University of Illinois Placement Program
Preparing Students for Success in College Mathematics

Alison Ahlgren Reddy
University of Illinois

October 7th-8th, 2014
University of Illinois Placement / The Driving Issues

- College Readiness.
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- The “fall out” period.
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University of Illinois Placement / The Goals

- Improved transition to college mathematics.
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- **Individualized Remediation.**
- Online Access.
- Distinguish Unlearned versus Forgotten Knowledge.
University of Illinois Placement / The Policy

- ALEKS assessment required for all incoming U of I students.

- ALEKS assessment for placement required and enforced for all students enrolling in Precalculus, Business Calculus, and Calculus I.

- Precalculus and Business Calculus students benchmark of 50%; Calculus I students benchmark of 70%.

- Placement Program only means of entry.

- Students may repeat the ALEKS assessment and use the individualized learning module in the 4 month period prior to the beginning of the semester up until the 5th day of classes in an effort to reach the benchmark.

- Students are REQUIRED to satisfy the ALEKS placement requirement for course enrollment at each point of entry.
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The U of I Math Placement Program is recognized as a solution to the “Issue of Transitioning to College Mathematics”.
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Students self-prepare for desired course placement with use of learning module. Others confirm their need for more review or prerequisite course placement. Students are able to self-advise and self-enroll in Banner within the add period.
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- For each student, we associate the best placement assessment (knowledge state) before course start with their final grade in the course. Best means the one with the most items (greatest percentage of 182 items).
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We can also statistically analyze which items are associated with passing or failing a course.
Visualization: Calculus I (Math 220)
Visualization: Before Precalculus (Math 115)
Visualization: After Precalculus (Math 115)
Example, Calculus I (Math 220)

Item: Evaluating a Logarithmic Expression
For example:

\[ \log_3 27 \]
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Stats
In the fall of 2010, 97% of the students are able to complete this problem, and they pass 83% of time versus 82% overall. Of the 3% of students that do not have this item, 40% fail!
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Basic
This is a basic item that effectively detects unprepared students and replicates in 2009 (students lacking were \textit{three} times as likely to fail), and less severely in 2008 (50% more likely to fail).
Visualization: College Algebra (Math 012)

Initial Student Assessments, Math 12 Fall 2009, [187 Students]
All items, All placement courses 2009
All items, All placement courses 2010

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Math 231 Calculus II [808 Students]

Math 221 Calculus I (experienced students) [1960 Students]

Math 220 Calculus I [1436 Students]

Math 115 Preparation for Calculus (precalc) [778 Students]

Math 12 College Algebra [305 Students]
Thanks

Contact

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