

Assessments in Developmental Math

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National epidemic



- n 43% of community college students in US are enrolled in remedial classes
- n 30% of four-year college students in US are enrolled in remedial classes
- n Over one million college bound students are headed for remedial classes

Assessment tools

n MCAS

n SAT

n ACT

n ACCUPLACER

MCAS: 10th grade mathematics

- n 50% of students passing MCAS at the needs improvement level are in developmental math courses in college
- n 20% who pass at the Proficient level are placed in remedial classes
- n 4% who pass at the Advanced level still land in developmental classes

RENNIE Center report

Accuplacer

- n Gatekeeper used by many colleges to evaluate academic skills for placement purposes
- n Three levels: Arithmetic (17)
 - Elementary Algebra (12)
 - College Algebra (20)
- n Content is aligned with Massachusetts Algebra 1 standards and the grade 9-10 standards

Accuplacer

- n Least likely to prepare for
- n Not understand importance of
- n On-line assessment
- n Not able to return to questions
- n Multiple choice
- n Untimed
- n Adaptive

How many years were between your last math class and taking the placement test?

Last year	1 year	2 years	3 years	4 years
12	15	9	1	3

What was the last math class you took in high school?

Algebra I	1
Geometry	4
Algebra II	13
Trigonometry	5
Pre-calculus	5
Calculus	0
Statistics	6

	Yes	No
Were you aware that you would be taking a math placement test?	65%	35%
Did you know that if you skipped a problem you could not return to it?	41%	59%
Had you ever taken a test on-line before?	30%	70%
Do you think the placement test placed you in the correct level?	62%	38%

Conclusions:

- n Students are coming from a variety of backgrounds
- n Students are moving into a variety of math classes
- n Students need to understand the purpose and method of the assessment tool
- n The assessments currently being used have more potential
- n Disconnect between many of the current assessments

Resources

Learning styles

- n <http://www.metamath.com/lsweb/dvclearn.htm>
- n <http://www.learning-styles-online.com/>
- n <http://www4.ncsu.edu/unity/lockers/users/f/felder/public/ILSpa.html>
- n <http://www.learnativity.com/learningstyles.html>
- n <http://learningstyles.org/>

Other

- n http://www.doe.mass.edu/research/updates/09_0602.html
Alternative High School Math Pathways in Massachusetts: Developing an On-Ramp to Minimize College Remediation in Mathematics
- n <http://www.doe.mass.edu/frameworks/current.html>
- n <http://www.doe.mass.edu/mcas/overview.html>