



# 9th Annual Conference



Loews New Orleans Hotel March 3-5, 2010

# Loews New Orleans Hotel March 3-5, 2010

Hosted By:



# Program Schedule

### Wednesday, March 3, 2010

8:00 - 9:30 a.m. **Registration—Loews 1st Floor** 

8:45 a.m. **Buses Depart for Tulane University** 

School of Medicine (Murphy Bldg)

9:00 - 6:00 p.m. **Train the Trainer Workshop** 

12:00 - 1:15 p.m. **Registration—Loews 1st Floor** 

12:45 p.m. **Buses Depart for Tulane University** 

School of Medicine (Murphy Bldg)

1:00 - 4:00 p.m. **TBL 101 Workshop** 

Buses will return from Tulane at 4:00 pm & 6:00 pm

### Thursday, March 4, 2010

7:00 - 4:00 p.m. **Registration Desk—Parish Hall** 

7:00 - 8:00 a.m. **Continental Breakfast** 

8:00 - 8:15 a.m. **Conference Welcome** 

8:15 - 9:15 a.m. **Opening Panel "Ask the Experts"** 

9:15 - 10:15 a.m. **Oral Presentations** 

10:30 - 12:30 p.m. **Workshops** 

10:30 - 12:30 p.m. Meet with the "Titans" of TBL

12:45 - 2:00 p.m. **Lunch** 

2:15 - 3:45 p.m. **Workshops** 

2:15 - 3:45 p.m. **Meet with the "Titans" of TBL** 

3:45 - 5:45 p.m. **Poster Viewing and Reception** 

6:00 - 8:00 p.m. **Conference Dinner** 

### Friday, March 5, 2010

7:00 - 12:00 p.m. **Registration Desk—Parish Hall** 

7:00 - 8:00 a.m. **Breakfast & Roundtable Discussions** 

8:00 - 9:30 a.m. **Workshops** 

8:00 - 9:30 a.m. **Meet with the "Titans" of TBL** 

9:45 - 11:15 a.m. **Workshops** 

11:30 - 12:30 p.m. **Closing Panel** 

"TBL Across the Curriculum"

### Wednesday, March 3, 2010

8:00 - 9:30 a.m. **Registration Loews 1st Floor** 

8:45 a.m. **Buses Depart for Tulane University** 

9:00 - 6:00 p.m. Train the Trainer Workshop Part I

DeBakey Educational Center, 2nd Floor, Murphy Bldg

During this session you will meet 1 on 1 with an experienced TBL Trainer to articulate your understanding of TBL and review your previously submitted TBL materials. You will participate in a structured observation of a TBL 101 workshop and critique TBL activities including workshop development and facilitation. The session will also include a review and critique your TBL submission with trainers and other workshop trainees.

12:00 - 1:00 p.m. Lunch for Train the Trainer

12:00 - 1:15 p.m. **Registration Loews 1st Floor** 

12:45 p.m. **Buses Depart for Tulane University** 

1:00 - 4:00 p.m. **TBL 101** 

DeBakey Educational Center, 2nd Floor, Murphy Bldg

This is the single best introduction to TBL. It is conducted in a TBL format, participants must prepare ahead, take an IRAT, and engage actively with their assigned team members. The structure, process, and essential characteristics of an effective TBL module are emphasized.

By the conclusion of this workshop, the participant will be able to:

- 1. Explain the key components of a successful TBL module.
- 2. Outline how they would construct a TBL module from a set of objectives.
- 3. Describe how they might convert a course/lecture they already teach into a TBL module.
- 4. Illustrate how to transform a small group into a productive learning-team.

4:00 - 6:00 p.m. Train the Trainer Workshop Part II

Buses will return from Tulane at 4:00 & 6:00 pm

### Thursday, March 4, 2010

7:00 - 8:00 a.m. **Registration / Breakfast Parish Hall** 

8:00 - 8:15 a.m. **Conference Welcome** 

Louisiana Ballroom

Kevin Krane, Tulane University Ruth Levine, TBLC President

8:15 - 9:15 a.m. **Opening Panel** 

Louisiana Ballroom

"Ask the Experts"

Sandy Cook, Duke NUS Graduate Medical School Larry Michaelsen, University of Central Missouri Dean Parmelee, Wright State University Jim Sibley, University of British Columbia

Moderator: Ruth Levine, The University of Texas Medical Branch

During our opening session meeting participants will have the opportunity to ask questions of the experts who are well seasoned in the use of TBL in the classroom. What are the "burning issues" that you would like to see addressed by this panel and throughout the meeting? 9:15 - 9:25 a.m.

#### **Oral Presentations**

Louisiana Ballroom

# Narrated PowerPoint Presentations: An Innovative Method of Team-Based Learning Preparation

Judy Currey, Deakin University, Melbourne, Australia

The aim in this paper is to discuss requirements to successfully introduce narrated PowerPoint presentations as a preparatory learning component of Team-Based Learning (TBL). An essential aspect of TBL is that the teacher clearly defines the intended learning outcomes of the TBL session and directs students to the educational resources students need to master in order to achieve those outcomes. Such resources commonly include journal articles, sections of texts, or didactic lectures.

As part of introducing TBL to the postgraduate critical care nursing program, the preparatory educational resources provided for student learning were modified by replacing the lecture component with online narrated PowerPoint presentations.

These online presentations offered the opportunity to enhance student engagement with the intended learning in preparation for TBL sessions.

Students reported a high level of satisfaction with narrated PowerPoint presentations as a replacement of lectures because of the ready access, ability to repeat sections until understanding was achieved and the ability to learn in staged sittings. Students reported that the pre-recorded presentations were superior to other recordings of live lectures they had in other courses. The main disadvantages noted by students were the inability to ask questions to clarify concepts, and sound quality issues in some early presentations. Teacher's reported that creating lectures in-office was initially a strange experience but technically easy to master.

The creation of narrated PowerPoint presentations was time efficient and allowed flexibility to easily modify aspects of the presentation before release or for future re-use. A further advantage for teachers and students was that students spent less time in passive learning allowing more time for TBL.

9:30 - 9:40 a.m.

**Oral Presentations** 

Louisiana Ballroom

Implementation of Team Based Learning in the Third Year Pediatric Clerkship

Nicole R. Frei, The University of Michigan

Background: Team based learning (TBL) has been used in medical school primarily in the first two years. Few programs have implemented TBL in the third year clinical clerkships. Previously at our institution, the third year medical students had traditional didactic lectures twice weekly on a variety of core pediatric topics. We revised the core curriculum in order to add weekly TBL sessions.

Description: Our third year medical students rotate through the required pediatric clerkship in eight week blocks. We created six modules covering core pediatric topics using the TBL format. These are taught in two hour sessions once per week for six weeks. At each session, students complete an individual readiness assessment, followed by the group readiness test. Finally, they work on group application questions according to traditional TBL format.

Evaluation: Comparing the means of student responses before and after implementation of TBL, regarding the value of teams using a previously validated instrument from Baylor University, students felt "Collaborating with my peers will help me be a better student" (difference of 0.284, p=0.025). However, they did not believe "Group decisions are often better than individual decisions" and "Solving problems in groups leads to better decisions than solving problems alone." (difference of -0.452, p=0.016, and -0.370, p=0.017). Evaluating student engagement, students in the first group

were significantly more likely to feel that they contributed meaningfully to the discussion during TBL than during lecture (difference of 1.348, p=0.00). They felt that they participated most of the time in TBL, as compared to lecture (difference of 1.220, p= 0.001). However, they seemed to enjoy the TBL sessions less than lecture (difference of 0.289, p=0.046).

In addition, we plan to analyze overall clinical performance on the metrics currently in place. (Pediatric clerkship grade, comprehensive clinical assessment scores, pediatric SHELF exam, required clinical case testing on fever)

Conclusion: Based on our preliminary data, while the students contribute more to the discussion, and participate more in class, they do not seem as satisfied with TBL as with traditional lectures. While they do seem to value collaborating with their peers more after participating in TBL, they do not feel that groups can come to better solutions than individuals.

9:45 - 10:55 a.m. **Oral Presentations** 

Louisiana Ballroom

Accountability for Independent Learning: Adoption of

### Team-Based Learning Strategies in an Experimental Pilot Program for Medical Students

Rajesh S. Mangrulkar, University of Michigan Medical School

Background: Team-Based Learning methods in small group settings foster accountability and collaborative skills among medical students in traditional programs. We sought to evaluate the effectiveness of this instructional strategy in case-based discussions and anatomy-radiology practical sessions, integrated within an experimental, competency-focused self-regulated learning pilot program for first year medical students.

Description: Within this 6-week program, independent and immersive clinical learning were integrated with small group sessions (organized around TBL principles) in order to engage the learner in both foundational scientific concepts and clinical manifestations of disease. Students focused on the clinical presentation of 3 problems (renal failure, hyperglycemia, and trauma) and encountered these patients in the outpatient and Emergency Department settings.

Students were not provided explicit preparation materials for the TBL case studies or anatomy-radiology correlate sessions. Rather, they were given specific learning objectives

(LO) mapped to each small group session. Students were expected to prepare independently using these LOs as a guide, consulting a web-based learning management system with suggested resources for each LO.

Evaluation: Six students participated in this pilot program. Mean individual readiness assessment scores for the Case Studies were 49% (hyperglycemia), 81% (renal failure) and 84% (trauma), and 80% for the Anatomy-Radiology sessions, reflecting reasonable preparation by students. Group readiness assessment scores were uniformly higher for each type of session: 62% (hyperglycemia), 94% (renal failure), 100% (trauma), and 97% (Anatomy-Radiology), reflecting effective collaborative problem solving (all p<0.05). Facilitators correspondingly evaluated students very high on domains of self-regulated learning (mean 4.6 points out of 5) and collaborative learning (mean 4.8 points out of 5). Using multifaceted program evaluative techniques, students commented quite positively on the sessions and the specific TBL-attributes adopted within these learning experiences.

Conclusion: In a learning-objective driven curricular program, without explicit assignment of preparatory materials, TBL-structured small group clinical sessions can adequately ensure preparation and foster collaborative learning behaviors in early medical student learners

#### **FUNDAMENTALS TRACK**

10:30 - 12:30 p.m.

Workshops

Louisiana Ballroom

### Writing Meaningful Objectives and Effective Multiple Choice Questions

Dean Parmelee, Paul Koles, Wright State University Kevin Krane Tulane University

This workshop is conducted in a Team- Based Learning  $^{\text{TM}}$  (TBL) format. It is designed to enable faculty to write meaningful learning objectives for a unit of study and to craft well-written and more effective multiple- choice questions that reflect those objectives. Novel idea? Unfortunately, many of us have written our exam questions just before the deadline, rarely giving much thought to how they are constructed, and in the end struggled to understand the statistics that were then generated.

Workshop participants will read a brief article about learning objectives and multiple- choice questions prior to the workshop. Participants are then assigned to a team of 5-7 other faculty. They are asked to complete a 5-question Readiness Assurance Test based on the article. Then they proceed, using the TBL process, to develop skills in writing

objectives and questions that are more meaningful and effective to the learner. The learning is through dialogue, debate, activity, and best-practice examples, not lecture.

By the conclusion of this workshop, participants will be able to:

- Compare and contrast meaningful learning objectives with ones that focus on only knowledge acquisition.
- Identify key elements for an effective multiple-choice question.
- Explain reliability, difficulty level, and discrimination factor in the context of good examination composition.
- Explain how the 'power of why' in question writing generates so much learner engagement.

#### **INNOVATIONS TRACK:**

10:30 - 12:30 p.m.

Workshops

St. Tammany

The Solution-Problem-Solution Sequence: Integrating Courses in Computer Programming and Communication

Keith Whittington, Rochester Institute of Technology

Background: For several years two professors had problems. In reality one's problem was the other's solution. One

taught a course in small group communication, but lacked a class project that would engage students from across disciplines – a solution in search of a problem. The other taught courses in computer programming using the Team-Based Learning process, but the students lacked strong communication skill – a problem in search of a solution. Together they developed a team-taught, team-based active learning course in communication and computer programming.

Objectives: This workshop will engage participants and inform them about:

- 1. Fostering an environment of collaborative teaching and learning
- 2. Opportunities and obstacles when integrating two disparate curricula
- 3. Strategies for using active learning throughout an entire course
- 4. Sample active learning techniques applicable to many disciplines

10:30 - 12:30 p.m.

Workshops

St. Landry

From Lost in a "Pit" to Connected by the Team – Benefits

# and Challenges to Team Based Learning in Large Lecture Classrooms

Carolyn "Kelly" Ottman, Milwaukee School of Engineering Rader School of Business

Background: Large lectures, appropriately name "Pit" courses, can create teaching and learning barriers. To address these issues, SOTL findings on student's perceived value of team based learning (TBL) within large lectures will be shared. The interactive workshop will include a review of TBL design and address findings related to student accountability and learning. An online team development, feedback and assessment program will be highlighted. The workshop will model TBL techniques and will include a short video of a TBL large classroom.

#### Specific Objectives

- Identify drivers and barriers to use of TBL in large classes
- Discuss findings from SoTL research
- Suggest techniques to remove barriers
- Explore strategies to develop and manage teams
- Review methods to promote team development through peer feedback
- Discuss learning assessment strategies

10:30 - 12:30 p.m.

Meet "Titans" of TBL

Beauregard

During the TBLC Meeting, participants will have the opportunity to meet with one of the many TBL Titans who have volunteered to provide one-on-one coaching. These are long-time members of the TBL community who have helped many others implement TBL in a wide range of disciplines.

They will be available to:

- Review your course materials
- Answer questions you may have
- Assist you with challenges you may be facing in the classroom
- Share their experience and wisdom

Registration for a time slot will take place at the Registration Desk and will be on a first-come, first serve basis.

#### TBL Titans Are:

Sandy Cook

Paul Haidet

Kevin Krane

Ruth Levine\*

Larry Michaelsen\*

Dean Parmelee

Sophie Sparrow\*

Michael Sweet

Dan Mayer

<sup>\*</sup>Available during this time

#### **FUNDAMENTALS TRACK:**

2:15 - 3:45 p.m.

Workshops

Louisiana Ballroom

Beginning With The End In Mind – Creating Effective TBL Exercises

John Pelley, Texas Tech Univ, Health Sciences Center Dean Parmelee, Wright State University

Description of the issue/topic and rationale: One of the more serious barriers to the adoption of TBL by faculty is the difficulty associated with developing new TBL exercises. This workshop will first address the characteristics of highly effective TBL exercises and provide guidance on the most efficient way to create them. Unique features of this workshop are:

- 1. Emphasis on beginning with development of vignette questions.
- 2. Using NBME question templates for vignette questions.
- 3. Emphasis on tight coupling between topics in vignette questions with RATs and objectives.
- 4. Simplified writing of targeted objectives.
- 5. Minimizing outside reading.

#### **INNOVATIONS TRACK:**

2:15 - 3:45 p.m.

Workshops

St. Tammany

Developing Research Questions and Designing Studies for Your TBL Activities

> Nicole J. Borges, Wright State University Michael E. Petty, Rush University Sandy Cook, Duke NUS Graduate Medical School

Background: Team-Based Learning is still relatively 'new' in the health sciences domain. Few empirical studies exist on TBL and there is much that can be contributed to the educational literature. The leaders of this session are all medical education researchers and will work with participants to identify research interests, develop research questions, and design studies around their TBL activities.

Specific Objectives: At the end of the session, the learners will:

- 1. Identify their research and scholarship interests
- 2. Design a research project around their interests
- **3.** Form collaborative research partnerships across institutions

2:15 - 3:45 p.m. **Meet with the "Titans" of TBL** 

### Beauregard

Paul Haidet, Pennsylvania State University COM Dan Mayer, Albany Medical College Dean Parmelee, Wright State University

3:45 - 5:45 p.m. **Poster Viewing and Reception** 

#### Parish Hall

Assessing First-Year Medical Students' Personality and Learning Styles Before and After Participating in a Team-Based Learning Curriculum

Nicole Borges, Wright State University

Building Scholarship in Team-Based Learning: Project Description of a Multisite, Collaborative Study on Medical Students' Attitudes and Team Performance

Nicole Borges, Wright State University

A Modification of the Readiness Assurance Process of TBL Sandy Cook, Duke NUS Graduate Medical School

Postgraduate Critical Care Nursing Students Attitudes about Team-Based Learning, and Postgraduate Critical Care Nursing Students' Experiences of Team-Based Learning

Judy Currey, Deakin University

Assessing First Year Medical Student Attitudes of Effectiveness of Team-Based Learning

Adam Deardorff, Wright State University

Improving Long-Term Retention: Comparing Team-Based Learning with Lecture in Pre-Clinical Pediatrics Amanda Emke , Washington University

Changing Student Perceptions of the Value of Teamwork
Molly Espey, Clemson University

Using Student Feedback to Improve TBLs: An Exploratory Analysis of Quantitative and Qualitative Feedback

Jennifer Gibson, Tulane University

Team-based learning exercise in a Physician Assistant program pre-clinical physiology course

Jutta Guadagnoli, Touro University at Nevada

The Use of Team-Based Learning Strategies Combined with Simulation in Medical Education Michael Delman, Southside Hospital

Successful Application Exercises: Charting Data and Image Sorting for an Intra-Professional Group of Graduate Nursing Students

Mary King, University of Texas at Austin

Team-Based Learning in Pediatric Department, Buddhachinaraj Medical Education Center Sineenart Kontun, Buddhachinaraj Medical Ed. Center

Posters and Concept Maps: An Alternative to the Multiple-Choice-Question Team Application Exercise Karla Kubitz, Towson University

Undergraduate Research Methods
Sarah Mahler, Florida International University

Assessment of Peer Evaluation Effectiveness in a School of Pharmacy Team-Based Learning Curriculum Marrianne McCollum, Regis Uni., School of Pharmacy

Incremental Increase in Team Performance Scores with use of IF-AT Cards and Partial Credit
Marrianne McCollum, Regis Uni., School of Pharmacy

Using Team-Based Learning to Liven Up Responsible Conduct of Research (RCR) Training for Biomedical Science Graduate Students and Postdocs

Wayne McCormack, University of Florida

Teaching Feedback Techniques to Medical Students as part of Team-Based Learning Peer Evaluation Edward McKee, Indiana University SoM, South Bend Use of Team-Based Learning in a Doctor of Pharmacy Program: Implementation and Preliminary Assessment
Michael Nelson, Regis University School of Pharmacy

A Novel Use of Team-Based Learning in a Virtual Anatomy Lab in Second Life<sup>TM</sup> (SL)

April Richardson, University of Kentucky

Team-Based Learning in Medical Education: The Ross University in Freeport Experience

Charles Seidel, Ross University School of Medicine

Lecture-Based to Team-Based Learning Medical Biochemistry Sheryl Shoham, Tel Aviv University, Sackler SoM

Team-Based Learning in the Liberal Arts: A Large History Survey Michael Sweet, University of Texas at Austin

Team-based and Relationship-centered Learning in Biochemistry Lon Van Winkle, Midwestern University

The Effect of Team-Based Learning on Family Medicine Training Courses for Medical Student with Different Academic Performance Ying W. Wang, Buddhist Tzu Chi General Hospital

6:00 - 8:00 p.m. **Conference Dinner** 

Louisiana Ballroom

### Friday, March 5th, 2010

7:00 - 8:00 a.m. **Registration Parish Hall** 

7:00 - 8:00 a.m. **Breakfast & Roundtable Discussions** 

Beauregard

#### **FUNDAMENTALS TRACK:**

8:00 - 9:30 a.m. **Workshops** 

Louisiana Ballroom

#### Facilitating Efficiently in the TBL Classroom

Sophie Sparrow, Franklin Pierce Law Center

For some teachers, an energized classroom can feel surprisingly unfamiliar. A room of students prepared to engage the content, confer with each other, and even challenge the teacher can demand a ready combination facilitation skills—especially if the teacher has mostly lectured in the past. This session will focus on both the task and social dimensions of the "whole class discussion" and how the teacher can leverage the unique energies of TBL to keep the discussion simultaneously provocative and on-topic.

After completing the workshop, participants will be able to:

- 1. Describe Parker Palmer's six paradoxes of the classroom
- 2. Articulate specific strategies to manage Palmer's paradoxes, from moment to moment in class discussion
- **3.** Plan ahead in specific ways to set up the conversational "container" for maximum student engagement and focus.

#### **INNOVATIONS TRACK:**

8:00 - 9:30 a.m. **Workshops** 

St. Tammany

WOW, that was a great workshop – but I am not sure how to get started with my course? Part I

Jim Sibley, University of British Columbia Larry Michaelsen, University of Central Missouri

In this highly interactive session attendees will use the wisdom of the room to answer the question – "How can I best approach developing a successful Team-Based Learning Course?"

Participants will explore how TBL experts answer this question, how experienced teachers with no TBL course develop-

ment experience would answer the question, and especially what someone new to teaching and TBL wants to know to help them successfully developing a TBL course.

Using a series of facilitated activities, participants will also explore the variety of approaches used in course design, examine why TBL course design is different, and identify what supports faculty need when developing their first TBL course. Participants will look at what has worked for people, what advice to share with people new to TBL course design, and what questions there still are about TBL course design.

The outcome of this workshop will be a draft document that outlines a series of practices and recommendations on approaches to TBL course design. Following the workshop, feedback on the practices and recommendations will be sought using the TBL listserve. The final document would be available by summer 2010 on the TBLC website.

The purpose of a catalog is to sell products or services to a targeted audience, or to advertise upcoming classes or events. Catalogs can be a great way to market your products or services, and also build your organization's identity.

8:00 - 9:30 a.m.

#### Meet with the Titans of TBL

#### Beauregard

Sandy Cook, Duke NUS Graduate Medical School Kevin Krane, Tulane University School of Medicine Michael Sweet, University of Texas at Austin

#### **FUNDAMENALS TRACK:**

9:45 - 11:15 a.m.

Workshops

Louisiana Ballroom

#### Designing Effective Peer Evaluations

Ruth E. Levine, University of Texas Medical Branch Paul Koles, Wright State University

Peer evaluation is an important component of Team-Based Learning, yet it can be very challenging to implement. Based on our struggles implementing peer evaluation, we will share a variety of methods that we have used, giving workshop participants the opportunity to grapple with issues inherent in peer evaluation.

After completing the workshop, participants will be able to:

 List an advantage and disadvantage of each of 4 methods of peer evaluation

- Define the concept of "gaming" the system
- Appreciate the importance of preparation when introducing the concept of peer evaluation
- Into a learner's environment
- Analyze how learner culture affects the use of peer evaluation

#### **INNOVATIONS TRACK:**

9:45 - 11:15 a.m. **Workshops** 

St. Tammany

WOW, that was a great workshop – but I am not sure how to get started with my course? Part II

Jim Sibley, University of British Columbia Larry Michaelsen, University of Central Missouri

11:30 - 12:30 p.m. **Closing Panel** 

Louisiana Ballroom

"TBL Across the Curriculum"

Rick Goedde - Business / Economics - St. Olaf College Sarah Mahler - Anthropology - Florida International University Sunay Palsole - Geophysics / Technology in Society - UT El Paso Suzanne Rathe - Social Science - Mid-State Technical College

Moderator: Michael Sweet, University of Texas at Austin

NOTES: