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# Workshop: Bloom's Taxonomy Analysis Software

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# WORKSHOP

## BLOOM'S TAXONOMY ANALYSIS SOFTWARE

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### Abstract

*This workshop provides participants the opportunity to discuss their course objectives in accordance with the parameters suggested by Bloom. Bloom's Taxonomy is established, well-known, comprehensive, hierarchical in design and contains action verbs which succinctly describe learning outcomes. When educators develop instructional objectives, they are typically asked to categorize or label each one according the Bloom's level of cognitive complexity. It provides educators with a common frame of reference that clarifies various types of learning outcomes. It illustrates the wide array of learning outcomes that can be included in any given instructional area. Of primary importance is the development of learning objectives and the measures to determine accomplishment of those objectives. Participants are invited to bring course objectives in both print and digital formats. If desired, course objectives may be discussed and evaluated for compliance with Bloom's BCD (behavior, condition, degree) format. Additionally, software designed to analyze the course objectives' level within Bloom's cognitive domain will be demonstrated and participants will be encouraged to have their course objectives analyzed using this technology. This software technology was developed by Baker and Papp and is a continuation of studies previously presented at SAIS and other conferences.*

**Keywords:** Bloom's taxonomy, learning outcomes, objective assessment, software analysis program.

### Bloom's Taxonomy

In 1956 Benjamin Bloom and a group of educators developed a scheme for categorizing educational objectives and published the results of their work in *Taxonomy of Educational Objectives: Book 1, Cognitive Domain*. Since its first publication, almost 50 years ago, the handbook has been translated into more than twenty languages. This work, commonly referred to as Bloom's Taxonomy, is widely used by educators today to formulate instructional objectives, categorize learning tasks, drive instruction and define assessments.

Bloom's Taxonomy is established, well-known, comprehensive, hierarchical in design and contains action verbs which succinctly describe learning outcomes. When educators develop instructional objectives, they are typically asked to categorize or label each one according the Bloom's level of cognitive complexity. Well-stated objectives can provide a description of the intended learning outcomes in performance terms – that is, they identify verbs that describe observable behaviors students demonstrate to show acquisition of the knowledge, understanding or skill described by the objective (Gronlund, 2003).

# The Value of Using Bloom's Taxonomy in Learning Outcomes Development

Bloom's Taxonomy represents a tool for planning, implementing and assessing instruction. It provides educators with a common frame of reference that clarifies various types of learning outcomes. It illustrates the wide array of learning outcomes that can be included in any given instructional area. Borich and Tombari (2004) found the taxonomy benefits teachers as they plan their lessons. It helps teachers focus on the outcomes, specifically instructional objectives, which they want their students to attain as a result of instruction. The taxonomy gives educators a precise and common language for articulating the intended outcomes of their teaching in terms of student learning (Lee, 1999). McMillan (2004) found the taxonomy to be valuable to today's teachers because it provides a comprehensible list of possible learning outcomes with action verbs that operationalize learning targets.

Outcomes assessment is an important issue throughout education for educational-institutions and accreditation agencies alike. For example, AACSB, which oversees the accreditation of business programs, tasks institutions with the responsibility to identify education learning goals (AACSB, 2006). Of primary importance is the development of learning objectives and the measures to determine accomplishment of those objectives. "Learning outcomes assessment requires a professor to define learning goals and objectives, and then devise a way to tell whether or not students have mastered those objectives" (Banta, 2006). By defining course objectives according to the Bloom's Taxonomy format, measurement of objective-attainment becomes easier thereby facilitating the assessment process.

## Workshop Objectives

This workshop provides participants the opportunity to discuss their course objectives in accordance with the parameters suggested by Bloom. Participants are invited to bring course objectives in both print and digital formats. If desired, course objectives may be discussed and evaluated for compliance with Bloom's BCD (behavior, condition, degree) format. Additionally, software designed to analyze the course objectives' level within Bloom's cognitive domain will be demonstrated and participants will be encouraged to have their course objectives analyzed using this technology. This software technology was developed by Baker and Papp and is a continuation of studies previously presented at SAIS and other conferences (Baker and Papp, 2004a and 2004b).

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