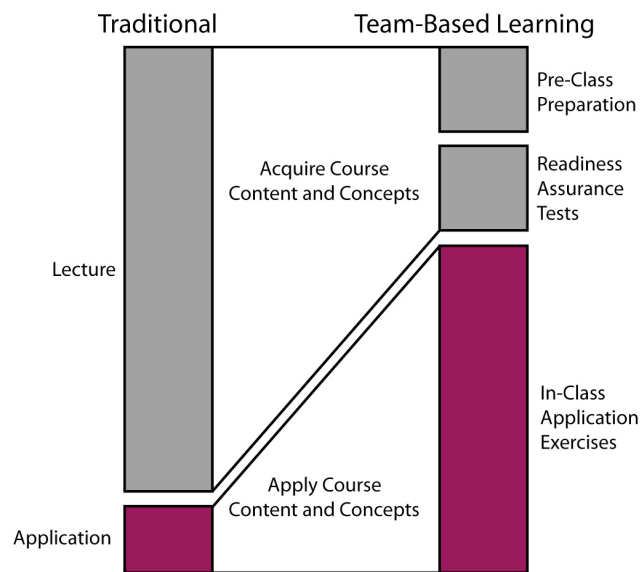


# Team-Based Learning

## An Alternative to Lecture-Based Learning

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

The main purpose of TBL is to change the classroom experience from acquiring course content and concepts in a lecture-based format to applying course content and concepts in a team format. In other words, students spend their classroom time applying course material rather than simply acquiring it. In a TBL course, classroom learning occurs in teams of 5 to 7 students. Teams are formed such that each group contains a variety of students in terms of skills and backgrounds. Students begin each TBL unit by studying assigned class material (readings, website tutorials, video demonstrations, etc.) prior to class.



**Figure 1: TBL Compared With Traditional Lecture-Based Learning (Adapted from *Team-Based Learning: Alternative to Lecturing in Large Class Settings*, Centre for Instructional Support, University of British Columbia)**

During the first class session of a TBL unit students take an individual readiness assurance test (iRAT) over the assigned material. After the iRAT, students retake the same test as a team (team readiness assurance test or tRAT) and immediately find out how they scored on both the individual and team test. Both grades are counted in terms of final grade calculations. The individual tests hold students accountable for learning the material before class and the team tests provide an exciting opportunity for students to learn from one another while working together on the test. Periodically throughout the course students assess each team member's performance in a peer evaluation exercise. In addition to earning a 70% or higher total course grade, students must earn a score of 70% or higher on the individual grade component (iRAT + exams + peer evaluation) to pass a TBL course.

Following the readiness assurance process, each team is assigned the same application exercise to solve. Application exercises are designed such that students use the material they learned outside of class to solve challenging problems. Each team reveals their answer to the application exercise simultaneously, resulting in energetic conversation between teams, as each team seeks to justify their answer. Teams are held accountable for their work by providing verbal or written explanations of their answers to application exercises.



**Figure 2: Typical Timeline for a TBL Unit**

While most learning occurs amongst students in their teams, faculty are always present and available to provide a “mini-lecture” over material that teams find difficult to master. Traditional exams are also given several times throughout the semester in a TBL course.

***How is TBL different from group learning?***

To promote active and collaborative learning, students are sometimes asked to work in groups in class or on projects outside of class. While group work does benefit student learning, unfortunately it is often plagued by “social loafers”, or students who do not pull their weight in terms of helping the group. As a result, many students learn to dislike group work and may seek to avoid it. TBL is different. TBL ensures that each member of the team is held accountable for their own learning outside of class. Students who do not prepare adequately before class will perform poorly on the iRAT and will not be able to contribute in a meaningful manner to the tRAT and application exercises. As a result, most students who would normally remain “social loafers” in a group learning project are instead quickly motivated to do the assigned work outside of class in order to perform well on the iRAT. In addition, as teams work together and compete with other teams in the class, loyalty to the team develops among each member. This further motivates the “social loafers” to prepare outside of class so that they can contribute and help the team succeed. Finally, team members evaluate one another periodically during the semester, and each student’s grade is partly based on their peer evaluation score.

***Do students learn as much as they do in lecture-based courses?***

Published studies have demonstrated that students learn at least as much, and probably more, content and concepts in TBL courses as they do in traditional lecture-based learning courses. Furthermore, unlike traditional lecture-based learning, TBL promotes the development of teamwork skills and students learn how to apply course content to “real world” situations, both of which foster the development of an effective team member in the healthcare field.

***Why did the Rueckert-Hartman College for Health Professions (RHCHP) School of Pharmacy faculty choose TBL?***

When developing the curriculum, the faculty researched several instructional strategies. Of these strategies, TBL provided more benefits and solved more learning problems than any other single instructional strategy. Not only did TBL provide an exciting learning environment that fosters critical thinking and problem-solving skills, but it also develops teamwork skills in students that are critical for a successful career in pharmacy practice. TBL not only enhances the learning process but gives RHCHP pharmacy students a competitive edge over other pharmacy students in an increasingly team-oriented healthcare system.