

Teaching & Learning Technology Roundtable



CONQUERING THE CONTENT

Workbook

Adapted from Robin M. Smith's book
Conquering the Content: A Step-by-step Guide to Online Course Design

Articulate Your Learning Objectives

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COURSE COMPONENTS SHOULD BE ALIGNED

Before you decide on the content to cover in your course, endow your course with a strong internal structure conducive to student learning. Alignment among three main course components ensures an internally consistent structure. Alignment is when the:

- **OBJECTIVES** articulate the knowledge and skills you want students to acquire by the end of the course
- **ASSESSMENTS** allow the instructor to check the degree to which the students are meeting the learning objectives
- **INSTRUCTIONAL STRATEGIES** are chosen to foster student learning towards meeting the objectives

When these components are not aligned, students might rightfully complain that the test did not have anything to do with what was covered in class, or instructors might feel that even though students are earning a passing grade, they haven't really mastered the material at the desired level.

Aligning these three components is a dynamic process, since a change in one necessarily affects the other two. One way to approach course design is to start from the learning objectives, then move on to the other two components, and revisit the cycle iteratively as needed.

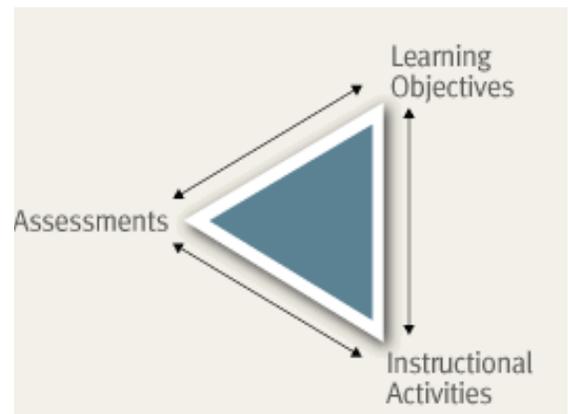
Articulating your learning objectives will help:

- **YOU** select and organize course content, and determine appropriate assessments and instructional strategies.
- **STUDENTS** direct their learning efforts appropriately and monitor their own progress.

LEARNING OBJECTIVES SHOULD BE STUDENT-CENTERED

- We, as instructors, often have a good idea of what we want to accomplish in a given course.
- We want to cover certain topics, or we want to teach students certain ideas and skills.
- We should also think in terms of what we want the students to be able to do at the end of the course. It is very helpful to articulate learning objectives by completing this prompt:

“At the end of the course, students should be able to _____.”



LEARNING OBJECTIVES SHOULD BREAK DOWN THE TASK AND FOCUS ON SPECIFIC COGNITIVE PROCESSES

Many activities that faculty believe require a single skill (for example, writing or problem solving) actually involve a synthesis of many component skills. To master these complex skills, students must practice and gain proficiency in the discrete component skills.

- Writing may involve identifying an argument, enlisting appropriate evidence, organizing paragraphs, etc.
- Problem solving may require defining the parameters of the problem, choosing appropriate formulas, etc.

Breaking down the skills will allow us to select appropriate assessments and instructional strategies so that students practice all component skills.

LEARNING OBJECTIVES SHOULD USE ACTION VERBS

Focusing on concrete actions and behaviors allows us to make student learning explicit, and communicates to students the kind of intellectual effort we expect of them. Sample learning objectives for a math class might be:

- “Decide when a given theorem applies” (involves meta-cognitive decision-making skills)
- “Apply theorems to solve problems” (implies applying knowledge)
- “Prove theorems” (implies applying knowledge)
- “State theorems” (implies memorization and recall)

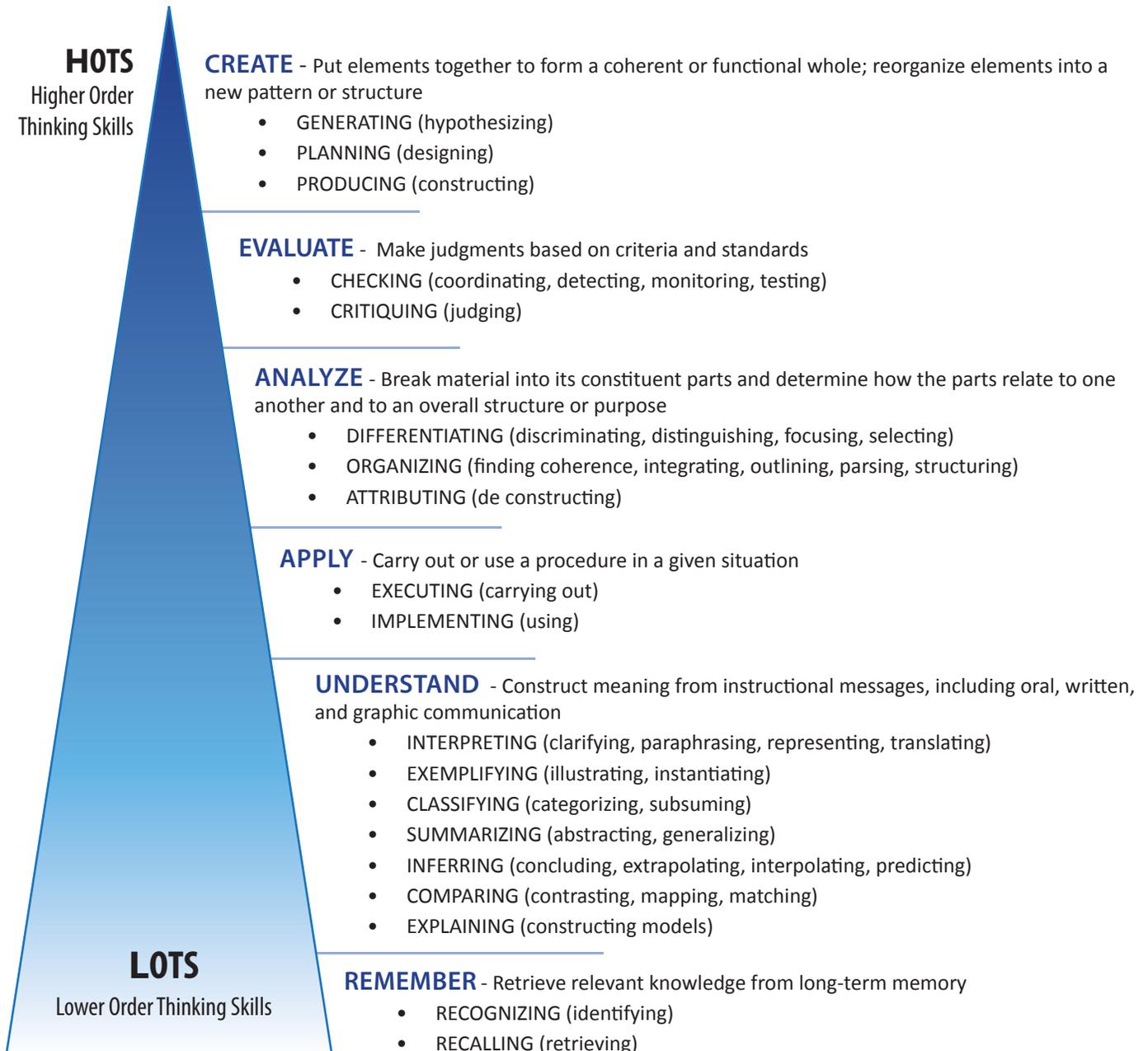
Using action verbs enables you to more easily measure the degree to which students can do what you expect them to do.

LEARNING OBJECTIVES SHOULD BE MEASURABLE

- Because learning objectives should guide the selection of assessments, they cannot be vague.
- All of learning objectives are measurable in that they point to a clear assessment that can easily check whether students have mastered that skill (e.g., asking students to state a given theorem, giving students a thesis statement to prove, asking students to solve a textbook problem that requires the application of a theorem, or asking students which theorem they would use in a given situation).

Bloom's Taxonomy Revised

Benjamin Bloom and colleagues (1956) created the original taxonomy of the cognitive domain for categorizing level of abstraction of questions that commonly occur in educational settings. That work has been revised to help teachers understand and implement a standards-based curriculum (Anderson & Krathwohl, 2001). For the instructional designer, the taxonomy provides a comprehensive set of classifications for learner cognitive processes that are included in instructional objectives. Classifying instructional objectives using this taxonomy helps to determine the levels of learning included in an instructional unit or lesson (Washington, 2008).



References

Anderson, L.W. & Krathwohl, D.R. (Eds.) (2001). *A taxonomy for Learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. New York: Addison Wesley Longman.

Bloom, B.S. (Ed.), Engelhart, M.D., Furst, E.J., Hill, W.H., & Krathwohl, D.R. (1956). *Taxonomy of educational objectives: Handbook I: Cognitive domain*. New York: David McKay.

TMP Partnerships - Transition Mathematics Project. (n.d.). *Transition Mathematics Project*. Retrieved December 13, 2011, from <http://www.transitionmathproject.org/partners/wcp/doc/bloom.pdf>

Course Goals

What should students be able to do after the course is completed?

	<i>Example: Review and discuss management concepts as part of the licensure exam.</i>
1.	
2.	
3.	
4.	

Course Learning Modules

Organize content into logical topics.

	<p><i>Example:</i></p> <table border="1"> <tr> <td>1.</td> <td><i>Marketing</i></td> </tr> <tr> <td>2.</td> <td><i>Cost Controls</i></td> </tr> <tr> <td>3.</td> <td><i>Human Resources</i></td> </tr> </table>	1.	<i>Marketing</i>	2.	<i>Cost Controls</i>	3.	<i>Human Resources</i>
1.	<i>Marketing</i>						
2.	<i>Cost Controls</i>						
3.	<i>Human Resources</i>						
1.							
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5.							
6.							

Module Learning Objectives (Sample)

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Forms available at www.josseybass.com/go/robinsmith

Now that you have written your course goals and organized your course modules, it is time to develop the module learning objectives.

Course Learning Modules	Module Learning Objectives
<i>Example: Marketing</i>	1. <i>Design market analysis to determine feasibility of service offering.</i>
	2. <i>Conduct a competitor analysis to determine where the company and service fits within the market.</i>
	3. <i>Assess company resources to determine appropriate budget allocation for marketing initiative.</i>
	4. <i>Collaborate with sales department to develop collateral for sales efforts.</i>
	5. <i>Analyze data to determine effectiveness and affect change.</i>
1.	1.
	2.
	3.
	4.
	5.
2.	1.
	2.
	3.
	4.
	5.
3.	1.
	2.
	3.
	4.
	5.

Course Map (Sample)

Module: 1

Module Title:

This is a method for outlining your module content.

Module Title	Learning Objectives	Learning Resources	Learning Activities	Discussion Questions	Self - Assessment	Graded Assessments
<i>Example: Marketing</i>	<i>Design market analysis to determine feasibility of service offerings</i>	<i>Market Survey Chapter 4 from textbook - 94 - 113. Fender (2010) article from Marketing Week.</i>	<i>Develop survey using Survey Monkey</i>	<i>How did the group determine the service features used in the survey?</i>	<i>5 questions taken from Fender article for self-quiz</i>	<i>Rubric identifying key features in Survey Monkey assignment.</i>
1.						
2.						
3.						

Course Learning Guide (Sample)

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Module: 1

Module Title:

Use this form if you want to map out one or more modules in greater detail. This form can be used in conjunction with the course map.

Learning Objectives - "What students need to know"
<p>Upon completion of this module, the student will be able to:</p> <ul style="list-style-type: none"> • • •
Learning Resources - "Tools to Help students Learn"
<p>Required Resources</p> <p>Additional Resources</p>
Learning Activities - "What students need to do?"
<p>Activities for this Lesson</p> <ul style="list-style-type: none"> • • •
Discussion Questions
<ul style="list-style-type: none"> • • •
Self-Assessment Opportunities - "How student know they are ready for grading"
<p>Check your Understanding</p> <ul style="list-style-type: none"> • •
Graded Assignments - "How student show me what they have learned"

If you are feeling overwhelmed by the course development process, consider prioritizing your tasks.

Nice to Have	
Should be Completed	
Must be Completed	<ul style="list-style-type: none">• <i>Syllabus Completed</i>• <i>Course mostly built out</i>• <i>Resources uploaded and linked</i>• <i>Assessments designed and ready for publishing</i>• <i>Submission and Gradebook items organized and viewable to students on 1st day of class.</i>

Course Revision Journal (Sample)

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Use this worksheet to document:

- FAQs
- Student Suggestions
- Learning activities that went well
- Concepts that need clarification
- Assignments that need refinement
- Links that need updating

Example: Students would rather have the week 3 forum post be an individual assignment.

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

11.

12.

13.

1. Your course site home page should clearly indicate what a student should do upon accessing the site. This often includes a pointer to the syllabus and the *Course Materials* area if used.
2. Online courses should be substantially complete by the first day of class. This means that all readings are posted, activities are described, in-class meetings announced (if they will occur), forums built, etc. Exams may be developed as the course progresses to ensure they test content actually taught and/or meet course objectives.
3. All Sakai tools not used (such as Tests & Quizzes, Forums, etc.) should be turned off. To do this, go to the course's *Site Editor* menu item and click the *Edit Tools* button. Un-check any tools you don't plan to use and click the *Continue* button followed by the *Finish* button.
4. If used, the *Gradebook* should reflect ALL graded events leading to the overall course grade calculation even if the assignment has yet to be posted in Sakai.
5. All downloadable material not intended to be revised and submitted by the student (such as Microsoft Word documents and Excel spreadsheets) should be converted to PDF for ease of downloading and benefit from the inherent compression gains of PDF documents.
6. Voice-over PowerPoints should be published as Presenter, Articulate or Captivate files, not as PPTX or PPSX files. When creating a Presenter file from a voice-over PowerPoint, you must re-import the audio files into Presenter before publishing the file.
7. It is recommended that PowerPoint slide shows be saved as PDF handouts, three or six slides per page in black and white or gray scale. For slides with detail, save your PowerPoint presentation as a PDF, 1 slide per page. Color PDF files should only be used if necessary.
8. Please remember that online tests are not visible to students when they are initially built in the Core Assessments area of the *Tests & Quizzes* tool. They must be "published" and visible to the instructor in the Published Assessments/Active area of the tool.
9. The use of QuickTime and RealPlayer are not recommended. Flash is the preferred format however, this format will not play on an iPad.
10. Links to media player download sites should be provided the first time that media type is encountered in a course.

Reference

Oregon Health & Science University. Teaching & Learning Center (2010). Course development best practices.

Course Redesign Questionnaire (Sample)

Below are some questions to ask before beginning the course re-design process.

- What worked well in your previous course?
 - What didn't work well in your previous course?
 - What are some things you would like to change about the course?
 - What was the most frustrating part of your course?
 - What was the most beneficial part of your course?
 - How do student course evaluations compare with your course redesign reflections?
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Anderson, L. W., & Krathwohl D. R. (eds.) (2001). A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives, Retrieved December 2, 2011, from <http://www.transitionmathproject.org/partners/wcp/doc/bloom.pdf>

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