Use of TBL to enhance reasoning and decision-making skills with use of vignettes in the Health Sciences Education

Workshop Pre-Assignment

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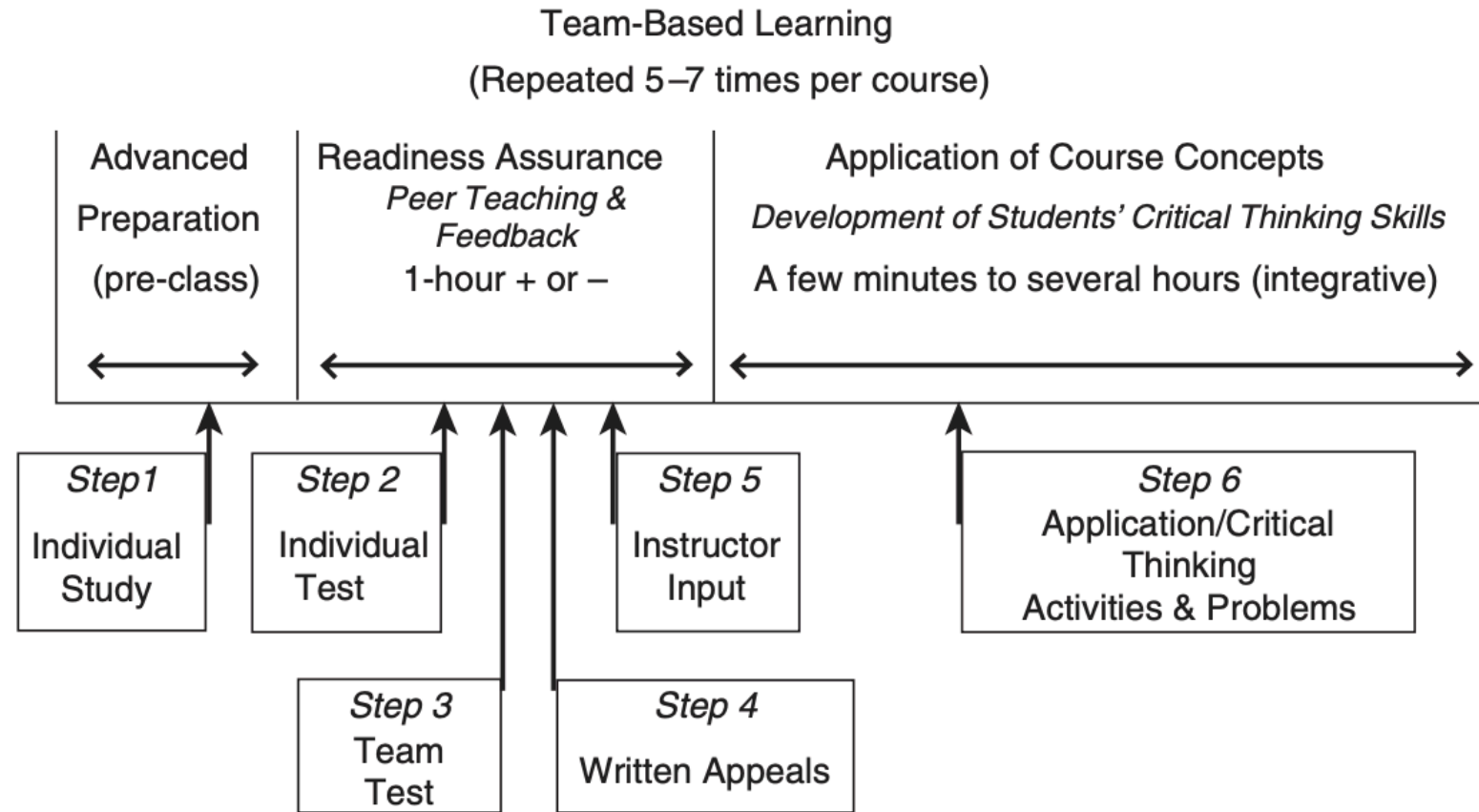
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Please complete pre-session survey that will be emailed to all registered participants to be due the day before the scheduled workshop.

Overview of Team-Based Learning (TBL)
For those new to TBL

Please read the information on the TBLC website that provides a brief overview of the different phases of TBL: https://www.teambasedlearning.org/definition/

Team-Based Learning
(Repeated 5–7 times per course)

Advanced Preparation (pre-class)	Readiness Assurance *Peer Teaching & Feedback* 1-hour + or –	Application of Course Concepts *Development of Students' Critical Thinking Skills* A few minutes to several hours (integrative)

Step 1
Individual Study

Step 2
Individual Test

Step 5
Instructor Input

Step 6
Application/Critical Thinking Activities & Problems

*Step 3*
Team Test

Step 4
Written Appeals

Figure 1. Instructional activity sequence for TBL content unit.

Figure from: Parmelee DX, Michaelsen LK. Twelve tips for doing effective Team-Based Learning (TBL). Med Teach. 2010;32(2):118-22. doi: 10.3109/01421590903548562. PMID: 20163226.

Designing Successful Application Exercises

- Promote both deep thinking and engaged, content-focused discussion

- Select or create a problem that the student can readily recognize (encounter in 'real life,')

- Must be significant.
  - Case that is rich with data to be interpreted and decisions to be made.

- Clear link between the content that underlies the exercise and its application

- Roberson, B., & Franchini, B. (2014). Effective task design for the TBL classroom. Journal on Excellence in College Teaching, 25(3&4), 275-302.
- *Figure from: Parmelee DX, Michaelsen LK. Twelve tips for doing effective Team-Based Learning (TBL). Med Teach. 2010;32(2):118-22. doi: 10.3109/01421590903548562. PMID: 20163226.*

4S Framework

Significant Problem

Same Problem

Specific Choice

Simultaneous Report
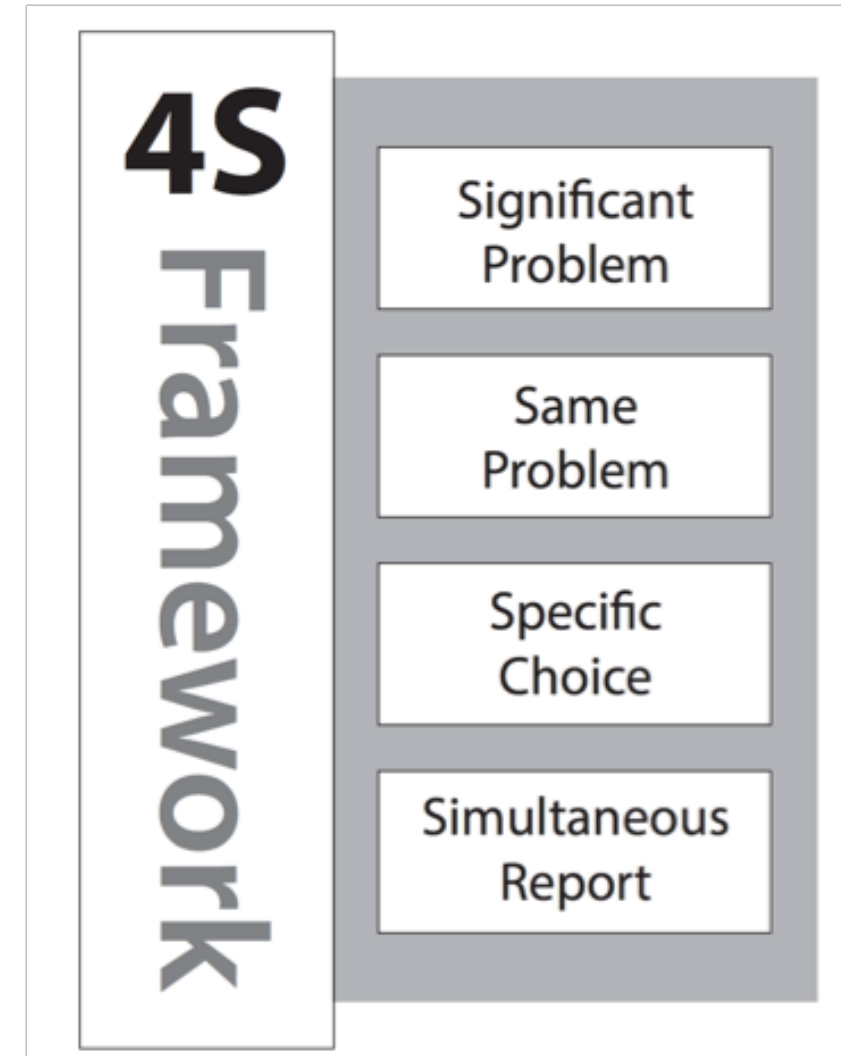
Considerations for Developing Effective 4S Case Scenarios

- Create scenarios that require complex analysis
  - *"Scenarios allow you to embed many variables that can be used to introduce multiple concepts, theories and perspectives into students' discussion, as well as to complicate the task, if desired, through a mix of relevant factors and red herrings." (Roberson and Franchini, 2014, p. 287)*

- Use concrete scenarios that require concrete action
  - Should require students to use the concepts and abstraction from the preparatory material to understand, analyze, and solve.
  - *"Students, therefore, need to be required to act frequently in ways that generate consequences that provoke reflection and demonstrate visibly their thinking. The more focused and concrete the action, the more visible will be the thinking and the learning—and the more immediately useful will be the feedback." (Roberson and Franchini, 2014, p. 276)*

- Roberson, B., & Franchini, B. (2014). Effective task design for the TBL classroom. Journal on Excellence in College Teaching, 25(3&4), 275-302.
- https://learntbl.ca/4s/

Approach to Application Exercises that enhances reasoning and decision-making skills

For those interested in using pre-recorded simulation during TBL

- Application exercises using pre-recorded simulated scenes can promote [Deliberate Practice and Acquisition of Expert Performance](#)
    - *"possible to re-create an actual clinical situation by filming a scenario from the responsible doctor's perspective and decision-making process…film could then be presented to individual experts and less experienced doctors, the film could be stopped at critical decision points, and the observing doctor may be asked to provide appropriate direction to personnel under normal time constraints."*
    - Example 1: Interactive Film Developed by the Resuscitation Council in the UK: ["Livesaver" Resuscitation Council in the UK.](#)
    - Example 2: Use of TV medical drama trigger clips: *[Grey's Anatomy Malignant Hyperthemia](#)*

Ericsson, K.A., *Deliberate practice and acquisition of expert performance: a general overview.* Acad Emerg Med, 2008. **15**(11): p. 988-94.