TEAM-BASED LEARNING

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What is Team-Based Learning?

“Multiple small groups solving the same problem simultaneously in a large lecture hall (classroom) with guidance from a content expert (you!)”
“Originated by a professor of Business
Now being widely used by medical schools and others across the country as an innovative teaching methodology that is effective.”
Basic Components

Learning objectives and assignments structure pre-class preparation

Students are assigned to specific small groups

Instead of multiple small groups independently working, TBL sessions are conducted in a large classroom (noise!)

Small group members are clustered together and solve problems as a group
“Your Transition to TBL:

May use groups—use your responder teams or groups of responder teams (at least 6 per group)

Develops ability to function as team

Contrast with typical “group work,” where often there are “slackers” and “over-achievers”
How Teams are Formed
Philosophical Orientation Questionnaire

Read the question and respond to the answers by:
1. Putting a 1 in the answer that best describes your preference
2. Putting a 2 in the answer that is your second choice
3. Putting a 3 in the question that is your third choice

1. I think of my value, or worth, in terms of:
   (a) ___ My relationships (e.g., family, friends)
   (b) ___ My ideas OR ability to invent new concepts OR ability to analyze things
   (c) ___ My financial net worth OR income

2. I feel most proud of organizations to which I belong when they:
   (a) ___ Have created new products/services
   (b) ___ Create financial worth for individuals (whether employees, investors, or partners)
   (c) ___ Have helped people live easier and healthier lives

3. When someone asks me to commit to spending time on a project, I ask myself:
   (a) ___ What can I learn from doing it?
   (b) ___ Will it help someone, or is someone counting on me to do it?
   (c) ___ Is it worth it to me?

4. Sometimes I will do something for no other reason than because:
   (a) ___ I want to figure out why something works the way it does
   (b) ___ It has to be done in order to do something else OR get something I want
   (c) ___ It will allow me to be with a person I care about OR it would please someone I care about

5. The way I can best contribute to others’ lives is to:
   (a) ___ Help them find jobs OR develop financial security and independence
   (b) ___ Help them develop principles with which to guide their lives
   (c) ___ Help them build relationships with others OR help them feel better about themselves
Team Formation

“never use student-selected teams

“create diverse teams

“make the selection process transparent.
Team-Based Learning: TBL Phase 1

"Independent study and group study prior to session"

"Driven by well written learning objectives and SPECIFIC study assignments"
Team-Based Learning: TBL Phase 2

- Individual Pre-test (iRAT)
- Group Discussion and post-test problem solving/decision-making (gRAT)
How to do the “RATs”

Approx $100 for 500 question forms
Audience response system

Google forms

Use for both . . .

Individually (iRAT);

By team (gRAT--“designate a team name or number” in response system/select a responder to “vote” for the team
“Sharing as a team identifies critical information instructor will address in follow-up mini-lecture.”
Team Activity Following RATs (Still Phase 2)

“Team questioning/analysis/appeals
Socratic teaching by both students and instructor
Instructor Feedback/Supplemental mini “lecture”
20-30% of class time
Efficient Use of Student and Faculty Time in Team Based Learning

“Single Instructor for Session
Groups generate questions—addressed by Instructor
Instructor generates questions—questions are heard and considered by all groups
All groups have identical exposure/access to teacher
Collaboration gives added value
Team-Based Learning: TBL Phase 3

Team Application Exercises

Move up to a higher level of Bloom's Taxonomy

70-80% of time

Stimulates large group discussion and learning

Consider use of simulation or cases to provide challenge for team problem-solving
Must collect students individual scores and this must count toward grade (approx 40%)

All students in a group receive the same score from the gRAT (approx 50%)

Application exercise also generates a group score for all members (approx 10%)
Small groups of 6 to 7 students

Groups must be carefully constructed and maintained intact during the course.

Group process is important—small group discussion during class.

Individual student grades determined by team performance (group test) and personal performance (individual pretest).
Disclaimer: We are not in total agreement with some opinions and advice that appears in some of these videos. Many people do group work and call it Team-Based Learning and what they are doing in the classroom may bear little resemblance to TBL best practices. They are ALL presented for your consideration.

Where to Start?
Start by viewing the Introduction to Team-Based Learning from the University of Texas at Austin and then view Larry Michaelsen’s The Differences between Groups and Teams.

http://www.teambasedlearning.org/
Resources


Team Building Module Facilitator’s Guide

New Partners Initiative Technical Assistance Project (NuPITA)

September 2012
Team-Based Learning

The Team-Based Learning (TBL) method of instruction was developed by a business school to meet the need of having active learning sessions with increasing class sizes.

TBL changes the lecture format that traditionally uses class time to convey concepts by the instructor to application of course concepts by small student teams. Learners no longer are passive, but rather actively participating in their own learning. This method allows for all of the benefits of small group work in classes that have high student to faculty ratios.

The TBL process has three basic phases:

**Phase 1**
- Learners study assigned materials independently (outside of class).

**Phase 2** (20-30% of class time)
- Individual learners take a multiple choice exam (I-RAT: Individualized Readiness Assurance Test) to examine readiness to apply knowledge gained from Phase 1.
- Student teams retake the same multiple choice exam (now known as the G-RAT: Group Readiness Assurance Test). Teams receive immediate feedback on their answers via IFAT (immediate feedback assessment technique) sheets.
- Teams have the option to write an appeal to the instructor if they believe that a question was unfair or poorly constructed.

**Phase 3**
- Instructor (who also must be a content expert) gives feedback on any concepts that were unclear to the learners. Instructor has already collected I-RAT and G-RAT data and is able to see what was commonly missed.
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Phase 3 (70-80% of class time)

1. Teams complete in-class application assignments (this can last several class periods) that promote collaboration, use of Phase 1 and 2 knowledge, problem solving/higher order cognitive skills, and identification of learning deficiencies.
   - Throughout the session(s) groups simultaneously share their answers for the application exercises questions. This stimulates large group discussion and can help strengthen learning.

Reasons to use TBL

- Large groups have a small group active experience
- Enhance problem-solving skills
- Less faculty intensive than traditional small group experiences
- Promotes teamwork

General TBL Resources: Getting Started

Team-Based Learning ([http://teambasedlearning.apsc.ubc.ca/?page_id=7](http://teambasedlearning.apsc.ubc.ca/?page_id=7))

- Introduction to TBL Video Collection ([http://teambasedlearning.apsc.ubc.ca/v/michaelsenvid.html](http://teambasedlearning.apsc.ubc.ca/v/michaelsenvid.html))
- Getting Started Guides ([http://teambasedlearning.apsc.ubc.ca/?page_id=9](http://teambasedlearning.apsc.ubc.ca/?page_id=9))
- TBL Process ([http://teambasedlearning.apsc.ubc.ca/?page_id=559](http://teambasedlearning.apsc.ubc.ca/?page_id=559))
- TBL Workshop Materials, Handouts, PPT Presentations ([http://teambasedlearning.apsc.ubc.ca/?page_id=794](http://teambasedlearning.apsc.ubc.ca/?page_id=794))

University of British Columbia, Team-Based Learning ([http://cis.apsc.ubc.ca/wiki/index.php/Team-Based_Learning](http://cis.apsc.ubc.ca/wiki/index.php/Team-Based_Learning))

- This website from the University of British Columbia provides many resources for creating TBL modules, including an overview of the TBL process, how to implement TBL, introduction to a TBL podcast, and materials collected from TBL workshops.

Baylor College of Medicine, Team-Based Learning ([http://www.bcm.edu/fac-ed/?PMID=6586](http://www.bcm.edu/fac-ed/?PMID=6586))

- This website from Baylor College of Medicine provides a list of TBL resources, including a comparison of PBL, TBL, and traditional lecture formats.

Boonshoft School of Medicine Wright State University, Team-Based Learning ([http://www.med.wright.edu/aa/facdev/tbl/index.htm](http://www.med.wright.edu/aa/facdev/tbl/index.htm))

- Collection of articles that describe the theory behind TBL ([http://www.med.wright.edu/aa/facdev/tbl/ArticleTheory.htm](http://www.med.wright.edu/aa/facdev/tbl/ArticleTheory.htm))
Additional Resources

Epstein Educational Enterprises (http://www.epsteineducation.com/home/about/how.aspx)
- Order IF-AT forms and watch a IF-AT demonstration video.

MedEdPortal (www.aamc.org/mededportal)
- MedEdPortal houses more than 20 TBL modules focusing on a variety of basic science and clinical topics.

Team-Based Learning Collaborative (TBLC) (http://tlcollaborative.org)
- The TBLC provides resources and support for health science faculty who use TBL in their classrooms. A $50 membership allows access to a case bank of TBL materials, participation in online TBL seminars, and a discount to the annual TBL conference.

Twitter Feeds
- TBLearning
  o TBL Collaborative

General Readings


**Readings by Subject**

**Anatomy**


**Clinical Clerkships**


**Ethics**


**Evidence Based Medicine**


**Nursing**

Pathology

Pharmacology

Physiology

Resident Education


Books


Book Chapters
Available At: [http://www.springerlink.com/content/j2h0j57h22476070/fulltext.html](http://www.springerlink.com/content/j2h0j57h22476070/fulltext.html)