Progress Testing of Basic Science Application During a Clinical Competency-Based Curriculum Pilot

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http://deepblue.lib.umich.edu/
ENCORE: A student-centered, experimental curriculum

A Progress Test made Fast, Frequent, Formative

Results

- Students learn from feedback
- Topic differences remained consistent
- Students were frustrated

Conclusions
ENCORE: A Clinical competency-based curriculum
Outcomes: The Michigan 9

- Clinical skills
- Communication skills
- Diagnosis & risk assessment
- Education and assessment of self & others
- Professionalism
- Scientific reasoning
- Social context of health & disease
- Systems of care delivery
- Therapeutics & management
**Hyperglycemia 3.08-1:** “Determine if changes need to be made to the anti-diabetic treatment regimens. Propose and justify specific recommendations to your attending. Review and implement them with your patient.”
Fast, Frequent, and Formative
Three tests: *pre, mid, and post*
Progress Tests

Renal failure
Hyperglycemia
Trauma
Infectious disease

Repeating items to probe learning from feedback
The red dots represent the student's score. The black circles represent the mean score of the student's cohort. Gray circles are other students' scores.
Students’ scores improved slightly

<table>
<thead>
<tr>
<th>Test 1</th>
<th>Test 2</th>
<th>Test 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>60%</td>
<td>80%</td>
<td>40%</td>
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</table>
Students’ scores improved slightly.

Test 1: 81%
Test 2: 87%
Test 3: 57%

- repeated twice: 87%
- repeated once: 81%
- novel items: 57%
Removing repeated items: no score improvement
Target topic performance consistently above control

Means of student topic subscores; novel items only
“At first I was counting on the progress test to tell me what to learn. After the second progress test I realized it didn't help me at all.”
“Sometimes I felt like the questions did not apply to what I was learning. They were more detailed than the learning objectives.”
Conclusions

• Fast, Frequent, and Formative is Feasible
• More harmony between learning objectives and items
• Focused tests (maybe 50 items per topic)
• Best frequency? Probably > 2 weeks
Thank You