

How to Write Well-Defined Learning Objectives

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- Learning objectives are clearly written, **specific** statements of **observable learner behavior or action** that can be **measured** upon completion of an educational activity¹. They must focus on what the learner must be able to do, instead of what the faculty plans to teach.
- Learning objectives should guide the choice of instructional methods and assessment tools to achieve the desired learning outcomes.
- A well-defined learning objective should include the following elements: who, will do, how much or how well, of what, by when?² The mnemonic SMART can also be used to describe the elements of a well-defined learning objective³

Table 1: SMART Learning Objectives

| Specific | What action will be performed and by whom? |
|------------|---|
| Measurable | How will success be measured? |
| Achievable | Can objective be achieved within given time frame & with available resources? |
| Relevant | Is the objective aligned with the instructional method and assessment tool? |
| Time-bound | When will the objective be achieved? |

 While writing learning objectives, the first step is to specify the condition in which the action will occur. An example is to start with: "Upon completion of this educational activity, learners will be able to...".

- The next step is to identify the concepts the learners need to learn and how they will demonstrate their understanding. Choose one action verb that is measurable and observable. Verbs such as review, know, understand, learn, appreciate, believe, etc. are not observable or measurable and should be avoided.
- Each learning objective must be separate. Two separate actions (such as diagnosis and management) or topics (such as sepsis and hemorrhage) must not be combined.
- When appropriate, choose higher order action verbs from the revised Bloom's taxonomy scale. 'Remember' is the most basic and 'create' is the most complex domain.

Table 2: Verbs Correlated with Bloom's Taxonomy

| | <u>. </u> |
|------------|---|
| Domain | Sample Action Verbs |
| Remember | Define, describe, list, label, recall, recount, |
| | record, repeat, reproduce, identify, outline, |
| | state, outline |
| Understand | Describe, discuss, explain, estimate, |
| | clarify, identify, summarize, interpret, |
| | illustrate, differentiate |
| Apply | Apply, demonstrate, discover, calculate, |
| | modify, prepare, show, solve, compute, |
| | illustrate, operate |
| Analyze | Analyze, contrast, categorize, classify, |
| | compare, calculate, criticize, debate, |
| | distinguish, differentiate, infer |
| Evaluate | Appraise, argue, criticize, compare, |
| | conclude, validate, summarize, justify, |
| | recommend, revise, critique, validate |
| Create | Compose, design, assemble, construct, |
| | formulate, propose, develop, devise, |
| | summarize, produce, invent |

References:

- 1. Chatterjee D, Corral D. How to write well-defined learning objectives. J Educ Perioper Med. 2017;19(4):1-4
- 2. Thomas PA. Goals and Objectives. In: Thomas PA, Kern DE, Hughes MT and Chen BY, ed. Curriculum Development for Medical Education: A Six Step Approach. 3rd ed. Baltimore, MD: Johns Hopkins University Press; 2016: 50-64.
- 3. Skrbic N, Burrows J. Specifying Learning Objectives. In: Ashmore L, Robinson D, ed. Learning, Teaching and Development: Strategies for Action. London, United Kingdom: Sage Publications; 2014: 54-87.