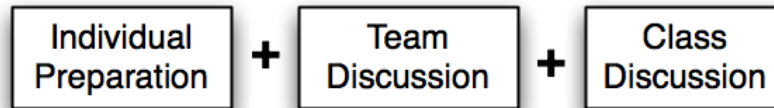


Student Orientation to TBL

This course will be using the Team-Based Learning (TBL) strategy
(www.teambasedlearning.org)

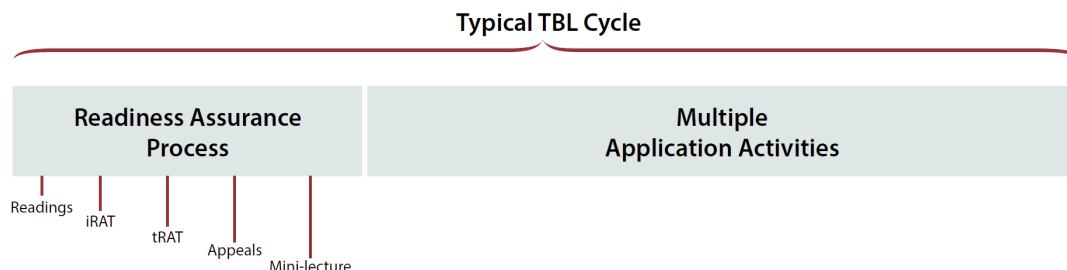


TBL will increase your understanding of course concepts by using them to solve authentic, real-world problems and help you develop your workplace learning skills.

The primary course objective shifts from content transmission (lectures) to helping you learn how to use course content to solve significant problems; in fact, the bulk of class time will be spent solving problems and making decisions.

It will be done in a way that will hold teams accountable for using course content to make decisions (solve problems) that will be reported publically and subject to cross-team discussion/critique.

Overview of TBL Sequence



Phase 1 – Preparation:

You will complete **specified preparatory materials** (readings assignments or video) for each module, that will be made available via Moodle in advance.

Phase 2 – Readiness Assurance Test:

At the first class meeting of each module, you will be given an **Readiness Assurance Test (RAT)**. The RAT test measures your comprehension and mastery of the assigned readings, and helps you deepen your understanding of the course material needed to begin problem solving in phase 3.

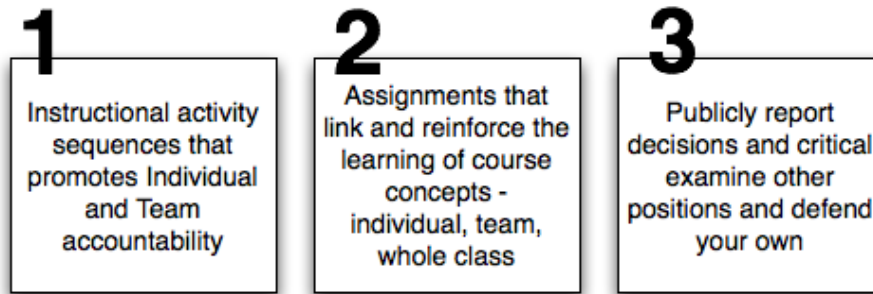
Once the test period is over, the instructor may present a **short mini-lecture** to clarify concepts that are not well understood as evidenced by the test scores or may answer the class' **burning questions**.

The purpose of phase 2 is to ensure that you and your teammates have sufficient foundational knowledge to begin learning how to apply and use the course concepts in phase 3. **RATs are closed book and based on the assigned preparatory material** (readings, assignments or videos).

- **Individual RAT (iRAT)** – You individually complete a multiple-choice test based on the readings. These tests normally use Moodle quiz forms, so mobile phones or laptops are required.
- **Team RAT (tRAT)** - Following the iRAT, the same multiple-choice test is re-taken with your team. These tests allows you to know after each attempt whether the answer is right or not and if not, you are allowed to make other attempts.
Your team is awarded 4 points if you uncover the correct answer on the first attempt, 2 points for the second one, and 1 point for third. If you are incorrect with any attempt, your team needs to reconsider, discuss, and make another decision.
- **Appeal Process** - Once your team has completed the team test, your team has the opportunity to fill out an appeal form. The purpose of the appeals process is to allow your team to identify questions where you disagree with the question key or question wording or ambiguous information in the readings. Instructors will review the appeals outside of class time and report the outcome of your team appeal at the next class meeting. Only teams are allowed to appeal questions (no individual appeals).
- **Feedback and Mini-lecture** - Following the RATs and Appeal Process, the instructor provides a short clarifying lecture on any difficult or troublesome concepts or ask further questions of the class to help clarify the material.

Phase 3 - In-Class Activities (Team Application): You and your team 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. We will use a variety of methods to have you report your team's decision at the end of each activity. Sometimes you will hold up coloured cards indicating a specific choice, sometimes you will write your answer on small whiteboards, and other times you will complete short worksheets then randomly teams will be asked to report their findings to the rest of the class.

Three Keys to TBL



Key One – Promoting Accountability

Promoting individual accountability

The Readiness Assurance Process is designed to promote individual accountability. The Readiness Assurance process requires individuals to complete a test (typically multiple-choice) covering a set of pre-assigned readings and turn in their answers. Students are individually accountable because the individual scores count as part of the course grade. Next, during the team test (exact same test as individual), each member is invariably asked to voice and defend his or her choice on every question as the teams comes to consensus on their answers. The resulting discussions produce immediate peer dialogue/feedback that provides clear evidence of the quality of individual preparation and the importance of obtaining input from everyone on all-important decisions. Third, members who are chronically unprepared almost invariably receive a low peer evaluation score.

Promoting team accountability

Fostering team accountability is very important. Without team accountability, neither instructor nor students know: 1) if their learning goals have been achieved, or 2) if students are taking teamwork seriously. Teams can be held accountable by carefully managing intra-team and whole class discussions. The key is the nature of the application activity. First, team assignments must require production of a tangible output. Second, the “product” that teams are asked to create should enable both immediate feedback on the quality of teamwork and the opportunity for direct comparisons with output from other teams.

What we are trying to prevent (why accountability matters)

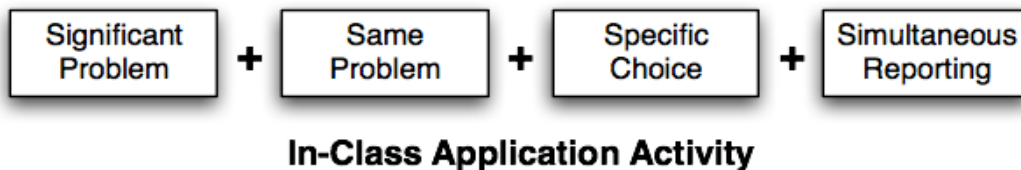
Accountability matters - If students fail to prepare for teamwork, then better students are likely forced to “carry” their less willing and/or less able peers. Additionally, improperly managed team discussions are likely to degenerate into social events in which little if any learning occurs. Both problems can be avoided almost entirely by establishing accountability practices. The key is using assignments and practices that hold individuals and teams accountable for their contributions and behaviors. Accountability to your team is via immediate peer feedback and direct anonymous assessment in the peer evaluation process.

Key Two – Using Activities that link and reinforce

The second key to using groups effectively is making sure that the assignments at each stage of the learning process are linked and mutually reinforcing (individually, team, whole class). When this is done, assignments in the first two stages have a powerful positive effect on the learning that occurs in the last stage.

To obtain the maximum benefits, the **4 S’s** should be used to design each activity.

- 1) Same Problem
- 2) Significant Problem
- 3) Specific choice: using course concepts to make a specific choice
- 4) Simultaneously report: reporting choices simultaneously



Key Three – Adopting Practices that Stimulate Idea Exchange

The degree to which the application activities and reporting discussions expose students to new perspectives from their peers depends on two factors:

- The degree that assignment design fosters give-and-take individual, team and class discussion.
- The degree that assignments require high levels of team interaction.

Important to foster high levels of interaction

Assignments need to be design to be challenging enough that a single team member cannot complete them alone. Good assignments engage the diverse talents of the team in generating reasonably defensible decisions and solutions.

The most common reason for a low level of group interaction is the use of assignments that are too easy where one member will simply act on behalf of the team or assignments where too much delegation occurs (i.e. long written assignments).

Important to remove barriers to participation

Because members of newly formed teams may be reluctant to speak out, it is important to use an approach with long-term teams and as well as assignments, practices, and a grading system that foster the development of group cohesion (Michaelsen, Black & Fink, 1996). As groups become more cohesive, trust and support typically build to the point that even naturally quiet members are willing to engage in intense give and-take interactions. Within a cohesive team, members feel little worry about being offensive or misunderstood (Watson, Michealsen & Sharp, 1991). As team members come to see their own success as tied to the success of their team, they are motivated to invest considerable personal energy into doing teamwork.

Adapted from *Three Keys to Using Learning Groups Effectively* by Larry Michaelsen and *Student Orientation Materials* by Dean Parmelee

References

Michaelsen, L.K. & Black, R.H. (1994). *Building learning teams: The key to harnessing the power of small groups in higher education*. In *Collaborative Learning: A Sourcebook for Higher Education*, Vol.2 (pp. 65-81). Kadel, S & Keehner, J. (Eds.) State College, PA: National Center for Teaching, Learning and Assessment.

Michaelsen, L.K., Black, R.H. & Fink, L.D. (1996). *What every faculty developer needs to know about learning groups*. In *To improve the Academy: Resources for Faculty, Instructional and Organizational Development*, 1999 (pp. 31-58) Richlin, L. (Ed.). Stillwater, OK: New Forums Press Co.

Michaelsen, L.K., Fink, L.D. & Knight, A. (1997). *Designing Effective Group Activities: Lessons for Classroom Teaching and Faculty Development*. In *To Improve the Academy: Resources for Faculty, Instructional and Organizational Development*, 1997 (pp. 373-397). DeZure, D. (Ed.). Stillwater, OK: New Forums Press Co.

Watson, W.E., Michaelsen, L.K. & Sharp, W. (1991). *Member competence, group interaction and group decision making longitudinal study*. *Journal of Applied Psychology*, 76, 801-809.