

Development of Scenario-based Mentor Lessons

An Iterative Design Process for Training at Scale

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Purpose

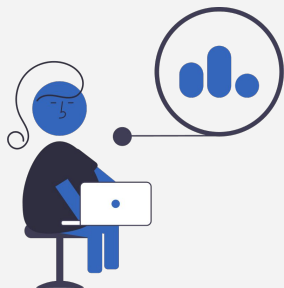
- Showcase recent advancements in scenario-based tutor/mentor training
- Illustrate a self-paced lesson focusing on student socio-motivational support
- Demonstrate an iterative design of using (learner-sourced) constructed-response data for optimizing selected-response development

Lessons focused on scale:

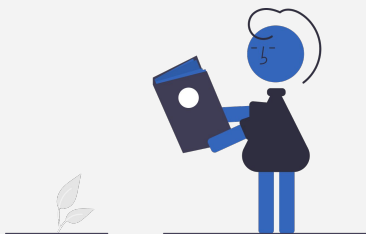
- **Brief (<15 mins)**
- **Apply “learn by doing”**
- **Give actionable feedback**



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

Supporting Growth Mindset

Student Engagement & Motivation Strategies using PL2 module:

Supporting Growth Mindset



In this module you will be able to predict, observe, and explain how to respond and intervene to students displaying a lack of engagement and motivation. You will apply research-based strategies to increase student motivation through supporting a growth mindset.

Mentors will be able to:

1. Identify students displaying a fixed or growth mindset.
2. Apply strategies by responding to students in a way that supports a growth mindset.

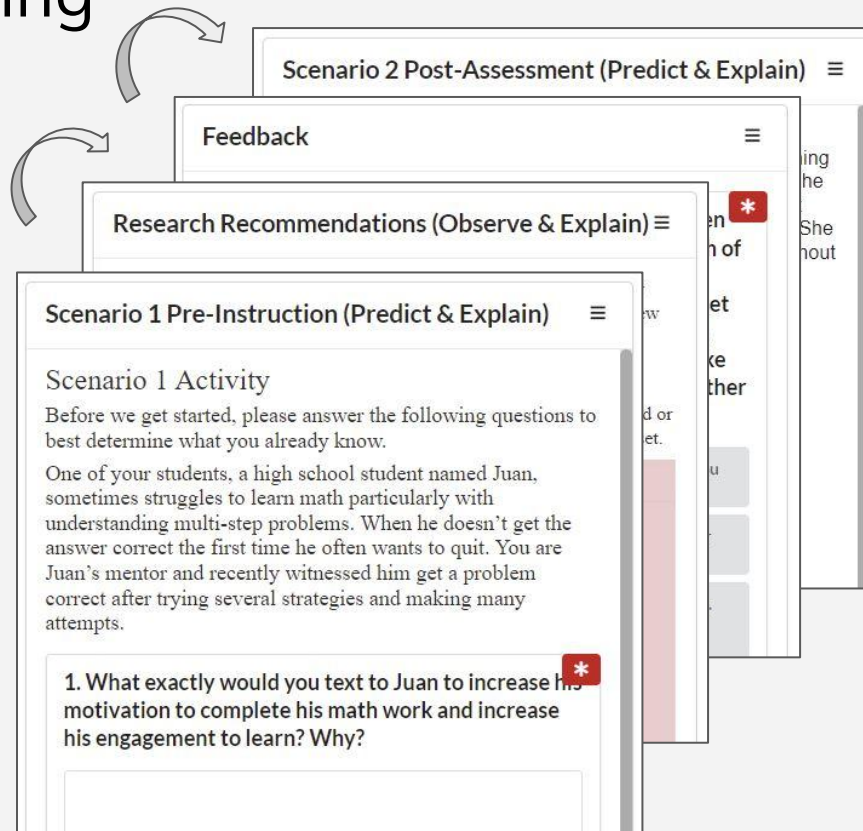
PreviousNext

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

Scenario 1 Pre-Instruction (Predict & Explain) ☰

Scenario 1 Activity

Before we get started, please answer the following questions to best determine what you already know.

One of your students, a high school student named Juan, sometimes struggles to learn math particularly with understanding multi-step problems. When he doesn't get the answer correct the first time he often wants to quit. You are Juan's mentor and recently witnessed him get a problem correct after trying several strategies and making many attempts.

1. What exactly would you text to Juan to increase his motivation to complete his math work and increase his engagement to learn? Why? *

Constructed-response question



2. Which of the following strategies below do you think would BEST support and increase Juan's motivation to complete his math work, and improve his engagement to learn? I would text the student: *

Juan, you got the problem correct. Good for you! I always knew you could do it!

Juan, you usually struggle with multi-step problems. You did a great job getting the answer correct!

Juan, I like how you tried several different strategies and made many attempts. You did a great job maintaining effort!

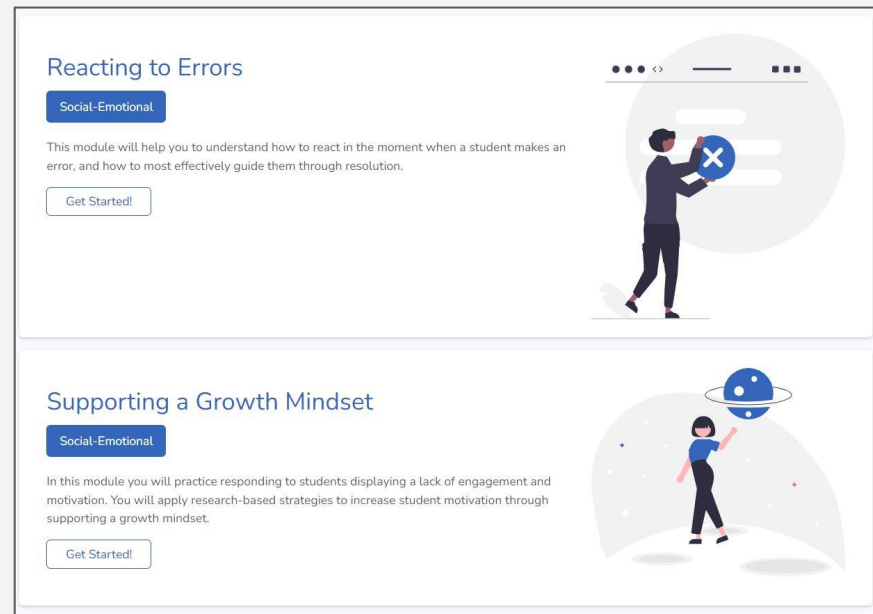
Juan, you are the smartest student I know! You got the problem correct when other students could not complete it.

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 PL²

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

Please provide any feedback or comments related to this training module. *

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