

ALOA: aligning learning outcomes and e-assessment

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Main concepts

What should be assessed?



What do we hope students will learn?

How do we know that they have learned?

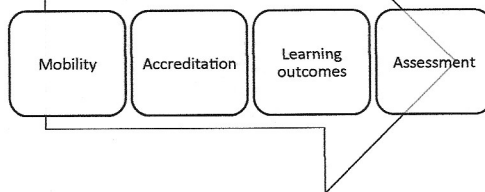
The problem

How can we help teachers select an adequate assessment strategy for the learning outcomes?



Why this theme?

European project VIRQUAL



Learning Outcomes

Learning outcomes are statements of what a learner is expected to know, understand and/or be able to demonstrate after completion of learning.

(AHELO - Assessment of Higher Education Learning Outcomes by OECD)

A common language, building blocks, genetic code



Assessment

Assessment: Any procedure used to estimate student learning for whatever purpose.
(Brown et al)

e-Assessment is the use of ICT and the Internet in particular for the assessment of learning, including design, delivery and/or recording of responses.
(JISC)

ment

ment: The level
correspondence
between objectives,
instruction and
assessment.

erson et al)

Statement
of the
intended LO

Learning
Outcome

Teaching
and
Learning
activities

Assessment
tasks

Learning Outcomes in Engineering

• Four qualification frameworks

- ABET: Accreditation Board for engineering and Technology
- EUR-ACE: European quality label for engineering degree programmes
- CDIO: Conceiving, Designing, Implementing, Operating
- EQF: European Qualification Framework

essment

Multiple choice questions

Short Answer Questions

Problems

Essays

Practical work

Reflective practice

Simple problem...?

Learning
Outcomes



Assessment

e ALOA conceptual model Aligning Learning Outcomes and Assessment

LOs in QFs

LOs in
programmes

(e)Assessment
tasks

The ALOA conceptual model Aligning Learning Outcomes and Assessment

		ACTUAL	CONCEPTUAL	PROCEDURAL	METACOGNITIVE
REMEMBER	recognising				
	storing				
UNDERSTAND	interpreting				
	examining				
	classifying				
	summarising				
	inferring				
	comparing				
	specifying				
APPLY	predicting				
	implementing				
ANALYSE	examining				
	evaluating				

Teacher with NEW course

- Write LOs statements
- Define content
- Define learning activities
- **Define assessment**
- **Ensure alignment**

ALOA



Analysis of LOs

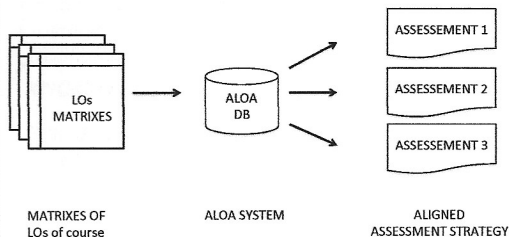
The student should be able to describe the main components of a personal computer.

VERB / COGNITIVE PROCESS

NOUN / KNOWLEDGE

rBloom
Matrix

Compare matrixes



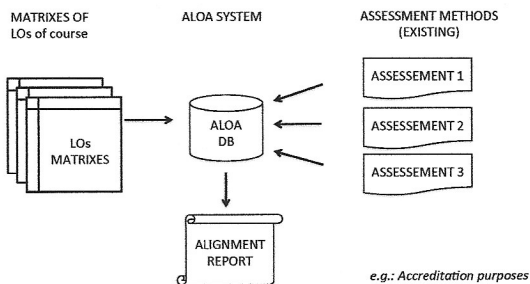
Teacher with EXISTING course

- LOs statements written
- Content defined
- Existing learning activities
- Assessment strategy defined
- **Verify alignment**

ALOA



Compare matrixes



Future work

