



Comparing Achievement of Learning Outcomes in Higher Education: project CALOHEE

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Track 2: Computing, Engineering & Technology
Theme 2: Organizational Change – Mitigating Limitations for
Capacity Building
Title: Quality of Assessing Competences Online
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Towards a more reliable model for evidence based learning and quality assurance and enhancement

Twenty-first Century Challenges

Millions of students finish university education every year. They enter the labour market with sets of competences based on their personal experiences and their studies.

- *Are they really prepared for the jobs they go after?*
- *What are the demands of employers?*
- *Are they equipped to fully engage with their civic responsibilities?*
- *Are universities up to speed?*
- *Do existing quality assurance instruments offer sufficient evidence to answer those questions?*
- *Can institutional performances be compared to identify best practices?*

RATIONAL: Additional instrument needed !

Present instruments for measuring ‘quality’:

- Offer limited evidence of what is learned and at what level
- QA is mainly process oriented not really outcome focused
- QA is looking backward not forward: lack focus on future needs of society and the graduate
- Peer reviewing is a doubtful model: in European context peers very often not well informed about modern methods and approaches regarding LTA. Therefore: reviews often biased
- Offer limited evidence about the real quality and relevance of degree programmes and their performance

European response to these challenges:

"Measuring and Comparing Achievements of Learning Outcomes in Higher Education in Europe" (CALOHEE)

WHY CALOHEE?

Preposition:

If academic and professional experts can agree on the set of learning outcomes, they should also be able to measure performance in comparative perspective in (inter)national contexts!

THE PROOF IS IN THE EATING OF THE PUDDING !

WHY?

HOW?

WHAT?

- Meeting the demand for more **reliable information** about the outcomes of learning in Higher Education
- Offering a **drive for quality**, taking fully into account the needs of society, in particular the four major stakeholders: HE students, HE staff and management, employers and employees, and civil society
- An attempt to create (in the longer run) a more effective, less bureaucratic and more reliable instrument for quality assurance !

WHY?

HOW?

WHAT?

- By showing what a subject area represents after consultation of stakeholders, in terms of **core competences and learning outcomes according to the discipline**
- By **developing instruments that acknowledge the different missions, profiles and cultural contexts of Higher Education institutions**

WHY?

HOW?

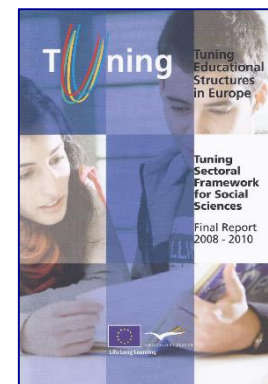
WHAT?

- **One page set of Learning Outcomes descriptors per discipline based on a merger of EQF for LLL and QF for the EHEA described in terms of dimensions**
- **Assessment Frameworks offering detail of what can be / should be learned**
- **The CALOHEE Assessment Model**
- **A Reference Framework for Civic, Social and Cultural Engagement**

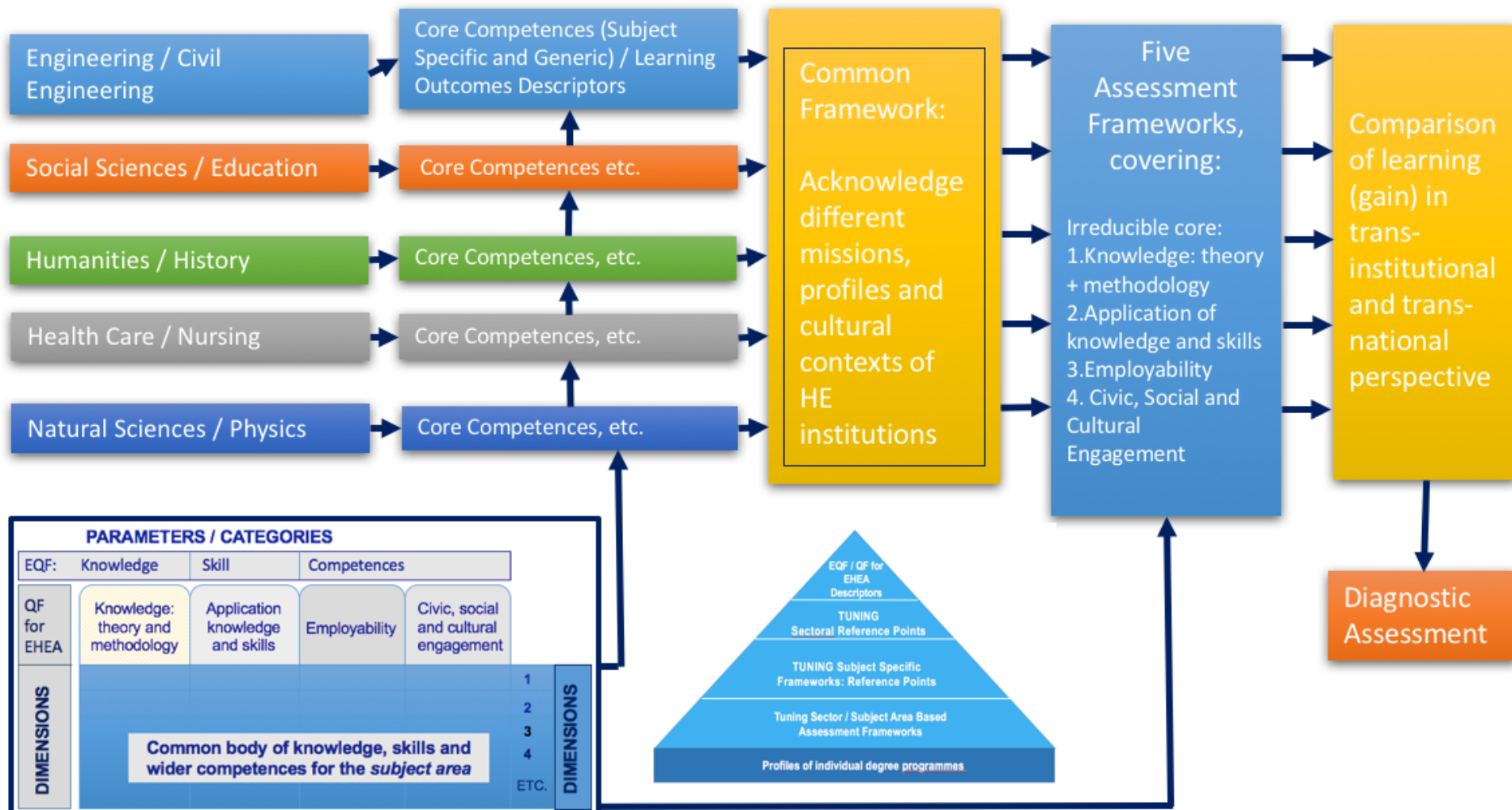
CALOHEE Dimensions model

1. Do justice to the character of specific academic domain
2. Structures sets of learning outcomes in a logical way
3. Allows for combining QF for LLL and QF for the EHEA

<i>Subject area/ Dimension</i>	<i>Civil engineering</i>	<i>Teacher Education</i>	<i>History</i>	<i>Nursing</i>	<i>Physics</i>
1.	Knowledge and understanding	Knowledge management and creation	Human beings: Cultures and Societies	Professional values and the role of the nurse associated competences	Knowledge and understanding
2.	Analysis and problem solving	Design and management of processes of learning, teaching and assessment	Texts and Contexts	Nurse practice and clinical decision making competences	Mathematical methods
3.	Design	Learner empowerment, potential and creativity	Theories and Concepts	Knowledge and cognitive competences	Experimental design and scientific investigation
4.	Investigation	Communication	Interdisciplinarity	Communication and interpersonal competences	Problem solving
5.	Practice	Values and social leadership	Communication	Leadership, management and team working	Scientific (physics) culture
6.	Decision making	Development as professionals and life-long learners	Initiative and Creativity		Ethical awareness
7.	Team-working		Professional development		Communication
8.	Communication				Management and teamwork
9.	Lifelong Learning				



CALOHEE FLOWCHART



CALOHEE ASSESSMENT MODEL

Framework acknowledges different missions, profiles and cultural contexts of Higher Education institutions

PARAMETERS / CATEGORIES

EQF:		Knowledge	Skill	Wider Competences			
QF for EHEA		Knowledge: theory and methodology	Application knowledge and skills	Employability	Civic, social and cultural engagement		
DIMENSIONS						1	DIMENSIONS
						2	
						3	
						4	
						ETC.	
Common body of knowledge, skills and wider competences for the <i>subject area</i>							

Core Competences (Subject Specific and Generic) / Learning Outcomes

Assessment Frameworks based on parameters and dimensions

DIAGNOSTIC ASSESSMENTS

Diagnostic assessments inform stakeholders about meeting agreed quality requirements and the mission of the programme

A dimension indicates a constructive key element which defines a subject area; each subject area is based on a multiple of dimensions

Simple problem...?

Learning
Outcomes



Assessment

[About TALOE Webtool](#)[Ask for Assessment Advice](#)[Writing Learning Outcomes](#)[Assessment Methods](#)[Case Studies](#)[Help](#)

About TALOE Webtool

Welcome to the TALOE webtool that will help you decide which e-assessment strategies to use in your online courses.

The tool can be used in two ways:

- Check if the existing assessment methods in existing course are in line with the stated learning outcomes
- Help you make decisions on the most appropriate assessment method for the new course or module

The webtool consists of the matrix that aligns the six categories of the cognitive process dimension and relative cognitive processes with the six categories of the general assessment (based on the ALOA model) each with subcategories.

How to use the webtool

The TALOE webtool will guide you through two steps that will help you to better define your learning outcomes and to decide adequate assessment strategies for each learning outcome.

Step 1

During this stage you will be asked to describe the Learning Outcomes you want your students to achieve. Please keep in mind that the Learning Outcomes should be described in a clear way and kept simple. If you have difficulties with this stage, or you wish to learn more about how you can better write learning outcomes please go to the section [Writing Learning Outcomes](#).

Step 2

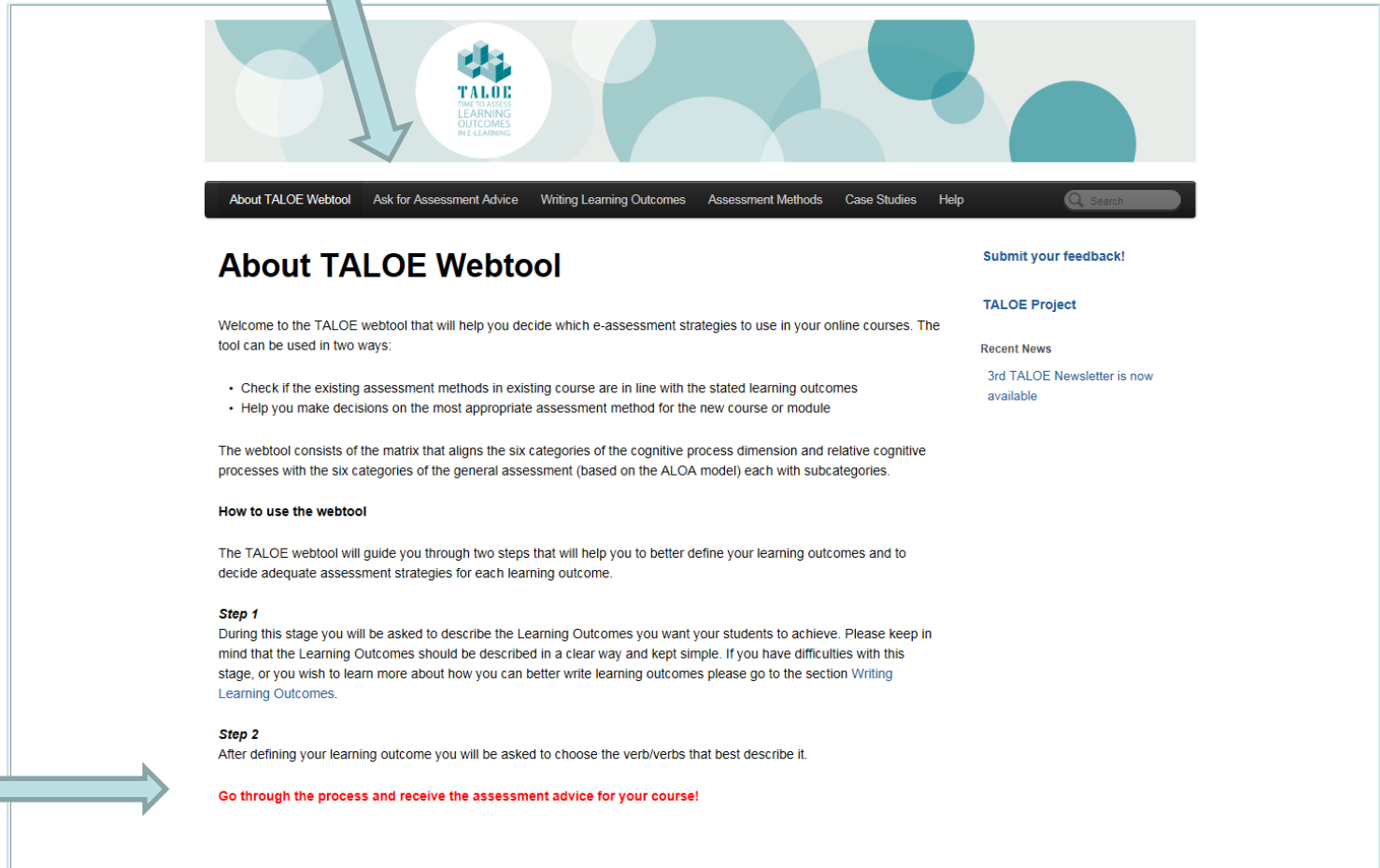
After defining your learning outcome you will be asked to choose the verb/verbs that best describe it.

Go through the process and receive the assessment advice for your course!



How to use TALOE web tool

<http://taloetool.up.pt/>



The screenshot shows the TALOE web tool interface. At the top, there is a header banner with the TALOE logo (a stylized 'T' made of cubes) and the text 'TALOE TIME TO ASSESS LEARNING OUTCOMES IN E-LEARNING'. Below the banner is a dark navigation bar with links: 'About TALOE Webtool', 'Ask for Assessment Advice', 'Writing Learning Outcomes', 'Assessment Methods', 'Case Studies', and 'Help'. A search bar is also present. The main content area is titled 'About TALOE Webtool' and contains a welcome message, a list of two bullet points, a paragraph about the webtool's matrix, and a section 'How to use the webtool' with two steps. On the right side, there are links for 'Submit your feedback!', 'TALOE Project', and 'Recent News' (with a link to the 3rd TALOE Newsletter).

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TALOE Project

Recent News
[3rd TALOE Newsletter is now available](#)



Write your learning outcome

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Ask for Assessment Advice

[Submit your feedback!](#)

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[TALOE Assessment Platform >](#)
[Ask for Assessment Advice](#)

Step 1: Choose the learning outcome you want your students to achieve. You can write the learning outcome in the box below.

explain the difference between metals and non-metals

Step 2: Please select from one or more of the tabs below the verb or the verbs (maximum 3) that better describes the Learning Outcome:

Remember	Understand	Apply	Analyze	Evaluate	Create
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☐ Recognizing – Locating knowledge in long-term memory that is consistent with presented material
☐ Recalling – Retrieving relevant knowledge from long-term memory

Check assessment methods



Dimension 6: Decision making			
	Knowledge	Skills	Wider Competences (Responsibility and Autonomy)
Level descriptor	Demonstrate awareness of the key aspects of professional, ethical and social responsibilities linked to management of civil engineering activities, decision making and judgment formulation.	Manage work contexts in civil engineering subject area, take decisions and formulate judgments.	Identify appropriate and relevant approaches to manage work contexts in civil engineering subject area and reflect on professional, ethical and social responsibilities in taking decisions and formulating judgments.
Assessment approaches	Essays Problem Solving Practical Work	Essays Problem Solving Practical Work	Problem Solving Practical Work Reflective Practice Assignments

IN SUM: CALOHEE offers

**Academic
and
professional
engagement**

**Evidence
based tools
for analysis
and
diagnosis**

**Subject
focused
context**

**Serve
European
HE degrees**

**Provide
support to
stakeholders**

A challenging endeavour with high potential !



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