The purpose of this template is to help provide some consistency in structure and format of the TBL sessions. Additionally, if all of the components of a TBL session are stored together in this one document, then archiving and updating should be streamlined. This template is NOT meant to stifle creativity or limit flexibility. Note that in order to receive the recommended 2 rounds of feedback and still have the materials ready for posting at least one week in advance, it is ideal to begin the TBL creation process about 4 weeks prior to the scheduled session.

For answers to many questions about TBL, please see: http://www.teambasedlearning.org/answers-to-faqs/#q2_2

1. Objectives

Begin by determining what you want students to be able to do at the end of session. These should be specific and measurable and active (using verbs such as “compare and contrast”, “describe”, “evaluate”) and not vague or subjective (using verbs such as “know” or “understand”). For a two-hour TBL, 3-8 objectives are typical. These objectives will be posted by the course coordinator in Canvas.

As a result of completing this TBL students will be able to:

1.
2.
3.
4.
5.

2. Group Application Exercises (GAEs)

Write a few (typically 3-10 depending on complexity) group application exercises (GAEs) per two-hour TBL module. A single case with progressive disclosure and multiple questions is also an option. Recall that the Readiness Assurance Test (RAT) process takes about 20 min and class ends 10 minutes before the hour, so that there is usually only about 90 minutes for GAE discussion.

- First decide on the format: challenging (not black and white) multiple-choice questions that require synthesis and application of information are most common. Keep answer choices to 5 (A-E) to fit with our simultaneous response cards. Teams can also be asked to create some type of product (on giant post-it note paper, for example).

- These exercise questions should be added to the TBL Group Application Exercise PowerPoint file template. They will be shared with students by projecting in the classroom and by posting the slides in Canvas (to become available at the end of the TBL). It can be helpful to include explanatory slides between the case slides to help ensure closure of the discussion and support student understanding; again this will only be posted at the end of class.
• Remember that the goal is to produce robust discussion both intra-team and inter-team requiring students to apply concepts, problem-solve and organize their thoughts coherently.

• Previously used quiz/exam questions with performance <60% but high discrimination/point biserial can make great applications (as long as the point of the question is important for course goals and not based on an obscure fact).

• Consider how videos of simulated patient cases might be used in addition to “paper” cases.

• Consider the criteria that you would use to differentiate a well-made decision from a poorly-made decision by the students. This goal can be helpful as you design the application activity and as you facilitate it.

• Consider making the first application activity the easiest of the bunch (progressive difficulty) to help build confidence and momentum in the class discussion.

• Avoid activities that allow students to parcel out subtasks to group members.

• We recommend getting initial feedback on the session objectives and Group Application Exercises before completing the remainder of the TBL creation. Therefore, these first two components should be created at least 3 weeks prior to the session to allow time for feedback, updates and completion of the reminder of the activity.

3. Advance preparation assignment for students to complete before the TBL session

• The assignment should specifically provide the essential background info needed for the group application activities. What will students need to know such that they can do what was determined for the objectives above?

• The assignment can be a reading or video or combination of both, or something else.

• Less is often more – carefully consider the amount of time you expect students to be reading (~11pgs/hr) or watching videos; be specific about what you want students to get out of the pre-work. We recommend assigning no more than 2 hours total of pre-work for a 2 hour TBL.

• This will be posted on Canvas for the students.

• Include all files to be posted on Canvas as one compressed (zipped) file folder to the course coordinator at least one week prior to the TBL session.

List assignment here.

4. Readiness Assurance Test (RAT) questions

• Write about 5 - 10 multiple-choice questions that specifically target the essential knowledge required to achieve the overall objectives of the TBL module. The pre-work should prepare students to be successful on these questions.

• The exact same questions will be used for the individual and group tests (called the “iRAT” and “gRAT” in TBL parlance)

• While there should be one clear best answer, it is useful to have a few difficult questions to ensure that teams are sufficiently challenged and need to rely on the full range of expertise within the team.

• These questions can be the old-style MCQs (one liners, “all of the following except”, “which of the following are NOT true”).

• The following advice has been provided by the TBL Collaborative for RAT questions (http://www.teambasedlearning.org/answers-to-faqs/#q2_4): “With respect to enhancing learning, one characteristic is that at least some of the questions must be difficult enough to stimulate discussion. Otherwise, teams will simply defer to their best member. In addition, using related questions that require increasingly complex levels of understanding are particularly helpful for two reasons. First, if the questions are correctly chosen and sequenced, students can learn from the questions themselves while they are taking the RAT. For example, by asking one or two recognition-type questions followed by a question that requires synthesizing the concepts from the two earlier questions provides students with the opportunity to develop a deeper understanding of the concepts themselves.
Second, questions that require higher level thinking skills are far more likely to stimulate the kind of discussion that promotes peer teaching.”

- Students will take the iRAT in Canvas, and view the gRAT questions from Canvas. These questions will be kept secure for use in future years.

- Not every TBL needs RATs! However, they should occur frequently enough that students arrive expecting them.

- Questions must be submitted to Med Ed at least one week prior to the TBL session.

- We recommend getting feedback on the entire TBL session before sending it to the course coordinators.

- The Med Ed office will provide the IF-AT scratch-off cards for the gRAT, and will code the answer choices to the provided card. The IF-AT cards will have 5 answer choices for up to 10 (or up to 25) questions.

1. Blah, blah, blah
   *A. This is the correct answer choice. The answer choice order will be changed by Med Ed to match the IF-AT card
   B.
   C.
   D.
   E.

2. Blah, blah, blah
   *A. This is the correct answer choice. The answer choice order will be changed by Med Ed to match the IF-AT card
   B.
   C.
   D.
   E.

3. Blah, blah, blah
   *A. This is the correct answer choice. The answer choice order will be changed by Med Ed to match the IF-AT card
   B.
   C.
   D.
   E.

4. Blah, blah, blah
   *A. This is the correct answer choice. The answer choice order will be changed by Med Ed to match the IF-AT card
   B.
   C.
   D.
   E.

5. Blah, blah, blah
   *A. This is the correct answer choice. The answer choice order will be changed by Med Ed to match the IF-AT card
6. Blah, blah, blah

*A. This is the correct answer choice. The answer choice order will be changed by Med Ed to match the IF-AT card
B.  
C.  
D.  
E.

5. Instructor guide (lesson plan)

- Record guiding principles, classroom strategies, timing, etc to help you and other faculty effectively teaching the module again in the future.

Guiding principles

1.  
2.  
3.

Timing

- What is the approximate timing the you expect for each portion of the session? This will likely need to be adjusted after the session

<table>
<thead>
<tr>
<th>Activity</th>
<th>time</th>
<th>Comment/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>iRAT</td>
<td></td>
<td>Typically no more than 1 min per question</td>
</tr>
<tr>
<td>gRAT</td>
<td></td>
<td>Typically no more than 1 min per question</td>
</tr>
<tr>
<td>RAT discussion</td>
<td>0-5 min</td>
<td></td>
</tr>
<tr>
<td>Group Application #1</td>
<td>~10-15 min</td>
<td></td>
</tr>
<tr>
<td>etc</td>
<td></td>
<td></td>
</tr>
<tr>
<td>etc</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Classroom strategies

1.  
2.  
3.

Notes/ideas for improvements

1.  
2.  
3.
We strongly recommend that you seek peer feedback on your complete TBL session before utilizing it with the students.