Team Up! Team Based Learning in Residency Education
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Glossary
TBL: Team Based Learning: A structured, instructional technique, where a single moderator guides several small groups through an iRAT, gRAT, and GAE.
LRC: Learner Responsible Content: Pre-class preparation via reading (articles, chapters) or podcasts
iRAT: Individual Readiness Assessment Test: Each learner takes a pre-test (usually multiple choice questions) at the beginning of the TBL session.
gRAT: Group Readiness Assessment Test: Traditionally, these are the same questions as the iRAT, but the learners take the gRAT together on an IF/AT.
IF/AT: Immediate Feedback Assessment Technique: Multiple-choice question (MCQ) test with scratch off stickers covering the option choices (A, B, C, D). A star replaces the correct option choice (key). Therefore, the team knows that they have correct answer when they scratch off the correct option choice to reveal a star (see figure 1).
GAE: Group Application Exercise: A group exercise following the iRAT and gRAT, where learners apply their knowledge to solve problems.
Classic TBL: Incorporates all components of TBL: LRC, iRAT, gRAT, GAE; gRAT is in the form of IF/AT.
Modified TBL: Omits one or more parts of classic TBL exercise or gRAT is not in the form of IF/AT.

Typical schedule/preparation for TBL:
Prior to TBL session:
1. Assign LRC to learners one week prior to session, with a reminder two days before the session
2. Prepare for TBL Session:
a. Team numbers
b. Copy one iRAT per learner
c. Create one IFAT/gRAT per 4-5 learners
d. Copy one GAE per 4-5 learners

Day of TBL session:
1. For more difficult topics, you may consider giving a 5-10 minute lecture on the topic
2. Have learners complete the iRAT (5-10 minutes)
3. Assign learners to groups (can be mixed level groups or class-specific groups)
4. Have groups complete the gRAT (5-10 minutes)
5. Instructor answers any questions about the RAT (5 minutes)
6. Groups complete the GAE (20 minutes)
7. Call on individual teams to give their answers for the GAE; instructor clarifies points of confusion and adds further discussion (20-30 minutes)
8. Optional: Post-test, we often use Kahoot! (www.getkahoot.com) for post-test

Supplies needed:
Scratch-off stickers: Can be purchased at amazon.com by searching “scratch off stickers.” We prefer to buy the 2” x 1” rectangular ones (easier to cut).

Figure 1: Sample Immediate Feedback Assessment Technique (IF/AT) Group Readiness Assessment Test (gRAT). Note that the team got the first question correct. They missed the second question initially, but then got the correct answer on the second try.
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<thead>
<tr>
<th>Title</th>
<th>Link</th>
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<tbody>
<tr>
<td>A Faculty Development Session or Resident as Teacher Session for Didactic and Clinical Teaching Techniques; Part 1 of 2: Engaging Learners with Effective Didactic Teaching</td>
<td><a href="http://jetem.org/didactic-teaching/">http://jetem.org/didactic-teaching/</a></td>
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<td>The Acute Red Eye</td>
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<td>Ventilators</td>
<td><a href="http://jetem.org/ventilator_tbl/">http://jetem.org/ventilator_tbl/</a></td>
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<td>Team-Based Learning Collaborative</td>
<td><a href="http://www.teambasedlearning.org/tbloc-resource-bank/">http://www.teambasedlearning.org/tbloc-resource-bank/</a></td>
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<td>(variety of medicine TBLs, paid membership)</td>
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<td>Teaching Patient Safety Using an Interprofessional Team-Based Learning Simulation Model in Residency Training</td>
<td><a href="https://www.mededportal.org/publication/10409">https://www.mededportal.org/publication/10409</a></td>
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<td>Interpretation of the Abnormal Complete Blood Count</td>
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<td>Diagnostic Testing Team-Based Learning</td>
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<td>Team Based Learning: Preterm Labor (PTL), Preterm Premature Rupture of Membranes (PPROM) and Medical Complications of Pregnancy</td>
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Relevant citations: