

# Team-Based Learning Fact Sheet

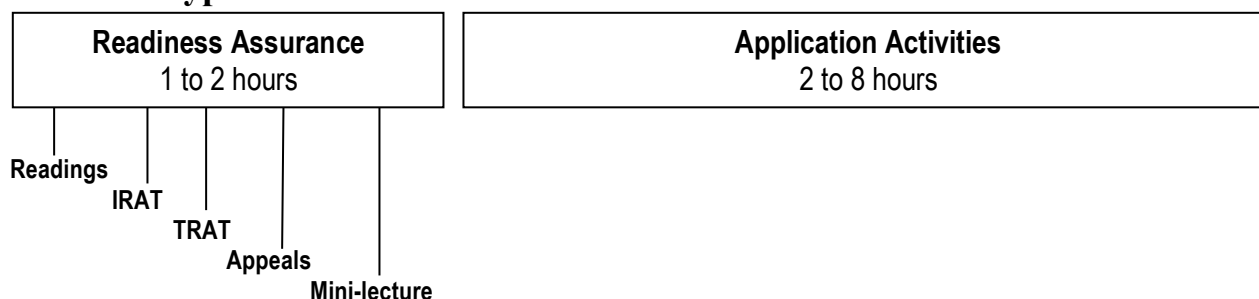
## What is Team-Based Learning (TBL)?

Team-Based Learning (TBL) is a form of collaborative learning that incorporates a specific sequence of individual work, team (group) work, and immediate feedback to increase students' understanding of course concepts. Students use what they learn to solve authentic, real-world problems as a way to develop lifelong learning and career skills. TBL differs dramatically from the traditional classroom dynamic, in which content is transmitted through lectures. In a TBL classroom, students *use* and *apply* the course content in order to solve problems (as opposed to merely absorbing and memorizing the content).

## What are the key principles of TBL?

- Large teams (5-7 students) that are diverse and permanent
- Accountability for individual preparation and team success
- Use and application of course concepts and complex decision-making
- Frequent and timely feedback

## What is a typical TBL unit?



## What is the sequence of individual work, teamwork, and feedback?

**1) Preparation:** Outside of class, students complete readings and assignments for each unit.

**2) Readiness Assurance Process (iRATs, tRATs, Appeals, and Immediate Feedback):** On the first day of each unit, students are given an Individual Readiness Assurance Test (IRAT) followed by a Team Readiness Assurance Test (TRAT). RATs are closed book and based on the preparatory material (readings and assignments). The IRAT measures each individual student's comprehension and mastery of the assigned readings. Next, students gather into their teams and take the same test again, this time discussing, considering, and collaborating on the answers (TRAT). After the IRATs and TRATs have been completed, the instructor may present a short mini-lecture to clarify concepts that are not well understood as evidenced by test scores. The purpose of the RATs is to ensure that students and their teammates have sufficient foundational knowledge to begin learning how to apply the course concepts during the unit.

- **Individual RAT (iRAT):** Students individually complete a multiple-choice test based on the readings.
- **Team RAT (tRAT):** Following the iRAT, the same multiple-choice test is re-taken with their team. These tests typically use a "scratch and win" type answer card known as an IF-AT. The students develop a consensus with their teammates, and then scratch off the opaque coating hoping to reveal a star that indicates a correct answer. For tests with four response choices, the team is awarded 4 points if they uncover the correct answer on the first scratch, 2 points for the second scratch, and 1 point for the third scratch. If they are incorrect with any scratch, the team needs to reconsider, discuss, and make another decision.
- **Appeals:** Once the team has completed the TRAT, they have the opportunity to fill out an appeals form. The purpose of the appeals process is to allow the team to identify questions where they disagree with the question wording or ambiguous information in the readings. The instructor will review the appeals outside of class time and report the outcome of the team appeal at the next class meeting. Only teams are allowed to appeal questions (no individual appeals will be accepted). When an appeal is accepted, the points missed will be

added to 1) the team score, 2) the score of any individual in the team whose answer on the iRAT was the same as on the tRAT; 3) only the team(s) that appealed the question.

- **Immediate Feedback/Mini-Lecture:** Following the RATs and Appeal Process, the instructor provides a short, clarifying lecture on any difficult or troublesome concepts to help clarify the material.

**3) In-Class “Application Activities”:** Students and their teams use the foundational knowledge, acquired in the first two phases, to make decisions that will be reported publically and subject to cross-team discussion/critique. The class uses a variety of methods to have students report their team’s decision at the end of each activity. For example, sometimes students will hold up colored cards indicating a specific choice, sometimes they will write their answer on small whiteboards, and other times they will complete short worksheets, which will be randomly reported to the rest of the class.

## **How does TBL hold students accountable, to themselves and to their team?**

When students fail to prepare for class, students who *have* prepared are often forced to “carry” their less-willing and/or less-prepared peers. Moreover, improperly managed team discussions sometimes degenerate into social events in which little if any learning occurs. Both problems can be avoided almost entirely by establishing accountability practices. The key is to use assignments and practices that hold individuals *and* teams accountable for their contributions and behaviors. Accountability to the team occurs immediately and regularly in class, facilitated by not only by the instructor but also other students: peer feedback within teams, peer feedback across teams, and anonymous peer evaluations of each student’s contributions to the team (part of his/her course grade).

### **How TBL Promotes Individual Accountability and Learning**

- **iRATs** promote accountability and provide an incentive for students to come prepared because each student’s individual score on the IRAT counts toward his/her overall course grade.
- **tRATs** (which are identical to the IRATs) require each team member to voice and defend his/her choice on every question so that the team can come to a consensus on the answers. These discussions not only provide immediate peer dialogue/feedback, but also that provide clear evidence of both 1) the importance of individual preparation and 2) the importance of obtaining input from everyone before deciding on the answer.
- **Peer evaluations**, which are conducted during the fifth and fourteenth weeks of the semester, count toward each student’s individual course grade. Team members who are chronically unprepared invariably receive low evaluation scores from their peers, which impacts their final grade.

### **How TBL Promotes Team Accountability and Learning**

- Teams are held accountable through intra-team and whole-class discussions (called “**application activities**”) during which teams apply what they have learned to a specific and significant “problem.” These in-class team assignments require students to produce something tangible—ranging from something as simple as an answer to a multiple choice question to something as complicated as a sketch of a software design or a complete piece of code.
- Teams are given **immediate feedback** on the “products” they create in class, not only from the professor but also other student teams. By making the feedback process public within the classroom (rather than making it private and keeping it outside of class), students have the opportunity to compare their work with that of other teams, learning about alternative approaches, strategies, and perspectives.

Adapted by Professor Amy Hughes from *Three Keys to Using Learning Groups Effectively* by Larry Michaelsen, *Student Orientation Materials* by Dean Parmelee, and *The Essential Elements of Team-Based Learning* by Michaelsen & Sweet. For more information, visit <http://www.tbllaborative.org/>.