LEARNING OUTCOMES WORKSHOP



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INTRODUCTION

- . Who We Are
- II. Teaching or Learning
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- IV. Bologna Process
- V. EHEA European Higher Education Area
- VI. Student Centered Learning
- VII. Tools for the Bologna Process:

VIII.National Competencies, Program and Course Outcomes

WHO WE ARE

BETS is a volunteer group supporting the use of instructional technology at Bilkent University.

http://bets.bilkent.edu.tr/

TEACHING AND LEARNING

"A teaching mission necessarily embraces both a concern for teaching and a concern for the end product of the teaching process that is: the student learning experience."

(Little & Locke 2011, 19)

EFFORTS

Australia & US	UK & Europe
TEQSA Australia: Threshold standards:	Gibbs, G. (2010) Dimensions of Quality. HEA.
http://www.teqsa.gov.au/higher-education-	
threshold-standards	European Teaching Excellence Award
	(Humanities & Social Sciences):
Devlin, M. et al (2012) Leading sustainable	http://20.ceu.hu/teaching-award
improvement in university teaching and learning:	
Lessons from the sector: (Australian).	European Commission approaches (Sept
www.olt.gov.au/	2012):
	http://ec.europa.eu/education/news/20120918b_en.
Lumina Foundation (USA) degree	htm
qualifications profile: http://degreeprofile.org/	
\A/Lto an an an an a landa a Amaritan	Henard, F. & Roseveare, D. (2012) Fostering
white paper prepared by the American	Quality Teaching in Higher Education: Policies and
Association of Colleges of Pharmacy's 2008-	Practices: An Institutional Management Guide for
2009 Task Force for the Recognition of	Higher Education Institutions. Paris, OECD.
Pharmacoutical Education 2010 74 (9) Article	Plassboyé C. Simon F. Quinlan K. Murahy
	L Boya, T. & Szabá, M. (2012) The
104.	Professionalisation of Academics as Teachers in
Caucasus Middle & Ear East	Higher Education Standing Committee for
Caucasus, Findule & Fair East	Social Sciences: European Science Foundation:
Hubs:	http://www.esf.org/fileadmin/Public documents/Pub
http://www.globalhighered.org/edhubs.php	lications/professionalisation_academics.pdf
0	· – ·
China too is embracing notions of	High Level Group on the Modernisation of
excellence, see for example:	Higher Education (June 2013) Report to the
http://www.yzu.edu.tw/admin/aa/index.php/conte	European Commission: Improving the quality of
nt/view/1146/367/lang,en/	teaching and learning in Europe's higher education
	institutions.
	http://ec.europa.eu/education/higher-
	education/doc/modernisation_en.pdf

BOLOGNA PROCESS



The Bologna Declaration (1999)

- to ensure more comparable, compatible and coherent systems of higher education in Europe.
- to foster student mobility and employability through the introduction of a system based on undergraduate and postgraduate studies with easily readable programmes and degrees.
- Quality assurance has played an important role from the outset, too.

Ministers responsible for higher education

TURKEY IN BP

Participation of Turkey in BP (2001)

Under the responsibility of Council of Higher Education (CoHE)



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- common degree system
- a European system of credits
- mobility
- cooperation in quality assurance
- national qualifications framework
- lifelong learning
- employability
- social dimension of higher education



$BP \rightarrow European$ Higher Education Area (March 2010)



27 countries $1999 \rightarrow 47$ countries $2010 \rightarrow 49$ countries now b ts

EHEA PRIORITIES

- social dimension: equitable access and completion
- lifelong learning
- employability
- student-centered learning and the teaching mission of higher education
- education, research and innovation
- international openness
- mobility
- data collection
- multidimensional transparency tools
- funding

STUDENT-CENTERED LEARNING

Student-centered learning (SCL) is an approach to education, which aims at overcoming some of the problems inherent to more traditional forms of education by **focusing on the learner and their needs**, rather than being centered around the teacher's input. This approach has many implications for the design and flexibility of curriculum, course content, and interactivity of the learning process and is being increasingly used at universities across Europe.



- ECTS: European Credit Transfer System
- Diploma Supplement
- Quality Assurance

NQF: National Qualifications Framework

ECTS

Previously	Now	Trend
Student-Teacher contact hours	Student workload	Learning outcomes based student workload

National Competencies, Program and Course Outcomes



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OUTLINE

- Goals, objectives, learning outcomes
- II. Features of good learning outcomes
- III. Parts of objectives
- IV. Developing objectives
 - A. Bloom's cognitive domain
 - B. Verbs
 - C. Key points while writing

V. An example

- A. Steps to follow
- B. Constructive alignment

VI. Team work

GOALS, OBJECTIVES, LEARNING OUTCOMES

Goal/Aim:

A general, global statement of intended general outcome of a course, a lesson, an instructional unit.



Objective:

A statement of specific performances which will contribute to the attainment of the goal. Intended results; might include teaching intention

GOALS, OBJECTIVES, LEARNING OUTCOMES

Learning outcome:

A statement focusing on <u>achieved results;</u> preferred for emphasizing the <u>learner</u> and the resulting learning behaviour.



EXAMPLES

Goals/Aims:

- This course aims to help learners design effective courses using instructional technology.
- The aim of this course is to give students an introduction to organic chemistry.
- The aim of this course is to provide learners with an overview of the academic research process.

EXAMPLES

Learning Outcomes

- Upon completion of the module, students will be able to design <u>functioning</u> computer programs using structured and object-oriented approaches.
- By the end of the course students will be able to **use** mathematical expressions
 <u>appropriately</u> by constructing rooted tree.

FEATURES OF GOOD LEARNING OUTCOMES

SMART (Boyd & Vitzelio)

 Specific: Clear, definite terms describing the abilities, knowledge, values, attitudes and performance desired.
<u>Poor</u>: Be able to use terms related to the field

Measurable: Tangible, should have a measurable outcome and a target can be set.

Poor:

- Be able to understand mathematics.
- Develop an appreciation for music.



FEATURES OF GOOD LEARNING OUTCOMES

Achievable: The outcome is something your students can accomplish.
<u>Poor</u>: Become a life-long learner

Realistic: The outcome is practical in that it can be achieved in a reasonable time frame. <u>Poor</u>: Write a novel (semester course)

FEATURES OF GOOD LEARNING OUTCOMES

- Time-bound: Identify a specific time frame for the completion of the outcome.
 - E.g. Upon completion of the course, by the ned of the course....

PARTS OF OBJECTIVES





Condition:

Under what circumstances is the student expected to perform?

- Given a set of whole numbers ...
- In the presence of an audience ...
- Without the aid of class notes ...
- Using internet applications ...
- After a detailed examination of the causes...
- Given a list of chemical elements ...
- By using the instructional design principles...

Behavior:

What is the student expected to do (a measurable outcome)?

- Describe
- Apply
- Analyze
- Judge
- Support
- Evaluate

•••

Criterion:

- Is the performance sufficient?
- Speed: In under two hours, within fifteen minutes...
- Accuracy: To the nearest whole number, with no more than two incorrect entries in...
- Quality: Effectively, successfully, meaningfully, appropriately...



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for an assigned case study.



Condition

DEVELOPING LEARNING OUTCOMES FOR YOUR COURSES

BLOOMS TAXONOMY



ACTION VERBS

Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
Remember previously learned information.	Demonstrate an understanding of the facts.	Apply knowledge to actual situations.	Break down objects or ideas into simpler parts and find evidence to support generalizations.	Compile component ideas into a new whole or propose alternative solutions.	Make and defend judgments based on internal evidence or external criteria.
Arrange Count Define Describe Draw Find Identify Label List Match Name Order Quote Recall Recite Recognize Relate Select Sequence Tell Write	Classify Conclude Convert Defend Demonstrate Discuss Distinguish Estimate Explain Extend Generalize Identify Illustrate Interpret Paraphrase Predict Report Restate Review Summarize Tell	Apply Change Choose Compute Dramatize Interview Prepare Produce Role-play Select Show Transfer Use	Analyze Characterize Classify Compare Contrast Debate Deduce Diagram Differentiate Discriminate Distinguish Examine Outline Relate Research Separate	Compose Construct Create Design Develop Integrate Invent Make Organize Perform Plan Produce Propose Rewrite	Appraise Argue Assess Choose Conclude Criticize Decide Evaluate Judge Justify Predict Prioritize Prove Rank Rate Select Support Value

VERBS TO AVOID

- Understand
- Appreciate
- Know about
- Become familiar with
- Learn about
- Become aware of
- 🗆 Enjoy
- Believe

WHILE WRITING

- Focus on <u>student</u> performance not teacher performance.
 - **Poor:** To teach the difference between behaviorism and cognitivism



□ Focus on <u>product</u> - not process.

Poor: The students will examine the differences between behaviorism and cognitivism

WHILE WRITING

Focus on <u>terminal behavior</u> - not subject matter.
Poor: Historical origins of art history
Include only <u>one</u> general learning objective in each outcome.

Poor: Successfully apply instructional design principles to a learning materials and evaluate its effectiveness.

Link your objectives to your assessment

Map your assessment

STEPS TO FOLLOW WHILE WRITING LEARNING OUTCOMES

BEFORE YOU START

- Check the goals and competencies for your program.
- Outline the specific knowledge, skills, or attitudes for specific goals.
- Include a variety of levels from the <u>cognitive</u> <u>domain</u>
- 4. Plan your **teaching** and **learning** methodology
- Focus on your assessment at the same time you are working on your outcomes



IDENTIFY KSAs (Knowledge, Skills, Attitude)

For your courses, identify:

- Knowledge: Theoretical Conceptual
- **Skills:** Cognitive Practical

Communication skills

Critical thinking skills

Teaching skills...

Attitude: Commitment – Appreciation – Valuing





KNOWLEDGE

Learning outcome



By the end of the course, the students will be able to:

- Clearly explain the theoretical underpinnings of major instructional theories in a reflection paper.
- Compare major instructional theories in detail by referring to the role of the teacher, learner and the process of instruction.



Learning outcome

By the end of the course, the students will be able to:

- Develop effective electronic materials for the intended grade level by using web applications in a purposeful manner.
- 2. Apply visual design principles correctly when designing the layout of the materials.



ATTITUDE

Learning outcome

The students will be able to:

- Communicate effectively with others members of the group while completing their own tasks during project work.
- 2. Fulfil his/her duties responsibly in a timely manner while working on his/her part of the project.



CONSTRUCIVE ALIGNMENT

CONSTRUCIVE ALIGNMENT (Biggs, 2003)

The curriculum is designed so that the **teaching activities**, **learning activities** and **assessment** tasks are co-ordinated with the learning outcomes.



Learning outcomes		Teaching and Learning Activities	Assessment	
Cognitive	Demonstrate Knowledge Comprehension Application Analysis Synthesis. Evaluation		Lectures Tutorials Discussions Laboratory work Clinical work	End of module exam Multiple choice tests Essays Practical
Affective	Integration of beliefs, ideas and attitudes		Group work Seminar Peer group presentation	assessment Fieldwork Clinical practice Presentation Proiect work
Psychomotor	Acquisition of physical skills			

Assessment Mode	Most likely kind of learning assessed
Extended prose, essay type	
Essay exam Open book Assignment, take-home	Rote, question spotting, speed structuring As for exam, but less memory, coverage Read widely, interrelate, organise, apply
Objective test	
Multiple choice Ordered outcome	Recognition, strategy, comprehension, Hierarchies of understanding
Performance assessment	
Practicum Seminar, presentation Posters Interviewing Critical incidents	Skills needed in real life Communication skills Concentrating on relevance, application Responding interactively Reflection, application, sense of relevance
Project Reflective journal	Application, research skills Reflection, application, sense of relevance
Case study, problems Portfolio	Application, professional skills Reflection, creativity, unintended outcomes
Rapid assessments (large group)	
Concept maps Venn diagrams One minute/three-minute paper	Coverage, relationships Relationships Level of understanding, sense of relevance
Short answer Letter to a friend	Recall units of information, coverage Holistic understanding, application, reflection
Cloze	Comprehension of main ideas

LINKING TEACHING-LEARNING ACTIVITIES AND ASSESSMENT

1. Clearly explain the theoretical underpinnings of major instructional theories in a reflection paper.

T-L: Examine theories in class A: Reflection paper

 Compare major instructional theories in detail by referring to the role of the teacher, learner and the process of instruction.

> T-L: Group work, comparison A: Poster

LINKING TEACHING-LEARNING ACTIVITIES AND ASSESSMENT

 Develop effective electronic materials for the intended grade level by using web applications in a purposeful manner.

> T-L: Material development A: Material portfolio

4. Apply visual design principles correctly when designing the layout of the materials.



LINKING TEACHING-LEARNING ACTIVITIES AND ASSESSMENT

 Communicate effectively with others members of the group while completing their own tasks during project work.

> T-L: Pair work, group work A: Project, include in the rubric

6. Fulfil his/her duties responsibly in a timely manner while working on his/her part of the project.



EXAMINING YOUR OWN SYLLABUS

- 1. Take a look at your own syllabus.
- 2. Review the **aims** and **learning outcomes** with the checklist.
- 3. Take a look at your **T-L activities** to see the alignment.
- 4. Take a look at your **assessment** to see the alignment
- 5. When you are done, please **share** your outcomes with the person sitting next to you and use the **checklist** again.

Have I focussed on outcomes not processes, i.e. have I focussed on what the students are able to demonstrate rather than on what I have done in my teaching?
Have I begun each outcome with an active verb?
Have I used only one active verb per learning outcome?
Have I avoided terms like know, understand, learn, be familiar with, be exposed to, be acquainted with, and be aware of?
Are my outcomes observable and measurable?
Are my outcomes capable of being assessed?
Have I included learning outcomes across the range of levels of Bloom's Taxonomy?
Do all the outcomes fit within the aims and content of the module?
Have I the recommended number of outcomes (maximum of nine per module)?
Is it realistic to achieve the learning outcomes within the time and resources available?