Improving Student Assessment in the Pre-clinical Years

Tim Ryan, Leela Sarathy, Adam Luce, Alec Peniche, Bjorn Watsjold

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## Outline

1. Motivation

2. Item Specifications
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Motivation

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- Current fail rate is of concern.
- Test writers deserve guidance.

Item Format

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- Other test-taking skills not important
- Change comes at little cost
- No to change in course content
- USMLE-style exams may help reduce test anxiety.

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Test Tasks on Major Exams:

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- identify gross and microscopic pathologic and normal specimens, and
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Prompt Attributes

Each prompt will be composed of a clinical or experimental vignette followed by 1-4 questions.

Vignette Attributes
- 60-70 words
- Authentic
- Graphics, tables, images or schematics
- One or more pieces of relevant information
- Extraneous information OK, False information prohibited

Question Attributes
- Identify or recall basic information (Bloom level 1)
- Interpret information in the vignette (Bloom level 2)
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- **3-11 response options**
  - Short (1-15 words)
  - Lettered (A, B, C...)
  - Alphabetical or logical order
  - Distractors may be partially correct
  - There is only *one best answer*

\(^a\) > 5 response options possible with ExamSoft™ CBT
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Prohibited Item types

Prohibited item types include, but are not limited to, all of the following:

- Questions asking students to choose the *worst* answer.
  - All of the following are true *EXCEPT*
  - Which of the following is *FALSE*

- Questions asking students to select *multiple best* answers.
  - Answer choices B & C are correct
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- Questions that stress test-taking skills not represented on the USMLE (e.g. matching, ordering)
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1. Based on your knowledge of blood supply in the abdominal cavity, you determine that an embolism is most likely in his:

   A. Celiac artery
   B. Inferior Mesenteric Artery
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- All major exams in all courses
- Median and Interquartile Range
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