclusion: Transfer modules

Result of Step

- Structuring of degree programmes into

  Core modules

  Objective of Learning Outcomes:

  - **Knowledge Acquisition and Widening**

  Specialisation modules (level dependent)

  Objective of Learning Outcomes:

  - **Knowledge Acquisition and Deepening**

Result of Step 1 (cont.)

Support modules

Organisation and communication modules

Transfer modules

Objective of Learning Outcomes:

Methodology: Skills / Competences to learn and transfer

Knowledge acquisition (independent learning), developing and creating

Activity 2
Learning Outcomes

How to write programme and module LO

Goal: **Qualification Template 1**

(Handbook: essential information for student, staff and quality assurance pursposes and other stakeholders

1. Introduction to the discipline and qualification (brief -1 to 2 paragraphs)
2. Rationale statement (explanation of the uniqueness – 1-2 paragraps)
3. **Overall qualification learning outcomes (Profile – 4-8)**
   - **3.1 Reference to the NQF (identification of level and its description)**
   - **3.2 Reference to the European Qualifications Framework for Higher Education**
4. Structure of the qualification – include information on:

4.1 List of core and subject specific option modules (include module codes)

4.2 Explanation of module relationships (levels, pre-requisites, co-requisites and credit values, diagram)

4.3 Free choice module information (if applicable)

4.4 Progression routes within the qualification (if applicable)

4.5 Information on module scheduling (if appropriate)

Qualification Template 2

5.Teaching and learning methods statement (overall rationale of approach)

6. **Assessment rationale (overall logic and range of assessments employed)**

7. Generic assessment criteria (expressed in generic learning outcomes)

8. Learning resources (brief description of suject specific resources)

9**. Employability and transferable skills (if appropriate, link to university policy via matrix)**

10. Student support (academic and pastoral tutoring arrangements)

11. Linkages to external reference points (Qualifications Frameworks)

Student Subject	Does what? Active verb	Directed to? Object	How? Specification/Modality
…will be able to…	Derive, apply	Solutions	from knowledge of sciences, engineering s., technology, mathematics
	Identify, formulate, analyse, solve	engineering problems	
	Design Conduct Anaylyse, interpret	System, component, process Experiments data	meet specified needs
	Work	Engineering community, wth society at large	Effectively
	Communicate	Engineering community, with society at large	effectively

Example of Mapping

PRLO	EduComp 1	EduComp 2	EduComp 3	EduComp 4
Derive, Apply			x	x
Identify, Formulate Analyse Solve	x	x	x	x
Design Conduct, Analyse Interpret		x		x
Work		x	x	x
Communicate	x		x	x

NB:
PLO = Programme Learning Outcome
EC = Educational Component 1, 2…etc….
LO = Learning Outcome

Activity 3
Competence-oriented Assessment

How to assess?

Objectives of compentence-oriented assessment

SMART

- Specific
- Measurable
- Adequate
- Relevant
- Timely

MEANS

- Unambiguous
- Feasible
- Acceptable
- Realistic, competence oriented
- In which / at which time

Potential Conflicts

Knowledge widening

-present tools to design a strategy and to develop business organisations strategically

-interpret alternative tools to make a choice

-outline consequences of strategic decisions

Knowledge deepening

-apply tools to implement a strategic development successfully

-identify and interpret strategic issues in different contexts

-realise how strategy development can be seen, how processes can be understood and what the implications are for strategy development

-differentiate between strategic management in different contexts

Capability – Knowledge accessing / opening / developing

Instrumental (methodological) capability

-apply techniques of strategic analysis

-apply techniques to select adequate strategies

-apply techniques to implement strategy

Communicative / interpersonal capability

-use different viewpoints on strategy to explain observable processes in organisations

-explain implications of diffrent scenarios and different strategies

Systemic capability

-to demonstrate the impact of national and organisational culture on strategy formulation and implementation

-to apply techniques in specific business positions

LO in detail

BA-level 6-1

Knowledge

-Widening

-Deepening

Capability

Accessing/ Opening / Developing

Knowledge widening
-present tools to design a strategy and to develop business organisations strategically
-interpret alternative tools to make a choice
-outline consequences of strategic decisions
Knowledge deepening
-apply tools to implement a strategic development successfully
-identify and interpret strategic issues in different contexts
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-explain implications of diffrent scenarios and different strategies
Systemic capability
-to demonstrate the impact of national and organisational culture on strategy formulation and implementation
-to apply techniques in specific business positions

Forms of Assessment

-Quizzes („best two“)
-Oral Presentation (Case Study-Group)
-Oral exam (20 min. Individual)
-Case Study („Open Book Exam“-Notes)

Example

Criteria	<40	<50	<60	<70	<80	80+	Comments
Clarity and relevance of terms of reference/aims and objectives and these have been fully met							
Demonstration of knowledge, understanding and critical evaluation of relevant literature							
Justification and use of appropriate methods and data collection							
Evidence of systematic data collection and clear presentation and findings							
Critical analysis and interpretation of findings linking both secondary and primary research							
Appropriateness of conclusions and, where required, realistic and appropriate recommendations							
Evidence that personal learning has been reviewed – skills reflection							
Satisfactory presentation of material, consistent and appropriate referencing and clear and accurate use of English							
Overall Grade							

Business in Context (2004/2005)

Assignment

Criteria	Weighting %	70%+	60-69%	50-59%	40-49%	Fail
Generic: Communication	5	Communicates to reader succinctly with very good clarity and coherence. There is good physical presentation.	Small element of distinctive coherence and structure and presentation missing.	Clear presentation of basic arguments and structure. Poor elements can be compensated by other good work.	Some element of coherent argument and structure.	Difficult to read and follow arguments. Very untidy physical presentation.
Knowledge & Understanding	20	Comprehensive, clear demonstration of required concepts and practical knowledge and understanding. Wide reading used	Mainly clear and comprehensive: small element missing or elementary.	Basic knowledge and understanding of material across board or incomplete compensated by good elements.	Elementary knowledge and understanding displayed. Incomplete.	Demonstrates no or very limited knowledge or understanding or required material.
Analysis	30	Demonstrates clear incisive ability to assess range of information analytically.	Demonstrates overall effective analysis of material, with some element missing allowed.	Basic analysis of material and comparisons.	Mainly descriptive: little analysis.	Descriptive only - no analysis.
Synthesis/ Creativity/ Application	10	Distinctive display of creativity and ability to synthesise material	Significant element of synthesis and creativity.	Small element of sunthesising arguments and showing creativity displayed.	Limited/elementary creativity and synthesis.	No creativity or synthesis of material displayed.
Evaluation	30	Demonstrates clear, incisive ability to evaluate information in all forms.	Some (significant) element of incisive, clear eveluation, above basic level.	Basic evaluation of information and appropriateness of concepts and models.	Only elementary evaluation of material presented.	Extremely limited evaluation of material - both practical and concepts.
Assignment Parameters	5	Follows parameters/guidelines exactly as asked.	Small element of guidelines missing or inadequate.	Satisfactory, basic adherence to all guidelines or compensation by some distinctive element.	Small element of parameters/guidelines followed.	Parameters not followed.
Total	100					

Activity 4

Grade Distribution Table Option Grade Conversion

How to do?

Example of an illustrative grading table (ECTS User´s Guide)

A	B	C	D
Grades used in institution (from highest to lowest passing grade)	Number of passing grades awarded to the reference group	Percentage of each grade with respect to the total passing grades awarded	Cumulative percentage of passing grades awarded
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6	200	20%	100%
	1,000	100%	

Example of positioning of relative grades (TU Darmstadt)

Grade-category	Number	Number accumulated	%-rang	Grade-category	Number	Number accumulated	%-rang :	Grade-category	Number	Number accumulated	%-rang
Sehr gut				gut				befriedigend			
1,0	0	0	0.00%	1,6	6	32	5.45%	2,6	53	374	63.71%
1,1	0	0	0.00%	1,7	9	41	6.98%	2,7	45	419	71.38%
1,2	1	1	0.17%	1,8	30	71	12.10%	2,8	48	467	79.56%
1,3	8	9	1.53%	1,9	18	89	15.16%	2,9	38	505	86.03%
1,4	8	17	2.90%	2,0	21	110	18.74%	3,0	43	548	93.36%
1,5	9	26	4.43%	2,1	37	147	25.04%	3,1	24	572	97.44%
				2,2	29	176	29.98%	3,2	8	580	98.81%
				2,3	48	224	38.16%	3,3	3	583	99.32%
				2,4	52	276	47.02%	3,4	2	585	99.66%
				2,5	45	321	54.68%	3,5	2	587	100.00 %

Grade conversion

Institution I			
A	**B**	**C**	**D**
10	50	5%	5%
9	100	10%	15%
8	350	35%	50%
7	300	30%	80%
6	200	20%	100%
	1,000	**100%**	

Insitution II (Comparison)			
A	**B**	**C**	**D**
1,0	150	3%	3%
1,3	300	6%	9%
1,7	800	16%	25%
2,0	1,300	26%	51%
2,3	1,500	30%	81%
2,7	500	10%	91%
….	…	…	…
	5,000	**100%**	

Attention: The lesser the degree of scaling, the more imprecisely the conversion

Activity 5
Allocation of Credits

How to allocate credits

Methods to allocate credits

- Evaluation Method
- Percentage Method
- Determination Method

Suitable / Acceptable / Feasible / Sustainable?

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Evaluation Method Applied

Problem 1 = Feeling hungry and being alone at home

- **Objective** = to satisfy hunger
- **Means** = „To do something against it“ (to cook, to eat)

  → to work
- **Work** = energy/effort x distance

Example : Walk to the Mensa (refectory) – about 200m, join the queue, eat

Result: *having eaten* = ***Output***

Problem 2 = Starving and being alone at home

- **Objective** = kill hunger ***quickly***
- **Means** = to do something quickly - in 15 minutes (to cook, to go to…)
- **Achievement** = energy/effort x distance within a unit of time

Example: anticipated (target) achievement / performance:

Walk to the Mensa, about 200m in 2 min., queueing for 10 min., eating 3 min.

Result: Having eaten in 15 minutes (target=actual situation)

= **Output**

Learning Outcome

Starting from here I can have eaten in the Mensa within 15 minutes

This has to be checked / evaluated over a longer period of time – variations in both directions are possible

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Outcome = Always alone at home and hungry?

Planned Outcome:

-Feeling well-fed

(additional quality – performed achievement which hopefully is sustainable for some time)

Acquired Learning Outcomes:

-you can eat in the Mensa and feel well-fed *(knowledge broadening)*

-I can have eaten in the Mensa in 15 minutes if I jump the queue *(knowledge deepening)*

-I know how to jump the queue (knowledge accessing and developing – *instrumental (pushing), communicative (asking), systemic – (I have observed how others do it and use their „method“)*

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2. Percentage Method

- Tested: Tuning Project – Business Group

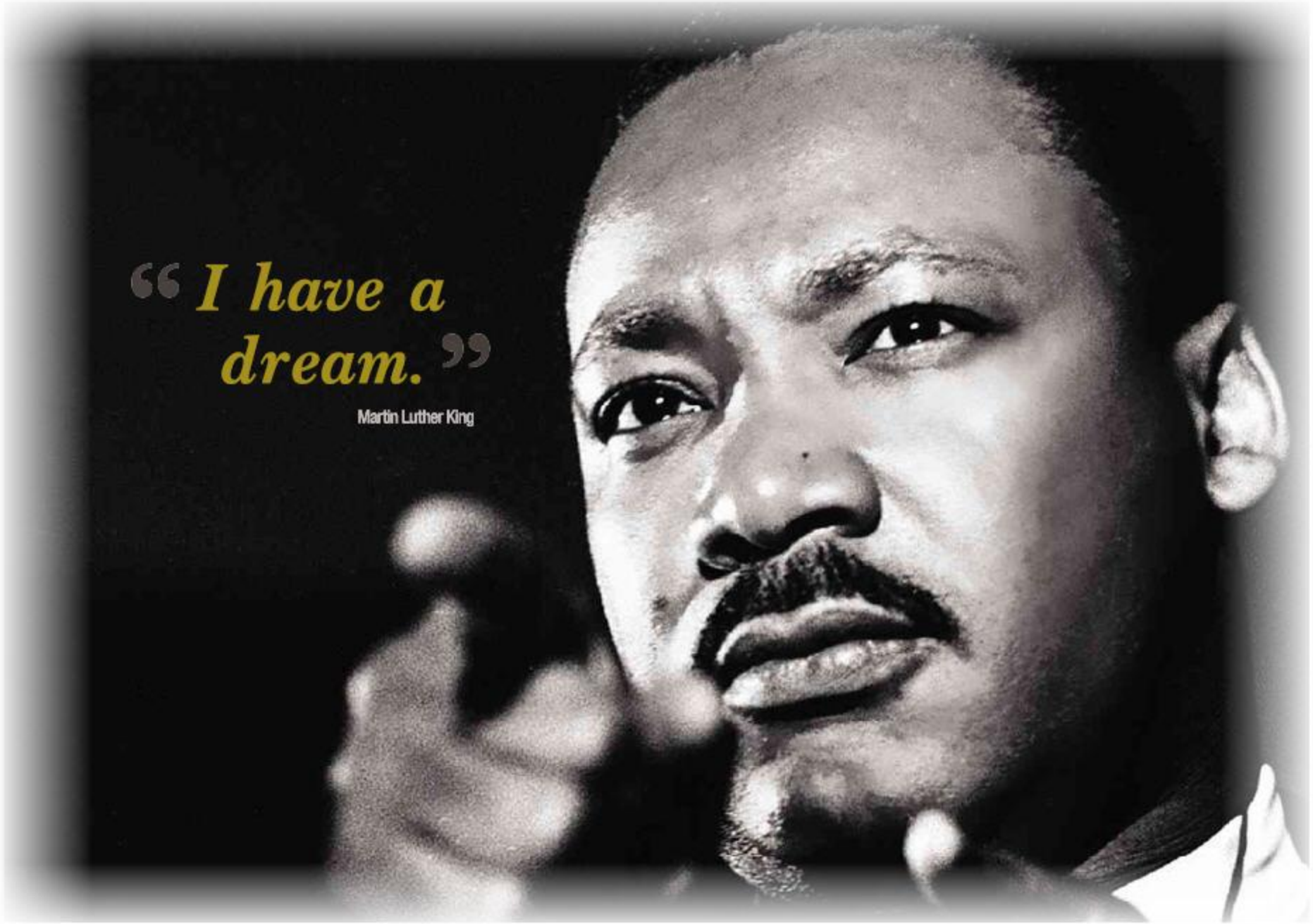
1. Define categories of subject areas

- e.g.: Core subjects – electives – options
- or: Subject related – Non-subject related (Generic)
- Generic subject areas might be subdivided into: supporting – complementing – not related
- or: knowledge broadening – knowledge deepening – knowledge accessing (instrumental – communicative - systemic)

2. Discuss with experts the % share of the overall programme
3. Translate % into number of credits
4. Rounding / Aligning the figures
5. Discuss with experts (your colleagues) the further breakdown, i.e. allocating credits to the indidividual subjects within the group of programme areas

3. Determination method

1. Fix a basic size of module / learning component / learning unit and allocate a fixed number of credits.
2. Only this basic size or a multiple of it can be used as learning units
3. Design adequate learning outcomes for these fixed units across the whole institution (imagine across Europe – think again about the Euro: face value is categorised – one or a multiple – difference, however, is the purchasing power)


“I have a dream.”
Martin Luther King


Not this one

Not this one either

"THE SECRET OF CHANGE IS TO FOCUS ALL OF YOUR ENERGY, NOT ON FIGHTING THE OLD, BUT ON BUILDING THE NEW."

— SOCRATES