

Designing A TBL Module: A Working Template for Faculty

Paul G. Koles, MD; edited by B. Laurel Elder PhD and Dean X. Parmelee MD
revised January, 2015

A. Designing a TBL module involves 5 essential considerations:

1. Of all learning objectives for my course, which ones are absolutely essential for my students to be successful in their chosen profession?
2. Of all topics (content domains) in my course, which are most closely related to these absolutely essential learning objectives?
3. What do I want my students to be **able to do** after the module I am designing? (specific action-based learning objectives)
4. Which kinds of application exercise formats are best suited for students to practice the behaviors specified in the learning objectives for this module?
5. Which kinds of knowledge are necessary for students to master before participating in the readiness assurance process and application exercises?

B. The design of a module follows a sequence that transforms all 5 of these considerations into learning activities:

1. Choose from the overall course learning objectives one “high yield” learning objective that is included in your answer to question A1 (above).
2. Identify a topic (content domain) that closely relates to and supports this single “high yield” learning objective.
3. Develop a set of very specific action-based learning objectives for this module, detailing behaviors that I expect my students to demonstrate by the end of the TBL module.
4. Choose an application exercise format (case-based, research study-based, experimental vignette with data, public health issue, professional dilemma, or other authentic situation) that provides a structure for organizing and sequencing questions that require critical thinking. With an appropriate format and well-crafted questions, the application exercise becomes a learning laboratory for practicing behaviors that fulfill the learning objectives.
5. Create an outline of the application exercise using the chosen format, then write several rough draft questions. Include supporting materials that provide necessary information for interpretation of each question (Example: clinical laboratory data is provided for a question requiring assessment of a patient’s fluid and electrolyte status.)
6. Submit the draft application exercise (fleshed-out format and rough draft questions) to two colleagues who are expert in the content domain OR experienced in team-based learning OR expert in writing multiple choice questions. Ideally, the chosen colleagues will possess a combination of these skills. After discussing their critiques, edit the rough draft to incorporate their suggestions.
7. Define an advance assignment, at the appropriate level for your learners, that prepares students to evaluate the application exercise questions.

8. Write the RAT questions, focusing on assessment of critically important knowledge in the advance assignment. Avoid questions on minor, trivial, or obscure points.
9. Submit the whole module (advance assignment, RAT, and application exercise) to the same two colleagues who reviewed the rough draft application exercise. Discuss their editorial suggestions and revise the module again.
10. Field test the new module with your students in a graded TBL session.
11. Within 5 days after the field test, revise the RAT and application exercise, focusing on improving 3 kinds of questions:
 - a. ones with flaws that add irrelevant difficulty to the question
 - b. ones that were answered correctly by >90% of students in the IRAT
 - c. ones that were answered correctly by all teams in the application exercise.

References:

1. Fink, LD: Creating Significant Learning Experiences: An Integrated Approach to Designing College Courses. 2003. Jossey-Bass, San Francisco.
2. Fink LD: A Self-Directed Guide to Designing Courses for Significant Learning.
3. Michaelsen L, Sweet M: The Essential Elements of Team-Based Learning; chapter 1 in Team-Based Learning: Small-Group Learning's Next Big Step. New Directions for Teaching and Learning, Number 116, Winter 2008, Jossey-Bass, San Francisco.
4. Michaelsen LK, Knight AB, Fink LD. Team-Based Learning: A Transformational Use of Small Groups in College Teaching. 2004. Stylus Publishing, Sterling, VA.
5. Wiggins GP, McTighe JH. Understanding by Design, 2nd edition, 2005. Association for Supervision and Curriculum Development.