Aims, Learning Outcomes, and Competencies

# Why Aims and Outcomes?

There are two considerations; first we need to specify our aims and learning outcomes to help us build more integrated and powerful instructional experiences and second, they are key to demonstrating what your courses and program strives to achieve, both for our learners and for external accreditation agencies (Bologna, ABET, AACSB and others).

*Learning outcomes are important for recognition … The principal question asked of the student or the graduate will therefore no longer be “what did you do to obtain your degree?” but rather “what can you do now that you have obtained your degree?” This approach is of relevance to the labour market and is certainly more flexible when taking into account issues of lifelong learning, non-traditional learning, and other forms of nonformal educational experiences.* (Purser, Council of Europe, 2003)

# Writing Aims

Aims are usually expressed from the viewpoint of the teacher – what the teacher is trying to achieve. This is your opportunity to really express your hopes, dreams, and aspirations. Aims can be more vague and aspirational then learning outcomes. Learning outcome get much more specific so we can use them to help design powerful assessment strategies and select the appropriate teaching and learning activities that will help student be ready to show us they know. When designing instructional material, you need to be clear about why you are covering a particular topic, where you will end up (the aim), and what new knowledge and skills participants will gain as a result of the instruction (the learning outcomes).

It is helpful to start an Aim statement with a phrase such as “The aim of this module is to…”

Here’s an example:

The aim of this section is to foster an appreciation of the benefits of aims and develop skills in writing them.

This aim states

* + what the module aspires to achieve: ‘foster an appreciation of’
  + the underlying value: ‘the benefits’
  + how this will be achieved: ‘develop skills in writing them’.

Some useful words for writing aims

* + to raise awareness of…
  + to foster curiosity about…
  + to develop skills necessary for…
  + to help participants towards…
  + to lead to an appreciation of…
  + to encourage commitment to…
  + to develop interest in…
  + to improve efficiency in…
  + to enhance skill in…

# Aim Activity

Select a course module to be the focus for completing the LO worksheet. First complete the section of LO worksheet on situational factors and then complete the second section where you compose Aim(s) for your selected module.

# Write Objectives or Learning Outcomes?

The terms Objectives and Learning Outcomes are often used to interchangeable, but we need to be careful. Objectives are sometime stated in term of teacher’s objective or learner’s objective. Learning Outcomes are always described in term of the learner and highlight the end state – the result of the lesson, module, course, or program. You can use either term but should be careful to keep your objectives learner focused. Use aims if you are talk about teacher focused aspirations and outcomes.

Why go to the trouble of building objectives/outcomes:

* + Make clear what is going to be covered
  + Say what participants will be able to do as a result of the lesson
  + When presented at the start they point to learning goals and act as a learning contract
  + Provide a benchmark against which learning can be assessed

Leaning Objectives and Learning Outcomes are expressed from the viewpoint of course participants.

Here’s an example.

At the end of this module participants will be able to

* + Appreciate the benefits of establishing objectives for a module
  + List four elements of a well designed objective
  + Recognize these elements in an example

Written objectives are a vital part of instructional design because they provide the roadmap for designing and delivering curriculum.

**Characteristics of objectives/outcomes**

* Observable and measurable
* Results oriented / clearly written / specific
* Communicates what a successful learning performance look like
* There can be different levels of LO’s
  + Individual activity objectives
  + Larger terminal objectives (module, course, program)
  + Enabling objectives (necessary prior knowledge or skills to be successful at next level of learning)

We will use the ABCD model to construct objectives/outcomes. ABCD objectives/outcomes should include 4 distinct components: Audience, Behavior, Condition, and Degree.

# 4 Parts of an ABCD Objective

* **Audience**
* **Behavior**
* **Condition**
* **Degree**

\*An objective does not have to be written in this order (ABCD), but it should contain all of these elements

**Audience**

* Describe the intended learner or end user of the instruction

Examples

* + The paramedic refresher participant…
  + The EMT-B student…
  + The prehospital care provider attending this seminar…

**Behaviour**

* Describes learner capability
* Must be observable and measurable
* If it is a skill, it should be a real world skill
* The “behavior” can include demonstration of knowledge or skills in any of the domains of learning: cognitive, psychomotor, affective, or interpersonal

Examples

* should be able to write a report…
* should be able to describe the steps…

**Condition**

* Equipment or tools that may (or may not) be utilized in completion of the behavior
* Environmental conditions may also be included

Examples

* given an oxygen wrench, regulator and D tank with oxygen…
* given the complete works of William Shakespeare…
* given the following environment: 10PM, snowing, temperature 0 degrees C…

**Degree**

* States the standard for acceptable performance (time, accuracy, proportion, quality, etc)

Examples

* without error.
* 9 out of 10 times.
* within 60 seconds.

**ABCD Examples**

* Given a standard sentence, the English 101 student should be able to identify the noun and verb without error.
* Given an assortment of EMS equipment to pick from, the paramedic should be able to identify all of the equipment necessary to perform rapid sequence intubation without error.
* The EMT-B participant in this pediatric workshop should be able to identify at least 4 warning signs of possible child abuse from a family member’s interview that contains 5 warning signs.

# Learning Outcomes Activity

Using your selected course module continue the completion of the LO worksheet. Develop Learning Outcomes/Objectives for your module. If possible focus objectives on concrete action that show us the students know the abstract concept, rather than abstract concept directly. Objectives that focus more on concrete action are more readily turned into activities and assessments.

# Competencies

Competency is a broader concept that defines the applied skills and knowledge that people posses at the end of a program of training, competencies that will make them successful in the workplace. In contrast, learning objectives/learning outcomes are specific to a course of instruction and describe the specific learning results of that specific instruction - what can the students now do that they couldn’t do a beginning of instruction? Competencies are of the descriptors accreditation agencies and regulating body’s use when evaluating and comparing programs.

It is worth remembering here what accreditation agencies looking for. Here is an example from the **AACSB** that accredits business programs:

The outcomes assessment process should include:

1. Definition of student learning goals and objectives
2. Alignment of curricula with the adopted goals
3. Identification of instruments and measures to assess learning
4. Collection, analyzing, and dissemination of assessment information
5. Using assessment information for continuous improvement including documentation that the assessment process is being carried out in a systematic, ongoing basis. (**AACSB** Assessment Resource Center, 2007)

It is also worth remember the range of competencies that they are interested in. These next competencies (described here as outcomes) come from **ABET** and these are used to accredit many Engineering Programs. The exact competencies vary discipline to discipline, but they are at the same time remarkably similar. The foundation collation provides the following listing of the **ABET** criteria:

Outcome A: ability to apply knowledge of mathematics, science, and engineering

Outcome B: ability to design and conduct experiments, as well as to analyze and interpret data

Outcome C: ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability

Outcome D: ability to function on multi-disciplinary teams

Outcome E: ability to identify, formulate, and solve engineering problems

Outcome F: understanding of professional and ethical responsibility

Outcome G: ability to communicate effectively

Outcome H: understand the impact of engineering on a economic, environmental, and societal level

Outcome I: recognition of the need for, and an ability to engage in life-long learning

Outcome J: knowledge of contemporary issues

Outcome K: an ability to use the techniques, skills, and modern engineering tools necessary for practice

Broadly speaking these outcomes could be mapped to more generic outcomes that would apply to most accredited disciplines.

**General shared competencies in most Accreditation frameworks**

1. **Knowledge base**
2. **Disciplinary techniques**
3. **Critical Thinking/Problem Solving**
4. **Ethics and Professionalism**
5. **Working in Teams**
6. **Effective Communication**
7. **World view**
8. **Life-long Learning**

We need to map or module outcomes to course outcomes to program level outcomes to be able then to design a system that will generate the “proof” (data) that a competency has been achieved in our graduates. This is the “proof” (data) the accreditors will want to see. Our first job is to align the outcomes with specific student experiences, courses, modules, and assessments, and then think about our courses and assessments as data sources for our accreditors. Often what happens here is assignment progression across course and years are identified for integration, assignments are moved or added, or assignment wording are tweaked. When we tweak assignment wording we are often trying to make visible some aspect of the assignment process that would let us see that student do possess those skills in a specific competency domain. There are times that students already possess the competency, but we haven’t made it visible so we can assess it. For instance, asking students to provide notes chronicling their search strategy for a literature search can be used to demonstrate some aspects of the life-long learning competencies.

Here is an example of competencies and LO’ relating (aligning) to a competency. This example comes from the University of Texas – School of Public Health at Houston:

**Competency:**

* Utilizes appropriate methods for interacting sensitively, effectively, and professionally with persons from diverse cultural, socioeconomic, educational, racial, ethnic and professional backgrounds, and persons of all ages and lifestyle preferences (*competency from: Council on Linkages Between Academia and Public Health Practice)*

**LO’s that relate to the above competency:**

* Describe the demographic trends and epidemiological trends related to diverse populations in the United States and abroad
* Compare and contrast diversity and cultural competency in the public health context
* Identify a framework to design culturally competent public health care services for diverse populations

# Competency/LO alignment Activity

Using the completed LO worksheet, use either your discipline specific accreditation competencies or the generic competencies provided above, list after each Learning Outcome/Objective the competencies that will be needed by students to achieve the specific Learning Outcome/Objective. Next look at the specific activities and assessments for each Learning Outcome/Objective and identify where student learning can be made visible so the competency can be assessed. This is where you begin to contact student experiences and assessment artifacts as data sources for the accreditors.