Development of Scenario-based Mentor Lessons

An Iterative Design Process for Training at Scale

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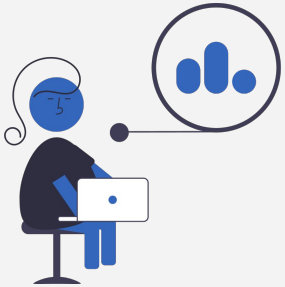
Purpose

- Showcase recent advancements in scenario-based tutor/mentor training
- Illustrate a self-paced lesson focusing on student socio-motivational support
- Demonstrate an iterative design of using (learner-sourced) constructed-response data for optimizing selected-response development

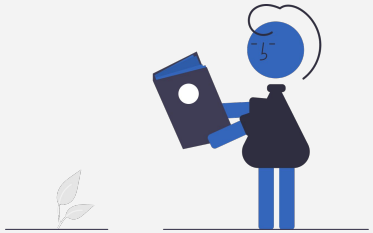
Lessons focused on scale:

– Brief (<15 mins)
– Apply “learn by doing”
– Give actionable feedback

PL² Personalized Learning² Approach



PL² Training



PL² Toolkit

PL² Tutors

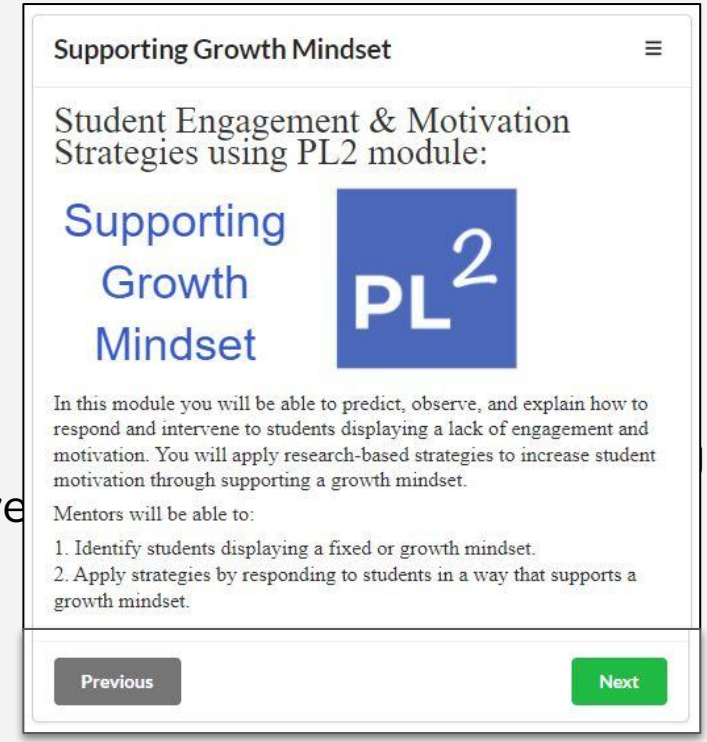
Scenario-based mentor lessons are a component of the PL² training framework.

Goals

Successful tutor training attends to student's academic and socio-motivational needs

1. Develop and evaluate tutor training related to support student self-efficacy (i.e., growth mindset)

2. Demonstrate and refine an interactive design process by evaluating learning gains



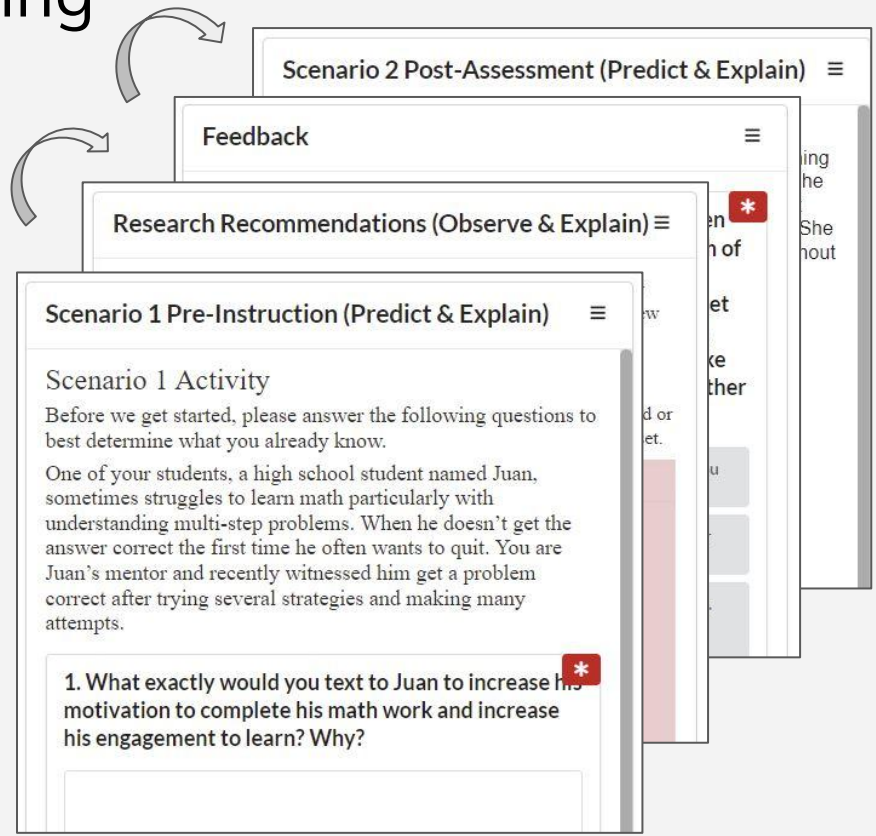
Link to "Supporting a Growth Mindset" module using Teacher Moments, a digital clinical simulation platform for teacher training from the MIT Teaching Systems Lab, found here: https://teachermoments.mit.edu/cohort/04f3a0e726

Scenario-based Mentor Training

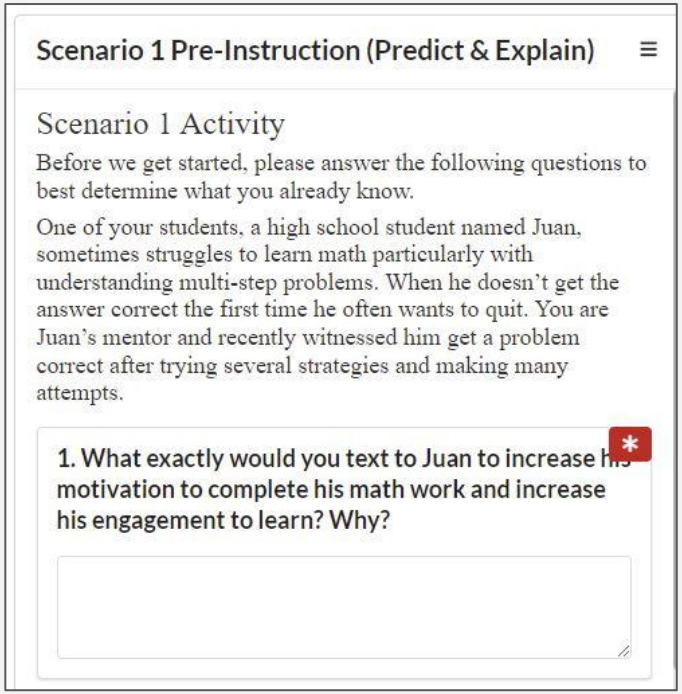
Uses modified predict-observe-explain model for both pre-instruction (training) and post-instruction (transfer) scenarios

Tutors will:

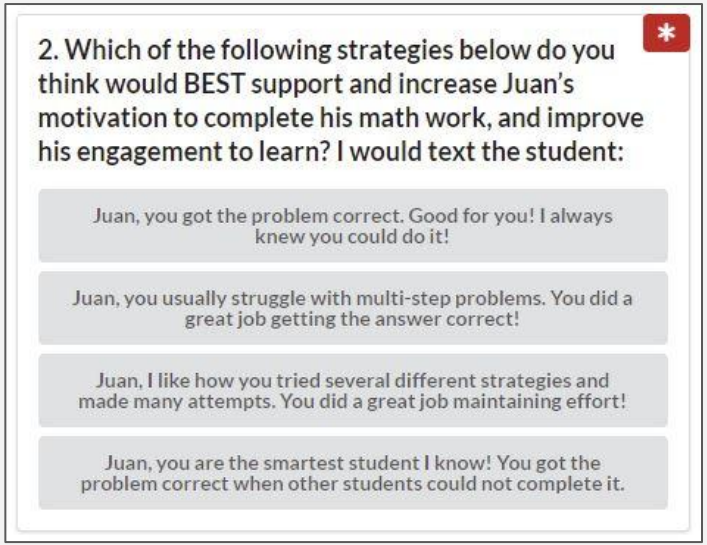
1. **Predict** how to best respond
2. **Explain** their prediction
3. **Observe** the best response
4. **Explain** the reasoning behind their observation
5. Receive active feedback



Selected-Response Optimization



Constructed-response question



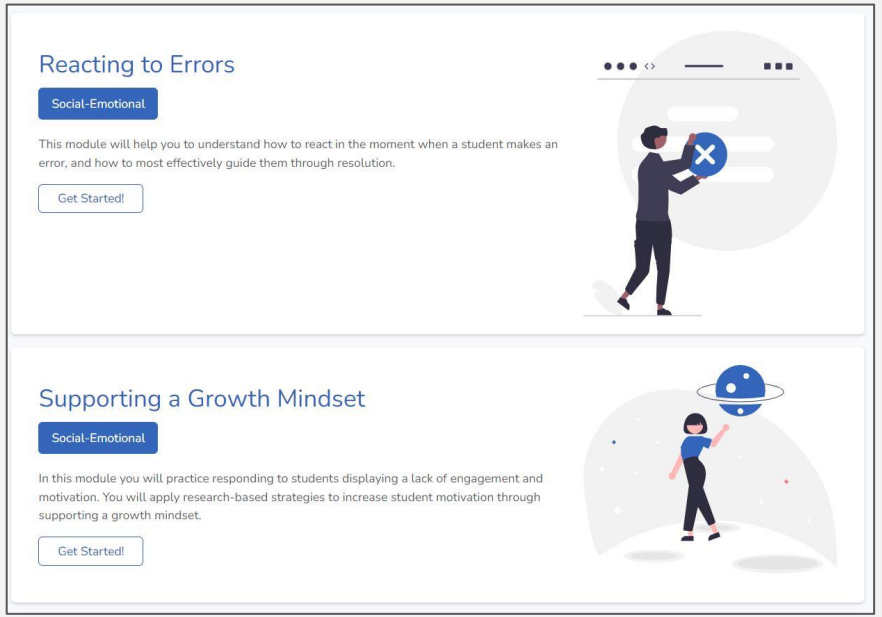
Selected-response question

Constructed-response, learner-sourced answers are used to develop more effective and authentic selected-response options (for both "correct" and "incorrect" responses)

Mentor Learning Results

- Earlier lessons show some evidence of learning in pre-post “predict” and substantial improvement in “explain” mentor ability

- Preliminary evidence supports our hypothesis that short, scenario-based lessons can have positive impact on mentor learning of how to attend to student’s self-efficacy

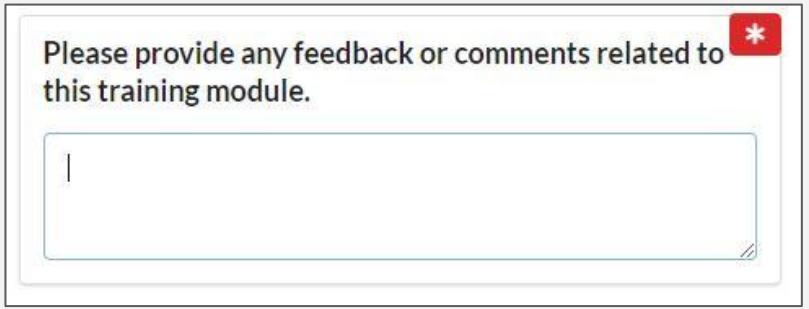


Housing of mentor lessons in PL[2]

Future Work

- Creating additional pilot lessons
  - Reacting to Errors
  - Framing Task Difficulty
  - Using Motivation Strategies

- Comparing tutor learning between developer-created and learner-sourced selected-response questions



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