Problem-Based Learning: To Test or Not to Test

Denise Zwahlen, MD¹; Gary Doolittle, MD¹; Garold Minns, MD²; Giulia Bonaminio, PhD¹

¹University of Kansas School of Medicine, Kansas City, KS 66160
²University of Kansas School of Medicine, Wichita, KS 67214

### Purpose
- University of Kansas School of Medicine (KUSM) adopted a new curriculum in 2017
- Active, competency-based and excellence-driven (ACE) curriculum focuses on achieving cognitive integration of clinical and basic sciences
- Problem-Based Learning (PBL) was maintained in the ACE curriculum providing a rich environment for translating basic science principles into clinical context
- PBL content was included in summative examinations to assure student engagement

### Methods
- Established goal of PBL in curriculum is to facilitate student development of clinical reasoning skills, promote development of self-directed study skills, improve depth and focus of knowledge acquired and foster development of team skills.
- PBL sessions follow a traditional format
- PBL attendance is required
- Students are assessed on PBL competency achievement by faculty PBL facilitators, with an emphasis on critical thinking and working within a small group as a team
- Multiple choice questions based on objectives from PBL sessions were added to course summative examinations.
- Feedback was obtained from faculty and students

### Results
- PBL cases and format were well-received by students and faculty
- Required attendance and summative exam questions facilitated student engagement
- PBL summative questions identified as a source of anxiety for both students and even more so for faculty
- Students focused on identifying course objectives for PBL sessions which inhibited the desired development of critical thinking, problem-solving and team-work skills.

### Discussion
- Students and faculty view PBL favorably
- Overarching goals for PBL in the curriculum were re-examined
- Inclusion of PBL objectives on summative exams was re-examined
- Methods to maintain student engagement in PBL were re-examined

### Conclusion
- PBL case objectives are no longer tested on summative examinations
- PBL attendance is required to facilitate student engagement
- Objectives of PBL sessions are based on learning self-directed study skills and team interaction rather than course content

For questions contact Denise Zwahlen: dzwahlen@kumc.edu