

# TALOE – Time to Assess Learning Outcomes in E-learning

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**TALOE**  
TIME TO ASSESS  
LEARNING  
OUTCOMES  
IN E-LEARNING



# 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.



# Questions

- ▶ *Are there practical guidelines and tools on organizational, pedagogical and technical approaches to ensure proper verification of e-learning effectiveness?*
- ▶ *Can learning outcomes acquired through e-learning be verified with proper assessment modes?*
- ▶ *Can all type of Learning Outcomes be assessed using on-line tools?*
- ▶ *How do we assess Learning Outcomes using on-line tools?*
- ▶ *Which tools can be used for each type of Learning Outcome?*



# Main Concepts

- ▶ Learning Outcomes from a Qualification Framework (e.g. EQF - European Qualification Framework)
- ▶ E-Assessment methods
- ▶ Matrix of LOs / Assessment:
  - Knowledge
  - Skills
  - Competences



# Main Concepts (cont')

*What should be assessed?*



*What do we hope students will learn?*

*How do we know that they have learned?*



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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

Any procedure used to estimate student learning for whatever purpose.

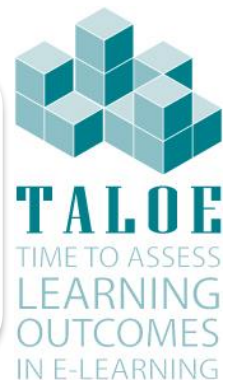
*(Brown et al)*

## *Categories of assessment*

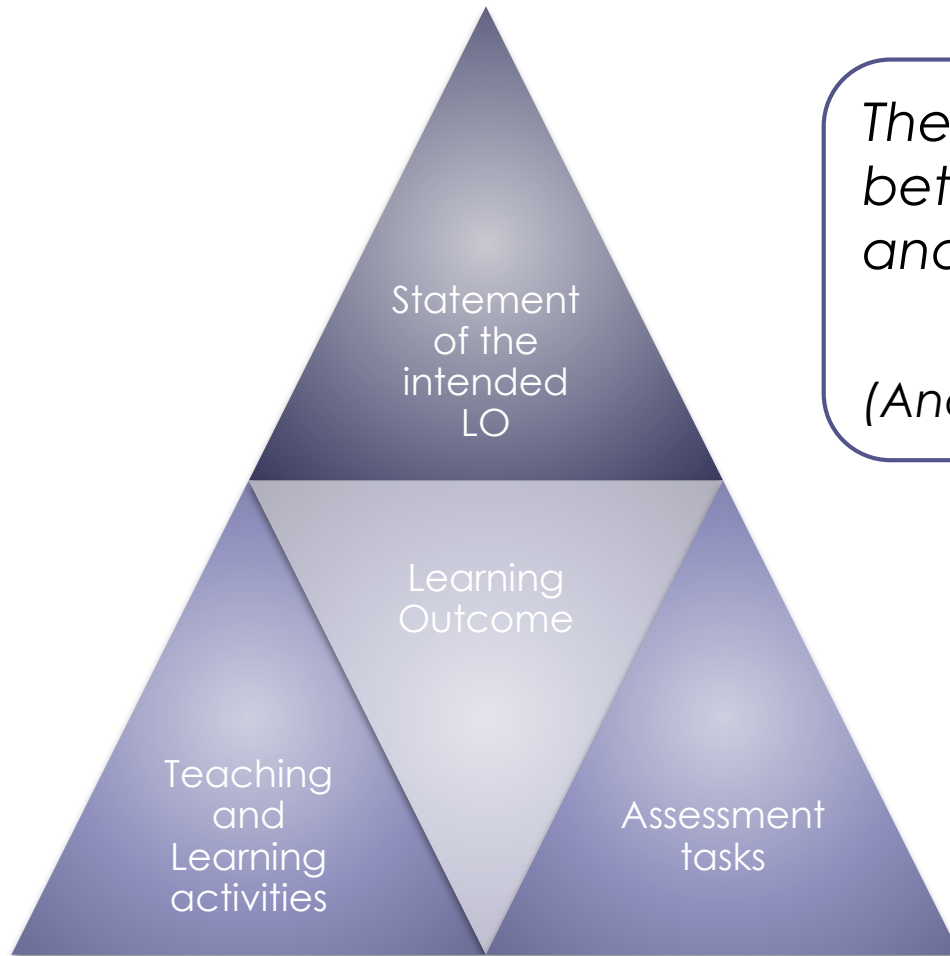
- ▶ Multiple choice questions
- ▶ Short Answer Questions
- ▶ Problems
- ▶ Essays
- ▶ Practical work
- ▶ Reflective practice

*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)*



# Alignment



*The level of correspondence between objectives, instruction and assessment.*

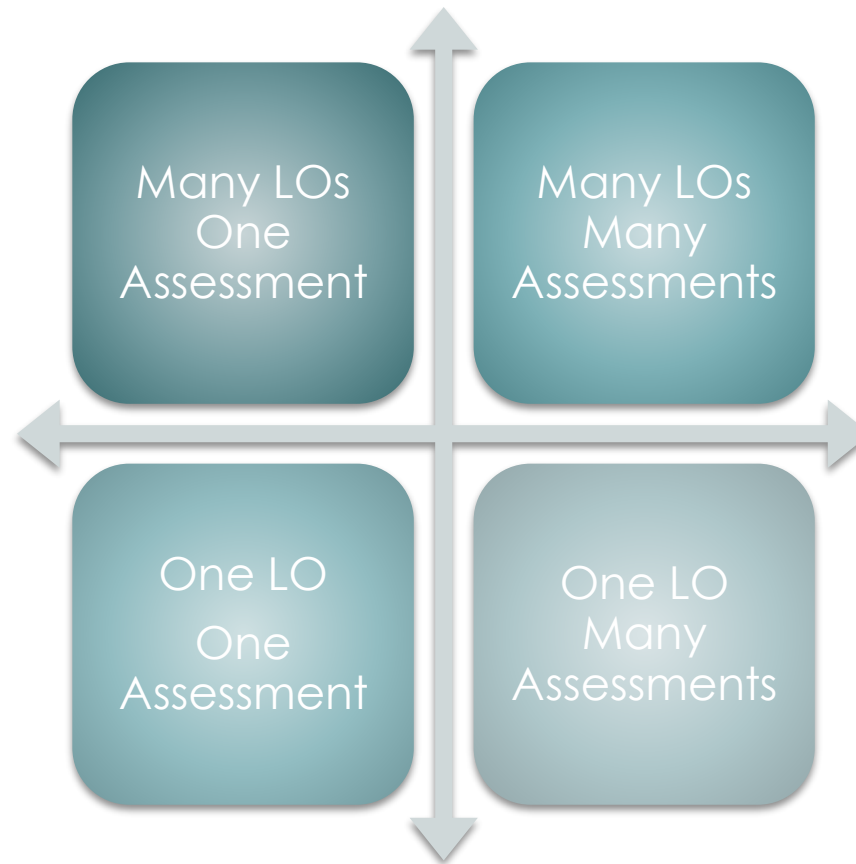
*(Anderson et al)*



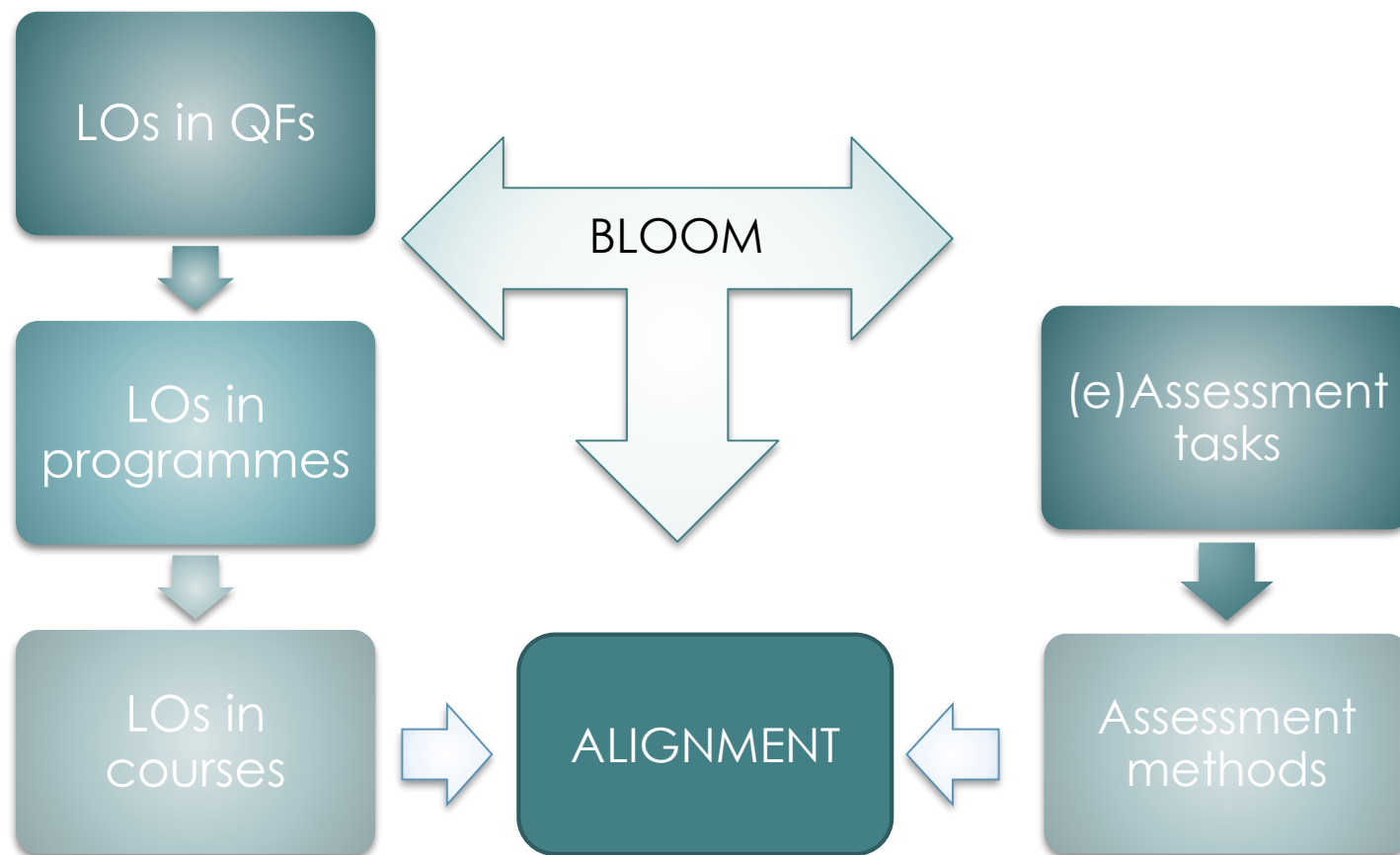


# Alignment scenarios

*At course level...*



# The ALOA Conceptual Model



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# Analysis of LOs with BLOOM (revised)

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

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 EXISTING course



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



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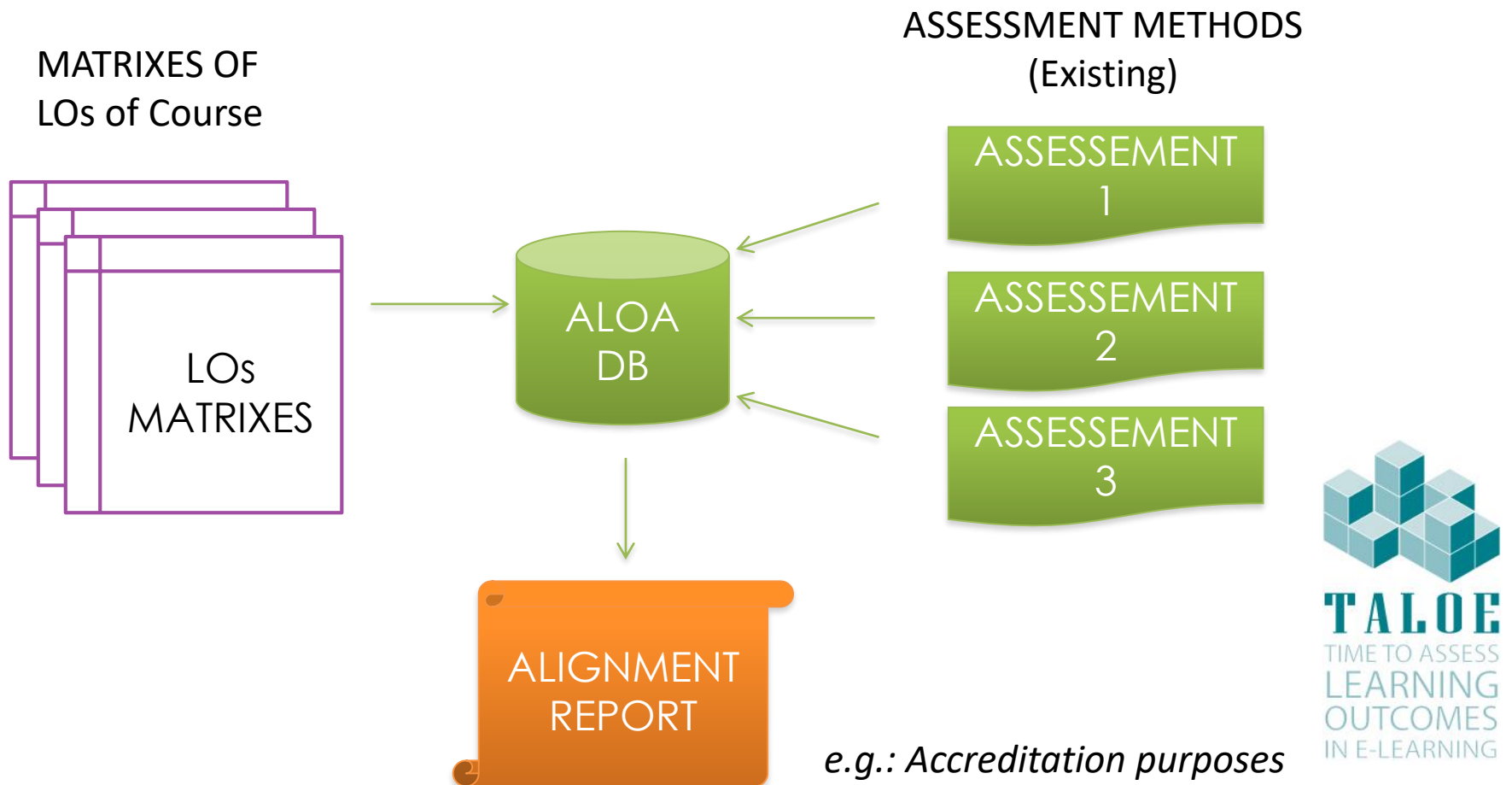
# Teacher with a NEW course



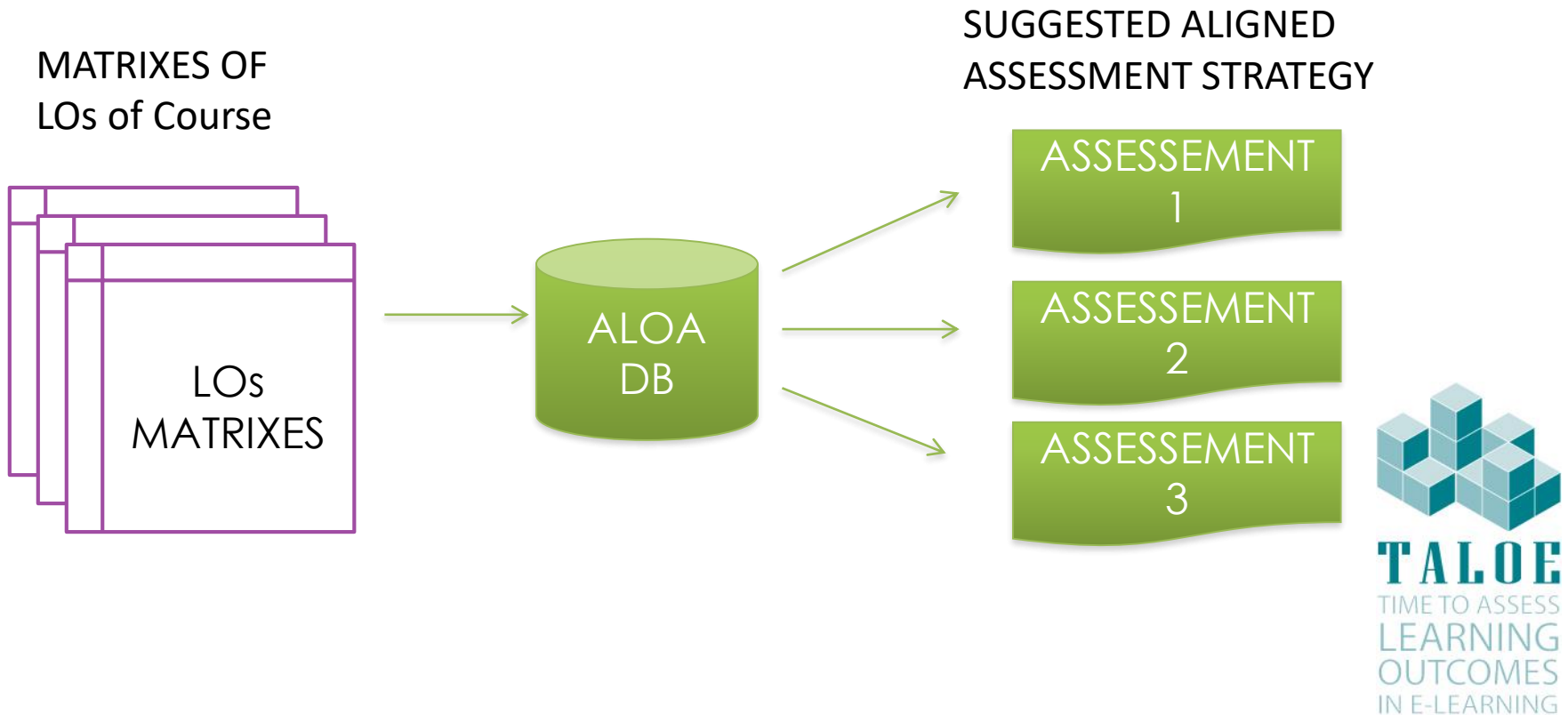
- Write LOs statements
- Define content
- Define learning activities
- **Define assessment**
- **Ensure alignment**



# ALOA Engine – Verifying Alignment



# ALOA Engine – Suggested aligned assessment





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- ▶ Reference No: 543097-LLP-1-2013-1-PT-KA3-KA3MP
- ▶ Two year project (01 Jan2014 – 31 Dec2015)
- ▶ With the support of the European Commission's Lifelong Learning Programme of the European Union
- ▶ Key Activity 3: Multilateral projects
- ▶ Project website: <http://taloe.up.pt>



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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.



# Current outline

- ▶ Obtained 18 case studies of e-assessment
- ▶ Develop webtool specifications
- ▶ Teachers present learning outcomes of an on-line course or module
- ▶ Webtool suggests e-assessment methods
- ▶ Test the implementation of webtool with case studies
- ▶ Distribute and disseminate the webtool





Education and Culture DG

Lifelong Learning Programme

# Thank you!

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With the support of the Lifelong Learning  
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