

Developing Learning Outcomes

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Workshop Series for Department Chairs and Program Coordinators

Angeles L. Eames, Ph.D.

Northeastern Illinois University

About Mission, Learning Goals, Objectives and Outcomes

- It's about levels of specificity and purpose
- The greater the clarity in specifying learning outcomes, the better able we are to teach and assess what our students have learned.
- Instruction is improved when Mission, learning goals, objectives and learning outcomes are linked
- Briefly:
 - Mission sets the overall direction for all teaching and learning activities on campus
 - Learning goals are broad statements of the kinds of learning we hope students will achieve. Typically these are program goals, however, some instructors also set broad learning goals for a specific course.
 - Learning objectives are more narrow statements of what the instructor aims to teach.
 - Learning outcomes are more narrow statements of what we expect the student will learn—the subtle difference between objectives and outcomes is that the former is instructor-centered and the latter is student-centered.

Characteristics of Good Learning Outcomes

- Specify the level, criterion, or standard for the
- Knowledge, skill, ability, or disposition that the student must demonstrate.
Further, if it is not obvious, it should also include the
- Conditions under which they should be able to demonstrate their knowledge, skills, abilities or dispositions.
- Learning outcome statements contain active verbs
- Learning outcomes are measurable (some more easily than others)

Examples of Learning Outcomes

- The student will write well reasoned and data supported papers using proper APA format to meet the appropriate standards for student submissions to the *Undergraduate Psychological Research Journal*.
- The student will work productively in a team to develop and analyze alternative solutions for a complex business problem requiring the integration of four functional areas: management, marketing, finance and operations.
- The student will effectively research generally available and specialized databases in order to advise a small start-up aviation business regarding applicable Federal Aviation regulations.

Taxonomies to Guide Development of Learning Outcomes

Dimensions of Higher Learning

- Declarative learning—learning WHAT-facts and principles
- Procedural Learning—learning HOW-skills and procedures
- Conditional Learning—learning WHEN & WHERE-learning applications
- Reflective Learning—learning WHY-learning to understand one's self and others
- Metacognitive Learning—learning How to Learn—learning to direct one's own

learning

Taxonomies continued

- Bloom's Taxonomy Revised (in Anderson & Krathwohl, 2001)
 - Level 1: Remember: elaborate, encode, and retrieve information from long-term memory
 - Level 2: Understand: connect new learning to prior knowledge by interpreting, classifying, comparing, summarizing, etc.
 - Level 3: Apply: follow procedures to solve problems or carry out tasks
 - Level 4: Analyze: break down, relate parts and whole, organize
 - Level 5: Evaluate: critique or judge based on explicit standards/criteria
 - Level 6: Create: generate, plan, synthesize, produce something new

Program Learning Outcomes

- For both course and program learning outcomes, instructors and chairs should strive to develop a progressive balance of student capabilities.
 - What knowledge, skills, abilities and dispositions should the ideal student graduating from our program demonstrate?
 - How will they be able to demonstrate these capacities?
 - What pre-requisite courses or preparation are needed for students to do well in our program?
 - (If program is part of gen ed) How well does our program prepare students for further undergraduate study. (For all programs) How well does our program prepare students for careers, graduate, professional study, and/or lifelong learning?
 - What assessments can we use to demonstrate growth in students' knowledge, skills, abilities and dispositions as they progress through our program and their college careers.

Linking Learning Outcomes

- When we teach and assess, it should be apparent to the student that learning goals, objectives and outcomes are linked.
- “The educational payoff of a coherent curriculum is that students come to understand the connections in theme that convert a diversity of curriculum parts into a whole. It is the job of text and teachers to make such relationships visible, but they must be there to be pointed out in the first place.”—Rudolph Weingartner in *Undergraduate Education: Goals and Means* (1993)

Example of linked language

- Mission: to offer high quality undergraduate and graduate programs to a broad spectrum of students and to foster student growth and development . . .the academic programs utilize a variety of perspectives . . .to prepare students for the multiculturalism that characterizes our society.
- Goals:
 - The Office of Academic Development provides quality academic and support service programs for Northeastern students.
 - A further goal of the College is provide undergraduate major programs in a variety of both traditional and career-oriented disciplines.
 - The varied perspectives that philosophy provides guide the student in his or her search for a sound sense of values.
 - The department is committed to providing all students with an historical perspective . . .so they can better understand the present and can look to the future with a knowledge of the past
 - The program is designed to help students appreciate the similarities and differences among various Mexican/Caribbean peoples

Linking program goal, course goal and learning outcome--example

- University Mission: Broad exposure to the liberal arts . . .for students to develop their powers of written and spoken expression. . .
- Program Goal: The study of English enables students to improve their writing skills, their articulation . . .
- English Composition Course Goal: Students will learn to acknowledge and adjust to a variety of writing contexts.
 - Learning Outcome: The student will demonstrate through discussion, planning and writing an awareness that audiences differ and that readers' needs/expectations must be taken into account as one writes
 - Learning Outcome: The student will write a draft and revise work with a sense of purpose and an awareness of audience.

Practical Approaches to Developing Program Goals/Learning Outcomes

- "From the many...one"
 - 1. Graphically display all courses--the learning goals/outcomes specified in each course for the program.
 - 2. Identify common themes or elements across the courses.
 - 3. Given these common elements discuss with department/program faculty whether these are the most important elements to develop students' KSAs and dispositions—Are there some that should be added, deleted? Is there a balance? Is there a logical progression in the development of student competencies related to the major, general ed, etc. Is there a coherence to the curriculum?
 - 4. Discuss how these relate to the existing program goals/learning outcomes and make refinements, OR use this as a basis to create new program goals/learning objectives.
 - 5. Once a consensus is reached, then the discussion can move to methods to assess the program goals/learning outcomes.

Practical Approaches con't

- From the one...many
 - 1. Review current department/program goals/learning objectives—Does it reflect the current mission and priorities of NEIU? Is the linkage apparent? Does it reflect current professional standards in the field for undergraduate (graduate) courses offered? Is it broad or specific enough to encompass known learning goals/outcomes of the various courses offered? (recognizing you may not have a complete set of materials) If answers are yes, move to next step.
 - 2. Given the current program goal/learning outcomes discuss with faculty in the unit, how these are specifically linked in their course level goals and learning outcomes.
 - 3. Graphically display their answers for each course.
 - 4. Examining the program curriculum then as a whole, Are there holes? Program goals/learning objectives not addressed by any course or addressed very weakly?

Link Between Learning Outcomes and Assessment Next Workshop: Developing a Program Assessment Plan— Elements to Consider

- Includes discussion of:
 - Pre- and Post-Course Assessments
 - Formative Assessments
 - Summative Assessments

- Balanced Planning Approaches and Tools

Good Luck!