Coaching LEND Faculty in Implementing Team-Based Learning across Two States: Lessons Learned over Four Years
Alan Kurtz, Ph.D., Rae Sonnenmeier, Ph.D., Betsy Humphreys, Ph.D., & Susan Russell, M.S.

Background
NH-ME LEND adopted Team-Based Learning beginning in fall 2014 to:
- Use a consistent instructional methodology and coordinate instruction across content modules among all faculty
- Actively engage a diverse group of learners
- Strengthen trainees’ mastery of content, critical thinking skills, and interdisciplinary team work
- Maximize face-to-face time and the use of technology

Core Elements of Team-Based Learning
“A special form of collaborative learning using a special sequence of individual work, group work, and immediate feedback to create a motivational framework in which students increasingly hold each other accountable for coming to class prepared and contributing to the discussion.” - Michael Sweet (n.d.)
- Review of goals and expectations
- Forming permanent teams of 5-7 members (with members from multiple disciplines)
- Learning content through preparation outside of class
  - Readings
  - Lecture capture
  - Website reviews
- Accountability – Readiness assurance process
- Individual Readiness Assurance Test (IRAT)
- Team Readiness Assurance Tests (TRAT)
- Frequent and timely feedback including peer evaluation
- In-class activities
  - Small amount of time clarifying concepts from readings
  - Case-based applications (significant problem, specific decision)
  - Integrative assignment in which teams work on assignment addressing content from entire module.

Unique Obstacles to Faculty Implementing Team-Based Learning in NH-ME LEND
- TBL considered ideal in situations with high student to faculty ratio. (Fatima, et al., 2013; Clark, Nguyen; Mennenga, 2013). The NH-ME LEND has a very high teacher to student ratio.
- It can be difficult to get “buy-in” by all faculty when the number of faculty is large (Allen et al., 2013). The NH-ME LEND faculty is relatively large.
- It can be difficult to create assignments that challenge all team members of diverse teams, support active participation by all team members, while integrating content from all faculty.
- Research suggests that TBL is implemented most effectively on a single campus. In addition to having a large faculty, the faculty are from three different campuses in two states.

Steps Taken to Improve Faculty Skills in Implementing Team-Based Learning (TBL)
- TBL strongly endorsed by the Program Director and Management Team.
- Rigorous evaluation and continuous improvement process for TBL implemented.
- Outside consultant provided initial and follow-up training during faculty meetings on implementing TBL.
- Worked with faculty to help them move away from traditional lecture format in class to mini-lectures and team-based activities.
- Discussed TBL and its implementation at faculty meetings.
- Encouraged faculty to define clear learning outcomes for each content module.
- Worked with faculty on collaborating to identify “table of contents” readings and developed reading guides based on the learning outcomes to balance quality vs. quantity of preparation materials.
- Developed faculty skills in writing readiness assurance test questions using Bloom’s Taxonomy to improve the assessment process and to ensure focus on content discussions.
- Provided instruction and feedback to faculty in an effort to increase skill and comfort levels to focus on key concepts during “mini-lectures” to support case application activities.
- Addressed in faculty team meetings the specific ways in which team-based learning activities and case-based applications could be used to improve the capacity of trainees to provide culturally-competent and family-centered care in an increasingly diverse society.

Recommendations for Other LEND Programs Seeking to Implement TBL
- To ensure “buy-in” provide extensive instruction on team-based learning to all faculty members prior to implementing Team-Based Learning.
- Provide ongoing support to faculty on the development of TBL materials, especially Readiness Assurance Tests.
- Provide follow-up instruction to faculty that addresses any concerns or issues they have after they have begun to implement Team-Based Learning.
- Incorporate hands-on activities into faculty instruction that provides faculty members with opportunities to write readiness assurance test questions and to identify components of case applications.
- Work with faculty to identify the key learning concepts for each module or unit.
- Work with faculty to identify the “table-of-contents” level knowledge for various units or modules.
- Provide support and feedback to faculty so that they can write readiness assurance test questions that assess both table of contents knowledge and, at the same time, engage the trainees in complex and challenging case application activities to integrate content and foster leadership skills.
- Assess faculty satisfaction with Team-Based Learning and make adjustments to the process.

Facility Satisfaction with Team-Based Learning Faculty Agreeing or Strongly Agreeing with Team-Based Learning Items on End-of-Year Evaluations

<table>
<thead>
<tr>
<th>Faculty had sufficient support and guidance on IRAT</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty had sufficient support and guidance on IRAT</td>
<td>60</td>
<td>73</td>
<td>70</td>
</tr>
<tr>
<td>IRA contributed to trainee professional leadership goals</td>
<td>93</td>
<td>93</td>
<td>64</td>
</tr>
<tr>
<td>IRA contributed to trainee professional leadership goals</td>
<td>93</td>
<td>87</td>
<td>64</td>
</tr>
<tr>
<td>IRA contributed to trainee professional leadership goals</td>
<td>73</td>
<td>100</td>
<td>80</td>
</tr>
<tr>
<td>IRA contributed to trainee professional leadership goals</td>
<td>73</td>
<td>93</td>
<td>90</td>
</tr>
<tr>
<td>IRA contributed to trainee achieving leadership goals related to interdisciplinary teamwork</td>
<td>100</td>
<td>100</td>
<td>90</td>
</tr>
</tbody>
</table>

LEND trainees share their discussions based on case-based application activities