

ASSESSING LEARNING OBJECTIVES BLOOM'S TAXONOMY

Bloom's Taxonomy provides a useful structure in which to categorize test questions when assessing student learning. The table below describes skills demonstrated for each level of thinking according to Bloom as well as question cues, sentence stems, and example learning activities that can be used to elicit student responses within that level. The same content information can be assessed at different levels of cognition.

Competence	Skills Demonstrated	Sentence Stems	Example Learning Activities
<p>Knowledge</p> <p>Can the learner recall?</p>	<p>Observation and recall of information.</p> <p>Knowledge of dates, events, places.</p> <p>Knowledge of major ideas.</p> <p>Mastery of subject matter.</p> <p>Question Cues: List, define, tell, describe, identify, show, label, collect, examine, tabulate, quote, name, who, when, where, etc.</p>	<p>What happened after...?</p> <p>How many...?</p> <p>How much?</p> <p>What is...?</p> <p>Who was it that...?</p> <p>Can you name...?</p> <p>Find the meaning of...?</p> <p>Describe what happened after...?</p> <p>Who spoke to...?</p> <p>Which is true or false...?</p> <p>Identify who...?</p> <p>Name all the...?</p>	<p>Make a list of the main events of the story.</p> <p>Make a time line of events.</p> <p>Make a facts chart.</p> <p>Write a list of any pieces of information you can remember.</p> <p>What objects were in the story?</p> <p>Make a chart showing...</p> <p>Recite a poem.</p>

Competence	Skills Demonstrated	Sentence Stems	Example Learning Activities
<p>Comprehension</p> <p>Can the learner explain ideas or concepts?</p>	<p>Understanding information.</p> <p>Grasp meaning.</p> <p>Translate knowledge into new context.</p> <p>Interpret facts, compare and contrast.</p> <p>Order, group, infer causes</p> <p>Predict consequences</p> <p>Question Cues:</p> <p>Summarize, describe, interpret, contrast, predict, associate, distinguish, estimate, differentiate, discuss, extend</p>	<p>Can you write in your own words?</p> <p>How would you explain...?</p> <p>Can you write a brief outline...?</p> <p>What do you think could have happened next...?</p> <p>Who do you think...?</p> <p>What was the main idea...?</p> <p>Is this the same as...?</p> <p>Can you distinguish between...?</p> <p>What differences exist between...?</p> <p>Can you provide an example of what you mean...?</p> <p>Can you provide a definition for...?</p> <p>Explain what is happening/meant...?</p>	<p>Cut out, or draw pictures to show a particular event.</p> <p>Illustrate what you think the main idea may have been.</p> <p>Make a cartoon strip showing the sequence of events.</p> <p>Write and perform a play based on the story.</p> <p>Retell the story in your own words.</p> <p>Write a summary report of the event.</p> <p>Prepare a flow chart to illustrate the sequence of events.</p> <p>Read the graph or table.</p>
<p>Application</p> <p>Can the learning use new knowledge in another familiar situation?</p>	<p>Use information.</p> <p>Use methods, concepts, theories in new situations.</p> <p>Solve problems using required skills or knowledge.</p>	<p>Do you know another instance where...?</p> <p>Could this have happened in...?</p> <p>Can you group characteristics such as...?</p>	<p>Construct a model to demonstrate how it works.</p> <p>Illustrate an event.</p> <p>Make a scrapbook about the areas of study.</p>

Competence	Skills Demonstrated	Sentence Stems	Example Learning Activities
<p>Application</p> <p>Can the learning use new knowledge in another familiar situation?</p>	<p>Question Cues:</p> <p>Apply, demonstrate, calculate, complete, illustrate, show, solve, examine, modify, relate, change, classify, experiment, discover</p>	<p>What factors would you change if...?</p> <p>Can you apply the method used to some experience of your own...?</p> <p>What questions would you ask of...?</p> <p>From the information given, can you develop a set of instructions about...?</p> <p>Would this information be useful if you had a...?</p> <p>Explain...?</p>	<p>Make a model to include relevant information about an event.</p> <p>Take a collection of photographs to demonstrate a particular point.</p> <p>Make up a puzzle game.</p> <p>Design a market strategy for your product.</p> <p>Write a textbook about this topic for others.</p>
<p>Analysis</p> <p>Can the learner differentiate between fundamental parts?</p>	<p>Seeing patterns.</p> <p>Organization of parts.</p> <p>Recognition of hidden meanings.</p> <p>Identification of components.</p> <p>Question Cues:</p> <p>Analyze, separate, order, explain, connect, classify, arrange, divide, compare, select, explain, infer</p>	<p>Which events could not have happened?</p> <p>If. ..happened, what might the ending have been?</p> <p>How is...similar to...?</p> <p>What is the underlying theme of...?</p> <p>What do you see as other possible outcomes?</p> <p>Why did...changes occur?</p> <p>Can you compare... with...that presented in...?</p> <p>Can you explain what</p>	<p>Design a questionnaire to gather information.</p> <p>Write a commercial to sell a new product.</p> <p>Make flow chart to show the critical stages.</p> <p>Construct a graph to illustrate selected information.</p> <p>Make a puzzle.</p> <p>Make a family tree showing relationships.</p> <p>Devise a play about the study</p>

Competence	Skills Demonstrated	Sentence Stems	Example Learning Activities
<p>Analysis</p> <p>Can the learner differentiate between fundamental parts?</p>		<p>must have happened when...?</p> <p>How is that similar to...?</p> <p>What are some or the problems of...?</p> <p>Can you distinguish between...?</p> <p>What were some of the motives behind..?</p> <p>What was the turning point?</p> <p>What was the problem with...?</p>	<p>area.</p> <p>Write a biography of a person studied.</p> <p>Prepare a report about the area of study.</p> <p>Arrange a meeting. Make all the arrangements and record all the steps needed.</p>
<p>Synthesis</p> <p>Can the learner generate new products, ideas, or ways of viewing things?</p>	<p>Use old ideas to create new ones.</p> <p>Generalize from given facts.</p> <p>Relate knowledge from several areas.</p> <p>Predict, draw conclusions.</p> <p>Question Cues:</p> <p>Combine, integrate, modify rearrange, substitute, plan, create, design, invent, compose, formulate, prepare, generalize, rewrite, do, develop</p>	<p>Can you design a...to...?</p> <p>Compose a...about...?</p> <p>If you had access to all resources how would you deal with..?</p> <p>Devise your own way to deal with...?</p> <p>What would happen if...?</p> <p>How many ways can you...?</p> <p>Is there a better solution to...?</p> <p>Can you create new and unusual uses for...?</p>	<p>Invent a machine to do a specific task.</p> <p>Design a building to house your study.</p> <p>Create a new product. Give it a name and plan a marketing plan.</p> <p>Write about your feelings in relation to...?</p> <p>Write a TV show, play, puppet show, role play, song or pantomime about...?</p> <p>Design a record, book, or magazine cover for...?</p>

Competence	Skills Demonstrated	Sentence Stems	Example Learning Activities
<p>Synthesis</p> <p>Can the learner generate new products, ideas, or ways of viewing things?</p>		<p>Can you write a recipe for a new dish?</p> <p>Can you develop a proposal which would...?</p> <p>How would you solve...?</p>	<p>Make up a new language code and write material using it.</p> <p>Sell an idea.</p> <p>Devise a way to...?</p>
<p>Evaluation</p> <p>Can the learner justify a decision or course of action?</p>	<p>Compare and discriminate between ideas.</p> <p>Assess value of theories, presentations.</p> <p>Make choices based on reasoned argument.</p> <p>Verify value of evidence.</p> <p>Recognize subjectivity.</p> <p>Question Cues:</p> <p>Assess, decide, rank, grade, test, measure, recommend, convince, select, judge, explain, discriminate, support, conclude, compare, summarize</p>	<p>Is there a better solution to...?</p> <p>Judge the value of... What do you think about...?</p> <p>Can you defend your position about...?</p> <p>Do you think...is a good or bad thing?</p> <p>How would you have handled...?</p> <p>What changes to.. would you recommend?</p> <p>Do you believe...? How would you feel if. ..?</p> <p>How effective are. ..?</p> <p>Can you place...in priority order.</p>	<p>Conduct a debate about an issue of special interest.</p> <p>Make a booklet about five rules you see as important.</p> <p>Convince others. Form a panel to discuss views.</p> <p>Write a letter to. ..advising on changes needed.</p> <p>Write a half-year report.</p> <p>Prepare a case to present your view about...</p> <p>Prepare a list of criteria to judge a ... show. Indicate priority and ratings.</p> <p>Write a letter to ... advising on changes needed at...</p>

References:

Assessing Learning Objectives. University of Illinois, Chicago, Springfield, Urbana Champaign. Copyright: 1998-2006, Illinois Online Network and the Board of Trustees of the University of Illinois. Retrieved from:

<http://www.ion.illinois.edu/resources/tutorials/assessment/bloomtaxonomy.asp>

Revised Bloom's Taxonomy. oz-TeacherNet. Retrieved January 23, 2007 from:

<http://rite.ed.qut.edu.au/oz>

teachernet/index.php?module=ContentExpress&func=display&ceid=29

Bloom's Taxonomy Model Questions and Key Words. UT Learning Center. The University of Texas at Austin. Retrieved January 23, 2007 from:

<http://www.utexas.edu/student/utlc/lrnres/handouts/1414.html>.