Learning in Teams (TBL)

George Byron Smith, DNP, GNP-BC, CNE

Agenda

• Example
• Workshop Sample Exercise
• Discussion
• Q&A

TBL Objectives

• Ensure that students **master the course subject matter**
• Develop student ability to use course concepts in thinking and problem solving
• Prepare students to be life-long learners
• Develop students’ interpersonal and team interaction skills
• Have students enjoy the course.


Student Skill Set

• Teamwork
• Problem Analysis
• Goal Setting
  – Identify Appropriate Criteria for Decision Making
• Identification of Alternatives
  – Develop Alternative Choices
• Evaluation: Positive and Negative Consequences
  – Evaluate the positive and negative aspects of alternative choices prior to making decisions.

Agenda

• Form Teams
• Orientation iRAT/tRAT
• Quick Review of TBL
  – 4 Key Principles
  – 3-4 Step Instructional Sequence
  – Team Assignments
  – Application Activities

The speaker has no conflicts of interest to disclose
**TBL Key Principles**

1. **Form Teams**
   - Identify key characteristics of students
   - Create teams with diverse skills and talents
   - Limit teams to 5 to 7 members

2. **Accountability**
   - Individual pre-class preparation
   - Contribution to team assignments
   - Contribution to team functioning
   - Grading system that encourages accountability

3. **Assignment Quality (4Ss)**
   - Effective TBL Activities
     - Teams work together to make complex, multifaceted decisions
   - Significant Problem
   - Same Problem
   - Specific Choice
   - Simultaneous Reporting

---

**TBL Key Principles**

4. **Timely Feedback**
   - Readiness Assessment Process (RAP)
     - Individual Readiness Assessment Test (iRAT)
     - Team Readiness Assessment Test (tRAT)
     - Appeals process
     - Instructor Feedback
   - Intra-Team Discussion (Peer Evaluation)
   - Inter-Team Discussion

---

**4 Step Instructional Sequence**

- Course Module
  - Readings
  - Review
  - Readiness Assurance
  - Application Exercises

---

**4 Step Instructional Sequence**

- Course Module
  - Readings
  - Readiness Assurance
  - Application Exercises
Readiness Assurance Process

iRAT

Appeals Process

 Declare “Ambiguity in Question”

Describe source of ambiguity

Provide alternative wording for question

Declare “Ambiguity in Readings”

Describe reason for disagreement

Provide supporting page reference or quote

Readiness Assurance Process

tRATs

http://www.epsteineducation.com/home/about/how.aspx

Team Activities and Discussion

• At the end of each Class, each group must turn in their group folder and other equipment. All materials must be returned; test questions, individual scantrons, clickers (if applicable), and the group IF AT (scratch off). **If any item is missing from the group folder, the ENTIRE group will receive ZERO "0" points for the day.

You Decide - Grade Weights

• Make a List
  – Three to Four performance measures (iRAT, tRAT, Group Activities, & Peer Evaluation)

• Make a Choice
  – Rank order the importance of the four measures

• Make a Specific Choice
  – Assign a percent weight (of 100) to each measure.

• Total should equal 100%

• 10 points for correct answer
• 6 points for correct answer on the 2nd choice
• 3 points for correct answer on the 3rd choice
• 1 point for correct answer on the 4th choice (if applicable)
The 4 S’s of TBL

4 S’s of TBL Exercises

- **Same Problem**
  - The Teams work on the same problem, case or question.

- **Specific Choice**
  - The Teams must use course concepts to make specific choices.

- **Simultaneous Report**
  - The Teams report their choices at the same time.

Significant Problem

Application Exercise Example

- A nursing student was leaving the parking lot on the last day of her clinical rotation was observed by her peers backing into another car. The car she hit was damaged on the drivers side. The student driving the car looked at her peers and shrugged her shoulders and preceded to drive away.

  - **Part One**
    - The team will debate and come to consensus on the best course of action.
  
  - **Part Two**
    - The team will make a recommendation to the school for action.

Methods

- Descriptive Evaluation Study
- Psychiatric-Mental Health Nursing Course
  - 11 Week Classes
  - 4 Modules
    - Therapeutic Communication and Relationship
    - Mood Disorders
    - Psychoses Disorders
    - Disadvantaged Populations

Sample

- Senior Level BSN Students, 2nd to last term
- Control Group (n=43)
  - Traditional Lecture Model
- Intervention Group (n=45)
  - Team-Based Learning Model

Evaluation Method

- Standardized Multiple Choice Exam
  - 70-Question with 4 choices
- Assessment Technologies Institute® (ATI)
  - RN Mental Health 2010 Form B
- Team-Based Learning Student Assessment Instrument (TBL-SAI) – Mennenga, 2010
  - 33 Questions/5 Point Likert Scale
  - 3 Subscales — Accountability, Preference and Satisfaction
**t-Test for Standardized Testing**

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Control (Mean, SE)</th>
<th>Intervention (Mean, SE)</th>
<th>t-test Value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Choice Exam</td>
<td>80.46, 5.91</td>
<td>83.64, 6.98</td>
<td>45=2.30</td>
<td>p &lt; .02</td>
</tr>
<tr>
<td>ATI MHN 2010 Form B</td>
<td>63.32, 6.86</td>
<td>61.85, 8.76</td>
<td>45=0.31</td>
<td>p &lt; .76</td>
</tr>
</tbody>
</table>

**Negative Student Statements**
- I do like the concept, but I did not like the process and application.
- I didn’t like being tested on material before first having a lecture.

**TBL-SAI**

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accountability</td>
<td>4.20 (0.17)</td>
</tr>
<tr>
<td>Preference</td>
<td>3.32 (0.14)</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>3.85 (0.10)</td>
</tr>
</tbody>
</table>

**Negative Student Statements**
- I did not like that my grade depended on my group.
- I found exams to be far more tedious without a lecture before them.

**Implications**
- Similar Learning Outcomes
- Higher levels of accountability and satisfaction with TBL vs. Traditional
- Meets the call from IOM (2011) The Future of Nursing for Nursing Education to provide effective education methods to meet the needs of future nurses.

**Positive Student Statements**
- Team-based learning was a great learning opportunity. I retained information better.
- I believe team-learning is a great way to learn about a subject such as mental health nursing.
Positive Student Statements

• I appreciate the concept behind it [team-based learning], I really can understand the importance of working in teams.
• Although I may not like working in teams in general, I do view it to be beneficial.

WORKSHOP Exercise

References


• Heid A. Mennenga, Tish Smyer : (2010). A Model for Easily Incorporating Team-Based Learning into Nursing Education. International Journal of Nursing Education Scholarship, 7(1), Article 4.

• Fink, D. (2004). This is Chapter One in: Team-Based Learning: A Transformative Use of Small Groups edited by Larry Michaelsen, Arletta Knight, and Dee Fink. Sterling, VA: Stylus Publishing.

• IOM: The Future of Nursing: Focus on Education (2011)


** google clipart used in this presentation