



University of Baghdad College of Medicine 2024

Title: Team Based Learning (TBL)

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Medical Education Workshop

Date: 4/12/2024



Have you ever participated in TBL activity?



Objectives

- Define Team-Based Learning (TBL)
- List the goals of TBL
- Identify the four key TBL design principles
- Correlate the activities progress with Bloom's levels
- Explain; How TBL Works?
- Describe the (4 S's) in-Class Activities

What is Team-Based Learning TBL?



- Teaching strategy that relies on small group interaction (more heavily than other strategies)
- Primary learning objectives beyond covering contents and focus on ensuring that students have opportunity to practice using course concepts to solve problems (conceptual and procedural knowledge)

What is Team-Based Learning TBL?



Team-Based Learning is a special form of collaborative learning using a specific sequence of

- ✓ Individual work,
- ✓ Group work and
- ✓ Immediate feedback

To create a motivational framework in which students increasingly hold each other accountable for coming to class prepared and contributing to discussion

Michael Sweet

Why Team-Based Learning TBL?



- Traditional education, tended to separate knowledge acquisition from knowledge application both between and within courses
- In TBL students individually study the course content, discuss it with their peers and the instructor, and immediately apply it in making choices that require them to use their knowledge
- Much better sense of the relevance of the material

Works in large class settings



- TBL was originally developed **by Larry Michaelsen**, at the University of Oklahoma Business School when his classes went from 40 to 120.
- He was unwilling to give up the effective outcomes that were possible in the smaller class.
- When he first tried TBL, **he was surprised at how effective it was.**
- TBL is now routinely used in **large classes** (up to 400, but more typically 120-150 Students with a single facilitator) and is even possible in difficult classroom spaces (i.e. tiered lecture theatres).

Paradigm Shifts



- Course goal shifts from **knowing to applying**
- Teacher shifts from **“sage on stage” to “guide at side”**
- Students shift from **passive to active**
- Responsibility for learning shifts from **instructor to student**

TBL dramatically shifts the focus of classroom time from

- ✓ Conveying course concepts by the instructor
- ✓ To the application of course concepts by student teams.

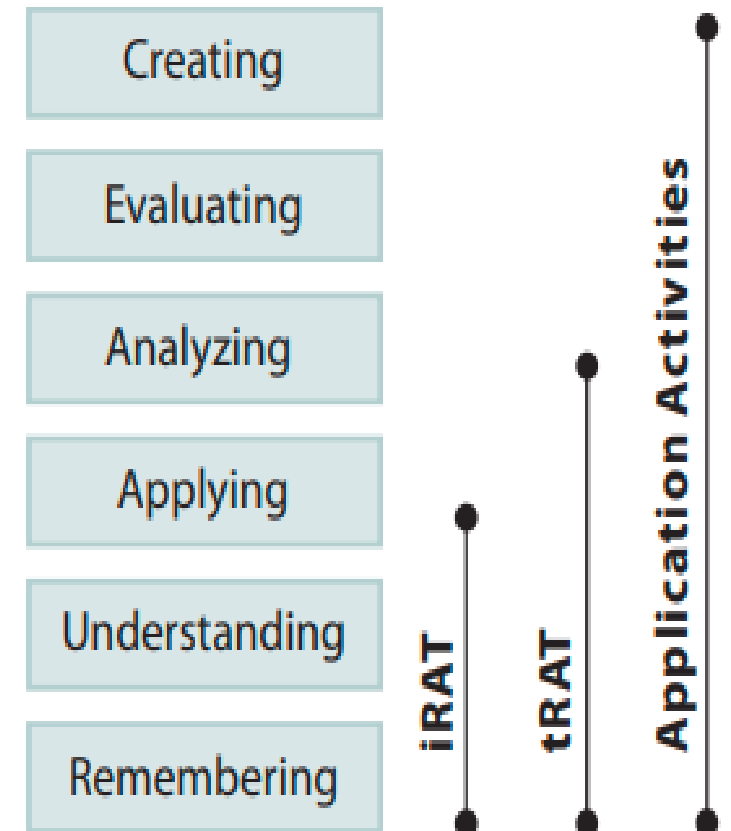


Four Key TBL Design Principles

- **Teams** should be diverse and permanent.
- **Accountability** for student pre-class preparation and contributing to team success
- **Students make complex decisions** that require the use of the course concepts that can be reported in simple form
- **Frequent and timely feedback** must be given to students.

Activities progress through Bloom's levels

- The TBL instructional sequence naturally progresses to higher Bloom's levels as individuals progress through the modules.
- The Readiness Assurance Process; Help the students progress through **Remembering, Understanding** and into the **simple Applying level** of Bloom's taxonomy.
- The Application Activities can take students through the higher Bloom's levels of **Analyzing, Evaluating and Creating**.




How TBL Works?

Getting Your Students Ready



The Readiness Assurance Process (RAP)

- ✓ Occurs at the beginning of each instructional unit.
- ✓ The RAP ensures that students are held accountable for **completing the pre-class reading** and have **acquired the foundational knowledge** that they will need for the in-class team work that follows.
- ✓ **“Less is More”** with readings.
- ✓ Students tend to do no reading at all when page counts get too high.
- ✓ They seemingly **devote a fixed length of time to reading**, no matter the length or complexity of the readings, so use their attention wisely.

	Easy Concepts	Hard Concepts
 Readings	✓	✓
Individual Readiness Assurance Test	✓	✓
Team Readiness Assurance Test	✓	✓
Appeals Process Research & Intra-team discussion		✓
Appeals Process Written Justification		✓
Mini-lecture Instructor Clarification		✓



How TBL Works?

Individual Readiness Assurance Test

- At the beginning of the session, a **multiple-choice test** is given individually for each student separately.
- It **covers key concepts** and important foundational knowledge from the readings.

	Easy Concepts	Hard Concepts
Readings	✓	✓
Individual Readiness Assurance Test	✓	✓
Team Readiness Assurance Test	✓	✓
Appeals Process Research & Intra-team discussion		✓
Appeals Process Written Justification		✓
Mini-lecture Instructor Clarification		✓

How TBL Works?

Team Readiness Assurance Test

- ✓ The test then immediately **retaken as a team test** using the (Immediate Feedback Assessment Technique) IF-AT (scratch and win) testing cards.

Immediate feedback assessment technique (IF AT)

Name _____ Tes # _____
 subject _____ Total _____

SCRATCH OFF COVERING TO EXPOSE ANSWER

	A	B	C	D	E	Score
1	██████	██████	██████	██████	██████	
2	██████	██████	██████	██████	██████	
3	██████	██████	██████	██████	██████	
4	██████	██████	██████	██████	██████	
5	██████	██████	██████	██████	██████	
6	██████	██████	██████	██████	██████	
7	██████	██████	██████	██████	██████	

	Easy Concepts	Hard Concepts
Readings	✓	✓
Individual Readiness Assurance Test	✓	✓
Team Readiness Assurance Test	✓	✓
Appeals Process Research & Intra-team discussion		✓
Appeals Process Written Justification		✓
Mini-lecture Instructor Clarification		✓

- ✓ Teams **negotiate which answer** to choose and then scratch off an opaque coating, hoping to find a star that indicates a correct answer.

Immediate feedback assessment technique (IF AT)

Name _____ Tes # _____
 subject _____ Total _____

SCRATCH OFF COVERING TO EXPOSE ANSWER

	A	B	C	D	E	Score
1	██████	██████	★	██████	██████	5
2	██████	★	██████	██████	██████	3
3	██████	██████	★	██████	██████	4
4	██████	██████	██████	★	██████	2
5	★	██████	██████	██████	██████	5
6	██████	██████	★	██████	██████	5
7	██████	██████	██████	██████	★	4

- ✓ If the team **does not discover a star**, they continue to discuss the question and sequentially select other choices.
- ✓ **Every student** leaves this test knowing the correct answer to every question!

Designing Grading System for Individual & Team Readiness Assurance Test



To reward the write things;

- Provide incentives for individual contributions and effective work by the teams
- Significant proportion of the grade is based on individual performance, team performance, and each member's contribution to the success of the teams

How TBL Works?

Appeals Process Research & Intra-team discussion



- ✓ At the completion of the team test, teams are **encouraged to “appeal” incorrect answers** for extra marks.
- ✓ During the closing of the team test, the instructor circulates around the room and **encourages teams to appeal questions they got incorrect.**
- ✓ This **forces students back into the reading material** exactly where they are having difficulty.

	Easy Concepts	Hard Concepts
Readings	✓	✓
Individual Readiness Assurance Test	✓	✓
Team Readiness Assurance Test	✓	✓
↓ Appeals Process Research & Intra-team discussion		✓
Appeals Process Written Justification		✓
Mini-lecture Instructor Clarification		✓

How TBL Works?

Appeals Process Written Justification



- ✓ The team then **researches the “right” answer** and may choose to **complete the appeals form** with their rationale and defense for their answer.
- ✓ **The instructor collects these forms** and considers them after class.

	Easy Concepts	Hard Concepts
Readings	✓	✓
Individual Readiness Assurance Test	✓	✓
Team Readiness Assurance Test	✓	✓
Appeals Process Research & Intra-team discussion		✓
Appeals Process Written Justification		✓
Mini-lecture Instructor Clarification		✓

How TBL Works?

Mini-lecture Instructor Clarification



- To conclude the Readiness Assurance Process, the instructor **reviews the item analysis from the individual tests** and **focuses a short mini-lecture** on the **concepts that are most problematic** for the students.
- This helps understand the 10-15% of the course material, that need to talk to the students about

	Easy Concepts	Hard Concepts
Readings	✓	✓
Individual Readiness Assurance Test	✓	✓
Team Readiness Assurance Test	✓	✓
Appeals Process Research & Intra-team discussion		✓
Appeals Process Written Justification		✓
➔ Mini-lecture Instructor Clarification		✓



In-Class Activities (4 S's)

- Significant Problem
- Same Problem
- Specific Choice
- Simultaneous Report

In-Class Activities (4 S's); Significant Problem



- Select **significant, relevant problem** that captures the interest of students.
- The **quality of the problem** ultimately is the **most powerful factor** in influencing the effectiveness of an application activity.
- Problems should **require students to use course concepts** to solve them.

In-Class Activities (4 S's); Same Problem



- ✓ **Teams are given the Same Problem**
- ✓ Giving the same problem to all teams lets you create reporting opportunities for teams to defend, challenge, discuss, and examine each other's thinking and problem solving process.
- ✓ Having the teams work on the same problem **ensures the comparability of student decisions** and acts as a potent discussion starter.

In-Class Activities (4 S's); Specific Choice



- Each team must make a **Specific Choice Open-ended questions** which help **to foster critical thinking** among students
- The most **significant drawback** in using open-ended questions is the difficulty in efficiently letting students report their answers and the difficulty in comparing their answers with their peers.
- This **opportunity for comparability** of decisions is one of the major strengths of the TBL reporting process.

In-Class Activities (4 S's); Simultaneous Report



- **Teams Simultaneously Report their decision**
- Simultaneous reporting can be **accomplished with the simple holding up of a card indicating a particular choice.**
- When a particular team sees that another team has made a different decision, they naturally want **to challenge the other teams' decision.**
- In the ensuing conversation, the **teams challenge each other** and defend their own thinking.

In Summary;

Team-based instructional activity sequence

Individual Work

X

Small Group Discussion

X

Total Class Discussion

=

Impact on Learning

preparation

Readiness assurance
Diagnosis-feedback

Application of course concepts

1 2 3 4 5 6

Individual study

Instructor feedback

Application-oriented activities

Written appeals (from teams)

Team test

Individual test

This sequence is repeated for each major instructional unit

Benefits of team based learning

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Students:

- Master basic course content with **depth understanding**
- Appreciation of **the value of teams**
- Profound insights into **their strengths and weaknesses** as learners and as team members
- Enables **at-risk students** to successfully complete and stay on track in their coursework

Benefits of team based learning

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Faculty:

- Most **student engage** in the learning process
- When students are truly prepared , interacting with them is much more **like working with colleagues**
- Because instructors spend much more time listening and observing than making formal presentations, they develop many more personally **rewarding relationships** with their students

Conclusion



- ✓ Shifting from simply **familiarizing students** with course concepts to requiring them **to use those concepts** to solve problems
- ✓ Making this shift requires **changes in the roles** of both instructor and students
- ✓ Students' roles shifts from **being passive recipients** of information to one of **accepting responsibility** for the initial exposure to the course contents to be prepared for the in-class team work

What do you think?



- ✓ Is it possible to implement it?
- ✓ Why???