

Learning Objectives & Alignment



The University Of

T A M P A

Facilitators

- Fred Baker, Office of Educational Technology
- Mary Martinasek, Public Health
- Colleen Beaudoin, Mathematics
- Enilda Romero-Hall, Instructional Design & Technology

Agenda

- Terminology
- General Tips
- Domains of Learning
 - Types
- Different Models
 - Activity

Audience - MY WORK TEAM



Behaviour - Increase sales from team



Conditions - A focused environment which is centered around customer service.



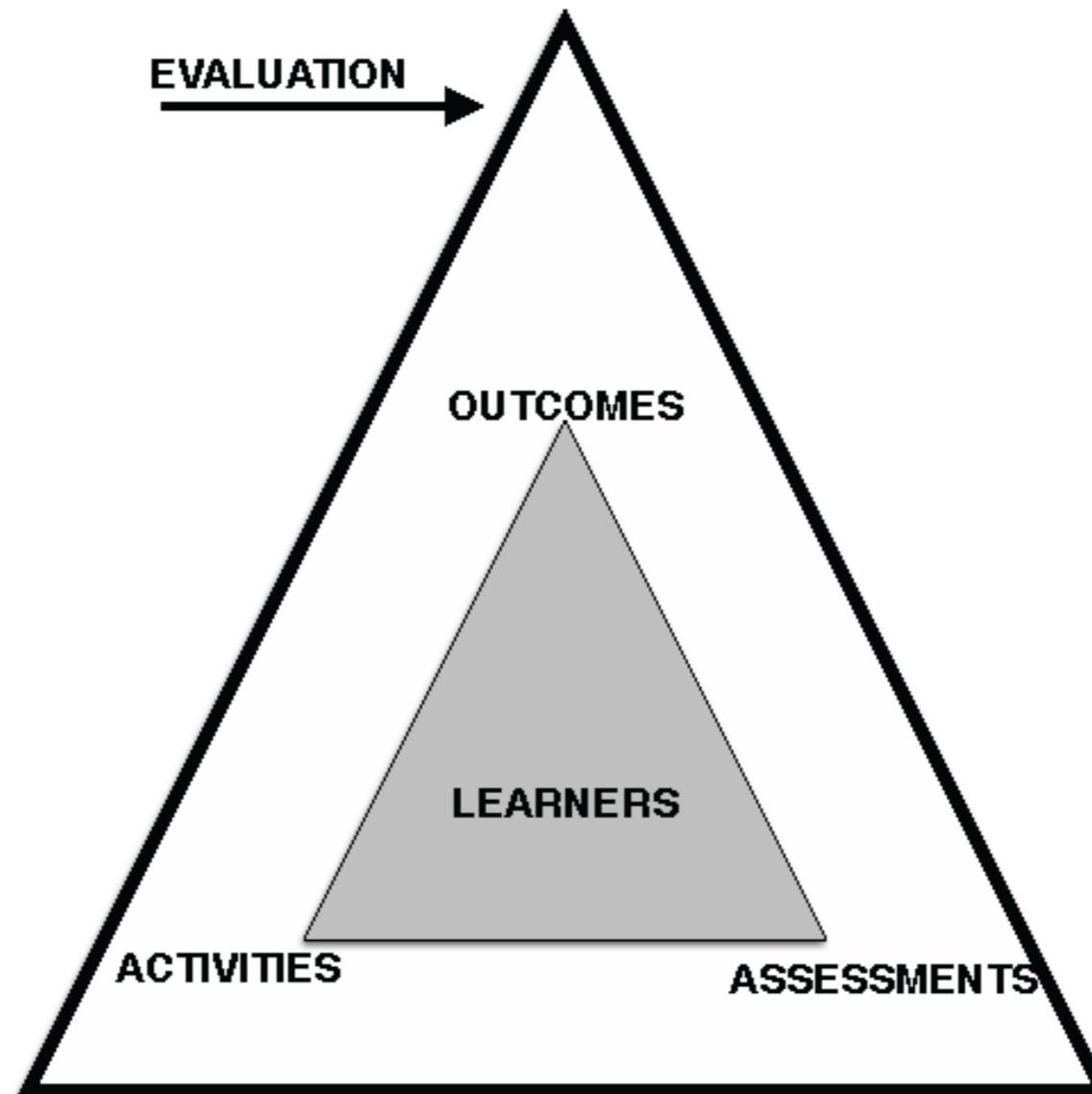
Degree - Hitting 100% of targets

Terminology

- **Goal:** A broad, overarching concept related to the purpose of the program/course/training.
- **Objective:** A student-centered statement about what the “**Students Will Be Able To Do**” after instruction. (A.K.A. performance/learning/behavioral/instructional)
- **Student Learning Outcomes-** What the Student **CAN ACTUALLY DO** as the result of instruction.



Alignment



General Tips

The Objective

Behavioral, Learning, Instructional, Performance

What is an objective?

- An objective clearly describes the observable behavior that you want the learner to be able to do as a result of the instruction. It is a way to determine if learning took place.
- Objectives are about the curriculum, not the instruction.

The Objective

Behavioral, Learning, Instructional, Performance

Why write objectives?

- They provide a guide for the teacher and learner
- They help to direct and organize the lesson
- They enhance collaboration amongst colleagues by communicating what is being taught

- Objectives...
 - Must be **OBSERVABLE** in order to be assessed
 - This is where the verbs come into play
 - Demonstrate vs. Understand
 - How do you assess understanding?
 - Must be **SPECIFIC**
 - What explicitly? How much is enough? Where is the cutoff?

Domains of Learning

3 Domains of Behavioral Objectives

Cognitive Domain

- Intellectual learning and problem solving
- Cognitive levels of learning include: knowledge, application, analysis, synthesis, and evaluation

Exp. When given a map, the student will locate and write the correct name of the state on each of the 50 states of the United States.

3 Domains of Behavioral Objectives

Affective Domain

- Emotions & Value Judgments
- Affective levels of learning include:
responding, organizing, valuing, and
characterizing by a value

Exp. The student will demonstrate a commitment to recycling by developing & implementing a plan to recycle cans in the cafeteria.

3 Domains of Behavioral Objectives

Psychomotor Domain

- Physical movement and motor skill capabilities
- Psychomotor levels of learning include mechanism, adaptation, perception, set, & guided response. The skills are developed by practice and measured in terms of speed, accuracy distance, and execution of techniques.

Exp. The student will tune the piano before playing Mozart's *Requiem Mass in D minor*

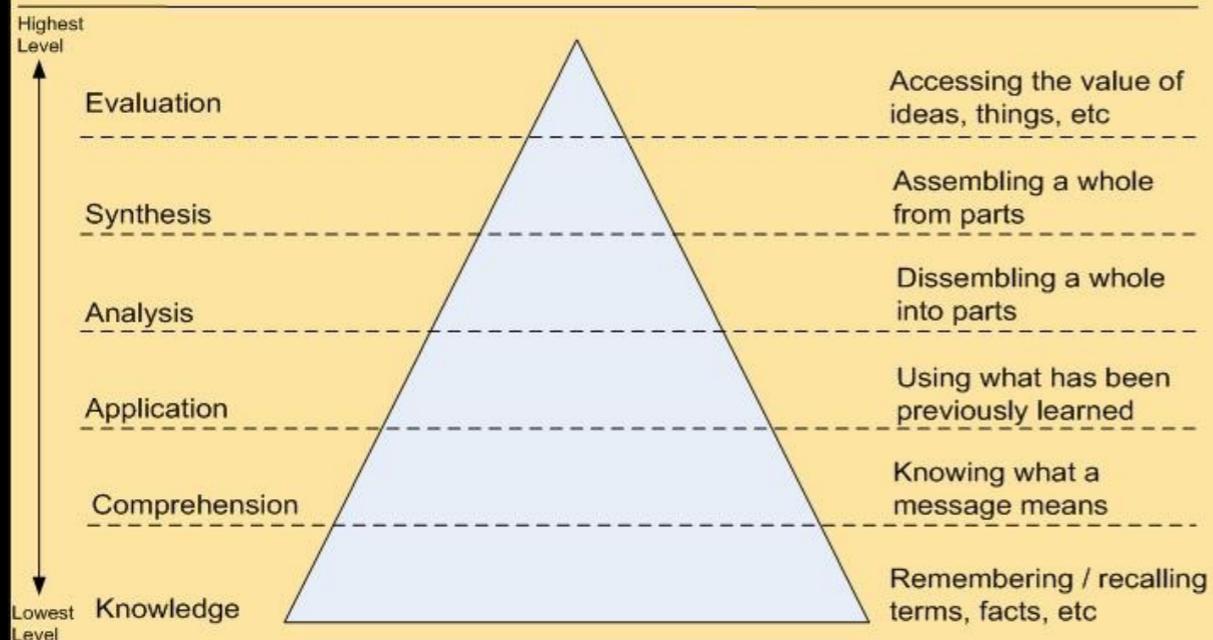
3 Domains of Behavioral Objectives

Which domain do you most often address in your content area (cognitive, affective, psychomotor)?

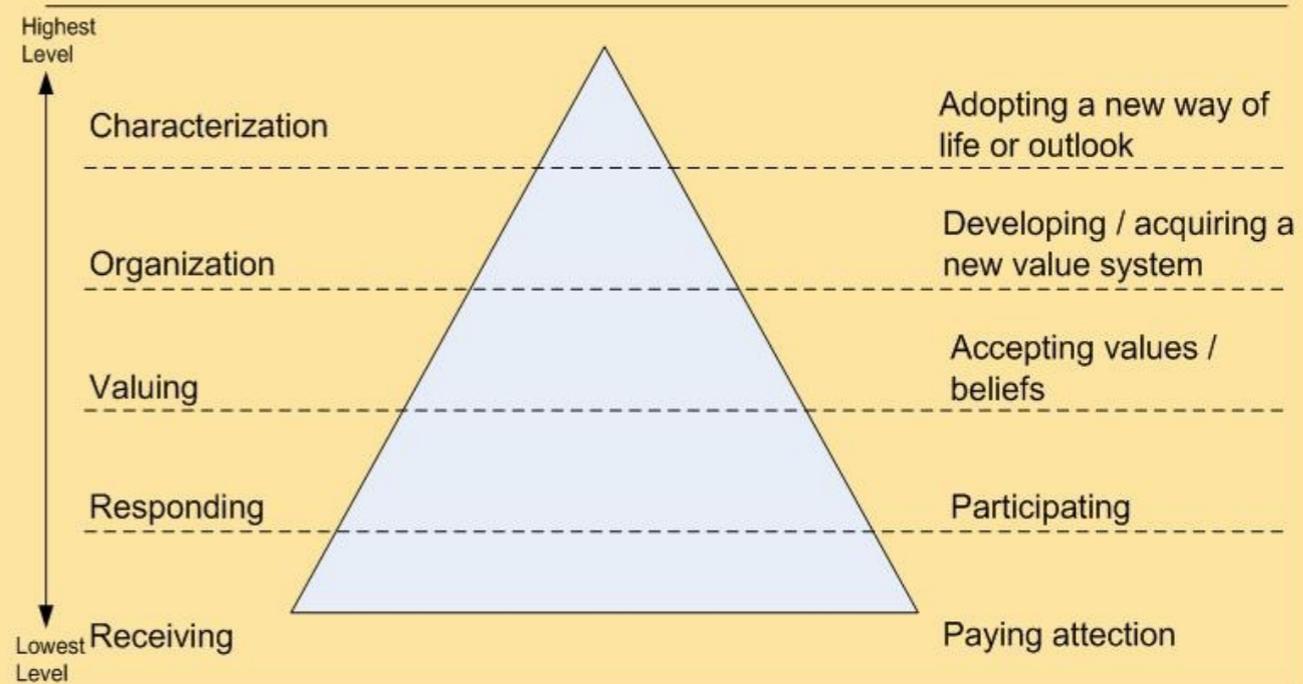
Domains of Learning

- **Cognitive-**Related to intellectual activities.
 - Objectives related to recall, naming examples, solving, etc.
- **Psychomotor-** Related to physical activities.
 - Objectives related to precision, movements, gestures, speaking, expression, etc.
- **Affective-** Related to attitudes, values, emotions, etc.
 - Objectives related to accepting, belief, acknowledging, approving, etc.

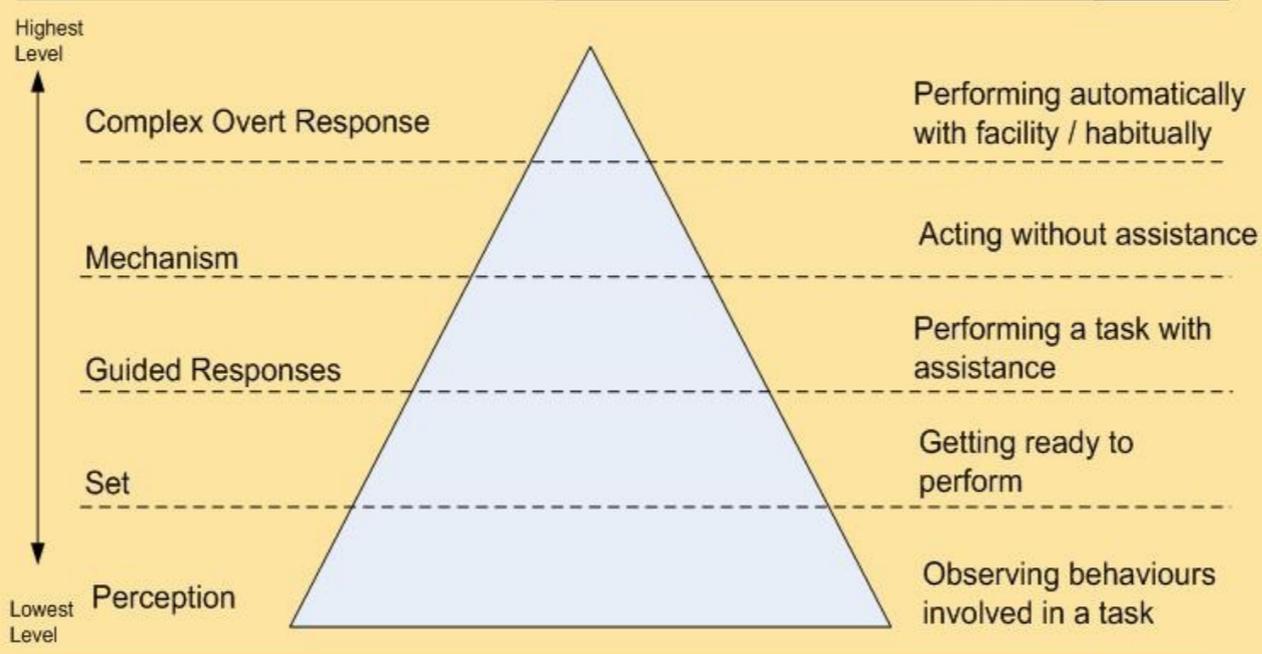
Cognitive- knowing & thinking



Affective- feelings & attitudes



Psychomotor- doing



Types of Objectives

- **Terminal Objective**-What the Student Will Be Able to Do at the end of a unit of instruction
 - 1 per unit of instruction, perhaps 6-8 per course
- **Subordinate (Enabling) Objectives**- Prerequisite skills that must be learned in order to achieve the terminal objective
 - Could be 100's per unit of instruction

Make a Peanut Butter & Jelly Sandwich
TERMINAL OBJECTIVE

1. Gather Materials
SUPERORDINATE OBJECTIVE

2. Prepare Bread
SUPERORDINATE OBJECTIVE

3. Apply Jelly to Bread
SUPERORDINATE OBJECTIVE

4. Apply Peanut Butter to Bread
SUPERORDINATE OBJECTIVE

5. Combine Bread
SUPERORDINATE OBJECTIVE

1.1
SUB. O.

1.2
SUB. O.

1.2.1
SUB. O.

1.2.2
SUB. O.

1.2.3
SUB. O.

1.2.2.1
SUB. O.

1.2.2.2
SUB. O.

4.1 Open Peanut Butter
SUBORDINATE OBJECTIVE

4.2 Spoon Peanut Butter
SUBORDINATE OBJECTIVE

4.1.1 Turn Lid Counter-Clockwise
SUBORDINATE OBJECTIVE

4.2.1
SUB. O.

4.2.2
SUB. O.

4.1.1.1 Grasp Lid
SUBORDINATE OBJECTIVE

4.1.1.2 Turn Hand
SUBORDINATE OBJECTIVE

4.1.1.1.1 Identify Lid
SUBORDINATE OBJECTIVE

4.1.1.1.2 Use Thumb & Index Finder
SUBORDINATE OBJECTIVE

ENTRY BEHAVIORS

Objectives

- Even simple tasks have 100's of enabling objectives
- Ideally, these are articulated and tied to instructional materials and assessments
- Entry Behaviors are skills the learner should have before the instruction starts
 - The instruction builds on these, but they will not be covered by the instruction

Different Models

PCC Model

Objectives

- Objective Statements Consist of:
 - **Performance** that the student must do
 - **Conditions** under which performance must take place
 - **Criteria** for assessment
- Example:
 - Given a regulation goal, court, and basketball, student will be able to make free throws from the free throw line, using proper form, with 80% accuracy.
 - Standing on a live stage in an Abe Lincoln costume, student will be able to accurately recite the Gettysburg address with fewer than two errors.

Morrison, Ross, & Kemp Model

Deriving the Objectives

- Review the task and identify the essential knowledge (tasks, procedures)
- Group the task in clusters with the goal you identified
- Write an objective for each goal statement
- Write objectives for any additional information that is essential

Terms

- Behavioral Objectives
- Educational Objectives
- Learning Objectives
- Cognitive Objectives
- Instructional Objectives
- Performance Objectives

Behavioral Objectives

- Essential Parts
 - Action Verb
 - Subject-Content Reference
- Optional Parts
 - Level of Achievement
 - Condition of Performance

CAUTION

- We often start to write an objective as a description of what is occurring during the instruction [“To view a videotape on ecological safeguards”]
- These statements are activities and/or processes; they are not objectives

Cognitive Objectives

- First: statement of the general instructional objective
 - For example: Select information using ERIC
- Second: one or more samples of the specific types of performance that indicates mastery
 - For example: Select information using ERIC
 - Find an article on a given topic
 - Compiles a bibliography of related literature

Behavioral vs. Cognitive

- Behavioral objectives are well suited for mastery learning instruction for specific behaviors
- Cognitive objectives are well suited for higher levels of learning

SMART Model

Writing Objectives: The SMART Model

S: Specific What exactly are we going to do? For example: “Simplify the fraction $6/12$.” If a student answered $2/4$, would that be correct according to your directions? Is that the answer you wanted? How can you make it more specific?

M: Measurable A way to measure or track the behavior must exist. For example: If you say, “Students will understand the commutative property.” Is that measurable? How can you make it measurable?

Writing Objectives: The SMART Model

A: Attainable Within a reasonable amount of effort and application, can the objective be achieved?

R: Relevant Will objective lead to desired results? Is it relevant to curriculum and standards?

T: Time This could be a specific time constraint the students have to complete the goal or it could be referring to the teacher deciding the time in which the objective will be completed.

Example: Objective for teaching solving two-step equations of similar form to $2x + 3 = 9$

The SMART Model

S: Specific

M: Measurable

A: Attainable

R: Relevant

T: Time-limited

Students will correctly solve at least 8 of 10 two-step equations with integral solutions in 20 minutes.

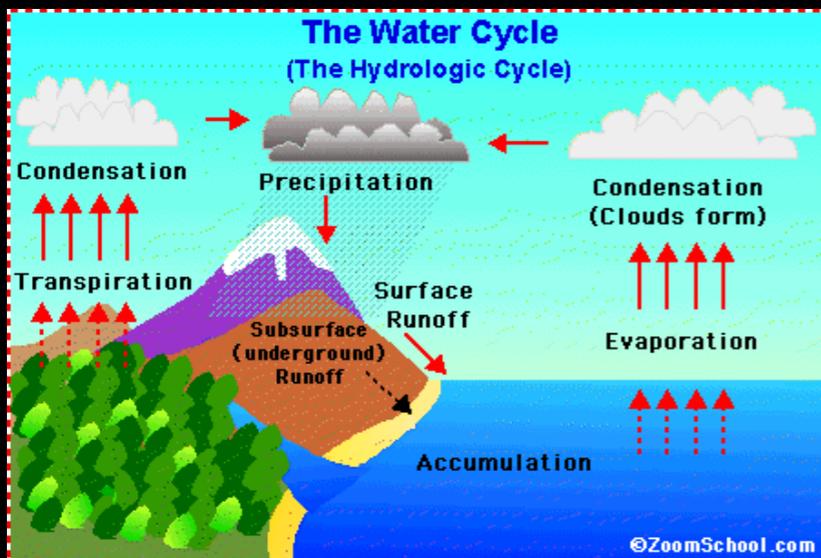
Write an objective that could be used for the following content area.

(They are intentionally general so all participants can brainstorm.)

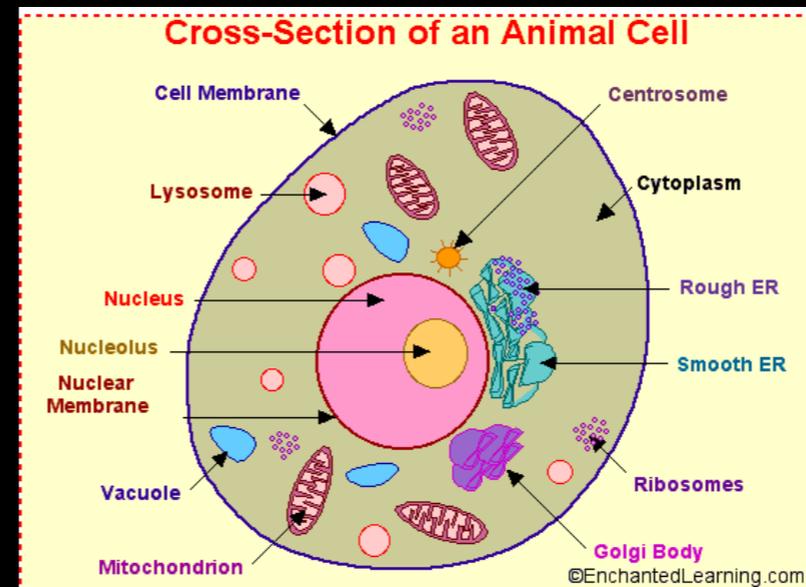
Exp. 1: $3 \times 6 = 18$, $2 \times 5 = 10$, $4 \times 10 = 40$

(multiplication tables to tens)

Exp. 2:



Exp.3:



Exp. 4: written essay on assigned topic

Writing SMARTer Objectives

- Specific, Measurable, Achievable, Realistic, Time-based, Exciting, Recorded (Morrison, 2008)

Identify verbs that can be used for writing objectives for your courses.

*Handouts: *Bloom Costa* and *SMART*

Agenda

- Terminology
- General Tips
- Domains of Learning
 - Types
- Different Models
 - Activity

Audience - MY WORK TEAM



Behaviour - Increase sales from team



Conditions - A focused environment which is centered around customer service.



Degree - Hitting 100% of targets

FOLLOW UP

- Before the next workshop, please :
 - Think about, and maybe try, a few of the different models
 - Rewrite your objectives
 - Think about how each objective is **taught**
 - Think about how each objective is **assessed**

“Do the best you can until you know better.
Then, when you know better, do better.”

–Maya Angelou

- Cennamo, K., & Kalk, D. (2005). *Real-World Instructional Design*. Wadsworth: Belmont, CA
- Dick, W., Carey, L., Carey, J. (2009). *The Systematic Design of Instruction* (7th).
- Gagne, R., Briggs, L., & Wager, W. (1992). *Principles of Instructional Design* (4th). Holt, Rinehart, & Winston: Belmont, CA
- Mager, R.F. (1987). Why I Wrote...[25th Anniversary Issue]. *The Best of Performance and Instruction*, 37.
- Seels, B. Glasgow, Z. (1998). *Making Instructional Design Decisions*. Prentice Hall: New Jersey