

## Rationale

Writing clear course objectives is important because:

- Objectives define what you will have the students do.
- Objectives provide a link between expectations, teaching and grading.

Stating clear course objectives is important because:

- Objectives guide the content materials and the teaching methods.
- You can use objectives to make sure you reach your goals.
- Students will understand expectations.
- Assessment and grading is based on the objectives.

## Basic Information

As you develop a course, a lesson or a learning activity, you have to determine what you want the students to learn and how you will know that they learned. Learning objectives, also called behavioral objectives and instructional objectives, are a requirements for high-quality course development.

## What are Goals?

Goals are broad, generalized statements about what is to be learned. Think of them as a target to be reached, or "hit."

## Questions you need to think about

- Who are your students? Basics? Paramedics? A mix of different prior knowledge and experience?
- Is this course a general education course or a course to refresh/review for relicensure?

## The A.B.C.D. method

The ABCD method of writing objectives is an excellent starting point for writing objectives (Heinich, et al., 1996). In this system, "A" is for audience; "B" is for behavior, "C" for conditions and "D" for degree of mastery needed.

1. **Audience** – Who? Who are your learners?
2. **Behavior** – What? What do you expect them to be able to do?  
This should be an overt, observable behavior, even if the actual

behavior is covert or mental in nature. If you can't see it, hear it, touch it, taste it, or smell it, you can't be sure your audience really learned it.

3. **Condition** – How? Under what circumstances or context will the learning occur? What will the student be given or already be expected to know to accomplish the learning?
4. **Degree** – How much? How much will be accomplished, how well will the behavior need to be performed, and to what level? Do you want total mastery (100%), do you want them to respond correctly 80% of the time, etc. A common (and totally non-scientific) setting is 80% of the time.

## Examples of Well-Written Objectives

Below are some example objectives which include Audience **(A)**, Behavior **(B)**, Condition **(C)** and Degree of Mastery **(D)**.

**Audience (A) - Red**  
**Condition (C) - Blue**

**Behavior (B) - Green**  
**Degree of Mastery (D) - Gray**

### Cognitive Objectives (comprehension level)- At the completion of this lesson

**(C) Given a chart of human anatomy,**  
**(A) the student**  
**(B) will be able to accurately identify the major bones of the body**  
**(D) 100% of the time.**

**(C) Given a list of signs and symptoms**  
**(A) the student**  
**(B) will be able to accurately identify the illness or injury of a patient**  
**(D) 80% of the time.**

**(C)**  
**(A)**  
**(B)**  
**(D)**

### Cognitive Objective (application level) - At the completion of this lesson

**(C) With the use of a ridge board splint,**  
**(A) the student**  
**(B) will be able to adequately stabilize a deformed tibia**  
**(D) 100% of the time.**

- (C)
- (A)
- (B)
- (D)

**Cognitive Objective (problem solving/synthesis level)**

**At the completion of this lesson**

- (A) **The EMT-Basic student**
- (C) **will be able to differentiate**
- (B) **between a strong, weak, regular, and irregular pulse**
- (D) **95% of the time.**

- (A)
- (C)
- (B)
- (D)

**Affective Objective - Upon completion of this module**

- (A) **The student**
- (C) **will be able to explain the value**
- (B) **of performing the baseline vital signs**
- (D) **100% of the time**

- (C)
- (A)
- (B)
- (D)

**Psychomotor - Upon completion of this module**

- (A) **The student**
- (C) **will be able to illustrate**
- (B) **four ways to prevent back injuries**
- (D)

- (C)
- (A)
- (B)
- (D)

## Notes on Objective Writing

When reviewing example objectives above, you may notice a few things.

1. As you move up the "cognitive ladder," it can be increasingly difficult to precisely specify the degree of mastery required.
2. Affective objectives are difficult for many instructors to write and assess. They deal almost exclusively with internal feelings and conditions that can be difficult to observe externally.
3. It's important to choose the correct key verbs to express the desired behavior you want students to produce. Typical Problems Encountered When Writing Objectives

Problems	Error Types	Solutions
<b>Too vast/complex</b>	The objective is too broad in scope or is actually more than one objective.	Use the ABCD method to identify each desired behavior or skill in order to break objectives apart.
<b>No behavior to evaluate</b>	No true overt, observable performance listed. Many objectives using verbs like "comprehend" or "understand" may not include behaviors to observe.	Determine what actions a student should demonstrate in order for you to know if the material has been learned.
<b>Only topics are listed</b>	Describes instruction, not conditions. That is, the instructor may list the topic but not how he or she expects the students to use the information.	Determine how students should use the information presented. Should it be memorized? Used as background knowledge? Applied in a later project? What skills will students need?
<b>Vague Assignment Outcomes</b>	The objective does not list the correct behavior, condition, and/or degree, or they are missing. Students may not be sure of how to complete assignments because they are lacking specifics.	Determine parameters for your assignments and specify them for your students.

## Tying Objectives to Assessment

Once you establish all the behaviors, conditions and degrees of mastery for each objective, you can use them to determine what types of assignments, tests or alternative assessment you should use in the course.

## What are learning objectives?

- Instructional objectives are specific, measurable, short-term, observable student behaviors. They indicate the desirable knowledge, skills, or attitudes to be gained.
- Objectives are the foundation upon which you can build lessons and assessments that you can prove meet your overall course or lesson goals.
- Think of objectives as tools you use to make sure you reach your goals. They are the arrows you shoot towards your target (goal).
- The purpose of objectives is not to restrict spontaneity or constrain the vision of education in the discipline; but to ensure that learning is focused clearly enough that both students and teacher know what is going on, and so learning can be objectively measured. Different archers have different styles, so do different teachers. Thus, you can shoot your arrows (objectives) many ways. The important thing is that they reach your target (goals) and score that bullseye!



## Common types of learning objectives

### Cognitive

Cognitive objectives relate to understandings, awareness, insights (e.g., "Given a description of a planet, the student will be able to identify that planet, as demonstrated verbally or in writing." or "The student will be able to evaluate the different theories of the origin of the solar system as demonstrated by his/her ability to compare and discuss verbally or in writing the strengths and weaknesses of each theory."). This includes knowledge or information recall, comprehension or conceptual understanding, the ability to apply knowledge, the ability to analyze a situation, the ability to

synthesize information from a given situation, and the ability to evaluate a given situation.

## Affective

attitudes, appreciations, relationships (e.g., "Given the opportunity to work in a team with several people of different races, the student will demonstrate an positive increase in attitude towards non-discrimination of race, as measured by a checklist utilized/completed by non-team members.").

## Psychomotor

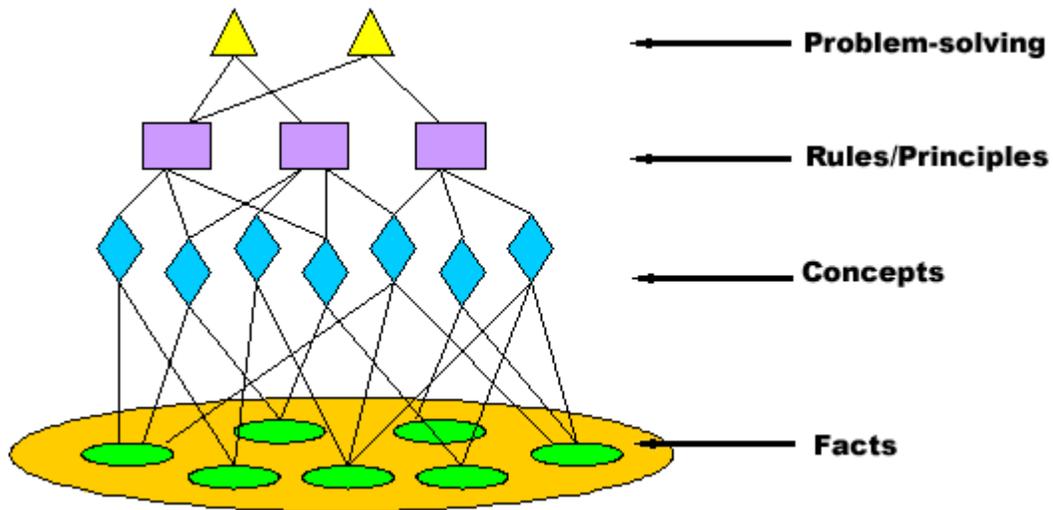
These are Physical skills (e.g., "The student will be able to ride a two-wheel bicycle without assistance and without pause as demonstrated in gym class."); actions which demonstrate the fine motor skills such as use of precision instruments or tools, or actions which evidence gross motor skills such as the use of the body in dance or athletic performance.

## Different levels of learning objectives

For each course, you probably have an overall goal: what do you want the students to accomplish in this course? In addition, you should have several objectives for each major topic in your course. You can also then break each objective into several sub-objectives, and so on, to clarify specifically what students will learn.



Different levels of objectives can also be categorized according to different levels of learning that you want the students to achieve. That is, whether you want the students to remember factual information, distinguish among the concepts, apply rules/principles, or do problem solving, these expectations should be expressed as different types of objectives (Dwyer, 1991).



The above graphic (Adapted from Dwyer) shows a hierarchy of learning. In order for the students to learn concepts, they should have a basic supporting knowledge, e.g., facts. In order to problem-solve, students need to understand concepts and rules, etc.

In summary, goals and objectives guide all teaching, learning and assessment.

## References

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**[http://tlt.its.psu.edu/suggestions/research/Write\\_Objectives.shtml](http://tlt.its.psu.edu/suggestions/research/Write_Objectives.shtml)**

# The Taxonomy

Bloom's taxonomy of cognitive objectives, originated by Benjamin Bloom and collaborators in the 1950's, describes several categories of cognitive learning.

Category	Description
<b>Knowledge</b>	Ability to recall previously learned material.
<b>Comprehension</b>	Ability to grasp meaning, explain, restate ideas.
<b>Application</b>	Ability to use learned material in new situations.
<b>Analysis</b>	Ability to separate material into component parts and show relationships between parts.
<b>Synthesis</b>	Ability to put together the separate ideas to form new whole, establish new relationships.
<b>Evaluation</b>	Ability to judge the worth of material against stated criteria.

**Note:** Many people also call the analysis, synthesis, and evaluations categories "problem solving."

# Key Verbs

Below are key verbs associated with each cognitive domain. Using verbs such as these is beneficial to [writing effective learning objectives](#).

Behavioral Verbs Appropriate for Each Level of Blooms' Taxonomy (Cognitive Domain)					
Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
<ul style="list-style-type: none"> <li>• Define</li> <li>• Identify</li> <li>• List</li> <li>• Name</li> <li>• Recall</li> <li>• Recognize</li> <li>• Record</li> <li>• Relate</li> <li>• Repeat</li> <li>• Underline/ Circle</li> </ul>	<ul style="list-style-type: none"> <li>• Choose</li> <li>• Cite examples of</li> <li>• Demonstrate use of</li> <li>• Describe</li> <li>• Determine</li> <li>• Differentiate between</li> <li>• Discriminate</li> <li>• Discuss</li> <li>• Explain</li> <li>• Express</li> <li>• Give in own words</li> <li>• Identify</li> <li>• Interpret</li> <li>• Locate</li> <li>• Pick</li> <li>• Report</li> <li>• Restate</li> <li>• Review</li> <li>• Recognize</li> <li>• Select</li> <li>• Tell</li> <li>• Translate</li> <li>• Respond</li> <li>• Practice</li> <li>• Simulates</li> </ul>	<ul style="list-style-type: none"> <li>• Apply</li> <li>• Demonstrate</li> <li>• Dramatize</li> <li>• Employ</li> <li>• Generalize</li> <li>• Illustrate</li> <li>• Interpret</li> <li>• Operate</li> <li>• Operation- alize</li> <li>• Practice</li> <li>• Relate</li> <li>• Schedule</li> <li>• Shop</li> <li>• Use</li> <li>• Utilize</li> <li>• Initiate</li> </ul>	<ul style="list-style-type: none"> <li>• Analyze</li> <li>• Appraise</li> <li>• Calculate</li> <li>• Categorize</li> <li>• Compare</li> <li>• Conclude</li> <li>• Contrast</li> <li>• Correlate</li> <li>• Criticize</li> <li>• Deduce</li> <li>• Debate</li> <li>• Detect</li> <li>• Determine</li> <li>• Develop</li> <li>• Diagram</li> <li>• Differentiate</li> <li>• Distinguish</li> <li>• Draw conclusions</li> <li>• Estimate</li> <li>• Evaluate</li> <li>• Examine</li> <li>• Experiment</li> <li>• Identify</li> <li>• Infer</li> <li>• Inspect</li> <li>• Inventory</li> <li>• Predict</li> <li>• Question</li> <li>• Relate</li> <li>• Solve</li> <li>• Test</li> <li>• Diagnose</li> </ul>	<ul style="list-style-type: none"> <li>• Arrange</li> <li>• Assemble</li> <li>• Collect</li> <li>• Compose</li> <li>• Construct</li> <li>• Create</li> <li>• Design</li> <li>• Develop</li> <li>• Formulate</li> <li>• Manage</li> <li>• Modify</li> <li>• Organize</li> <li>• Plan</li> <li>• Prepare</li> <li>• Produce</li> <li>• Propose</li> <li>• Predict</li> <li>• Reconstruct</li> <li>• Set-up</li> <li>• Synthesize</li> <li>• Systematize</li> <li>• Devise</li> </ul>	<ul style="list-style-type: none"> <li>• Appraise</li> <li>• Assess</li> <li>• Choose</li> <li>• Compare</li> <li>• Critique</li> <li>• Estimate</li> <li>• Evaluate</li> <li>• Judge</li> <li>• Measure</li> <li>• Rate</li> <li>• Revise</li> <li>• Score</li> <li>• Select</li> <li>• Validate</li> <li>• Value</li> <li>• Test</li> </ul>

<b>Behavioral Verbs Appropriate for Each Level of Bloom's Taxonomy (Affective Domain)</b>				
<b>Receive</b>	<b>Respond</b>	<b>Value</b>	<b>Organize or Conceptualize Values</b>	<b>Internalize or Characterize Values</b>
Ask Listen Focus Attend Take Part Discuss Acknowledge Hear Be open to Retain Follow Concentrate Read Do Feel	React Respond Seek clarification Interpret Clarify Provide other references and examples Contribute Question Present Cite Become animated or excited Help team Write Perform	Argue Challenge Debate Refute Confront Justify Persuade Criticize	Build Develop Formulate Defend Modify Relate Prioritize Reconcile Contrast Arrange Compare	Act Display Influence Solve Practice

<b>Behavioral Verbs Appropriate for Each Level of Bloom's Taxonomy (Psychomotor Domain)</b>				
<b>Imitation</b>	<b>Manipulation</b>	<b>Precision</b>	<b>Articulation</b>	<b>Naturalization</b>
Copy Follow Replicate Repeat Adhere	Re-create Build Perform Execute Implement	Demonstrate Complete Show Perfect Calibrate Control	Construct Solve Combine Coordinate Integrate Adapt Develop Formulate Modify Master	Design Specify Manage Invent Profect-manage