Writing SMART Learning Objectives

To be useful, learning objectives should be SMART:
- **Specific**
- **Measurable**
- **Attainable**
- **Results-Focused**
- **Time-Focused**

**Specific**
Effective course objectives should be written with specificity whenever possible. Participants in a learning activity need to understand what information or skills they will acquire during the session or event—this is a key component of adult learning. Well-defined learning objectives provide participants with this understanding which helps the learner to understand what exactly is expected of them.

**Measurable**
Objectives need to be written with the end in mind. Use action verbs to describe what you want the learner to be able to do after completing the educational session. When you write your objectives using action words, you are telling the learner what they will do with the knowledge they are going to learn.

**Achievable/Attainable**
Good course design includes an analysis of your learners. When you consider the learners’ backgrounds, experiences, prior knowledge, skills, interests, and personal goals and behaviors, you will be better at writing objectives that are realistic and achievable. Program developers normally arrive at the learning objectives after doing a needs assessment. The learning objectives in turn help potential participants determine whether an event or session meets their learning needs. Learning objectives clearly map the direction of the content, how it will be presented, and the expected outcome for all parties involved. According to Mager (1997), instructional objectives should contain three elements: performance, conditions, and criterion.

**Relevant (Results Focused)**
Often, “R” stands for relevance when dealing with marketing plans or business goals. However, the application to education is a bit different here. True, course objectives should be consistent with the purpose of the course. Whenever possible, they should also be results focused. Just like being attainable, the objectives should clearly focus on the end result.

**Time-Bound**
Learners may look at a list of objectives and feel overwhelmed. We can preempt that emotion by stating the times in which different objectives will be achieved. Times can be explained in the form of specific dates, weeks, or points in the year. Time-bound may also describe the conditions under which some performances will be assessed.

**How to write learning objectives**

Learning objectives should be specific and should be developed for both the overall educational event and the individual sessions.

1) Learning objectives must be written from the learner’s perspective. They should clearly state what a participant will know or be able to do as a result of attending an event or session. A learning objective typically completes a statement like the following:

   *At the end of this session, participants will be able to _________*

   or

   *Upon completion of the conference, participants should be able to _________*

2) Next, your statement needs an action verb describing what the participant will be able to do or the action they will be able to undertake. Avoid using vague or abstract words like believe, value, appreciate, be aware of, be familiar with, etc.

3) Complete the statement with the details of what the participant will be doing when they are demonstrating the action. The details should be specific and refer to the outcome of the learning objective.
Effective verbs:
For more, see this list of verbs for formulating learning objectives.

Examples

(For personal knowledge management)
At the end of this session, participants will be able to
• identify skills related to the creation and use of knowledge that is relevant and important to
  them;
• describe the knowledge transfer/translation process when dealing with information; and
• apply methods that will allow for the creation, gathering, distribution and use of knowledge
  and information.

(For gap analysis)
At the end of this session, participants will be able to
• differentiate between subjective and objective needs assessment and describe the
  importance of both;
• use methods to identify the gap between current and desired skill/competency; and
• access resources to assist in filling in areas where a gap in knowledge or skill has been
  identified.

Examples of strong Learning Objectives:

- Acquire a greater understanding of the role of pediatric pathology in molecular oncology.
- List three important molecular alterations in pediatric pathology.
- Apply up to date prostate cancer grading parameters.
- Recognize ‘watershed’ areas of prostate cancer grading which cause challenge and may
  benefit from consultation with colleagues.
- Recognize variation in methods of tumor quantitation on needle biopsy and how these
  parameters are used in clinical decision making.
- List well-accepted definitions of intraductal carcinoma and difficulties in its diagnosis and
  clinical import when identified on needle biopsy.
- Restate the need for robust evidence when incorporating new pathologic/molecular markers
  into prostate needle biopsy reporting.
- Identify the advantages and disadvantages of next-generation sequencing in the diagnosis
  of bone and soft tissue tumours relative to conventional FISH and RT-PCR testing.
- Apply the principles underlying Cervical Cancer screening programmes to the monitoring of
  quality in screening.
- Demonstrate the link between quality monitoring in Cervical cancer screening and service
  improvement.
- Assess the effects of HPV primary screening in Cervical cancer rates.
- Describe how in utero insults, premature birth, and perinatal insults can negative impact
  subsequent brain development.
- Describe the mechanisms through which ischemia or hemorrhage damages the immature
  brain.
- Describe the concept of collective competence and recognize its significance in medical
  education.
- Identify the role of collective competence as it applies to pathology training and clinical
  practice.
- Examine how collective competence is enacted in various pathology and laboratory
  medicine settings.