

# Resources for Writing Info Lit Learning Outcomes

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LOEX 2010

## ACRL RESOURCES

### **Objectives for Information Literacy Instruction: A Model Statement for Academic Librarians (2001)**

<http://www.ala.org/ala/mgrps/divs/acrl/standards/objectivesinformation.cfm>

*The Competency Standards are the basis for the IS Objectives and it is recommended that the two documents be used together. The IS Objectives flesh out and make more specific the Standards, Performance Indicators, and Outcomes of the Competency Standards.*

### **Information Literacy Competency Standards for Higher Education (2000)**

<http://www.ala.org/ala/mgrps/divs/acrl/standards/informationliteracycompetency.cfm>

*There are five standards and twenty-two performance indicators. The standards focus upon the needs of students in higher education at all levels. The standards also list a range of outcomes for assessing student progress toward information literacy.*

### **Task Force on Academic Library Outcomes Assessment Report (1998)**

<http://www.ala.org/ala/mgrps/divs/acrl/publications/whitepapers/taskforceacademic.cfm>

*Outcomes assessment is an integral part of the institutional effectiveness cycle of planning, implementation, assessment, and improvement of the plan. The purpose of outcomes assessment of academic libraries is to measure their quality and effectiveness, focusing on an organizational analysis of the library as a whole, and of its constituent activities and services, and the contributions they make to accomplishing the purposes of the university or college of which it is a part.*

## BOOKS

Anderson, L. W. and David R. Krathwohl, D. R., et al eds. [A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives](#). Allyn & Bacon, 2001.

Avery, Elizabeth Fuseler, ed. [Assessing Student Learning Outcomes for Information Literacy Instruction in Academic Institutions](#). ACRL, 2003.

Cox, Christopher and Elizabeth Lindsay, eds. [Information Literacy Instruction Handbook](#). ACRL, 2008.

Esther, Grassian and Joan R. Kaplowitz. [Information Literacy Instruction: theory and practice](#). 2<sup>nd</sup> ed. Neal-Schuman, 2009.

Radcliff, Carolyn, et. al. [A Practical Guide to Information Literacy Assessment for Academic Librarians](#). Libraries Unlimited, 2007.

## ARTICLES

Diller, Karen R. and Sue F. Phelps. "Learning Outcomes, Portfolios, and Rubrics, Oh My! Authentic Assessment of an Information Literacy Program." [portal: Libraries and the Academy](#). Vol. 8, No. 1. 2008, 75-89.

Rockman, Ilene F. "Integrating Information Literacy into the Learning Outcomes of Academic Disciplines: A Critical 21<sup>st</sup> Century Issue." [College and Research Libraries News](#). Oct. 2003, 612-615.

Samson, Sue. "Information Literacy Learning Outcomes and Student Success." [The Journal of Academic Librarianship](#). vol. 36, No. 3, 202-210.

# Objectives for Information Literacy Instruction: A Model Statement for Academic Librarians

**Competency Standard One: The information literate student determines the extent of the information needed.**

***Performance Indicator 1: The information literate student defines and articulates the need for information.***

*Outcomes include:*

1.1.c. Explores general information sources to increase familiarity with the topic

- Describes the difference between general and subject-specific information sources.
- Demonstrates when it is appropriate to use a general and subject-specific information source (e.g., to provide an overview, to give ideas on terminology).

1.1.d. Defines or modifies the information need to achieve a manageable focus

- Identifies an initial question that might be too broad or narrow, as well as one that is probably manageable.
- Explains his/her reasoning regarding the manageability of a topic with reference to available information sources.
- Narrows a broad topic and broadens a narrow one by modifying the scope or direction of the question.
- Demonstrates an understanding of how the desired end product (i.e., the required depth of investigation and analysis) will play a role in determining the need for information.
- Uses background information sources effectively to gain an initial understanding of the topic.
- Consults with the course instructor and librarians to develop a manageable focus for the topic.

1.1.e. Identifies key concepts and terms that describe the information need

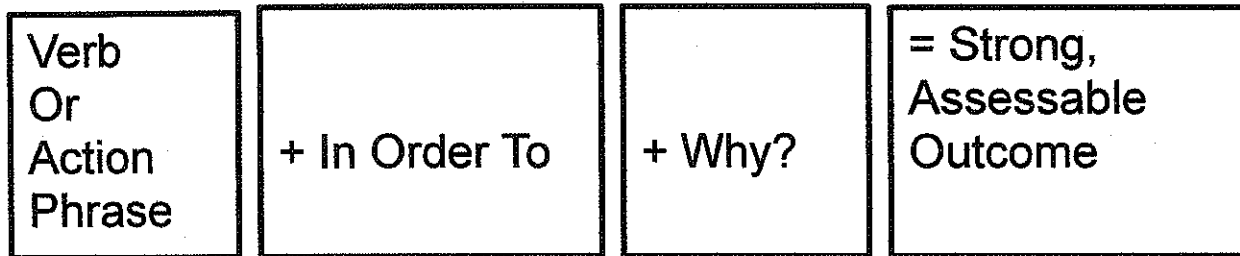
- Lists terms that may be useful for locating information on a topic.
- Identifies and uses appropriate general or subject-specific sources to discover terminology related to an information need.
- Decides when a research topic has multiple facets or may need to be put into a broader context.
- Identifies more specific concepts that comprise a research topic.

# Writing Objectives

To write effective learning objectives, use the ABCD model, which include the following parts:

Part	Description	Example
<b>A =</b> Audience	Who is your audience?  Who is performing the action?	Given the symbol representing a particular isotope of an atom or ion, <b>the student will be able to determine</b> the number of electrons, protons and neutrons in that species eight out of ten times.
<b>B =</b> Behavior	What will the student be able to do?  Behaviors always use a verb or action word.  Sometimes you will describe the product or the result of the behavior.	Given the symbol representing a particular isotope of an atom or ion, the student will be able to <b>determine the number of electrons, protons and neutrons in that species eight out of ten times.</b>
<b>C =</b> Condition	How will the student accomplish the task?  What information is given?  What information is not given?  Give the conditions in which performance will occur.	<b>Given the symbol representing a particular isotope of an atom or ion,</b> the student will be able to determine the number of electrons, protons and neutrons in that species eight out of ten times..
<b>D =</b> Degree	Describe the minimum criteria for acceptable student performance.  <ul style="list-style-type: none"> <li>• How often?</li> <li>• How well?</li> <li>• How many?</li> <li>• How much?</li> </ul> Define expectations regarding accuracy, quality, and speed.	Given the symbol representing a particular isotope of an atom or ion, the student will be able to determine the number of electrons, protons and neutrons in that species <b>eight out of ten times.</b>

## ACRL Immersion / Deb Gilchrist Learning Outcome Formula



EXAMPLE: Students will be able to distinguish between scholarly, popular and trade resources in order to think critically about the authority and credibility of information sources.

### Writing Good Learning Outcomes

- Measureable / Assessable
- Clear to the Student and Instructor
- Integrated, developmental, transferable
- Use discipline-specific competencies / standards as a basis and not an end
- Similar in Scope and Scale
- “in order to” get to the uniqueness and real world application of learning
- Use a variety of Bloom’s Taxonomy Levels

## Using Bloom's Taxonomy In Writing Outcomes

Taxonomy	Identifying Characteristics	Verbs			
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>• Eliciting factual answers, testing recall and recognition; recall</li> <li>• Knowledge of dates, events, places</li> <li>• Knowledge of major ideas</li> </ul>	List Define Label Name	Recall Recite Record Repeat	Select Point out Reproduce Memorize	Tell Identify Quote
<b>Comprehension</b>	<ul style="list-style-type: none"> <li>• Translating, interpreting, extrapolating; putting information in own words</li> <li>• Grasp meaning</li> <li>• Order, group, infer causes</li> </ul>	Describe Discuss Explain Identify	Outline Recognize Restate Select	Translate Match Tell Summarize	Indicate Differential Distinguish
<b>Application</b>	<ul style="list-style-type: none"> <li>• Use of information or skill, application to situations that are new, unfamiliar, or have a new slant for students</li> <li>• Solve problems</li> </ul>	Apply Construct Explain Select Relate	Identify Illustrate Interpret Dramatize	Demonstrate Show how Employ Calculate	Modify Discover Solve Experiment
<b>Analysis</b>	<ul style="list-style-type: none"> <li>• Breaking down into parts; relating parts to the whole</li> <li>• See patterns, identify components; recognize</li> <li>• "Higher Order" thinking begins with analysis.</li> </ul>	Analyze Arrange Chart Compare Distinguish	Diagram Dissect Criticize Examine Connect	Debate Relate Contrast Plan Classify	Separate Order Explain Infer
<b>Synthesis</b>	<ul style="list-style-type: none"> <li>• Combining elements into a pattern not clearly there before; involve divergent thinking and many possible answers.</li> <li>• Predict consequences</li> <li>• Draw conclusions</li> <li>• Relate knowledge from several areas</li> <li>• "What if...?"</li> </ul>	Arrange Write Construct Create Design Develop	Formulate Make Plan Prepare Propose Solve	Compose Forecast Estimate Tell Do	Integrate Invent Formulate Rewrite
<b>Evaluation</b>	<ul style="list-style-type: none"> <li>• Judge according to some set of criteria, and state why.</li> <li>• Compare and discriminate between ideas</li> <li>• Assess value of theories</li> <li>• Make choices based on reasoned argument</li> <li>• Recognize subjectively</li> </ul>	Appraise Assess Defend Criticize	Dispute Evaluate Grade Choose why	Verify Decide Judge	Recommend Conclude Summarize Compare

From: Pierce College Faculty Handbook, 1998.

Adapted From: Bloom, B.S. Taxonomy of Educational Objectives: The Classification of Education Goals:

# Revised Taxonomy of Educational Objectives\*

Cognitive Process Dimension	Knowledge Dimension					
<p><i>This revised Bloom's Taxonomy will assist you as you work to improve instruction to ensure that</i></p> <ul style="list-style-type: none"> <li>standards, lessons, and assessments are aligned.</li> <li>lessons are cognitively rich.</li> <li>instructional opportunities are not missed.</li> </ul>	<p><b>1. Remember:</b> retrieving relevant knowledge from long term memory</p> <ol style="list-style-type: none"> <li>Recognizing</li> <li>Recalling</li> </ol>	<p><b>2. Understand:</b> determining the meaning of instructional messages</p> <ol style="list-style-type: none"> <li>Interpreting</li> <li>Exemplifying</li> <li>Classifying</li> <li>Summarizing</li> <li>Inferring</li> <li>Comparing</li> <li>Explaining</li> </ol>	<p><b>3. Apply:</b> carrying out or using a procedure in a given situation</p> <ol style="list-style-type: none"> <li>Executing</li> <li>Implementing</li> </ol>	<p><b>4. Analyze:</b> Breaking material into its constituent parts and detecting how the parts relate to one another and to an overall structure or purpose</p> <ol style="list-style-type: none"> <li>Differentiating</li> <li>Organizing</li> <li>Attributing</li> </ol>	<p><b>5. Evaluate:</b> making judgments based on criteria and standards</p> <ol style="list-style-type: none"> <li>Checking</li> <li>Critiquing</li> </ol>	<p><b>6. Create:</b> putting elements together to form a novel, coherent whole or make an original product.</p> <ol style="list-style-type: none"> <li>Generating</li> <li>Planning</li> <li>Producing</li> </ol>
<p><b>A. Factual Knowledge:</b> basic elements that students must know to be acquainted with a discipline or solve a problem in it.</p> <ol style="list-style-type: none"> <li>Knowledge of terminology</li> <li>Knowledge of specific details and elements</li> </ol>						
<p><b>B. Conceptual knowledge:</b> the inter-relationships among the basic elements within a larger structure that enable them to function together</p> <ol style="list-style-type: none"> <li>Knowledge of classification</li> <li>Knowledge of principles and generalizations</li> <li>Knowledge of theories, models and structures</li> </ol>						
<p><b>C. Procedural knowledge:</b> how to do something; methods of inquiry, and criteria for using skills, algorithms, techniques and methods</p> <ol style="list-style-type: none"> <li>Knowledge of subject specific skills and algorithms</li> <li>Knowledge of techniques and methods</li> <li>Knowledge of criteria for determining when to use appropriate procedures</li> </ol>						
<p><b>D. Metacognitive knowledge:</b> knowledge of cognition in general as well as awareness of one's own cognition</p> <ol style="list-style-type: none"> <li>Strategic knowledge</li> <li>Cognitive tasks, including appropriate contextual and conditional knowledge</li> <li>Self-knowledge</li> </ol>						

\* Adapted from Lorin W. Anderson, David R. Krathwohl et al (Eds.) *A Taxonomy For Learning, Teaching, and Assessing: A Revision of Bloom's Educational Objectives* © 2001; published by Allyn and Bacon, Boston, MA © 2001 by Pearson Education; reprinted by permission of the publisher.