

The Good, The Bad, The Learning Outcomes

What are Learning Outcomes?

Learning outcomes are:

- statements that describe the knowledge, skills, and perceptions that students demonstrate upon completion of the program.
- measured in assessment activities conducted throughout the program.
- written with concrete verbs such as “define,” “apply,” or “analyze” (see back of this sheet).
- developed and then annually reviewed by program faculty.
- small in number, but big in impact. Unless you have externally-mandated outcomes through a professional accreditation process, keep the number of outcomes for your program in the 3-5 range.

Why are they important?

Learning outcomes are important because they:

- state what will be measured in your program’s assessment process.
- represent what your faculty most values for student learning.
- identify for students and other stakeholders what successful completers of your program know, believe, or have the skills to do.

The BAD...Poorly Constructed Outcomes

1. Students will learn how to develop a well-designed argument.
2. Our program provides students with opportunities to learn about contemporary problems in the field of biology.

The GOOD...Better Constructed Outcomes

1. Students will identify an issue, develop an arguable thesis about the issue, locate relevant supporting evidence, analyze the evidence, and draw a well-supported conclusion.
2. Students will evaluate the challenges associated with solving a contemporary biological problem, the importance of finding a solution for the problem, and the validity of the scientific evidence currently used in pursuit of solutions for the problem.

Why are the GOOD better than the BAD?

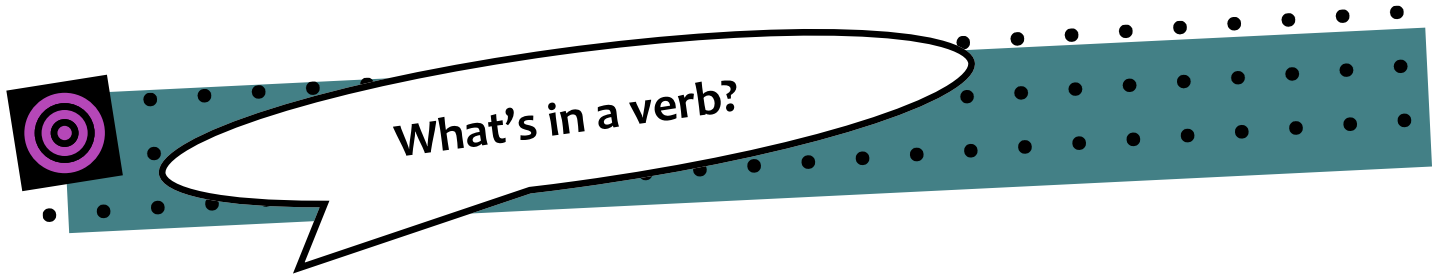
The GOOD statements are competencies that can be measured. The BAD (at least #2) describe what happens in the program.

Still need help? Contact us:

Gabriel Rodriguez
Administrative Associate
gabrielr@email.arizona.edu
621.7337



Office of Instruction and Assessment
Manuel Pacheco Integrated Learning Center
1500 E. University Blvd. Bldg. 70
University of Arizona, Tucson, AZ 85721
Phone: 520.621.7788 Fax: 520.626.8220
<http://oia.arizona.edu>



Learning outcomes should be observable and measurable. The outcome statement should include an action verb that clearly demonstrates the skill or behavior to be observed and measured.



Action Verb List - Suggested Verbs to Use in Each Level of Thinking Skills

Below are terms (verbs) that can be used when creating student learning outcomes for a course or degree program.

Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
Count	Associate	Add	Analyze	Categorize	Appraise
Define	Compute	Apply	Arrange	Combine	Assess
Describe	Convert	Calculate	Breakdown	Compile	Compare
Draw	Defend	Change	Combine	Compose	Conclude
Identify	Discuss	Classify	Design	Create	Contrast
Labels	Distinguish	Complete	Detect	Drive	Criticize
List	Estimate	Compute	Develop	Design	Critique
Match	Explain	Demonstrate	Diagram	Devise	Determine
Name	Extend	Discover	Differentiate	Explain	Grade
Outlines	Extrapolate	Divide	Discriminate	Generate	Interpret
Point	Generalize	Examine	Illustrate	Group	Judge
Quote	Give examples	Graph	Infer	Integrate	Justify
Read	Infer	Interpolate	Outline	Modify	Measure
Recall	Paraphrase	Manipulate	Point out	Order	Rank
Recite	Predict	Modify	Relate	Organize	Rate
Recognize	Rewrite	Operate	Select	Plan	Support
Record	Summarize	Prepare	Separate	Prescribe	Test
Repeat		Produce	Subdivide	Propose	
Reproduces		Show	Utilize	Rearrange	
Selects		Solve		Reconstruct	
State		Subtract		Related	
Write		Translate		Reorganize	
		Use		Revise	
				Rewrite	
				Summarize	
				Transform	
				Specify	

Source/Reference: These steps were derived from information collected at various conferences by Dr. Cia Verschelden, the original source is unknown. See <http://www.k-state.edu/assessment/slo/action.htm> for more information.