

# Writing Student Learning Outcomes

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## What is a learning outcome?

Learning outcomes are statements that specify what learners will know or be able to DO as a result of a learning activity. They should focus on students and use **action verbs**. Outcomes describe a desired condition such as knowledge (cognitive domain), skills (psychomotor domain), or attitudes (affective domain) that need to be fulfilled. The most popular domain for use in college courses is cognitive, because it lends itself well to the subject matter and assessment methods most commonly used; in many co-curricular experiences, affective learning gains may also be common. They differ from the goals for a department, which may be broader and less focused specifically on learning (e.g., *X number of students will participate in Y's activities*).

## What are characteristics of a good learning outcome?

The specified action must be:

- Observable
- Measurable
- Done by the learners (the students)

## Other student learning outcome guidelines (when possible!):

- Avoid vague verbs such as "understand" or "know"
- Limit your verbs to one per SLO

## Basic Structure:

**"Students will (be able to) <<action verb>><<something>>."**

## Examples:

- Students will be able to apply knowledge about self when deciding a major (application)
- Students will develop their leadership style (application)
- Students will practice regular participation in community service (affective, internalizing values)
- Students will be able to design an event (synthesis)
- Students will identify the correct office to contact with a problem (knowledge)
- Students will be able to determine the impact of accepting student loans in the summer term (comprehension)
- Student peer mentors will select appropriate resources when working with clients (evaluate)
- SWBAT (Students will be able to) participate effectively as a member of a task-oriented team. (application)

## Improving Unclear SLOs:

- *Unclear:* Students will understand a resume
- *Better:* Students will be able name the essential components of a good resume. (knowledge)
- *Unclear:* Students will develop an appreciation of cultural diversity.
- *Better:* Students will summarize in writing the benefits of fostering cultural diversity. (synthesis)
- *Unclear:* Students will be satisfied with their YSU tour.
- *Better:* Students will identify relevant programs or services (knowledge)

### Test questions when writing a student learning outcome (or SLO):

- Who is to perform?
- What action are they to take?
- What should result from their action?



## Bloom's Taxonomy Action Verbs

Definitions	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
<b>Bloom's Definition</b>	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.
<b>Verbs</b>	<ul style="list-style-type: none"> <li>• Arrange</li> <li>• Define</li> <li>• Describe</li> <li>• Duplicate</li> <li>• Identify</li> <li>• Label</li> <li>• List</li> <li>• Match</li> <li>• Memorize</li> <li>• Name</li> <li>• Order</li> <li>• Outline</li> <li>• Recognize</li> <li>• Relate</li> <li>• Recall</li> <li>• Repeat</li> <li>• Reproduce</li> <li>• Select</li> <li>• State</li> </ul>	<ul style="list-style-type: none"> <li>• Classify</li> <li>• Convert</li> <li>• Defend</li> <li>• Describe</li> <li>• Discuss</li> <li>• Distinguish</li> <li>• Estimate</li> <li>• Explain</li> <li>• Express</li> <li>• Extend</li> <li>• Generalized</li> <li>• Give example(s)</li> <li>• Identify</li> <li>• Indicate</li> <li>• Infer</li> <li>• Locate</li> <li>• Paraphrase</li> <li>• Predict</li> <li>• Recognize</li> <li>• Rewrite</li> <li>• Review</li> <li>• Select</li> <li>• Summarize</li> <li>• Translate</li> </ul>	<ul style="list-style-type: none"> <li>• Apply</li> <li>• Change</li> <li>• Choose</li> <li>• Compute</li> <li>• Demonstrate</li> <li>• Discover</li> <li>• Dramatize</li> <li>• Employ</li> <li>• Illustrate</li> <li>• Interpret</li> <li>• Manipulate</li> <li>• Modify</li> <li>• Operate</li> <li>• Practice</li> <li>• Predict</li> <li>• Prepare</li> <li>• Produce</li> <li>• Relate</li> <li>• Schedule</li> <li>• Show</li> <li>• Sketch</li> <li>• Solve</li> <li>• Use</li> <li>• Write</li> </ul>	<ul style="list-style-type: none"> <li>• Analyze</li> <li>• Appraise</li> <li>• Breakdown</li> <li>• Calculate</li> <li>• Categorize</li> <li>• Compare</li> <li>• Contrast</li> <li>• Criticize</li> <li>• Diagram</li> <li>• Differentiate</li> <li>• Discriminate</li> <li>• Distinguish</li> <li>• Examine</li> <li>• Experiment</li> <li>• Identify</li> <li>• Illustrate</li> <li>• Infer</li> <li>• Model</li> <li>• Outline</li> <li>• Point out</li> <li>• Question</li> <li>• Relate</li> <li>• Select</li> <li>• Separate</li> <li>• Subdivide</li> <li>• Test</li> </ul>	<ul style="list-style-type: none"> <li>• Arrange</li> <li>• Assemble</li> <li>• Categorize</li> <li>• Collect</li> <li>• Combine</li> <li>• Comply</li> <li>• Compose</li> <li>• Construct</li> <li>• Create</li> <li>• Design</li> <li>• Develop</li> <li>• Devise</li> <li>• Explain</li> <li>• Formulate</li> <li>• Generate</li> <li>• Plan</li> <li>• Prepare</li> <li>• Rearrange</li> <li>• Reconstruct</li> <li>• Relate</li> <li>• Reorganize</li> <li>• Revise</li> <li>• Rewrite</li> <li>• Set up</li> <li>• Summarize</li> <li>• Synthesize</li> <li>• Tell</li> <li>• Write</li> </ul>	<ul style="list-style-type: none"> <li>• Appraise</li> <li>• Argue</li> <li>• Assess</li> <li>• Attach</li> <li>• Choose</li> <li>• Compare</li> <li>• Conclude</li> <li>• Contrast</li> <li>• Defend</li> <li>• Describe</li> <li>• Discriminate</li> <li>• Estimate</li> <li>• Evaluate</li> <li>• Explain</li> <li>• Judge</li> <li>• Justify</li> <li>• Interpret</li> <li>• Relate</li> <li>• Predict</li> <li>• Rate</li> <li>• Select</li> <li>• Summarize</li> <li>• Support</li> <li>• Value</li> </ul>

## Bloom's Taxonomy: Affective Domain

### Affective<sup>2</sup>

This domain includes the manner in which we deal with things emotionally, such as feelings, values, appreciation, enthusiasms, motivations, and attitudes.

Descriptors of the Major Categories  
in the Affective Domain:

Illustrative Verbs:

<p>Receiving phenomena: Awareness, willingness to hear, selected attention.</p>	<p>Examples: Listen to others with respect. Listen for and remember the name of newly introduced people.</p> <p>Keywords: asks, chooses, describes, follows, gives, holds, identifies, locates, names, points to, selects, sits, erects, replies, uses.</p>
<p>Responding to phenomena: Active participation on the part of the learners. Attends and reacts to a particular phenomenon. Learning outcomes may emphasize compliance in responding, willingness to respond, or satisfaction in responding (motivation).</p>	<p>Examples: Participates in class discussions. Gives a presentation. Questions new ideals, concepts, models, etc. in order to fully understand them. Know the safety rules and practices them.</p> <p>Keywords: answers, assists, aids, complies, conforms, discusses, greets, helps, labels, performs, practices, presents, reads, recites, reports, selects, tells, writes.</p>
<p>Valuing: The worth or value a person attaches to a particular object, phenomenon, or behavior. This ranges from simple acceptance to the more complex state of commitment. Valuing is based on the internalization of a set of specified values, while clues to these values are expressed in the learner's overt behavior and are often identifiable.</p>	<p>Examples: Demonstrates belief in the democratic process. Is sensitive towards individual and cultural differences (value diversity). Shows the ability to solve problems. Proposes a plan to social improvement and follows through with commitment. Informs management on matters that one feels strongly about.</p> <p>Keywords: completes, demonstrates, differentiates, explains, follows, forms, initiates, invites, joins, justifies, proposes, reads, reports, selects, shares, studies, works.</p>
<p>Organization: Organizes values into priorities by contrasting different values, resolving conflicts between them, and creating an unique value system. The emphasis is on comparing, relating, and synthesizing values.</p>	<p>Examples: Recognizes the need for balance between freedom and responsible behavior. Accepts responsibility for one's behavior. Explains the role of systematic planning in solving problems. Accepts professional ethical standards. Creates a life plan in harmony with abilities, interests, and beliefs. Prioritizes time effectively to meet the needs of the organization, family, and self.</p> <p>Keywords: adheres, alters, arranges, combines, compares, completes, defends, explains, formulates, generalizes, identifies, integrates, modifies, orders, organizes, prepares, relates, synthesizes.</p>
<p>Internalizing values (characterization): Has a value system that controls their behavior. The behavior is pervasive, consistent, predictable, and most importantly, characteristic of the learner. Instructional objectives are concerned with the student's general patterns of adjustment (personal, social, emotional).</p>	<p>Examples: Shows self-reliance when working independently. Cooperates in group activities (displays teamwork). Uses an objective approach in problem solving. Displays a professional commitment to ethical practice on a daily basis. Revises judgments and changes behavior in light of new evidence. Values people for what they are, not how they look.</p> <p>Keywords: acts, discriminates, displays, influences, listens, modifies, performs, practices, proposes, qualifies, questions, revises, serves, solves, verifies.</p>



Office for Professional Development  
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# Bloom's Taxonomy "Revised"

## Key Words, Model Questions, & Instructional Strategies

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*Bloom's Taxonomy (1956) has stood the test of time. Recently Anderson & Krathwohl (2001) have proposed some minor changes to include the renaming and reordering of the taxonomy. This reference reflects those recommended changes.*

### I. REMEMBER (KNOWLEDGE)

(shallow processing: drawing out factual answers, testing recall and recognition)

Verbs for Objectives	Model Questions	Instructional Strategies
choose	Who?	Highlighting
describe	Where?	Rehearsal
define	Which One?	Memorizing
identify	What?	Mnemonics
label	How?	
list	What is the best one?	
locate	Why?	
match	How much?	
memorize	When?	
name	What does It mean?	
omit		
recite		
recognize		
select		
state		

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### II. UNDERSTAND (COMPREHENSION)

(translating, interpreting and extrapolating)

Verbs for Objectives	Model Questions	Instructional Strategies
classify	State in your own words.	Key examples
defend	Which are facts?	Emphasize connections
demonstrate	What does this mean?	Elaborate concepts
distinguish	Is this the same as. . . ?	Summarize
explain	Give an example.	Paraphrase
express	Select the best definition.	STUDENTS explain
extend	Condense this paragraph.	STUDENTS state the rule
give example	What would happen if . . . ?	"Why does this example. . . ?"
illustrate	State in one word . . .	create visual representations
indicate	Explain what is happening.	(concept maps, outlines, flow
interrelate	What part doesn't fit?	charts organizers, analogies,
interpret	Explain what is meant.	pro/con grids) <u>PRO CON</u>
infer	What expectations are there?	<i>NOTE: The faculty member can</i>
judge	Read the graph (table).	<i>show them, but <u>they</u> have to do it.</i>
match	What are they saying?	Metaphors, rubrics, heuristics
paraphrase	This represents. . .	
represent	What seems to be . . . ?	
restate	Is it valid that . . . ?	
rewrite	What seems likely?	
select	Show in a graph, table.	
show	Which statements support . . . ?	
summarize	What restrictions would you add?	
tell		
translate		

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### III. APPLY

(Knowing when to apply; why to apply; and recognizing patterns of transfer to situations that are new, unfamiliar or have a new slant for students)

#### Verbs for Objectives

apply  
choose  
dramatize  
explain  
generalize  
judge  
organize  
paint  
prepare  
produce  
select  
show  
sketch  
solve  
use

#### Model Questions

Predict what would happen if  
Choose the best statements that apply  
Judge the effects  
What would result  
Tell what would happen  
Tell how, when, where, why  
Tell how much change there would be  
Identify the results of

#### Instructional Strategies

Modeling  
Cognitive apprenticeships  
“Mindful” practice – NOT just a “routine” practice  
Part and whole sequencing  
Authentic situations  
“Coached” practice  
Case studies  
Simulations  
Algorithms

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### IV. ANALYZE (breaking down into parts, forms)

#### Verbs for Objectives

analyze  
categorize  
classify  
compare  
differentiate  
distinguish  
identify  
infer  
point out  
select  
subdivide  
survey

#### Model Questions

What is the function of . . . ?  
What's fact? Opinion?  
What assumptions. . . ?  
What statement is relevant?  
What motive is there?  
Related to, extraneous to, not applicable.  
What conclusions?  
What does the author believe?  
What does the author assume?  
Make a distinction.  
State the point of view of . . .  
What is the premise?  
State the point of view of . . .  
What ideas apply?  
What ideas justify the conclusion?  
What's the relationship between?  
The least essential statements are  
What's the main idea? Theme?  
What inconsistencies, fallacies?  
What literary form is used?  
What persuasive technique?  
Implicit in the statement is . . .

#### Instructional Strategies

Models of thinking  
Challenging assumptions  
Retrospective analysis  
Reflection through journaling  
Debates  
Discussions and other collaborating learning activities  
Decision-making situations

## V. EVALUATE (according to some set of criteria, and state why)

### Verbs for Objectives

appraise  
judge  
criticize  
defend  
compare

### Model Questions

What fallacies, consistencies, inconsistencies appear?  
Which is more important, moral, better, logical, valid, appropriate?  
Find the errors.

### Instructional Strategies

Challenging assumptions  
Journaling  
Debates  
Discussions and other collaborating learning activities  
Decision-making situations

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## VI. CREATE (SYNTHESIS)

(combining elements into a pattern not clearly there before)

### Verbs for Objectives

choose  
combine  
compose  
construct  
create  
design  
develop  
do  
formulate  
hypothesize  
invent  
make  
make up  
originate  
organize  
plan  
produce  
role play  
tell

### Model Questions

How would you test. . . ?  
Propose an alternative.  
Solve the following.  
How else would you . . . ?  
State a rule.

### Instructional Strategies

Modeling  
Challenging assumptions  
Reflection through journaling  
Debates  
Discussions and other collaborating learning activities  
Design  
Decision-making situations

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### Web References:

- <http://www.coun.uvic.ca/learn/program/hndouts/bloom.html>
- <http://www.fwl.org/edtech/blooms.html>
- <http://apu.edu/~bmccarty/curricula/mse592/intro/tsld006.htm>
- <http://152.30.11.86/deer/Houghton/learner/think/bloomsTaxonomy.html>
- <http://amath.colorado.edu/appm/courses/7400/1996Spr/bloom.html>
- <http://www.stedwards.edu/cte/bloomtax.htm>
- <http://quarles.unbc.edu/lsc/bloom.html>
- <http://www.wested.org/tie/dlrn/blooms.html>
- <http://www.bena.com/ewinters/bloom.html>
- <http://weber.u.washington.edu/~krumme/guides/bloom.html>

### References:

Anderson, L. W. & Krathwohl, D. R. (2001). *A Taxonomy for learning, teaching, and assessing*.  
Bloom, B. S. (Ed.). (1956). *Taxonomy of educational objectives: The classification of educational goals, by a committee of college and university examiners*. New York: Longmans.  
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## Connecting Departmental Goals with Student Learning Outcomes

<b>Mission/Goals of Department (especially as related to YSU Mission)</b>	<b>What do you hope students learn or value as a result of these goals?</b>	<b>What skills do you hope students take with them as a result of these goals?</b>	<b>Reframe these goals/hopes as student learning outcomes (Students will be able to...)</b>
	<b>and/or</b>		



# YSU Co-Curricular Student Learning Outcome Cover Sheet

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<b>Name of Department:</b>	
Person Submitting:	
Email Address:	
Campus Phone:	
Date Submitted:	

Learning Outcomes:

As assessment is an ongoing activity, please briefly describe (no more than one paragraph) your assessment activities over the 2014-15 academic year.