Trials, Tribulations and Triumphs of Team-Based Learning in Pharmacy Practice Education
AACP Annual Meeting – July 22, 2009

Session Instructions
1. Please collect a team number from one of the session presenters
2. Please sit at your assigned team number table

Overview
- Part 1: TBL Overview
- Part 2: Demonstration
- Part 3: FAQ Panel
- Part 4: Questions/Discussion

Univ. Tennessee
- Andrea Franks
- Alexander Guirguis
- Michelle Zingone

Univ. Oklahoma
- Susan Conway
- Ann Lloyd
- Melissa Medina

VCU
- Cindy Kirkwood
- Brigitte Sicat
Part 1: Overview

TBL Definition

- TBL is an active learning strategy that helps students:
  1. develop critical thinking & problem solving skills
  2. practice defending recommendations
  3. develop teamwork skills
  4. integrate material across courses
  5. understand the ambiguity of practice
  6. self-assess their own learning

3 TBL Phases
<table>
<thead>
<tr>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Class preparation</td>
<td>Individual and Team Readiness Assurance Test</td>
<td>Application of Content to Therapeutic Problems and Clinical Dilemmas</td>
</tr>
<tr>
<td>Prior to class</td>
<td>During class</td>
<td>During class</td>
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<tr>
<td>Individual</td>
<td>Individual and Team</td>
<td>Team</td>
</tr>
<tr>
<td><strong>2 – 3 days time for review</strong></td>
<td><strong>1st hour of class</strong></td>
<td><strong>2nd and 3rd hour of class 3-5 problems/hour</strong></td>
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</tbody>
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*amount of time depends on the class structure, this is 1 example of a 3 hr class*
Phase 1

Phase 1 - Preparation

- Individual study
- Specific, measurable, learning objectives
- Content
  - Handouts, assigned readings, video clips, practice problems
- Limit material to 30 pages of reading
- Preparation time: average 2 to 3 days
  - Time may vary depending on class structure

Phase 2
Phase 2 - Readiness Assurance

- **IRAT**
  - Individual Readiness Assurance Test
  - Individual test
  - Individual grade
  - 10 minutes
  - 10 to 15 multiple choice questions to assess knowledge
  - Ensures individual accountability for material
  - Ensures preparedness for case discussions

- **TRAT**
  - Team Readiness Assurance Test
  - Taken as a team
  - Same 10-15 multiple choice questions as IRAT
  - Receive team grade
  - 10 minutes
  - May use IFAT cards
  - Second reinforcement of material
  - Facilitators circulate to listen to team discussions

**IRAT/TRAT Discussion**

- If IFAT scratch cards used, students know correct answer, this section may be omitted
- If scantron used & students do not know answer:
  1. Facilitator collects TRAT
  2. Facilitator reviews each question
  3. Teams display answers simultaneously
  4. Teams explain their chosen answer
  5. This phase may include an appeals process

**IRAT/TRAT Discussion Benefits**

1. Third reinforcement of information
2. Clarification of information prior to phase three - case discussion
3. Allows faculty to clarify other content from pre-class assignments prior to phase 3
Phase 3

Phase 3--Application

- Hours 2 and 3 of TBL session
  - 4 cases/hour
- 1. Case discussion within the team
  - 5 to 7 minutes
- 2. Class discussion between teams
  - 5 to 7 minutes
- 3. Facilitator input, feedback and summary

TBL Case Features

- Reinforces concepts
- Presents common problems
- Multiple-choice case answers all plausible
  - Avoid 1 correct answer
  - Introduces ambiguity of practice
  - Promotes discussion and decision making
**TBL Team Discussion Time**

- All teams work on same problem(s) at same time*
- Teams may use any references they choose
- Facilitators move throughout room during discussion time
- Teams submit written justification of their answer for a grade
- Time-limited

*this may vary, some answer 1 question then debrief, others group questions

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**Class Discussion of Cases**

- Class discussion time
  - Simultaneous reporting of answers
  - One facilitator conducts discussion
  - Team participation voluntary
    - Incentives for participation can be given
  - If multi-campus present
    - Facilitator alternates engaging teams between campuses to ensure fairness

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**Faculty Role in TBL**
Faculty’s Role in TBL

- Selects most important TBL content
- Selects/develops preparation materials
- Writes detailed objectives
- Writes RAT questions and cases
- Monitors/proctors RATs
- Facilitates team & classroom discussion
- Provides feedback about learning
- Grades cases & assesses team participation

Opportunities for Student Assessments

3 Categories of Student Assessments

1. Individual performance
   - IRAT, midterms, exams
2. Team performance
   - TRAT, written cases, participation
3. Peer assessment
   - Feedback from peers, feedback from faculty about contribution to team
Part 2: Interactive TBL Live Demonstration