Assessment in Higher Education:
Professional Development for Teachers

How to write Learning Objectives

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Research-Training-Consultancy

Contents

Step 1: Decide what learners should be able to do after your course

- Take a look upon the Programme objectives of the programme your course is part of (for example the general objectives or exit qualifications of a Bachelor's, Master's program) and note to which of these objectives your course should contribute.
- Be open minded and ask yourself the question: "what should learners be able to do after this course?".
- There is not a preferred number of learning objectives per course or subject. Try to formulate learning objectives that suit your course best. It helps you to make clear what you think is (most) important to learn the students. Please note that there are general course objectives and more specific objectives per lecture.

Step 2: Connect the subjects to Bloom's Taxonomy

- When you start formulating your learning objectives, it is important to keep in mind that objectives need to be specific and on the right level of learning. Bloom's Taxonomy provides a stepping stone for this point.
- Bloom's Taxonomy contains six levels of learning namely, remember, understand, apply, analyse, evaluate and create.
- In Appendix A you can find an explanation of every level of learning including examples of learning objectives.
- Appendix B provides an overview of 'active verbs' for each level of learning that can help you select the right active verb that specifically indicates what students should be able to do with the knowledge or skills you want to learn them.

Step 3: Formulate your learning objectives by describing 4 elements[1]:

- **Behaviour:** Describe the desired 'observed learning outcomes' by choosing an appropriate action verb. See appendix B.
- **Subject:** Describe what the content is to which the chosen verb applies, the noun
- **Condition:** Describe under what conditions the participants should be able to demonstrate their behaviour (e.g. within two hours, in order to…, with the help of…, using…)
- **Degree:** Include the degree of competence that is required to meet the learning objective

Step 4: General tips for formulating learning objectives

- Aim the learning objectives on the highest appropriate cognitive level of Bloom's Taxonomy, assuming that the lower cognitive skills are necessary preconditions for higher ones. In other words: it is not needed to mention in a learning objective that students need to be able to know, understand and apply a certain theory, in this case the highest level of learning: "apply" is sufficient, as we can assume that a student also needs to know and understand the theory in order to be able to apply it correctly.
- Formulate the objectives in a positive way
- You don't have to elaborate on the details of the content, keep it to-the-point

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[1] It is not always possible or necessary to use all four elements. The behaviour (the action verb) and the subject (noun) are the **bare minimum**. When using an example, the learning objective could be: *At the end of this module the learner is able to carry out a statistical analysis with the use of SPSS with 100% accuracy.*

Appendix A:
An example of learning objectives grouped per level of learning (Bloom's Taxonomy)

Definition of levels of learning	Example of learning objectives *Students are able to:*
Remember: The knowledge of specifics, you recall or retrieve previous learned information	<u>Recognize</u> aspects of global warming
Understand: The learner has to be able to give meaning to the subject. The learner is asked not only to give a definition but to explain the knowledge in his own words	<u>Describe</u> aspects that have an influence on global warming
Apply: Carry out or use a procedure in a given situation and apply into a new situation	<u>Illustrate</u> theories that help to reduce global warming
Analyse: Breaking information into parts to explore concepts in relation to each other.	<u>Investigate</u> strategies to reduce global warming
Evaluate: Justify a stand or decision	<u>Assess</u> Pros and Cons of strategies to reduce global warming
Create: Generating new ideas, products or ways of viewing things by putting elements together to form a coherent or functional whole	<u>Develop</u> a strategy to reduce global warming

Appendix B: Active verbs for formulating learning objectives grouped by level of learning

REMEMBER

Count	Point	Relate
Define	Provide	Repeat
Distinguish	Quote	Review
Draw	Read	State
Indicate	Recall	Tabulate
List	Recite	Trace
Name	Recognize	Underline
Observe	Record	Write

UNDERSTAND

Associate	Distinguish	Locate
Classify	Edit	Predict
Compare	Estimate	Rephrase
Compute	Extrapolate	Restate
Conclude	Rewrite	Give in own terms
Contrast	Infer	Summarize
Describe	Interpret	Translate
Differentiate		

APPLY

Apply	Illustrate	Produce
Calculate	Implement	Purchase
Choose	Increase	Relate
Complete	Install	Repair
Conduct	Modify	Show
Demonstrate	Order	Solve
Discover	Practice	Transfer
Employ	Prepare	Utilize

ANALYZE

Analyze	Distinguish	Investigate
Classify	Divide	Outline
Compare	Examine	Point out
Construct	Explain	Reduce
Deduce	Group	Relate
Detect	Identify	Separate
Diagram	Illustrate	Summarize
Differentiate	Infer	Transform

EVALUATE

Appraise	Determine	Rate
Argue	Estimate	Recommend
Assess	Evaluate	Regulate
Compare	Grade	Select
Contrast	Judge	Test

CREATE

Arrange	Develop	Plan
Assemble	Formulate	Prepare
Build	Generalize	Prescribe
Combine	Integrate	Produce
Construct	Originate	Put together
Create	Organize	Synthesize

Appendix C: Bloom's Taxonomy

Bloom's Taxonomy

Create, invent, compose, predict, plan, imagine, construct, design

Creating

Judge, select, decide, justify, debate, discuss, recommend, rate

Evaluating

Analyse, explain, investigate, distinguish, compare, separate

Analysing

Solve, show, use, illustrate, complete, classify, compare, design

Applying

Explain, interpret, compare, discuss, predict, describe, give an example

Understanding

State, name, list, describe, label, relate, find

Remembering