Characteristics of Effective Learning Objectives for Courses and Class Sessions

Clear and targeted verbs communicate what students are expected to understand, know, and be able to do at the end of a class session or course. Well-articulated learning objectives guide students toward learning new material flexibly and using new understandings, knowledge, and skills in a variety of contexts. In considering course content or materials, remember, if something does not contribute directly to a course learning objective, it either does not belong in the course OR the course learning objectives need to be revised.

1. Ask These Questions to PRIOR to Writing Course Learning Objectives

When your students have completed the class session or course,

- Which authentic tasks will they be able to perform?
- What concepts will they be able to apply?
- What kinds of analysis will they be able to perform?
- What types of problems will they be able to solve?
- What big questions will the course help students answer?
- What intellectual abilities (or qualities) will the course help students develop?
- What methods shape how knowledge claims are made and adjudicated within the field?
- In what ways will this course connect with experiences students have had or will have in other courses?

2. Writing Your Learning Objectives

See Bloom's Taxonomy of the Cognitive Domain for suggested verbs aligned with levels of thinking. For background information on Bloom's Taxonomy see Vanderbilt University's Bloom's Taxonomy overview.

Verbs to Avoid: The following verbs are ill-defined and thus typically difficult to assess

- Appreciate
- Be aware of
- Become acquainted with
- Compare and contrast
- Comprehend
- Cover
- Discuss
- Enhance knowledge of
- Familiarize
- Familiarize
- Gain knowledge of
- Increase awareness of
- Know
- Learn
- Realize
- Study
- Understand *("understand that" is acceptable—See Understanding by Design by Wiggins and McTighe*)

Learning Objective Examples from JHSPH courses

- Identify biases and their consequences in published literature
- Explain the basic concepts of data quality, summarization, and presentation
- Identify the "weakest links" in clinical management of HIV infection at individual and population levels
- Analyze alternatives in a policy environment using a rational decision making model
- Critique the ethical issues and human rights concerns raised by family planning programs
- Perform a two-sample test and interpret the results
- Apply modern molecular biology techniques to the evaluation of an influenza outbreak
- Link scientific questions with appropriate analytical methods

3. Review Your Learning Objectives

Are they

- ☐ Student-centered: "After successfully completing this course, students will be able to"
- ☐ Written clearly and presented in a bulleted or numbered list
- ☐ Aligned with departmental competencies and objectives
- ☐ Written using action verbs
- ☐ Specific *(short and focused, targeting a specific aspect of expected performance)*
- ☐ Measurable, assessable, and *observable (learning assessments can will reveal students' achievement of the objective)*
- ☐ Realistic and achievable *(consider the length of the term or class session)*
- ☐ Well-defined *(avoid verbs such as appreciate, be aware of, become acquainted with, be familiar with, describe, discuss, increase awareness of, know, learn, realize)*
- ☐ Relevant and authentic *(have real-world relevance that match as nearly as possible the real-world tasks of professionals in practice rather than decontextualized or classroom-based tasks)*
- ☐ Transferable *(students will be able to apply what they've learned to new situations)*

Do they

- ☐ Provide guidance for creating learning activities
- ☐ Match learning activities and assessments
- ☐ Progress from basic skills and knowledge to advanced understanding and performance
- ☐ Break down tasks and focus on specific cognitive processes
- ☐ Require high levels of cognition
  - Lower order thinking skills (recognize, identify, define, or describe) are inherent in higher order thinking skills. Try to write learning objectives that ask students to do more by using their understanding and recall to apply, analyze, synthesize, and evaluate.

Resources

Anderson, L. W., Krathwohl, D. R., & Bloom, B. S. (2005). A taxonomy for learning, teaching, and assessing. Upper Saddle River, NJ: Longman.

Biggs J. (2003) Aligning teaching and assessing to course objectives. Teaching and Learning in Higher Education: New Trends and Innovations. University of Aveiro, 13 – 17 April 2003

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Fink, L. D. (2013). Creating significant learning experiences: An integrated approach to designing college courses. New York: John Wiley & Sons Inc.

Nilson, L. B. (2010). Teaching at its best: A research-based resource for college instructors. San Francisco: Jossey-Bass.

Wiggins, G. P., & McTighe, J. A. (2005). Understanding by design. Washington, DC: ASCD.