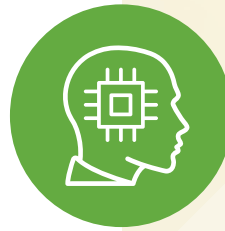


Learning Science

Learning Objectives & Assessments



Lecturio 
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This template has been designed to help healthcare educators and educational specialists **develop** well-defined learning objectives that serve as a foundation for ensuring instructional alignment.

Objectives help educators organize content to clarify the goals of instruction, create assessments, select materials, and communicate with students what they need to know and do.

The Domains of Learning:

The Cognitive Domain

Bloom's revised taxonomy for the cognitive domain gives six categories or levels, ranging from foundational cognitive processes such as knowledge (e.g. identify or define) to more complex processes such as creating (e.g. design or construct). This hierarchy is helpful for scaffolding instruction and assessment as learners build skills and knowledge.

The Affective Domain

The affective domain includes emotions, values, and attitudes. While these may be harder to observe and quantify compared to cognitive skills, they are vital to developing effective physicians. Like the cognitive domain, they can also be categorized in order of complexity.

The Psychomotor Domain

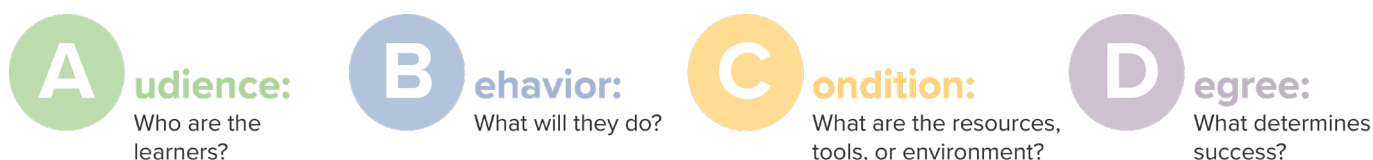
The psychomotor domain entails physical functions that make up the performance of tasks, skills, or actions (3). For example, the physical skills needed to start an intravenous line or perform sutures fall into the psychomotor domain. Objectives in the psychomotor domain can often be measured by observation and quality of outcomes as well as metrics such as speed, accuracy, and patient satisfaction.

Verbs that demonstrate critical thinking:

					Evaluation
					Appraise
				Synthesis	Argue
				Arrange	Assess
			Analysis	Assemble	Choose
			Analyze	Collect	Compare
		Application	Appraise	Combine	Conclude
		Apply	Categorize	Comply	Estimate
	Comprehension	Complete	Compare	Compose	Evaluate
	Compare	Restruct	Contrast	Construct	Interpret
Knowledge	Describe	Demonstrate	Debate	Create	Judge
List	Discuss	Dramatize	Diagram	Design	Justify
Name	Explain	Employ	Differentiate	Devise	Measure
Recall	Express	Illustrate	Distinguish	Formulate	Rate
Record	Identify	Interpret	Examine	Manage	Revise
Relate	Recognize	Operate	Experiment	Organize	Score
Repeat	Restate	Practice	Inspect	Plan	Select
State	Tell	Schedule	Inventory	Prepare	Support
Tell	Translate	Sketch	Question	Propose	Value
Underline		Use	Test	Setup	

What is the ABCD model for writing learning objectives?

ABCD stands for: Audience, Behavior, Condition, Degree (1,2). The audience is the students or learners, while the behavior is the specific, measurable behavior that uses an action verb. The condition describes any resources, interactions, or materials that may be used, and the degree gives the expected level of mastery. The objective is written from the perspective of the learner and describes what the learner will be able to do after instruction.



After the simulation, **students** will communicate **with a terminally ill patient** using the SPIKES framework.

audience
behavior
condition
degree

Learning Objectives Blueprint:

Audience	Behavior	Condition	Degree
Learning Objective:			

Audience	Behavior	Condition	Degree
Learning Objective:			

Audience	Behavior	Condition	Degree
Learning Objective:			

Audience	Behavior	Condition	Degree
Learning Objective:			

The Assessment Planner:

To effectively use the table below and ensure alignment, every objective should have at least one assessment item and every assessment item must align with an objective. Including the domain and assessment method in the table helps ensure that the components align among domains and assessment types (e.g. written assessments should generally not be used for objectives in the psychomotor domain). Creating a table such as this gives a quick visual representation of all the elements needed to align for effective and efficient instruction.

Objectives After Instruction	Domains	Assessment Method	Assessment Items

Objectives After Instruction	Domains	Assessment Method	Assessment Items

References

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3. Andreatta P, Dougherty P. Supporting the Development of Psychomotor Skills. In: Nestel D, Dalrymple K, Paige JT, Aggarwal R, editors. Advancing Surgical Education: Theory, Evidence and Practice [Internet]. Singapore: Springer Singapore; 2019 [cited 2022 Aug 1]. (Innovation and Change in Professional Education; vol. 17). Available from: <http://link.springer.com/10.1007/978-981-13-3128-2>