Professional Societies' Recommendations
- Focused cardiac ultrasound (FOCUS) should be used by all ICU providers.
- Care Med 2015;16:220

The Problem
Professional societies endorse the need for competency in FOCUS for pediatric ICU providers.

The Design-Based Research Model
Implementation & Spread
Analysis
Design
Construction
Evaluation
Maturer Intervention
Theoretical Understanding

Pilot Testing
(Does the module perform according to the theoretical model?)

Table 1: Pilot learners' performance as an indicator for three levels of difficulty for mastery learning (p<0.01, Wilcoxon Signed Rank Test)

Table 2: Learners' performance on the Image Library

Chart 6 – Learners' confidence before and after the Image Library (p<0.01, Wilcoxon Signed Rank Test)

Reflection and Action Plans
- Create more robust feedback within each question that includes diagrams/pictures
- Integrate links to valuable resource material within the feedback
- Improve images on questions that the majority of learners missed
- Create a posttest for the didactic lectures that must be passed prior to starting this module

Theoretical Understanding
1. Feedback in accordance with deliberate practice should be embedded within the learning process.
2. Adaptive Learning features should be used to optimize deliberate practice towards mastery via error-targeted practice.
3. "Thresholds" for multi-modular mastery learning should reflect mastery and not merely comprehension.

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Supported by the Educational Scholarship Award, Center for Research, Innovation, and Scholarship in Medical Education, Texas Children’s Hospital and the Norton Rose Fulbright Educational Award, Baylor College of Medicine.

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