Team-Based Learning (TBL)

A Quick Reference for Faculty and Administrators

What is Team-Based Learning?

Team-Based Learning (TBL) as conceived by Larry Michaelsen (2004) is rooted in what actually motivates adult learners. Rather than coercing students to "do what good students do" (come to class, pay attention, take notes, etc.), TBL structures student work around specific, visible, concrete, public decisions. The quality of those decisions depends on how well students have processed course content. Reading and studying are no longer empty behaviors or abstract exercises: they are a means to an immediate end.

So, what's the function of "teams" in Team-Based Learning?

TBL is poorly named, since the "team" part is really a mechanism to support more fundamental drivers of learning, such as frequent assessment, self-efficacy and applied learning. The social process is nevertheless important. We know that groups are capable of being challenged at a higher level than are most individuals, even though instructors who use collaborative learning strategies know that groups do not always function well. A permanent team structure gives students time over a semester to learn to make decisions together, an essential condition for requiring them to perform at higher cognitive levels. Members of a group start out as individuals without a shared purpose, but grow into a team when their team productivity is rewarded.

What can an instructor do to ensure that the groups develop into teams?

An instructor creates situations where the group will visibly, concretely and immediately benefit from working as a team to achieve a specific task in the form of a group decision. As a result, members of a group learn very quickly to hash out disagreements, reach consensus, benefit from their mistakes, rein in ineffective behavior, and eventually trust in the team's overall ability to outperform any

given individual. The key to fostering team development is effective assignment/task design that requires significant decisions. Each negotiation that a team undergoes to reach a decision on a task teaches students analysis (comparison and contrast of individuals' conflicting perspectives) and critical reflection (Are we all really sure that this is the best answer?). A key component of the method, therefore, is frequent, immediate feedback on everything students do—whether as individuals or in teams.

How is TBL different from PBL (Problem-Based Learning)?

TBL is more overtly structured than PBL, in that the TBL instructor sets the agenda for covering and processing a specific body of information, much the way he/she would in a conventional lecture-based course. By contrast, in PBL the instructor's role is restricted to identifying the problem, while students seek out the information they need in order to solve it—with limited direction from the instructor. Both methods are highly effective, depending on goals and circumstances. In TBL, however, the tighter control of content is attractive to many university instructors, as it allows TBL-taught courses to co-exist with traditionally-taught courses, and does not require altering curriculum content.

What evidence do we have that TBL is effective?

The first formal quantitative studies on TBL are just now emerging, and the data strongly confirm what TBL adopters have been reporting anecdotally for several years. Students learn more, faster. Data on the quality of student experience in TBL classrooms are especially revealing: students report that they are more motivated, more engaged and more satisfied.

TBL is now being used internationally in nearly every academic discipline, from natural science to social science to professional disciplines to philosophy and literature. The emerging research helps explain why it is

especially attractive in information-heavy and highly technical fields such as medicine and engineering. The social and assessment-driven design raises the level of persistence of students confronted with dense material, and at the same time raises their performance level, not only as teams but as individuals. Instructors report consistently that TBL enhances quick retention of core information and allows instructors to challenge their students with more difficult material and more challenging assignments.

A surprising outcome has been that, while initially users of TBL reduce course content to allow for increased in-class processing, they find that within a semester or two of experience with the method they are able to restore content coverage back to original levels, and in many cases, beyond the original level, with greater overall student grasp of disciplinary concepts.

Finally, the organizational structure of the TBL classroom, in which much of the work and interaction occurs in the small groups, allows TBL to be scaled up to large enrollment courses with relative ease. It's easier to manage a class of 15 teams than a class of 105 individuals.

What does TBL look like in the classroom?

A Team-Based Learning course will have 4-7 instructional units. For each unit, here is the approximate sequence over 2-4 class meetings:

1) A substantial reading assignment (outside of class)

2) Readiness Assurance Process to assess basic student grasp of main ideas (in class)

3) Clarification/mini-lecture if needed on lingering confusion (in class)

4) Team applications using the material to delve more deeply into complex ideas (in class)

5) Assessment of learning (individual and/or team assignments) (in or outside of class)

An additional component that occurs once or twice during the course is the peer evaluation, which is also weighed into students' final grades.

How is the "Readiness Assurance" process different from a traditional reading quiz?

The Readiness Assurance Process (RAP) is the first step in team development, and consists of two complementary components. 1) The Individual Readiness Assessment Test (I-RAT) is a multiple choice test that measures each student's basic understanding of a given body of content. The I-RAT ensures that students are individually accountable before they participate in a group. The Team Readiness Assessment Test (T-RAT) is a duplicate of the I-RAT, but now (before they see their scores from the I-RAT) the team takes the test again for a single team score. Both components factor into students' grades. The RAP has a double psychological function. First, the Individual RAT ensures that students do not use their teams to cover over individual failure to prepare. Second, the Team RAT requires the team to practice its decision-making from the very beginning of the course.

What are the Challenges? Is there a downside to TBL?

Research showing TBL's effectiveness as a method is strong, but it is not always easy to make the transition from traditional teaching to TBL. Teaching with TBL requires considerably more up-front planning and organization. Creating effective application tasks and effective multiple-choice questions can be labor intensive while the instructor is first learning the method. There is also more assessment to manage and more grades to track, but these teaching skills improve quickly. Course planning using TBL ultimately takes no more time than planning a course taught more traditionally.
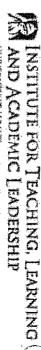
Another challenge is being prepared for those students who will not respond well (especially at first) to this approach. TBL pushes students outside of their comfort zones. Many students—and often it's the "A" students—are still experiencing what William Perry calls "dualism," meaning that they tend to think in terms of "right" and "wrong," and who believe that their goal is just to write down and memorize what the professor says (1970). When this is not possible because the professor lectures a lot less, a few of them will express their displeasure, and complain that you are "not teaching." It's important to have clear support from your chair and dean, particularly if you are untenured.

These challenges are surmountable, however. With experience using the method, most adopters can expect to see major gains in student learning, and major changes in student attitudes, as students begin to take more responsibility for their own learning.

For more information visit the TBL website at http://www.teambasedlearning.org.

Michaelsen, L. K., Knight, A.B., Fink, L.D. (2004). Team-Based Learning: A Transformative Use of Small Groups in College Teaching. Sterling, VA: Stylus Publishing.

Perry, W. G., Jr. (1970). Forms of Intellectual and Ethical Development in the College Years: A Scheme. New