

Instructional Design Guide

Table of Contents

What is "Learning Centered"?	2
What is "Learn2Learn"?	2
What are Best Knowledge-Enhancement Activities?	2
Learning Outcomes and Bloom's (revised) Taxonomy	3
Characteristics of Learning Outcomes	3
Action Verbs for Bloom's (Revised) Taxonomy	4
What is Critical Thinking?	4
What is Assessment?	5
What is a Course Outline?	5
What is a Syllabus?	6

Instructional Design Guide

What is "Learning Centered"?

Learning-centered instruction is the causing and measuring of cognitive behaviors.

Initial need and demand is documented for content-relevant cognitive skills. Before enrolling, learners know what skills they will own after the course. Learning-centered instruction is consequence-based behavior change that requires both the evident outcomes planning and execution components.

Basically:

- student completion of cognitive skills is the reason "why" we teach,
- content knowledge topics and issues are "what" we teach, and
- instructional delivery methods and processes are "how" we teach

What is "Learn2Learn"?

Learn2Learn is enabling learner success beyond the classroom. It usually includes the methods and resources students can use after leaving the course.

How do your students continue to learn your discipline after leaving your course? Making Learn2Learn a necessary goal for your course will assist development of some learner outcomes.

What are Best Knowledge-Enhancement Activities?

The best knowledge-enhancement learning activities are measured against our most basic ability to remember. This graph shows how various learning activities effect memory enhancement.

Are you using best learning practices or are you giving 'em the same ol' lecture?

If you want students to forget 95% of the information you think is important, deliver it to them by lecturing. Otherwise, you might want to try other means. One minute of practice, for instance, is equal to twenty minutes of lecture.

- 90% - Immediately apply knowledge in a real situation (teach)
- 75% - Practice by doing
- 50% - Participate in a small group discussion
- 30% - View a demonstration
- 20% - Listen to audio and watch video
- 10% - Read
- 5% - Listen to a lecture

Instructional Design Guide

Numbers are from National Training Laboratories, Bethel, Maine

Learning Outcomes and Bloom's (revised) Taxonomy

Characteristics of Learning Outcomes	
1	Basic format: Upon successful completion of the program, the learner will be able to "action verb* and description" to "do something" .
2	Select only one action verb. If there are several, focus on the highest cognitive level.
3	Focus on outcomes, not processes.
4	Identify single accomplishments.
5	Focus on students (not staff, faculty or curriculum).
6	Do not indicate level of quality.
7	Program outcomes reflect general competencies attained as students complete required courses in the program.
8	Program outcomes are not a compilation of course-level student learning outcomes.
9	Program outcomes are not intended to represent everything that your students learn in the program.
10	A common issue is too many program outcomes; approximately 4 to 6 outcomes is appropriate.

Instructional Design Guide

Action Verbs for Bloom's (Revised) Taxonomy

Remember	Understand	Apply	Analyze	Evaluate	Create
Arrange Count Draw Define Locate Recall Recognize Recite Describe Repeat Identify Select Quote Label Copy List Name State Select	Classify Describe Identify Indicate Organize Interpret Illustrate Reorganize Translate Paraphrase Summarize Transform Discuss Explain Defend Compare Report Restate Review Rewrite	Apply Calculate Construct Demonstrate Estimate Illustrate Interpret Appraise Contrast Criticize Diagnose Identify Classify Compute Manipulate Translate Complete	Analyze Arrange Combine Design Differentiate Discriminate Illustrate Relate Sketch Solve Predict Change Survey Diagram Examine Modify Utilize	Appraise Argue Assess Argue Compare Contrast Judge Justify Rank Defend Estimate Judge Predict Qualify Rate Support Critique Recommend	Arrange Assemble Compose Create Design Devise Formulate Invent Modify Organize Plan Prepare Produce Propose Verify Construct Develop Reorganize Reconstruct Integrate

NOTE: These verbs are from several lists posted online – this is not a comprehensive list, only a sample. For more verbs, please search “Bloom’s Revised Taxonomy Verbs”.

NOTE: Verbs can be included in more than one cognitive level. The level depends upon the action described by the verb.

What is Critical Thinking?

When learners are able to evaluate, synthesize and analyze ideas they are able to think more precisely, inventively and discriminatingly. Critical thought can be the practice of higher order cognitive skills.

An idea, system or assembly can be separated into parts, combined with different part associations and appraised for multiple effects.

Inquiry using divergent questions that include higher level cognitive behaviors can assist critical thinking.

Instructional Design Guide

What is Assessment?

Throughout history, knowledge by itself has been highly valued. It usually equates with internal, or referenced external, memory. Knowledge is implied within our cognitive behaviors. Today, however, owning higher-level cognitive skills (the ability to make complex knowledge associations) is considered to be more valuable than our memory alone.

Written tests usually measure knowledge or comprehension as memorized facts. Assessment, however, verifies learning outcome achievement. It determines whether or not a specified behavior exists. It can also insure that cognitive skills are appropriately and impartially demonstrated. Benefits of assessment are directly related to the quality of each outcome's initial specification.

To develop student abilities, faculty now need to be both discipline knowledge (content) experts, as well as, behavior planning and assessment experts.

Inventing and developing tools and processes to measure relevant cognitive skills also require greater faculty creativity and ingenuity.

What is a Course Outline?

The outline is a dynamic course guide. The outline establishes course learning requirements, sustains course quality, affirms minimum course standards and presents the knowledge required to produce the minimum outcome behaviors that will be owned by each student after the course.

Faculty come and go with individually owned syllabi and delivery processes. The outline endures as part of a curriculum process that defines exactly what the institution offers students.

The Outline (Outcome Guide) usually includes the following minimum components:

- COURSE IDENTIFICATION
- DESCRIPTION (what the learner will be able to do after the course)
- PREREQUISITES
- OTHER (institution requirements)
- OUTCOMES (cognitive skills)
- CONTENT (discipline knowledge)
- UNIFORM ASSESSMENT PRACTICES

The outline lists the minimum course requirements. Important delivery and course design information not covered in the outline is usually included in the syllabus and open to academic freedom of individual faculty.

Instructional Design Guide

The course outline is used by Advising and other student services to describe courses to potential students. The learning-centered outline may be the only course document that potential students will see before the course.

Because outlines can have an agreement in them between the instructor or institution and the student, like "After successful completion of this course, the learner will be able to: ... ", institutions can guarantee behaviors that each learner will own after the course.

What is a Syllabus?

The traditional syllabus was a teaching plan. It defined how the course was to be instructed, was usually based on a textbook and was not meant for student use.

The learning-centered syllabus of today is a learning plan that includes everything the student requires for success in the discipline after the course. It includes learning activities, the learning-centered outline and learning-centered delivery strategies.

The course syllabus is where the instructor brings the course alive! It injects instructional creativity, innovative instructional strategies and directed accountability into the course.

Minimum syllabus components are:

- course outline
- session agendas with outcomes for specified time frames or scheduled learning activities
- institution and course policies
- outcome assessments
- instructor contact data with email address, office hours, etc.
- resources (community, human, digital, paper, etc.) and associated expenses
- ... and everything else promoting greatest student success (after the course) with necessary effectiveness.

The syllabus is updated often as improved learning strategies become evident.