Unit 4, week 12, session 2

Use of Bloom's Taxonomy of educational objectives to create test questions

Benjamin Bloom identified six learning objectives, ranging from 'knowledge', which represented simpler mental processes, to 'evaluation', which represented the highest level of cognitive skills. Moving from knowledge toward evaluation requires students to use higher-order mental skills at each level. The 'Sun, Earth, and the Moon' unit test uses the first three levels (knowledge, comprehension or understanding, and application) from Bloom's taxonomy. The definitions of these categories used to create the unit test are as follows.

Knowledge

This category requires the lowest level of cognitive skills and involves recognition and/or recollection of previously learned material.

Verbs used in questions asking for knowledge include *define*, *list*, *identify*, *describe*, *match*, and *locate*.

Examples of stems for questions asking for knowledge: 'Where did …?', 'What was …?', Who was …?', and 'When did …?'

Comprehension/understanding

As is apparent from the name, this category represents understanding of the learned material, and it requires higher-level cognitive skills than the knowledge category. Tasks such as summarizing information, interpreting the material, and recognizing trends are examples of this category.

Verbs used in questions asking for comprehension include *summarize*, *interpret*, *rewrite*, and *give an example*.

Examples of stems for questions asking for comprehension: 'Tell me in your own words …', 'What it is meant by …?', and 'What is the main idea of …?'

Application

This category goes one step beyond comprehension and represents the level where a student is able is to use the learned material in new and concrete situations.

Verbs used in questions asking for application include *demonstrate*, *show*, *operate*, *construct*, and *apply*.

Examples of stems for questions asking for application: 'What would happen if …?', 'How would you solve this problem …?', and 'Would you have done the same as …?'