

Writing Learning Objectives

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Learning Objectives:

By the end of this session, you will be able to:

- Define learning objectives and explain the purpose and importance of writing clear objectives
- Describe the relationship between the components of the SOM's curriculum design structure
- Write effective course and session-level objectives.



Definition

Objectives are statements which describe what the learner is expected to achieve as a result of instruction.

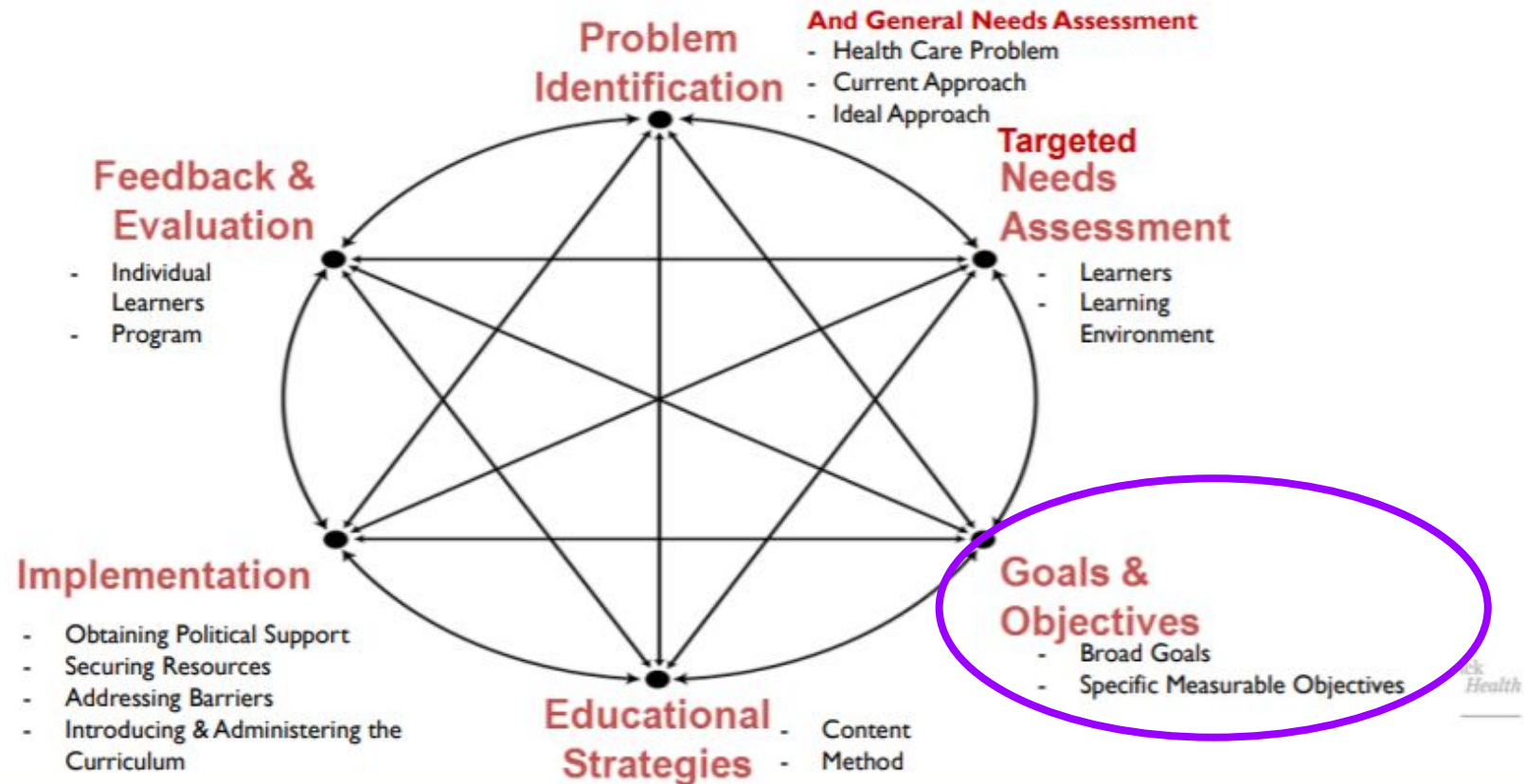
Because they direct attention to the student and the types of behaviors they should exhibit, sometimes these are referred to as “behavioral” objectives. We will refer to them as Course Objectives and Session Objectives but they are both learning objectives and they focus on the learner.



Goals & Objectives

6

Kerns: Curriculum Development for Medical Education A Six-Step Approach



Competency

An observable ability of a health professional - what is performed on the job.

- Integrating multiple components of knowledge, skills, values and attitudes
- That can be measured and assessed to ensure their acquisition
- Competencies develop over time with the help of serial developmental learning activities.
- Milestones are critical points along the road in this development

Why are Goals & Objectives Important?

1. Direct the choice of content
2. Help prioritization
3. Suggest learning methods and evaluation methods
4. Enable evaluation
 1. Of learners
 2. Of the curriculum
5. Communicates and sets expectations

What are Course Goals?

Course Goals are broad statements of the intended learning outcome. They describe what the students will be doing with the learning. At the end of the course, the students “will....”

- Provides the “why” and purpose of the course.
- Sets clear expectations of what the student will achieve – the end result.
- Aligns to school of medicine’s Education Program objectives and competencies.
- To be specific and clear, goals should include descriptive verbs. Examples:

At the end of the course, students will:

- apply fundamental theories in social psychology to real-world scenarios.
- teach a peer on the role of the family medicine physician in the health care system.
- provide basic clinical skills to patients

What are Course Objectives?

Course objectives are the steps needed in the learning to reach the goals. They set the clear expectations of what the student will be able to do at the end of the course. At the end of the course, the students “will be able to...”

Examples:

At the end of the course, students will be able to:

- Describe the structural properties of the four organizational levels of protein structure (primary, secondary, tertiary, quaternary) and the bonding types associated with each level.
- List three characteristics that make the family medicine physician distinctive from other specialists in the healthcare system.
- Analyze the epidemiology of type 2 diabetes mellitus in specific populations

What are Session/Event Enabling Objectives?

Session, Event or enabling objectives are the steps needed in the learning to reach the course objectives. They are a building block to the course objective. They set the clear expectations of what the student will learn in the session. At the end of the session, the students “will be able to...”

Examples:

- List the three pathophysiologic causes of jaundice.
- Compare and contrast the basic structure and function of the sympathetic and parasympathetic nervous systems.
- Differentiate type 1 and 2 diabetic patients
- Identify specific populations with a large number of type 2 diabetic patients.

Learning Objectives...

In a systems approach of competency-based education, the purpose of learning objectives are three-fold, to:

- Specify the desired learned behaviors
- Determine the strategy - methods
- Establish the criteria for assessment

Three Types of Learning Objective Domains

- Cognitive: includes the recall or recognition of specific facts, procedural patterns, and concepts that serve in the development of intellectual abilities and skills.
- Affective: includes the manner in which we deal with things emotionally, such as feelings, values, appreciation, enthusiasms, motivations and attitudes.
- Psychomotor: includes physical movement, coordination, and use of the motor-skill areas.



What cognitive thinking will learners demonstrate?

Cognitive thinking (6 levels): A comprehensive approach to cognitive thinking

- Knowledge: Knows facts, recalls information
- Comprehension: Understands the meaning
- Application: Applies material in new setting
- Analysis: Differentiates into individual parts
- Synthesis: Reconstructs in new ways
- Evaluation: Judges value using evidence



Writing learning objectives

Write learning objectives to determine:

1. Cognitive thinking
2. Affective/Attitudes
3. Psychomotor/Skills



What attitudes and behaviors will the learner exhibit?

Attitudes: demonstrate feeling, values



Key Words: Attitudes

- Consider
- Demonstrate
- Emphasize
- Exemplify
- Plan
- Realize
- Reflect
- Relate
- Revise
- Transfer
- Value

Attitudes: Example

Promote a culture of educational excellence



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Writing learning objectives

Write learning objectives to determine:

1. Cognitive thinking
2. Attitudes
3. Psychomotor/Skills



What will learners be able to do?

Skills-demonstrate proficiency



Key words: Skills

- Conduct
- Create
- Demonstrate
- Diagram
- Hold
- Listen
- Manipulate
- Measure
- Operate
- Perform
- Prepare
- Project
- Record
- Use
- Visualize
- Write

Skills: Example

Conduct a workshop on X
Mentor a junior colleague or learner



Writing learning objectives is the classic:

Begin with the end in mind



Think about the result...

A good way to get started generating a learning objective is to start with the phrase:

“By the end of this course, students will be able to do what?”



Three parts of a learning objective:

- 1. Condition** - What are prevailing conditions/context in which the student performs the action. i.e., such as the environment or tools the student will use. Example: “By the end of the TBL” or “Using a case scenario” or “In a simulation setting...”
- 2. Behavior** - the observable action - content and concepts, what does the student need to do - “Identify the location of the ligaments” or “describe the blood supply and innervation”
- 3. Criteria** - How will we know the student is able to perform - “list all 5 components” or “of the anterior wall”



ANOTHER WAY TO DO THIS:

Five components of a learning objective:

An example:

- By the end of the TBL session, students will be able to describe the blood supply and innervation of the anterior abdominal wall.

1. Who
2. will do (the all important VERB)
3. how much/how well
4. of what
5. by when



Let's Do One Together!

- Pick a topic or course objective that needs revising.
- What do you want the student to be able to do?
- What will you assess the student on?
- What Domain does this fall in?

Cognitive, Attitude, Psychomotor?

- What level – select the highest level that should be achieved.
- What verb describes the behavior Think = what is the best way to assess this?

How will I know the student has achieved it?



Revise these objectives...

- Describe the steps of writing learning objectives.
- Understand how to do a literature review.



Resources

- Bloom et al., Blooms Taxonomy, 1956
- Dick, W., Carey, L., The Systematic Design of Instruction, 2015
- Kern, D., Thomas, P., Hughes, M., Curriculum Development for Medical Education: A Six-Step Approach, 2009
- Miller, George, Miller's Pyramid, 1990

