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Writing Effective Learning Objectives

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Quick takeaways

- Use our module learning objective tool to create quick learning objectives for each module
- Learning objectives should use learner-centered language, and be both specific and measurable
- Do not confuse learning activities (learners will write a report) with learning objectives (learners will defend their proposal)

Overview

Clear learning objectives are particularly important for online learners. They are associated with higher levels of sustained motivation and achievement.¹

Additionally, learning objectives help learners practice metacognition skills, or self-guided learning, which is critical in our online environment.²

Learning objectives help learners see the value in a course. When they are articulated clearly, they impact course enrollment and satisfaction.

Defining Objectives

Defining a learning objective entails asking yourself, “What should a learner know by the end of this course (or module)?” It can be helpful to think of learning objectives in three general areas:

- What do you want your learners to know?
- What do you want your learners to think or care about?
- What do you want your learners to be able to do?

Consider these general best practices when defining learning objectives for a new course:

Use Learner-Centered Language

Learning objectives are only useful if new learners can easily understand them. They should articulate concrete gains in knowledge and skill, and provide learners with a standard against which they can measure their progress (e.g., by asking “can I do this yet?”) throughout the course. Define objectives in simple, clear language, and avoid jargon or references to advanced topics.³

Be Specific and Measurable

Use specific, action-oriented verbs, and think about how learner success will be measured against the objective. For example, “Solve a simple linear equation” is a specific, action-oriented, and measurable objective; “Understand basic linear equations” is vague and difficult to measure.⁴ Understand can mean very different things to different people, whereas it is easy to say, “Yes, I can solve that equation.” You should be able to identify how learners will demonstrate every objective.

Quality over Quantity:

Learning objectives should be both comprehensive and concise. Aim for four to seven course objectives and two to five objectives per module. Remember, you want learners to use the learning objectives to guide their work throughout the course, and to independently assess personal progress.

Alignment:

Learning objectives should be defined first at the course level, then at the module level, and finally for each individual lesson or video. Each unit or lesson goal should further one or more of the course-level goals. Learners must be supported by content that is designed to provide learners with the opportunity to gradually develop sophistication with respect to each outcome.

Do Not:

Do not confuse learning processes (e.g. completing an internship or an assignment) with learning objectives (what is learned in the internship i.e. application of theory to real world practice). Learning objectives are not:

- Descriptions of learning activities (Students will write a report)
- Descriptions of course content (You will be introduced to the field of psychology...)

Using the Module Learning Objective Tool:

Learn more about adding learning objectives to modules

(https://partner.coursera.help/hc/articles/203739139#header_1).

Because we consider articulating learning objectives to be a critical component of a successful online course, we have created a module-level learning objective tool within our course editing platform to make adding learning objectives easier.

At the top of each module you will see a box labeled “Learning Objectives.” You will then be prompted to select a “Level.” The level refers to the type of learning you are describing, or the level of cognitive understanding needed to achieve the objective.

You will then be prompted to select a verb. One of the most challenging aspects of developing strong learning objectives can be determining what specific verb you intend to use. That is, determining what exactly you want learners to be able to do. The verb bank includes the most-used verbs for each level of learning. Using a verb from the verb bank is a good way to ensure you are writing a useful objective.

Finally, enter your learning objective into the text field. The chosen verb will pre-populate as the first word of your learning objective. If you choose the verb “Define” and write “photosynthesis” in the learning objective box, the learning objective will be published as “Define photosynthesis.”

Once defined, the objectives for each module may be presented to learners in a video or text resource. Objectives may also be captured in the module title; module titles that allude to specific objectives tend to be more descriptive and compelling, as illustrated with the titles below:

<u>Basic Module Title</u>	<u>Explicit, Descriptive, and Inviting Module Title</u>
Introduction to Academic Writing	Academic Writing: What is it and Why is it Different?
Impromptu Speeches	How to Design, (Practice!), and Critique an Impromptu Speech

Examples

Turning broad, vague objectives into specific objectives that articulate clear value to the learner

These examples illustrate the replacement of general verbs (“learn,” “understand”) with more specific, action-oriented verbs (“identify,” “explain,” “write,” “appreciate”). For more examples, visit the Carl Wieman Science Education Initiative Learning Goals page (http://cwsei.ubc.ca/resources/learn_goals.htm).

<u>Original Objective</u>	<u>Specific, Learner-Centered Objective</u>
Learn how the physical and chemical attributes of the brain affect learning	Be able to list three techniques for better studying that are derived from physical and chemical attributes of the brain
Be able to write basic programs in the Python programming language	Be able to write programs to solve problems white require: sequential execution (like a cooking recipe), repeated execution (like modeling an analog clock), and conditional execution (like checking if your password is correct)

Understand and solve problems with conditional probability	Identify situations and questions in which laws of conditional probability should be used and explain the impacts
Learn about common star constellations	Appreciate and enjoy stargazing through an understanding of how star constellations have been used throughout the ages and techniques for finding them in the night sky

Verbs, grouped according to the level of cognitive understanding they communicate

The table below provides examples of verbs, grouped according to the level of cognitive understanding that they communicate, that may work well in learning objective definitions.

<u>Level of Cognitive Understanding</u>	<u>Description</u>	<u>Representative Verbs</u>
Remember	Remember and recall factual information	Recall, choose, relate, recognize, express, repeat, name, memorize, label, outline, write, select, describe, identify, explain, list, define, order, state, show
Understand	Demonstrate understanding of ideas and concepts	Estimate, rewrite, express, paraphrase, write, discuss, describe, summarize, compare, explain, classify, predict, give examples, interpret, review, define, demonstrate, defend, distinguish, infer

Apply	Apply comprehension to unfamiliar situations	Create, practice, build, prepare, choose, apply, operate, illustrate, produce, modify, write, complete, use, develop, calculate, interpret, compute, demonstrate, employ, show
Analyze	Break down concepts into parts	Relate, question, categorize, appraise, simplify, analyze, test, model, examine, inspect, discover, breakdown, select, discriminate, calculate, critique, compare, plan, differentiate, solve
Evaluate	Think critically and defend a position	Judge, rate, argue, choose, recommend, propose, determining, justify, select, prove, support, compare, evaluate, conclude, attach, decide, assess, interpret, defend
Create	Transform and combine ideas to create something new	Create, prepare, recommend, combine, generate, categorize, simplify, design, propose, compose, synthesize, revise, select, develop, arrange, assemble, plan, formulate, tell, recognize

References

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