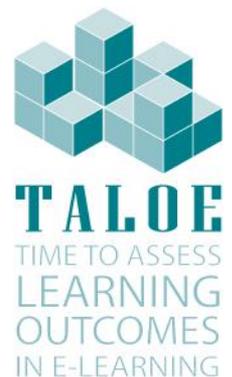# Role of assessment, Selecting the right methods of assessment for your course, constructive alignment and role of feedback

From the theoretical model to the practical tools

Alfredo Soeiro, University of Porto, Portugal
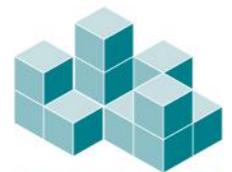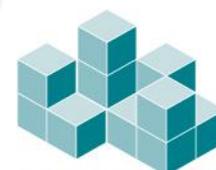
18Novo20, Velammal Institute of Technology

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What should be assessed?

LEARNING OUTCOMES	ALIGNMENT	ASSESSMENT

What do we hope students will learn?

How do we know that they have learned?

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Before: What will we teach our students?

LEARNING OBJECTIVES	ALIGNMENT	ASSESSMENT
CONTENT		

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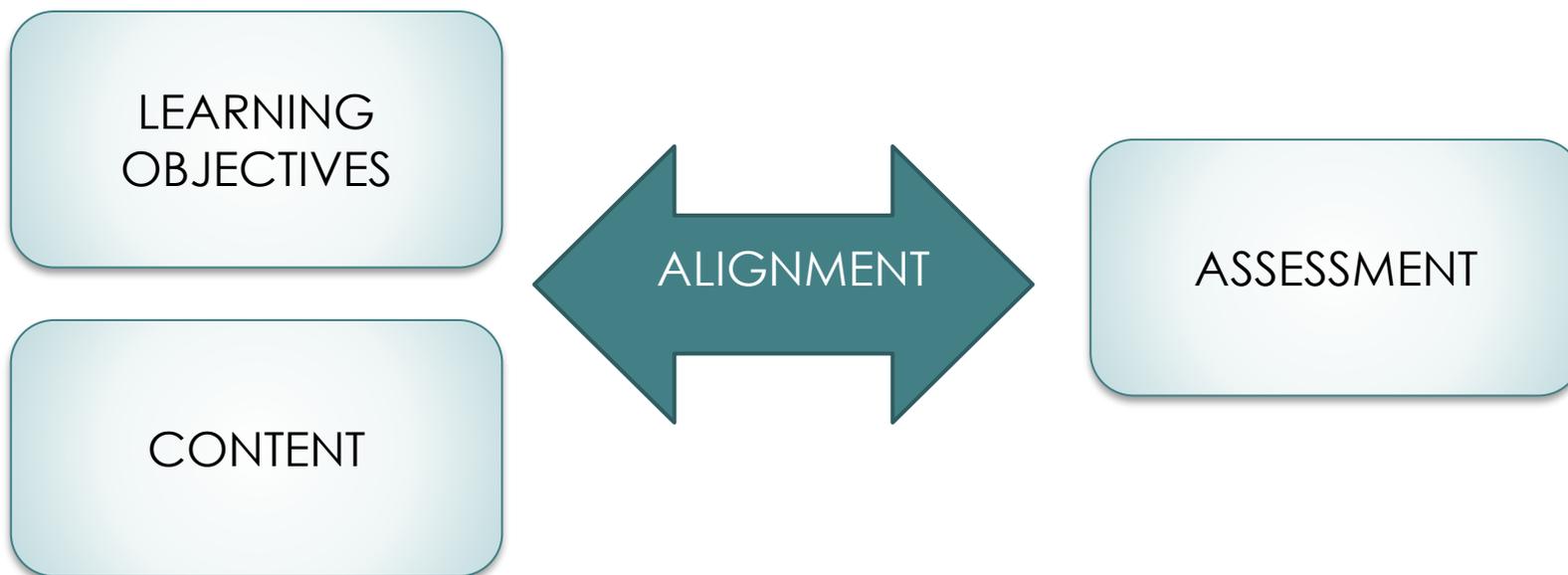
Why change?...

- Demand for new **skills and competences**

- Mobility and recognition

- Quality approach and accreditation

THE FOCUS IS ON THE STUDENTS!

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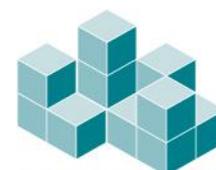
Learning Outcomes

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.
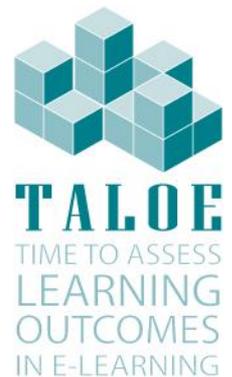*(JISC)*

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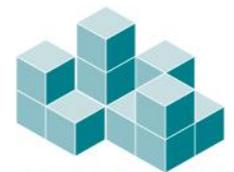
Categories of assessment

- Multiple choice questions

- Short Answer Questions

- Problems

- Essays

- Practical work

- Reflective practice

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Alignment

Statement of the intended LO

Learning Outcome

Teaching and Learning activities
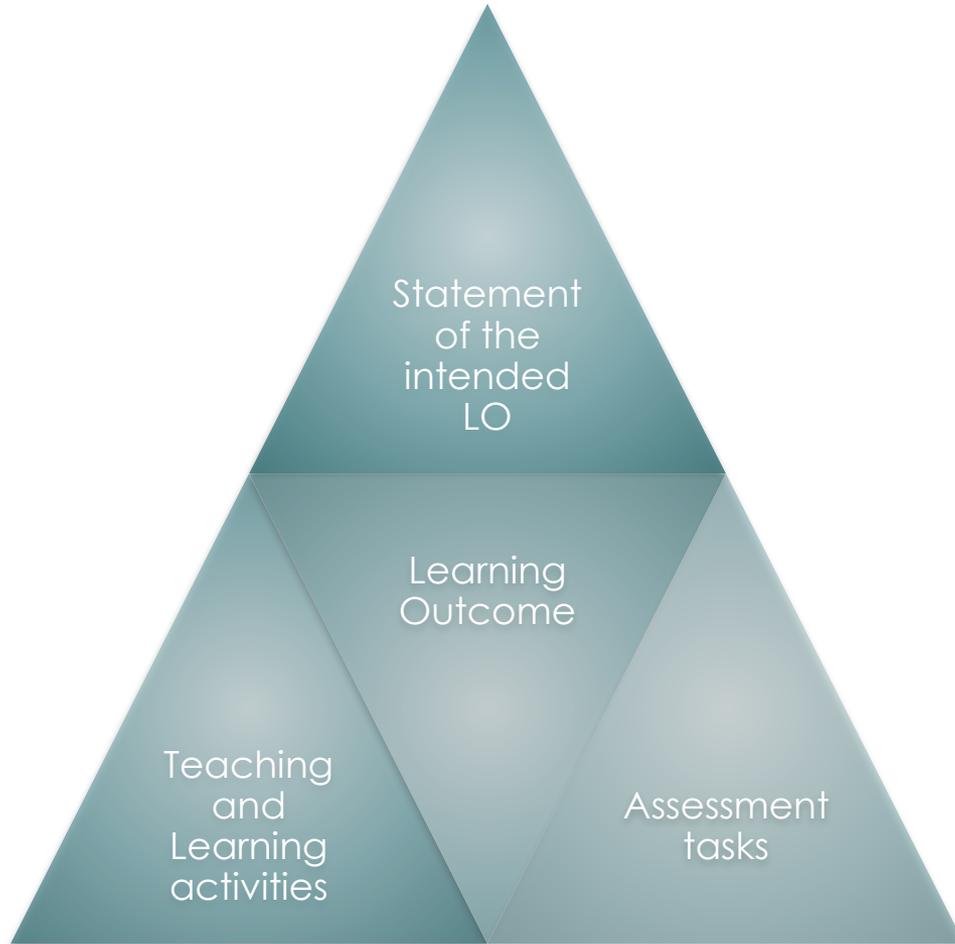
Assessment tasks

Alignment: The level of correspondence between objectives, instruction and assessment.

(Anderson et al)

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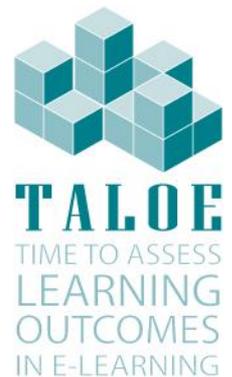
Alignment scenarios

At course level…
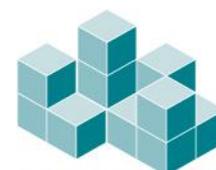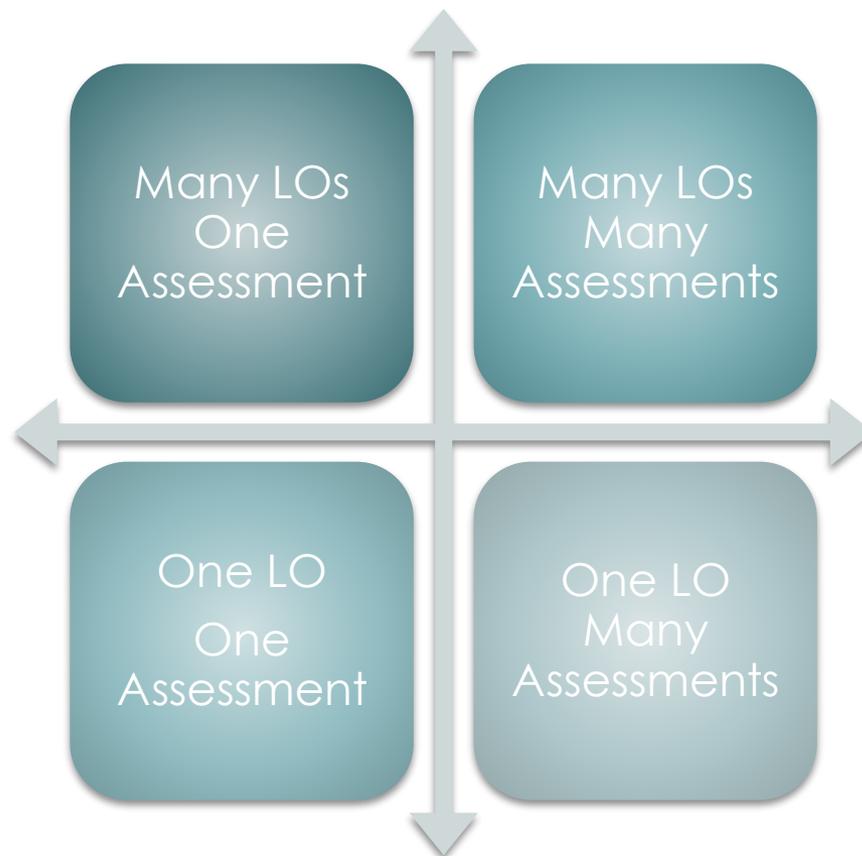
Simple problem…?

Learning Outcomes

Assessment

The ALOA conceptual model

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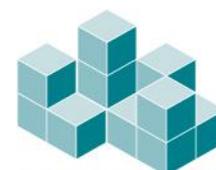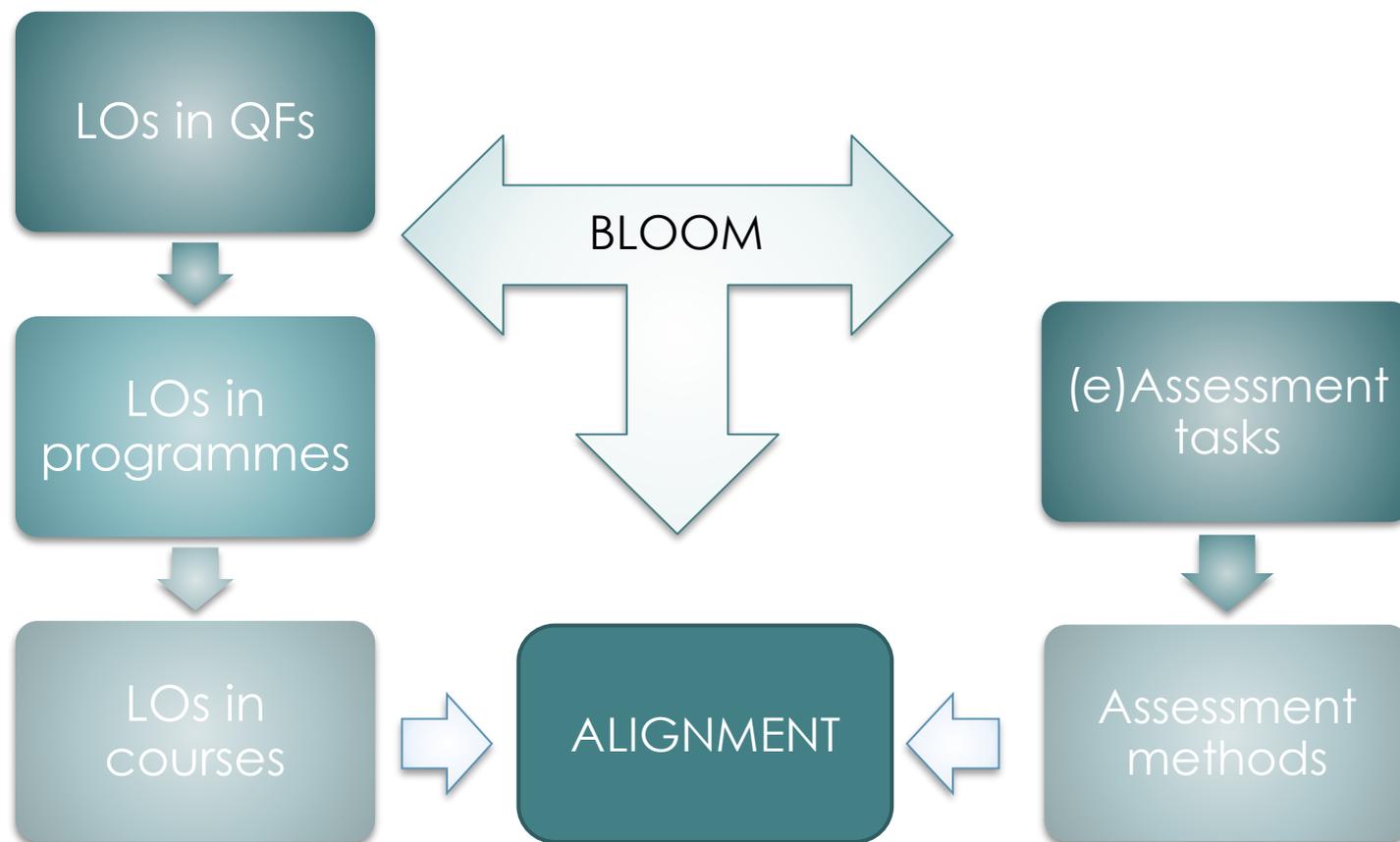
Analysis of LOs with BLOOM (revised)

> *The student should be able to <u>describe the main components of a personal computer.</u>*

NOUN / KNOWLEDGE

VERB / COGNITIVE PROCESS

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Bloom's Taxonomy *(revised by Anderson et al)*

Cognitive processes

- Remember
- Understand
- Apply
- Analyze
- Evaluate
- Create

Type of knowledge

- Factual
- Conceptual
- Procedural
- Metacognitive

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Teacher with NEW course

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

HELP!!

ALOA

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TALOE – Time to Assess Learning Outcomes in E-learning

Promote the internal consistency of online courses by using the ALOA model (Aligning Learning Outcomes and Assessment).

Develop a web-based tool to help teachers and trainers decide on the e-assessment strategies to use in their online courses.

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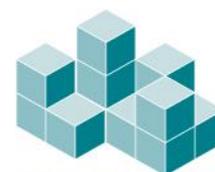
Specific goals of TALOE

- Research and select innovative e-assessment practices that take advantage of the use of technology;

- Develop a web-based tool that is easy to use by the stakeholders;

- To test the implementation of the tool with real case studies;

- To distribute and disseminate the TALOE tool among the communities of stakeholders.

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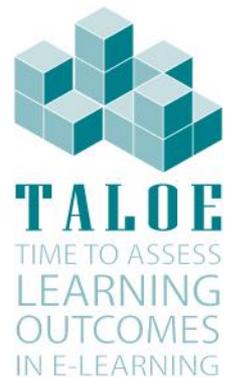
TALOE CONSORTIUM

- Universidade do Porto (UPORTO) - Portugal (coordinator)

- Gábor Dénes Főiskola (DGC) - Hungary

- Sveučilišni računski centar Sveučilišta u Zagrebu (SRCE) - Croatia

- Innovate4Future - Center for Advanced Educational Solutions (I4F) - Romania

- Università degli Studi di Padova (UniPD) - Italy

- European Distance and E-Learning Network (EDEN) - United Kingdom

- European University Continuing Education Network (EUCEN) - Belgium

- Hariduse Infotehnoloogia Sihtasutus (HITSA) - Estonia

- Universidad Nacional de Educación a Distancia (UNED) - Spain

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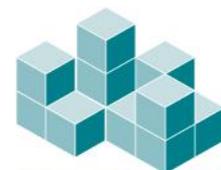
TALOE target groups

- **Teachers and trainers of online or blended courses** from all levels of education: they may use the TALOE tool to define e-assessment strategies for their courses or modules.

- **Researchers** dealing with learning outcomes and e-assessment;

- **recognition and accreditation staff** may use TALOE to verify the validity of assessment methods of prior learning or to provide evidence for accreditation of programmes;

- **Programme developers** may use TALOE to define e-assessment strategy recommendations for new online programmes;

- **Decision makers** may use TALOE to define valid e-assessment strategies for their institutions;

- **Quality assurance officers and experts** for checking constructive alignment of LOs with other elements in a course;

- **Networks and initiatives** operating in the fields of LOs, assessment, vocational education and training, higher education, continuing education and recognition & accreditation.

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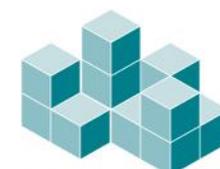
Build rBloom matrix

KNOWLEDGE

Procedural
Conceptual

COGNITIVE PROCESS

Understand: interpreting
Apply: implementing
Evaluate: checking, critiquing
Create: planning, producing

		FACTUAL	CONCEPTUAL	PROCEDURAL	METACOGNITIVE
REMEMBER	**Recognizing**				
	Recalling				
UNDERSTAND	**Interpreting**		X		
	Exemplifying				
	Classifying				
	Summarizing				
	Inferring				
	Comparing				
	Explaining				
APPLY	**Executing**				
	Implementing		X	X	
ANALYZE	**Differentiating**				
	Organizing				
	Attributing				
EVALUATE	**Checking**		X	X	
	Critiquing		X	X	
CREATE	**Generating**				
	Planning		X	X	
	Producing		X	X	

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Backwash effect (Biggs)

Perspective of the teacher

LOs	→	TLAs	→	Assessment

Perspective of the student

Assessment	→	LOs	→	TLA

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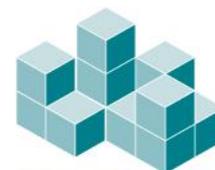
MCQ

- Remember

- Understand

- Apply

- Analyse

- Evaluate

- Create

Essays

- speculative

- quote to discuss

- assertion,

- write on

- describe/explain

- discuss

- compare

- evaluate

- problem

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Problems

- Simple closed ended

- Complex closed ended

- Open ended

- Routines

- Diagnosis

- Strategy

- Interpretation

- Generation

SAQs

- Select crucial evidence

- Explain methods, procedures and relationships

- Present arguments

- Describe limitations of data

- Formulate valid conclusions

- Identify assumptions

- Formulate hypothesis

- Formulate action plans

Reflective practice

- Concrete experience

- Reflective observation

- Abstract Conceptualisation
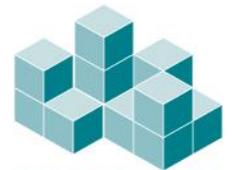
- Active Experimentation

MCQ	Computer based test / online testing, Optical reading, CAT: Computerized Adaptive Testing
Essays	File Upload, Essay Question in online exam, Discussion Forum Published media, Wiki, Concept maps, Videoconferencing, Chat
Problem solving	Computer based test / online testing, File upload, Chat, Concept maps and Diagrams, Simulation, Scenario-based activity
Practical	File upload, Computer based tests/Online testing, Video file, animations and sequence of images, Videoconferencing, Diagrams Publish media or wiki, Chat and discussion forum, Virtual Labs and Remote Labs, Simulation, Scenario-based activity, Game based learning
SAQs	Computer based test / online testing, Chat or Forum, Concept maps and Diagrams
Reflective Practice	Portfolios

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धन्यवाद

THANK YOU!

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