Fall Instruction Forum: Writing Learning Objectives

Five questions for instructional design
1. What do you want the student to be able to do? (outcome)
2. What does the student need to know in order to do this well? (content)
3. What activity will facilitate the learning? (pedagogy)
4. How will the student demonstrate the learning? (assessment)
5. How will I know the student has done this well? (criteria)

Definition of learning objectives
An instructional objective is a collection of words and/or pictures and diagrams intended to let others know what you intend for your students to achieve.

- It is related to intended outcomes, rather than the process for achieving those outcomes.
- It is specific and measurable, rather than broad and intangible.
- It is concerned with students, not teachers. (Mager)

Formula for writing learning objectives
Verb from Bloom’s taxonomy + “in order to” statement = learning objective!

Good learning objectives are:
- Measurable
- Specific
- Student-centered

Examples of learning objectives
Distinguish between general and specialized databases in order to select the most appropriate database.

Develop topic-relevant vocabulary in order to search databases effectively.

Compare data to statistics in order to determine which information format is appropriate for any given project.

Identify and locate appropriate data sources in order to ensure validity and suitability of information.

Links to other resources
ACRL Information Literacy Standards, Performance Indicators and Outcomes:
http://www.ala.org/ala/mgrps/divs/acrl/standards/informationliteracycompetency.cfm#stan

Information Literacy Learning Objectives for First Year Students at the University of Notre Dame:
http://www.library.nd.edu/instruction/documents/Information%20Literacy%20Learning%20Objectives.pdf
<table>
<thead>
<tr>
<th>Category</th>
<th>Example and Key Words (verbs)</th>
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<tr>
<td><strong>Knowledge</strong></td>
<td><em>Examples:</em> Recite a policy. Quote prices from memory to a customer. Knows the safety rules. &lt;br&gt; <em>Key Words:</em> defines, describes, identifies, knows, labels, lists, matches, names, outlines, recalls, recognizes, reproduces, selects, states.</td>
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<td><strong>Comprehension</strong></td>
<td><em>Examples:</em> Rewrites the principles of test writing. Explain in one's own words the steps for performing a complex task. Translates an equation into a computer spreadsheet. &lt;br&gt; <em>Key Words:</em> comprehends, converts, defends, distinguishes, estimates, explains, extends, generalizes, gives an example, infers, interprets, paraphrases, predicts, rewrites, summarizes, translates.</td>
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<td><strong>Application</strong></td>
<td><em>Examples:</em> Use a manual to calculate an employee's vacation time. Apply laws of statistics to evaluate the reliability of a written test. &lt;br&gt; <em>Key Words:</em> applies, changes, computes, constructs, demonstrates, discovers, manipulates, modifies, operates, predicts, prepares, produces, relates, shows, solves, uses.</td>
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<td><strong>Analysis</strong></td>
<td><em>Examples:</em> Troubleshoot a piece of equipment by using logical deduction. Recognize logical fallacies in reasoning. Gathers information from a department and selects the required tasks for training. &lt;br&gt; <em>Key Words:</em> analyzes, breaks down, compares, contrasts, diagrams, deconstructs, differentiates, discriminates, distinguishes, identifies, illustrates, infers, outlines, relates, selects, separates.</td>
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<td><strong>Synthesis</strong></td>
<td><em>Examples:</em> Write a company operations or process manual. Design a machine to perform a specific task. Integrates training from several sources to solve a problem. Revises and process to improve the outcome. &lt;br&gt; <em>Key Words:</em> categorizes, combines, compiles, composes, creates, devises, designs, explains, generates, modifies, organizes, plans, rearranges, reconstructs, relates, reorganizes, revises, rewrites, summarizes, tells, writes.</td>
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<td><strong>Evaluation</strong></td>
<td><em>Examples:</em> Select the most effective solution. Hire the most qualified candidate. Explain and justify a new budget. &lt;br&gt; <em>Key Words:</em> appraises, compares, concludes, contrasts, criticizes, critiques, defends, describes, discriminates, evaluates, explains, interprets, justifies, relates, summarizes, supports.</td>
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