



TALOE
TIME TO ASSESS
LEARNING
OUTCOMES
IN E-LEARNING

The TALOE project – assessment of learning – 2nd part

Presented by: Sandra Kucina Softic,
University Computing Centre
University of Zagreb



europaean university
continuing education network

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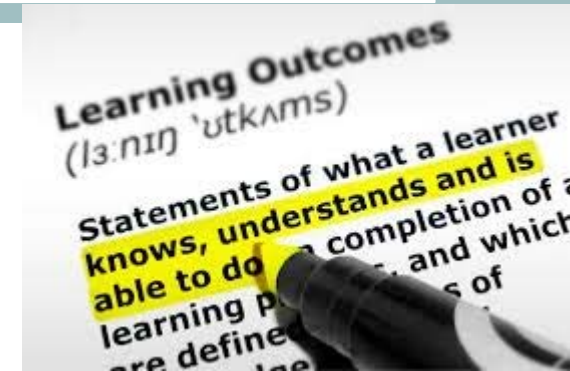
Introduction



- Meet a participant you don't know
- Get acquainted and find out:
 - Where he/she works
 - Why he/she enrolled for the workshop and with what expectations
- Introduce this participant to other participants



About learning outcomes



- A learning outcome (LO) is the specification of what a student should learn as the result of a period of specified and supported study
- Outcomes are usually expressed as knowledge, skills, or attitudes
- They can be defined at different levels:
 - LO of the study programme
 - LO of the course
 - LO of the module



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Why we need clearly defined Learning Outcomes?

- Students will know what to expect from the course/module
- Students will better understand what is expected from them
- Potential students and employers will have better understanding of what will student know and be able to do after finishing a study





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Learning Outcomes should be



Stated from the student's position

- *Student will understand the nine reasons for conducting a need assessment*
- *Student will be able to explain advantages and disadvantages of on-line communication*

Observable and measurable

- *Student will be able to list nine reasons for conducting a need assessment*
- *Student will be able to summarize three major groups of learning theories and their representatives/authors of some theories*

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Learning outcomes of a course/module

- Do you have experience in writing learning outcomes ?
- What is your experience (problems, what helped, ...)?
- Choose a course/module within the group for which you will write LO's

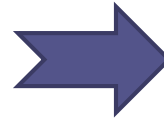


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Questions to be asked?

Cyclic plan of use and evaluation of LO's

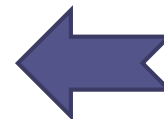
How to ensure that learning outcomes, teaching and learning are consistent? - *evaluation*



What is important that student learn during the study – *learning outcomes*



How to organize teaching and learning to be achievable by the majority of students – *methods/way of learning*



Which assessment and grading methods to choose in order to reach valid information how much are achieved defined learning outcomes by student - *grading*





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How to use TALOE web tool

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

The screenshot shows the TALOE webtool interface. At the top, there is a navigation bar with links: About TALOE Webtool, Ask for Assessment Advice, Writing Learning Outcomes, Assessment Methods, Case Studies, Help, and a search box. The main content area is titled "About TALOE Webtool" and includes a welcome message, a list of purposes, a description of the tool's matrix, and two steps for using the tool. A sidebar on the right contains links for "Submit your feedback!", "TALOE Project", and "Recent News".

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!

[Submit your feedback!](#)

TALOE Project

Recent News

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



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What can you do with this tool?

- Check if the existing assessment methods in courses are in line with the stated learning outcomes
- Use it as help in decision on the most appropriate assessment methods for the new course or module



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Write your learning outcome

The screenshot shows the 'Ask for Assessment Advice' page. At the top, there is a navigation menu 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 heading is 'Ask for Assessment Advice'. Below it, 'Step 1' instructs the user to choose a learning outcome, with a text box containing 'explain the difference between metals and non-metals'. 'Step 2' asks the user to select a verb from a list: Remember, Understand, Apply, Analyze, Evaluate, and Create. Under 'Remember', two options are listed: 'Recognizing - Locating knowledge in long-term memory that is consistent with presented material' and 'Recalling - Retrieving relevant knowledge from long-term memory'. A 'Check assessment methods' button is at the bottom. On the right side, there are links for 'Submit your feedback!', 'TALOE Project', 'Recent News' (with a sub-link '3rd TALOE Newsletter is now available'), and 'TALOE Assessment Platform > Ask for Assessment Advice'.



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Select three verbs that describe the learning outcomes



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About TALOE Webtool
Ask for Assessment Advice
Writing Learning Outcomes
Assessment Methods
Case Studies
Help

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

- Interpreting – Changing from one form of representation to another
- Exemplifying – Finding a specific example or illustration of a concept or principle
- Classifying – Determining that something belongs to a category
- Summarizing – Abstracting a general theme or a major point
- Inferring – Drawing a logical conclusion from presented information
- Comparing – Detecting correspondences between two ideas, objects or the like
- Explaining – Constructing a cause-and-effect model of a system

Check assessment methods

[Submit your feedback!](#)

TALOE Project

Recent News

3rd TALOE Newsletter is now available

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



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Results

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

Results

This is your learning outcome:

explain the difference between metals and non-metals

You consider that the verbs that better describe the Learning Outcome are: *Classifying Comparing Explaining*

Based on the information provided, we suggest the following e-assessment methods:

- ### 1. MCQ Understand

Response requires recall of more than one correct item of information, may involve a number of unconnected items. Test item asks to compare, contrast, demonstrate, interpret, explain, extend, illustrate, infer, outline, relate, rephrase, translate, summarize, show, classify.
- ### 2. Reflective practice – reflective observation

In the 'Reflective Observation' stage the student will describe and critically reviews his learning experience. He will analyze and make judgments of his performance. Other students, teachers or employers might make contributions regarding observation and judgment.
- ### 3. Essay – Assertion

The student is given a statement and is expected to examine the pros and cons, focusing on evidence in favour and against it. The student will interpret the statement and will recall relevant knowledge, including evidence and examples that support or not the statement. He will organize his arguments and at the end he will probably make some judgment on the statement.

←

[Submit your feedback!](#)

[TALOE Project](#)

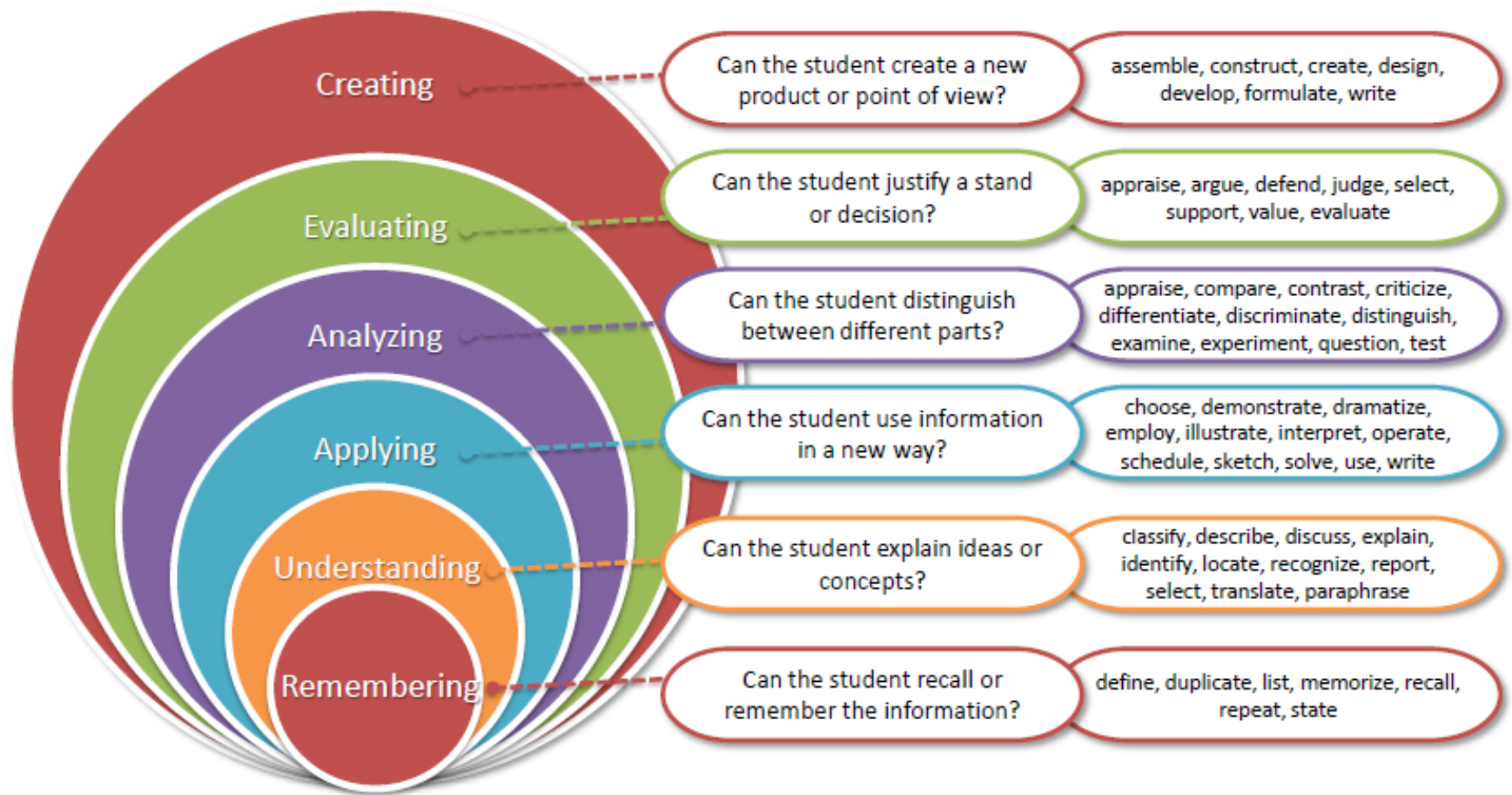
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[TALOE Assessment Platform > Results](#)



Bloom's Taxonomy (Revised)





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The cognitive process dimension – categories, cognitive processes

| lower order thinking skills | | | | higher order thinking skills | |
|--|--|---|---|--|--|
| remember | understand | apply | analyze | evaluate | create |
| recognizing <ul style="list-style-type: none"> identifying recalling <ul style="list-style-type: none"> retrieving | interpreting <ul style="list-style-type: none"> clarifying paraphrasing representing translating exemplifying <ul style="list-style-type: none"> illustrating instantiating classifying <ul style="list-style-type: none"> categorizing subsuming summarizing <ul style="list-style-type: none"> abstracting generalizing inferring <ul style="list-style-type: none"> concluding extrapolating interpolating predicting comparing <ul style="list-style-type: none"> contrasting mapping matching explaining <ul style="list-style-type: none"> constructing models | executing <ul style="list-style-type: none"> carrying out implementing <ul style="list-style-type: none"> using | differentiating <ul style="list-style-type: none"> discriminating distinguishing focusing selecting organizing <ul style="list-style-type: none"> finding coherence integrating outlining parsing structuring attributing <ul style="list-style-type: none"> deconstructing | checking <ul style="list-style-type: none"> coordinating detecting monitoring testing critiquing <ul style="list-style-type: none"> judging | generating <ul style="list-style-type: none"> hypothesizing planning <ul style="list-style-type: none"> designing producing <ul style="list-style-type: none"> constructing |

(Table adapted from Anderson and Krathwohl, 2001, pp. 67–68.)



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Task 2- Learning outcomes in e-course

- Taking into consideration Bloom taxonomy write three learning outcomes for the chosen e-course



E-assessment - definition

- e-Assessment is the end-to-end electronic assessment processes where ICT is used for the presentation of assessment activity, and the recording of responses. This includes the end-to-end assessment process from the perspective of learners, tutors, learning establishments, awarding bodies and regulators, and the general public. (JISC/QCA)
- e-assessment refers to assessment methods and practices that emphasize the role of information technology relative to measuring students' learning.



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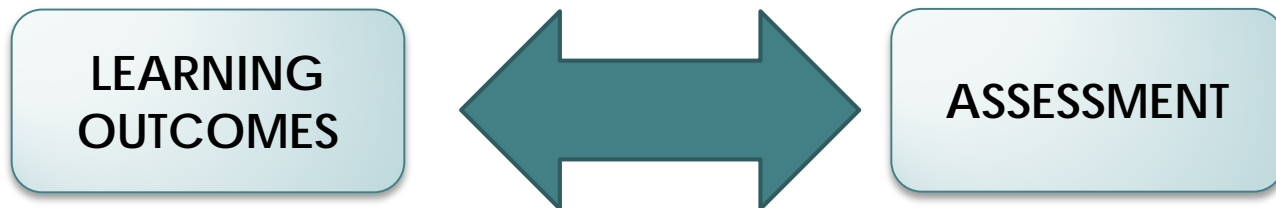
Advantages of e-assessment

- immediate feedback to students,
- allows rehearsal and revision,
- immediate feedback to staff,
- allows evaluation of a course's strengths and weaknesses,
- can be linked to other computer-based or online materials.



Constructive alignment

- a principle used for devising teaching and learning activities, and assessment tasks, that directly address the learning outcomes intended in a way not typically achieved in traditional lectures, tutorial classes and examinations (Biggs and Tang, 2011).
- Approach where planning of the course starts with clear vision of learning outcomes
- LO of the course should be aligned with content and activities in course and with assessment methods



*What do we
hope students will learn?*

*How do we know that
they have learned?*



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| Learning Outcomes | Activities | Assessment |
|--|--|---|
| Remember Understand Apply Analyse Evaluate Create | Lectures Discussions Laboratory work Tests Problems to solve Field work Group work Presentations in group Homework | Types of questions in exams Evaluation of practical work Report on individual work Projects Presentations Seminars Essays |



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Examples (1)

| Learning outcome | Content/way of learning | Assessment | Workload |
|---|--|--|----------|
| To be able to count types of questions in exams | Lecture, text in a textbook about the types of questions in exams | To count questions in exams and group them | 6 hours |
| To be able to analyse questions in exams | Lecture, discussions in small groups about adv and disadv of some types of questions, work in pairs on the analysis of prepared questions | State the adv. And disadv. Of questions; MCQ, compare essay type questions according to adv. And disadv. | 8 hours |
| Prepare exam | Lecture, demonstration of steps in the exam preparation, individual work in preparation of questions, work in small groups to choose questions and design exam | Prepare the exam in Chemistry according to the course programme | 15 hours |



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Task 3- Assessment methods in e-course

- Write for each defined LO e-assessment methods



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Checking with TALOE web tool

| learning outcome | content/way of learning | assessment | workload | proposed assessment by TALOE |
|------------------|-------------------------|------------|----------|------------------------------|
| | | | | |



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Present your results

- More information about the TALOE project and web tool
- [http:// taloe.up.pt](http://taloe.up.pt)
- taloe@up.pt

