



Teaching Capacity

Writing student learning objectives:
Instructional objectives to guide choice
of teaching/learning activities

Gary Briers and Maria Navarro
Facilitators

Proyecto de Fortalecimiento de Capacidades en Docencia e Investigación
Universidad de Texas A&M, USDA y UNALM

Activity

- In the August workshop, you participated in a session on writing learning objectives. This session is going to serve as a review session, and a more in-depth coverage of the cognitive objectives, choice of teaching and learning activities, and evaluation of student learning.
- **Activity:** Write down one example of something you have used from the August workshop in your teaching, and share with the rest of the group when the facilitator is addressing the specific content you used.

SMART objectives. Objective ABCDs

- Specific
- **Measurable**
- Attainable
- **Realistic, Rewardable**
- Timeline
- **A – Audience**
- **B – Behavior**
- **C – Conditions**
- **D - Degree**

Source: <http://moodle.cce.cornell.edu/mod/resource/view.php?id=290>

Bloom's taxonomy - KAS

- Cognitive domain:
 - Mental skills (knowledge)
- **Affective domain:**
 - Feelings, emotions (attitude)
- Psychomotor domain:
 - Manual or physical skills (skills)

Cognitive Domain

- Skills in the **cognitive domain** revolve around knowledge, comprehension, and "thinking through" a particular topic

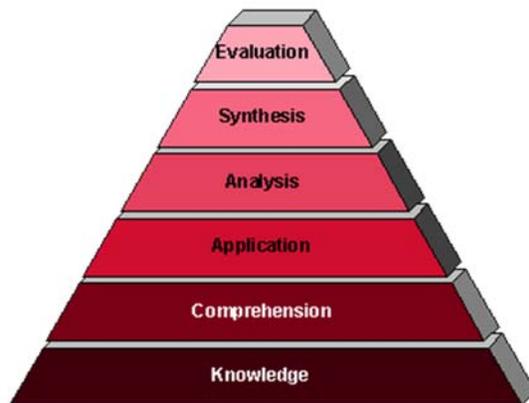
Definitions, sample verbs and behaviors

- **Knowledge**

- **Definition:** Student recalls or recognizes information, ideas, and principles in the approximate form in which they were learned.
- **Sample verbs:** Write; list; label; name; state; define.
- **Sample behavior:** The student will define the 6 levels of Bloom's taxonomy of the cognitive domain.

Source: <http://www.edpsycinteractive.org/topics/cogsys/bloom.html>

Cognitive domain levels



Source: <http://tikdebritto.com/wp-content/uploads/2008/11/bloomcog.gif>

Definitions, sample verbs and behaviors

- **Comprehension**

- **Definition:** Student translates, comprehends, or interprets information based on prior learning.
- **Sample verbs:** Explain; summarize; paraphrase; describe; illustrate.
- **Sample behavior:** The student will explain the purpose of Bloom's taxonomy of the cognitive domain.

Source: <http://www.edpsycinteractive.org/topics/cogsys/bloom.html>

Definitions, sample verbs and behaviors

- **Application**

- **Definition:** Student selects, transfers, and uses data and principles to complete a problem or task with a minimum of direction.
- **Sample verbs:** Use, compute; solve; demonstrate; apply; construct.
- **Sample behavior:** The student will write an instructional objective for each level of Bloom's taxonomy.

Source: <http://www.edpsycinteractive.org/topics/cogsys/bloom.html>

Definitions, sample verbs and behaviors

- **Analysis**

- **Definition:** Student distinguishes, classifies, and relates the assumptions, hypotheses, evidence, or structure of a statement or question.
- **Sample verbs:** Analyze; categorize; compare; contrast; separate.
- **Sample behavior:** The student will compare and contrast the cognitive and affective domains.

Source: <http://www.edpsycinteractive.org/topics/cogsys/bloom.html>

Activity

- Write a LOT (Lower Order Thinking) Learning Objective and explain:
 - How is your instructional objective guiding the choice of teaching/learning activities?
 - How are you integrating different learning styles?
 - How are you going to evaluate student learning for this learning objective?

Definitions, sample verbs and behaviors

- **Synthesis**

- **Definition:** Student originates, integrates, and combines ideas into a product, plan or proposal that is new to him or her.
- **Sample verbs:** Create; design; hypothesize; invent; develop.
- **Sample behavior:** The student will design a classification scheme for writing educational objectives that combines the cognitive, affective, and psychomotor domains.

Source: <http://www.edpsycinteractive.org/topics/cogsys/bloom.html>

Definitions, sample verbs and behaviors

- **Evaluation**

- **Definition:** Student appraises, assesses, or critiques on a basis of specific standards and criteria.
- **Sample verbs:** Judge; recommend; critique; justify.
- **Sample behavior:** The student will judge the effectiveness of writing objectives using Bloom's taxonomy.

Source: <http://www.edpsycinteractive.org/topics/cogsys/bloom.html>

Affective Domain

- Affective objectives typically target the awareness and growth in attitudes, emotion, and feelings

Activity

- Write a HOT (Higher Order Thinking) Learning Objective and explain:
 - How is your instructional objective guiding the choice of teaching/learning activities?
 - How are you integrating different learning styles?
 - How are you going to evaluate student learning for this learning objective?

Affective domain levels



Source: <http://access.nku.edu/oca/SLO/graphics/bloomaff.gif>

Five Levels of the Affective Domain

- **Receiving**
 - The lowest level; the student passively pays attention. Without this level no learning can occur.
- **Responding**
 - The student actively participates in the learning process, not only attends to a stimulus, the student also reacts in some way.
- **Valuing**
 - The student attaches a value to an object, phenomenon, or piece of information.

Activity

- How are we integrating the affective domain into our teaching?

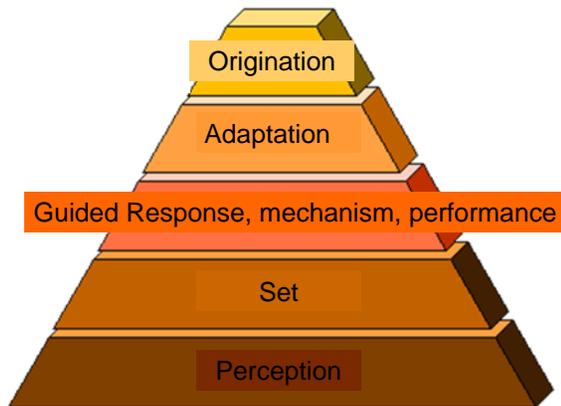
Five Levels of the Affective Domain

- **Organizing**
 - The student can put together different values, information, and ideas and accommodate them within his/her own schema; comparing, relating and elaborating on what has been learned.
- **Characterizing**
 - The student has held a particular value or belief that now exerts influence on his/her behavior so that it becomes a characteristic.

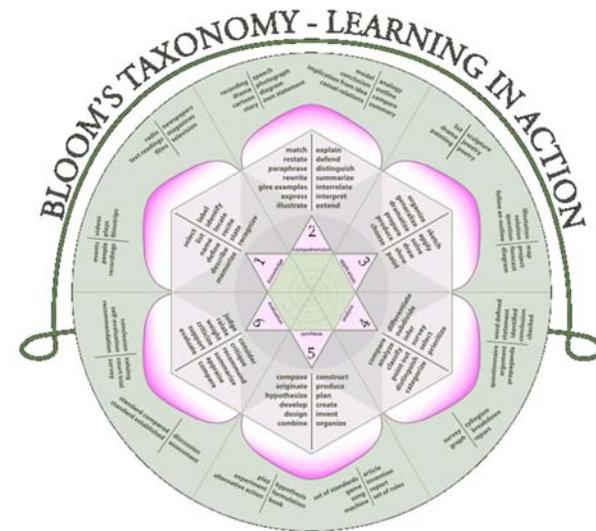
Psychomotor Domain

- Skills in the **psychomotor domain** describe the ability to physically manipulate a tool or instrument like a hand or a hammer.
- Psychomotor objectives usually focus on change and/or development in behavior and/or skills.

Psychomotor domain levels



Source: <http://access.nku.edu/oca/SLO/graphics/blmpmd.gif>



Source: http://en.wikipedia.org/wiki/Bloom%27s_Taxonomy

Activity

- What have we learned and plans for the future