



# **Background**

- Interested in nurse practitioner education models and outcomes
- Fostering active learning
  - Team Based Learning (TBL)
- Charged with integrating interprofessional educational (IPE)
  - TBL is exceptional model for IPE

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# **Team Based Learning (TBL)**

- Learner centered
- Role of the student shifts from passive recipient to being responsible for applying concepts and information to reallife problems in a team-based setting
- Promotes active participation
- 1 faculty can facilitate over 200 students in small groups
- Assess individual and team performance
- Can use with many topics
- Easy to dol ③

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#### **TBL - Outcomes**

- Faculty satisfaction<sup>1,2</sup>
- Higher levels of student engagement<sup>3</sup>
- Greater comprehension and retention of material<sup>4</sup>
- Promotes critical thinking and problem solving skills<sup>5</sup>
- Better than traditional teaching methods for students who might be struggling or need remediation<sup>6</sup>

\*Commy Stat et al. And J Phone Robes, Man 10:2010;744(2):5 Zhan S, Journal of Juggi Shadhus Education 2007;54(1):39-108 3Chang et al. Mad Robes, Nov 2009;34(1):1012-1019;19-108 3Chang et al. Mad Robes, Nov 2009;34(1):1012-1019;19-1019; 3Madhammy & Fink 1.D. Journal of Microbiology & Biology Education. 2009;4:3-12 6Nobes et al. Mad Robes. Ox 2005;35(6):1043-1055.

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# **Phase 1: Advance Preparation**

- Faculty selects reading assignments reflecting the topic or other outside preparation materials (i.e. narrated online lectures, etc.) that provide an understanding of concepts of the unit to be covered
- Faculty form groups of 5 7 students; groups should be diverse and individuals remain in the same group throughout the entire course as groups become "teams" over time
- Students complete assignments prior to coming to class

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# Phase 2: Readiness Assurance

- Faculty develops one Readiness Test
- Students take the test individually (termed "Individual Readiness Assurance Test" or "IRAT")
- Students take the test as a team (termed "Group Readiness Assurance Test" or "GRAT")
- Partial or full credit is awarded to each team based on the number of times they scratch off a choice until the correct answer is reached
- Teams may appeal their missed questions facilitator focuses discussion on what the students are having difficulty with rather than what they understand

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# Phase 3: Application of Course Concepts

- Faculty develops problem-based application exercise using concepts from assigned materials with the following in mind:
  - The problem should be significant
  - Teams work on the same problem
  - Teams are required to make a choice
  - Teams report their answers simultaneously

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# Implementation of TBL into the Classroom

- Applied pharmacology course
  - Adult-gerontology primary and acute care
- Blended course met 3 times in person
- Distance sites 1 facilitator/5 sites
- 2 TBL sessions
  - Topics: antibiotics and adverse drug reactions
    - · Chose application cases that span scope of practice
- Developed materials interprofessionally
- Student and faculty evaluation
  - IRB approval

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# **Student Evaluation of TBL**

- The Team-Based Learning Student Assessment Instrument
- 33-item Likert scale survey
- 3 subscales
  - Accountability
  - Preference for Lecture or Team-Based Learning
  - Satisfaction

Mennenga HA. Nurse Educ. Jul-Aug 2012;37(4):168-172

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# Results

Mean (SD)
4.13 (.39)
3.64 (.46)
4.15 (.56)
3.90 (.38)

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1= Strongly Disagree; 5 = Strongly Agree

# **Results – Student Comments**

- I feel that the way these exercises were presented is better than traditional lecture. I like the combination of teamwork and lecture and honestly feel I remember more from these classes.
- I love TBL! I learn through interaction.
- I struggle a lot with listening to a lecture. The discussion helped me understand the content better.
  Plus feels more "real life" than textbook/lecture style learning.

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# **Faculty Comments**

- Faculty preparation time no more than traditional lecture and outside readings
  - Can reuse materials subsequent semesters
- Students were more prepared
- Listening to team discussions allows for assessment of student comprehension
- Rewarding to watch students engaging
- Helpful to have experienced facilitator for first session felt we could do independently after watching one
- Facilitator comments
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# **Current and Future TBL Experiences**

- Continue TBL in our curriculum
  - -- Expand to other courses
  - Simulation + TBL
- Interprofessional TBL session (fall) HRSA funding
- Continue to examine student outcomes
  - TBL assessment survey
  - Role perception

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- Team-Based Learning Collaborative's Web site: http://www.teambasedlearning.org/
- Michaelsen L, Sweet M. The essential elements of team-based learning. New Directions for Teaching and Learning. 2008;116:7-27.
- Parmelee DX, Hudes P. Team-based learning: a relevant strategy in health professionals' education. Med Teach. 2012;34(5):411-413.
- Hrynchak P, Batty H. The educational theory basis of team-based learning. Med Teach. 2012;34(10):796-801.

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### References

- Mennenga HA, Smyer T. A model for easily incorporating team-based learning into nursing education. Int J Nurs Educ Scholarsh. 2010;7:Article4.
- Mennenga HA. Development and psychometric testing of the Team-Based Learning Student Assessment Instrument. Nurse Educ. Jul-Aug 2012;37(4):168-172.
- "Immediate Feedback Assessment Technique" (IF-AT) (scratch off card with correct answer): can be ordered at <a href="https://www.epsteineducation.com">www.epsteineducation.com</a>

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# References

 Corbridge, S., Corbridge, T., Tiffen, J. & Carlucci, M. Implementation of Team-Based Learning in a Nurse Practitioner Curriculum. (*Nurse Educ.*, accepted for publication, Jul-Aug 2013)

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