Team-Based Learning Methodology

Why TBL?

Reflect on courses and classroom experiences from the past. Were you learning more when you were passively listening or actively discussing an idea and solving an important problem? Did you feel during lecture that you could have learned the same facts just by reading the chapter? Was coming to class mostly for jotting down notes on the margins of the slides because what the teacher said might be on the test? How comfortable did you feel raising questions with other classmates or the professor in the middle of class? Were you left wondering how the class would ever apply to real life? Did you leave those courses prepared to work in a team setting later in your career? These questions have inspired students and faculty to explore better ways to learn and highlight many of the benefits of being part of a team- based learning (TBL) classroom.

TBL systematically delivers a learner-centered environment that optimizes the classroom experience. Students learn by engaging pre-class readiness materials and in-class problem solving, tied together with rich discussion within teams and between teams. Teams serve the crucial role of testing understanding, giving feedback on ideas, and encouraging accountability to learning, and over time TBL teams outperform even their strongest individual members. Built into TBL are regular opportunities to clarify areas of confusion and compare the team's thinking to your own, to other teams, and ultimately to the instructor's explanation. Students who engage in TBL also come better prepared and tend to remember their learning longer. Research suggests most students and faculty prefer TBL to the traditional classroom, particularly after the initial transition.

TBL at CHSU

CHSU utilizes TBL across the entire academic program, supplemented by other active learning strategies. The very nature of TBL promotes the development of improved judgment, communication, teamwork, problem- solving, critical thinking, and overall, a deeper understanding of knowledge, skills and abilities. TBL also emphasizes individual accountability, collaboration, and application of fundamental concepts to interesting and meaningful problems. The role of the TBL instructor is to guide the class to the most important learning outcomes by creating challenging authentic problems for students to solve and facilitating classroom discussion to probe the reasoning and assumptions that form those solutions.

At the beginning of each semester, teams are comprised generally of six students based on criteria to achieve an even distribution of skills, experiences, and resources across all teams. Students remain with the same team for all courses throughout the same semester. Teams are reformed each new semester, providing everyone the opportunity to work with and learn from almost every other student in the class at some point before graduation. All students are accountable for their individual and team contributions throughout the semester. Structured peer assessments are conducted twice each semester to provide constructive feedback for growth for all members of the team.

TBL Phases

TBL learning starts before class even begins and often continues over multiple classroom periods.

Readiness Assurance

1. Students start the readiness assurance process by studying materials suggested by the instructor before class (Step 1, in red above) to cover the basic facts, concepts and vocabulary necessary to discuss the topic. This may involve reading assignments, taped lectures, practice-problems, pre-class learning objectives and other self-study activities.

2. The readiness assurance process continues at the start of class when individual students complete a brief multiple-choice test (Step 2) based on the self-study assignment, assuring enough knowledge readiness to begin discussing the key concepts. This is called the Individual Readiness Assurance Test (iRAT).
3. To help identify and clarify misunderstandings, each team of students then retakes the same brief multiple- choice test, discussing questions within the team to reach a consensus answer (Step 3). This is called the Team Readiness Assurance Test (tRAT).
4. The question key is then revealed to the students and if a team wishes to challenge a keyed answer or offer a different interpretation of a question, the team may submit a written appeal (Step 4) to the instructor for later review.
5. The professor then leads a classroom discussion encouraging interaction between teams (or offers a brief focused lecture when needed) to clarify the fundamental concepts intended from the readiness assignment (Step 5). This discussion prepares the class for the more challenging questions coming later in the in-class team applications. The instructor may also choose to address appeals at this point if it helps enrich the classroom discussion; otherwise appeals are reviewed with the team after class or by email.

In-Class Team Applications

Once students have demonstrated understanding of basic concepts and any remaining misunderstandings have been clarified, the instructor shares a series of increasingly complex problems for the teams to attempt. These problems are significant and often authentic scenarios that you may see in your career in healthcare. All teams work on the same problem and are asked to make and defend specific choices as part of their proposed solutions. Teams transition into a class-wide discussion by simultaneously sharing and comparing all team solutions with deeper discussions facilitated by the instructor. The application ends with a brief recap of key points identified by the instructor and the class then moves to a new interesting problem.

To be effective health professionals, beyond just understanding and problem solving, students must develop the ability to work and communicate effectively with a diverse group of patients and colleagues and deliver care as a team. This ability in not innate. Learning in teams will provide you with excellent preparation and a natural insight into practicing healthcare as a team. The faculty at CHSU are excited to share TBL with you.