

Using Bloom's Taxonomy to Write Goals and Outcomes Statements

Source: (<http://faculty.washington.edu/krumme/guides/bloom1.html>)

NOTE: the following applies only to the “cognitive domain”. Benjamin Bloom and his colleagues also developed taxonomies of the *Affective Domain* (emphasizing feeling and emotion) and the *Psychomotor Domain* (emphasizing motor skills). For descriptions of all three taxonomies, see this University of Mississippi School of Education web page: http://www.olemiss.edu/depts/educ_school2/docs/stai_manual/manual8.htm

Categories in the Cognitive Domain: (with Outcome-Illustrating Verbs)

1. **Knowledge** of terminology; specific facts; ways and means of dealing with specifics (conventions, trends and sequences, classifications and categories, criteria, methodology); universals and abstractions in a field (principles and generalizations, theories and structures):
Knowledge is (here) defined as the remembering (recalling) of appropriate, previously learned information.
 - defines; describes; enumerates; identifies; labels; lists; matches; names; reads; records; reproduces; selects; states; views.
2. **Comprehension**: Grasping (understanding) the meaning of informational materials.
 - classifies; cites; converts; describes; discusses; estimates; explains; generalizes; gives examples; makes sense out of; paraphrases; restates (in own words); summarizes; traces; understands.
3. **Application**: The use of previously learned information in new and concrete situations to solve problems that have single or best answers.
 - acts; administers; articulates; assesses; charts; collects; computes; constructs; contributes; controls; determines; develops; discovers; establishes; extends; implements; includes; informs; instructs; operationalizes; participates; predicts; prepares; preserves; produces; projects; provides; relates; reports; shows; solves; teaches; transfers; uses; utilizes.
4. **Analysis**: The breaking down of informational materials into their component parts, examining (and trying to understand the organizational structure of) such information to develop divergent conclusions by identifying motives or causes, making inferences, and/or finding evidence to support generalizations.
 - breaks down; correlates; diagrams; differentiates; discriminates; distinguishes; focuses; illustrates; infers; limits; outlines; points out; prioritizes; recognizes; separates; subdivides.

5. **Synthesis:** Creatively or divergently applying prior knowledge and skills to produce a new or original whole.
 - adapts; anticipates; categorizes; collaborates; combines; communicates; compares; compiles; composes; contrasts; creates; designs; devises; expresses; facilitates; formulates; generates; incorporates; individualizes; initiates; integrates; intervenes; models; modifies; negotiates; plans; progresses; rearranges; reconstructs; reinforces; reorganizes; revises; structures; substitutes; validates.
6. **Evaluation:** Judging the value of material based on personal values/opinions, resulting in an end product, with a given purpose, without real right or wrong answers.
 - appraises; compares & contrasts; concludes; criticizes; critiques; decides; defends; interprets; judges; justifies; reframes; supports.

The following provides useful examples of descriptive language representing the same cognitive hierarchy in tabular form:

Assessment Verbs

<u>Knowledge</u>	<u>Comprehension</u>	<u>Application</u>	<u>Analysis</u>	<u>Synthesis</u>	<u>Evaluation</u>
Cite	Associate	Apply	Analyze	Arrange	Appraise
Count	Classify	Calculate	Appraise	Assemble	Assess
Define	Compare	Classify	Calculate	Collect	Choose
Draw	Compute	Demonstrate	Categorize	Compose	Compare
Identify	Contrast	Determine	Classify	Construct	Criticize
List	Differentiate	Dramatize	Compare	Create	Determine
Name	Discuss	Employ	Debate	Design	Estimate
Point	Distinguish	Examine	Diagram	Formulate	Evaluate
Quote	Estimate	Illustrate	Differentiate	Integrate	Grade
Read	Explain	Interpret	Distinguish	Manage	Judge
Recite	Express	Locate	Examine	Organize	Measure
Record	Extrapolate	Operate	Experiment	Plan	Rank
Repeat	Interpolate	Order	Identify	Prepare	Rate
Select	Locate	Practice	Inspect	Prescribe	Recommend
State	Predict	Report	Inventory	Produce	Revise
Tabulate	Report	Restructure	Question	Propose	Score
Tell	Restate	Schedule	Separate	Specify	Select
Trace	Review	Sketch	Summarize	Synthesize	Standardize
Underline	Tell	Solve	Test	Write	Test
	Translate	Translate			Validate
		Use			
		Write			