

Liven Up Your Classroom with Team-based Learning (TBL)

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What is Team-based Learning (TBL)?

- An active learning strategy to:
 - ❖ Promote peer-peer engagement
 - ❖ Critical thinking & analytical skills
 - ❖ Overall enjoyable classroom experience

Components of a TBL Session

- ❑ The Preparatory Phase
- ❑ The Accountability Phase
 - ❖ Individual (Individual Readiness Assurance Test; iRAT)
 - ❖ Team (Team Readiness Assurance Test; tRAT)
- ❑ Application Phase includes feedback & discussion

Components of a TBL Session: The Preparatory Phase

□ The Preparatory Phase

- ❖ The professor posts materials (PowerPoint slides, research paper or other reading materials etc) related to the topic of the TBL session on Blackboard (BB) between 3-5 days BEFORE the TBL session in class and informs the class via email through BB of this posting.
- ❖ Students are responsible for learning the material before coming to class in preparation for the individual readiness assurance test (iRAT) and the team readiness assurance test (tRAT) in class.

Components of a TBL Session: The Accountability Phase

- ❑ The Accountability Phase
 - ❖ Individual (Individual Readiness Assurance Test; iRAT)
 - ❖ Team (Team Readiness Assurance Test; tRAT)
- ❑ The first 10 minutes of the TBL session consists of the iRAT where individual students complete 10 multiple choice questions.
- ❑ The next 10 minutes of the session is taken by the tRAT where semester-long pre-formed student teams complete the same 10 multiple choice questions as in the iRAT.

The Accountability Phase, continued

- ❑ The idea is to promote peer- to- peer learning and sharing as team members would have to discuss and negotiate with each other in order to reach a consensus regarding the choice of correct answers to the quizzes.
- ❑ Apart from students interactions, the Immediate Feedback Assessment Technique (IF AT[®]) Scratch-off forms that student teams use to complete their tRAT adds to the fun in the class.
- ❑ Usual to hear screams of excitement when they scratch off to reveal the star to signaling a correct answer choice.
- ❑ Teams earn 5 points for correct answer at first attempt; 3 points for a 2nd attempt; 1 point for a 3rd attempt; subsequently, no points are earned.
- ❑ Both the iRAT & the tRAT are closed book exercises

Watch out for correct & incorrect grading on the IF AT Scratch Form by Students

TBL-1
IMMEDIATE FEEDBACK ASSESSMENT TECHNIQUE (IF AT®)
Name Group 2 Test # _____
Subject 504 Total 50

SCRATCH OFF COVERING TO EXPOSE ANSWER

	A	B	C	D	E	Score
1.		★				5
2.				★		5
3.		★				5
4.	★					5
5.	★					5
6.		★				5
7.					★	5
8.				★		5
9.		★				5
10.	★					5

Correct grading

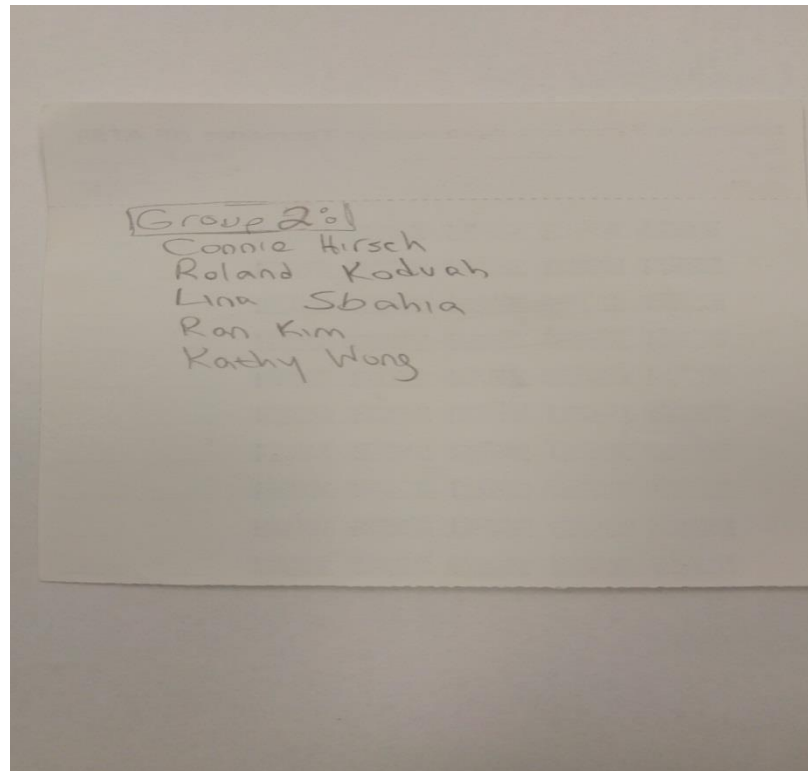
IMMEDIATE FEEDBACK ASSESSMENT TECHNIQUE (IF AT®)
Name Group 1 Test # TBL 1
Subject PHRM 504 Total _____

SCRATCH OFF COVERING TO EXPOSE ANSWER

	A	B	C	D	E	Score
1.		★				5
2.				★		5
3.		★				5
4.	★					5
5.	★					5
6.		★				5
7.					★	5
8.				★		5
9.		★				5
10.	★					5

Incorrect grading: Questions 1-3 should attract 3 points each instead of 5 because they were obtained at the 2nd not the 1st attempt

*Properly Documenting Individual Student's
TBL Participation*



Comparing iRAT of Team Members to tRAT of the Team

Table 5. Macroeconomics and Health: iRAT and tRAT Scores

Team Number	Number of Team Members	iRAT Scores	tRAT Scores
1	5	10;7;8;10;10	50
2	5	10;9;9;8;10	50
3	5	10;10;9;9;10	50
4	6	7;7;9;10;9;10	50
5	6	10;8;8;9;0;10	50
6	6	10;9;10;10;10;8	50
7	5	10;6;7;9;10	50
8	5	10;9;4;6;5	50
9	5	5;6;6;10;9	50
10	5	9;9;10;9;10	48

Note

The same 10 questions were answered by individual students and their teams to receive the maximum obtainable iRAT and tRAT scores of 10 and 50, respectively. An iRAT score of 10 is equivalent to a tRAT score of 50. An iRAT of 0 (e.g., Team 5) indicates the student was absent in that session and so also earned a 0 for the tRAT.

Components of a TBL Session: The Application Phase

- ❑ Application Phase includes feedback & discussion
- ❑ This part is an open book component of a TBL session.
- ❑ Student teams solve real life problems or answer the same set of questions but work in different settings, eg states as assigned to the teams in this example.
- ❑ The feedback session where teams can be called at random to share their findings with the whole class further promotes learning & cross-fertilization of ideas.

Application Phase Example

Group Number	States of Assignment
1	New York
2	California
3	Connecticut
4	Massachusetts
5	Kentucky
6	Arkansas
7	Delaware
8	New Hampshire
9	New Jersey
10	Pennsylvania

Reference Materials:

PowerPoint slides

Websites posted on BB with the PowerPoint slides

The World Wide Web

Questions in the Application Phase

- What is the total number of people in your assigned state who were still uninsured as of 2015?
- What percentage of this number is eligible for (a) Medicaid; (b) Tax credits to purchase insurance in the marketplace?
- What percentage of the population would be in the coverage gap, ie still not covered?
- What decisions has your assigned State taken with respect to the health insurance marketplaces provided for under the Affordable Care Act (ACA, March 2010)? In other words, which one of the 4 marketplace types describe your state (State-based; Federally-supported state-based; State-partnership; Federally-facilitated marketplace)?

Questions in the Application Phase, continued

- Based on the health insurance marketplace type available in your state, describe the role(s) of the State and the Federal government in the operation of the marketplace in that state.
- Where do consumers in your state shop for and purchase health insurance coverage in your state? Give the specific name and URL.
- States also have the option to expand their existing Medicaid program to include people originally not eligible for Medicaid. Where does your state currently stand with respect to the Medicaid expansion provided for under the ACA?
- If a state chooses not to extend its Medicaid program, is it in danger of losing all federal funding for Medicaid in that state? Whether you answer “Yes” or “No” please give reason(s) for your answer.

Instructions for Completing the Application Exercise

- Answers should be typed and numbered to correspond to the question number and subdivisions being addressed.
- Answer sheets should indicate the group name and the names of team members present.
- All answer sheets are due at the end of the class without exception
- Provide references in AMA reference style for the sources of the information you used to answer the questions

TBL Simulation

OK, SO LET'S HAVE A LITTLE FUN HERE WITH A QUICK TBL SESSION OURSELVES. SHALL WE?

Step 1: Please read the Sage publication entitled "Patient Protection and Affordable Care Act" as the source or preparatory material

Step 2: Please answer the 5 multiple choice questions individually (TBL1:Healthcare reform with reference to the Affordable Care Act). Can use a Scantron sheet for this. This is the iRAT.

TBL Simulation, continued

Step 3: Please answer the same quiz as a team. This is the tRAT.

Step 4: Please do the application exercise by assigning different teams to different states and follow the instructions provided on the PowerPoint slides.

Step 5: Feedback session: During the last 10-15 of the TBL session, teams can be called at random to share one or more of their answers to the application exercises with the class. Other teams can comment or ask questions or clarifications.

A TBL in Action



States' Decisions on Health Insurance Marketplace and Medicaid Expansion

- <http://kff.org/health-reform/state-indicator/state-decisions-for-creating-health-insurance-exchanges-and-expanding-medicaid/?currentTimeframe=0>

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State Profiles on Health Insurance Marketplace

[http://www.ncsl.org/Portals/1/Documents/Health/Health Insurance Exchanges State Profiles.pdf](http://www.ncsl.org/Portals/1/Documents/Health/Health_Insurance_Exchanges_State_Profiles.pdf)

Where the States Stand on Medicaid Expansion (Map)

- <http://dl.ebmcdn.net/advisoryboard/infographics/Where-the-States-Stand103/story.html>

Eligibility for ACA among the Uninsured

- <http://kff.org/uninsured/issue-brief/estimates-of-eligibility-for-aca-coverage-among-the-uninsured-in-2016/>

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Reference

- Addo-Atuah J. “Performance and Perception of Pharmacy Students Using Team-based Learning (TBL) in a Global Health course.” *INNOVATIONS in pharmacy*. 2011;2(2):Article 37.

Note: For more detailed information and step to step guidance in developing personal competence and confidence in using TBL in your courses, please refer to the above paper also attached.