BLOOM’S TAXONOMY OF EDUCATIONAL OBJECTIVES

Objectives state what we want our students to learn and be able to do. A statement of an objective contains a noun (type of knowledge) and a verb (type of cognitive process using the knowledge).

General form of a learning objective: Students will be able to *verb noun phrase*.

Examples: Students will be able to *design an experiment to test a hypothesis*. Students will be able to *distinguish among confederal, federal, and unitary systems of government*. Students will be able to *differentiate between rational and irrational numbers*.

The Knowledge Dimension

<table>
<thead>
<tr>
<th>Defined</th>
<th>Factual</th>
<th>Conceptual</th>
<th>Procedural</th>
<th>Metacognitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminology</td>
<td>The basic elements students must know to be acquainted with a discipline or solve problems in it</td>
<td>The interrelationship among the basic elements within a larger structure that enables them to function together</td>
<td>How to do something, methods of inquiry, and criteria for using skills, algorithms, techniques, and methods</td>
<td>Knowledge of cognition in general as well as awareness and knowledge of one’s own cognition</td>
</tr>
<tr>
<td>Subtypes</td>
<td>Terminology</td>
<td>Classification</td>
<td>Skills</td>
<td>Strategies for learning</td>
</tr>
<tr>
<td></td>
<td>Symbols</td>
<td>Categories</td>
<td>Algorithms</td>
<td>Knowledge about cognitive tasks</td>
</tr>
<tr>
<td></td>
<td>Specific details</td>
<td>Principles</td>
<td>Techniques</td>
<td>Self-knowlege</td>
</tr>
<tr>
<td></td>
<td>Specific elements</td>
<td>Generalizations</td>
<td>Methods</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Theories</td>
<td>Criteria for judgment</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Models</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Example</td>
<td>Works by an artist</td>
<td>Periods of geologic time</td>
<td>Skills to paint a watercolor</td>
<td>Use of mnemonic strategies</td>
</tr>
<tr>
<td></td>
<td>Historical events</td>
<td>Models of government</td>
<td>Skills to analyze an injury</td>
<td>Use of organizing techniques</td>
</tr>
<tr>
<td></td>
<td>Components of a cell</td>
<td>Theory of evolution</td>
<td>Methods of literary criticism</td>
<td>Knowing one’s understanding of and motivation for a task</td>
</tr>
</tbody>
</table>

Taken from Anderson and Krathwohl; *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom’s Taxonomy of Educational Objectives*, New York: Longman, 2001,
The general form for writing a learning objective: **Students will be able to** verb noun phrase.
An example of a learning objective: **Students will be able to write** a learning objective that is clear and specific.

The Cognitive Dimension

<table>
<thead>
<tr>
<th>Remember</th>
<th>Understand</th>
<th>Apply</th>
<th>Analyze</th>
<th>Evaluate</th>
<th>Create</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retrieve relevant knowledge from long-term memory</td>
<td>Construct meaning by connecting “new” to “prior” knowledge</td>
<td>Use a procedure to perform exercises or solve problems</td>
<td>Break material into its constituent parts and relate parts to whole</td>
<td>Make judgments based on criteria or standards</td>
<td>Put elements together to form a coherent whole</td>
</tr>
</tbody>
</table>

**QUESTIONS**
- What happened after ..
- How many ..
- What is ..
- Who did ..
- Where did .. occur?

- How would you explain ..
- Who do you think ..
- Why did ..
- How would you graph ..
- Which .. corresponds to ..
- What are examples of ..
- How could you group ..
- How would you solve ..
- How would you do ..
- What would you say to ..
- How would you work a case of ..
- What was the turning point?
- How is .. similar to ..
- Why did .. occur
- What is needed to ..
- What were some of the motives for ..
- Is there a better solution to ..
- What do you think about ..
- and why?
- Do you think .. is a good thing and why?
- What are possible solutions to ..
- How would you design an ..
- What would happen if ..
- How many ways can you ..

**ACTIVITIES**
- Make a list showing ..
- Make a time line
- Make a chart showing ..
- Write a summary of ..
- Prepare a flow chart of ..
- Write an explanation of ..
- Make a taxonomy of ..
- Draw a map/model of ..
- Draw a graph of ..
- Write possible outcomes of Retell an event
- Solve a problem
- Write a response to a case study
- Perform a lab experiment
- Write a biography
- Make a map showing interrelationships
- Write an analysis of..
- Write an essay examining bias in ..
- Construct a chart to organize related data
- Conduct a debate (or a mock trial)
- Write a critique
- Prepare a case
- Write an opinion piece
- Design an experiment
- Create a new product
- Plan a marketing campaign
- Create art
- Design a building

**VERBS**
- Remember
- Recognize
- Identify
- Recall
- Retrieve
- Understand
- Interpret
- Clarify
- Paraphrase
- Illustrate
- Classify
- Categorize
- Summarize
- Infer
- Explain
- Generalize
- Compare
- Conclude
- Contrast
- Map
- Apply
- Execute
- Carry out
- Use
- Implement
- Differentiate
- Analyze
- Discriminate
- Focus
- Distinguish
- Select
- Organize
- Outline
- Integrate
- Structure
- Attribute
- Deconstruct
- Evaluate
- Check
- Coordinate
- Detect
- Monitor
- Test
- Critique
- Judge
- Create
- Generate
- Hypothesize
- Plan
- Design
- Produce
- Construct

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