

SHS Mathematics Department Update

April 26, 2017

Curriculum Implementations

2016-2017

ALEKS Curriculum

Core Plus Investigations

Advanced Math 2 Topics (*Offered
in collaboration w/QCC*)

What is ALEKS?

Online Assessment & Learning System used in collaboration with our textbook.

ALEKS curriculum is aligned with our course curriculum.

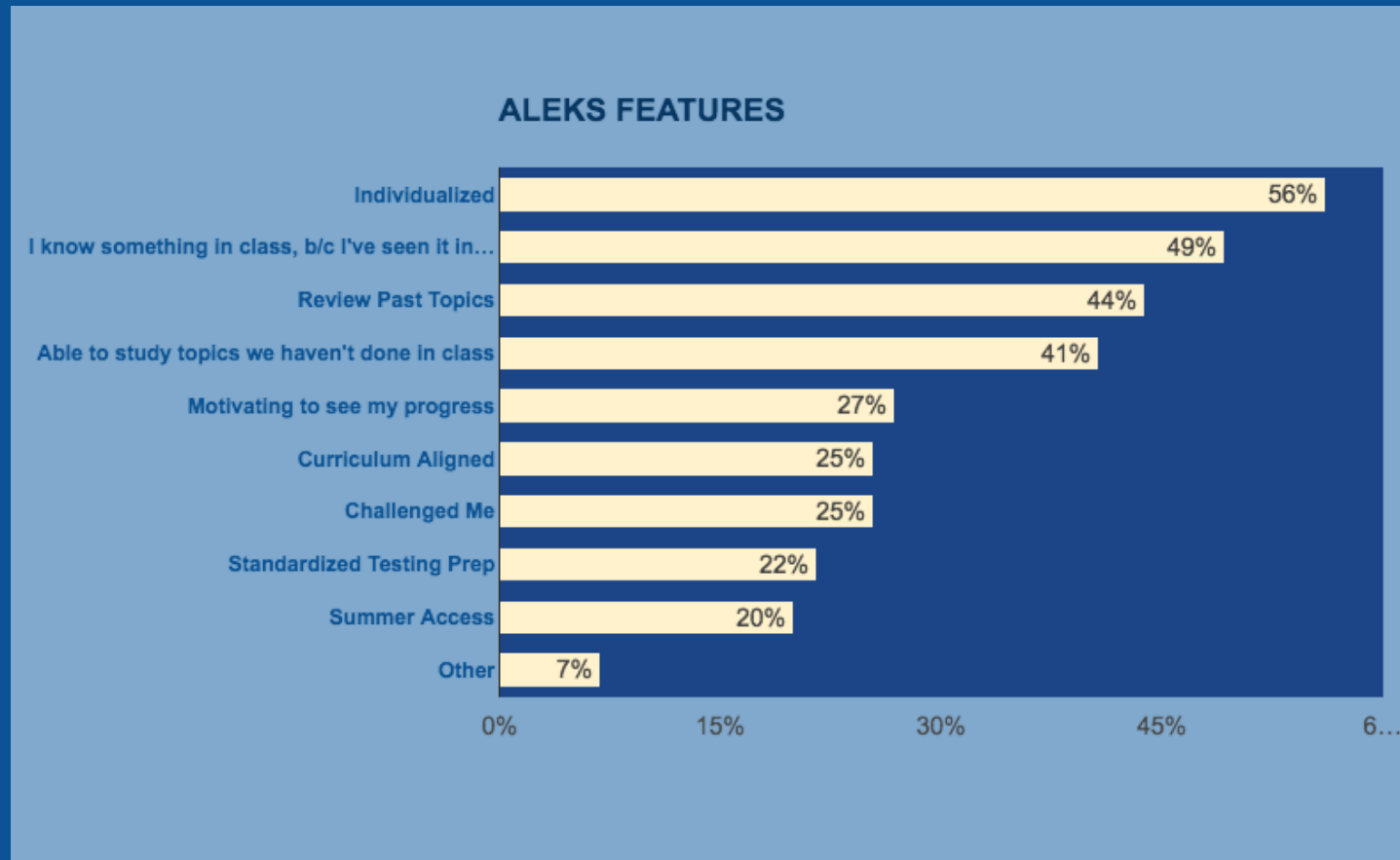
Individualized Learning Path

Access to prerequisite knowledge

Access to content beyond the core curriculum

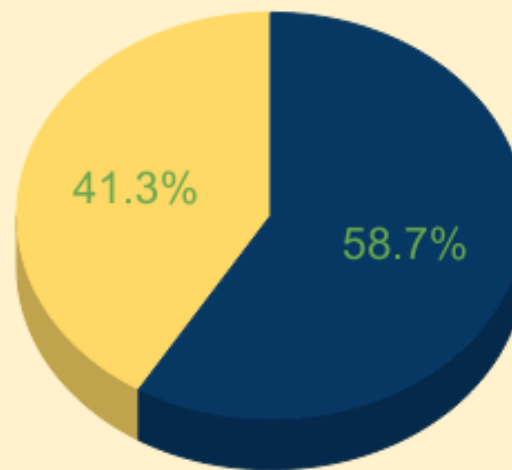
Immediate feedback & support

What features in ALEKS do you think best support your learning?



Student Survey

There have been times in class when I knew what the teacher was talking about because I had worked on it in ALEKS first.



● Yes ● No

How Are We Using ALEKS?

Approximately 1100 students

- ❑ Algebra & Geometry 1
- ❑ Algebra & Geometry 2 (A-level, B-level, Honors)
- ❑ Advanced Math 1 (A-level, B-level, Honors)
- ❑ Functions & Trigonometry
- ❑ Advanced Math 2 Topics
- ❑ Calculus Honors (2 sections)

How Are We Using ALEKS?

Two to three hours per week with at least one hour completed in class

Dynamic Learning Path - determined by assessing current knowledge.

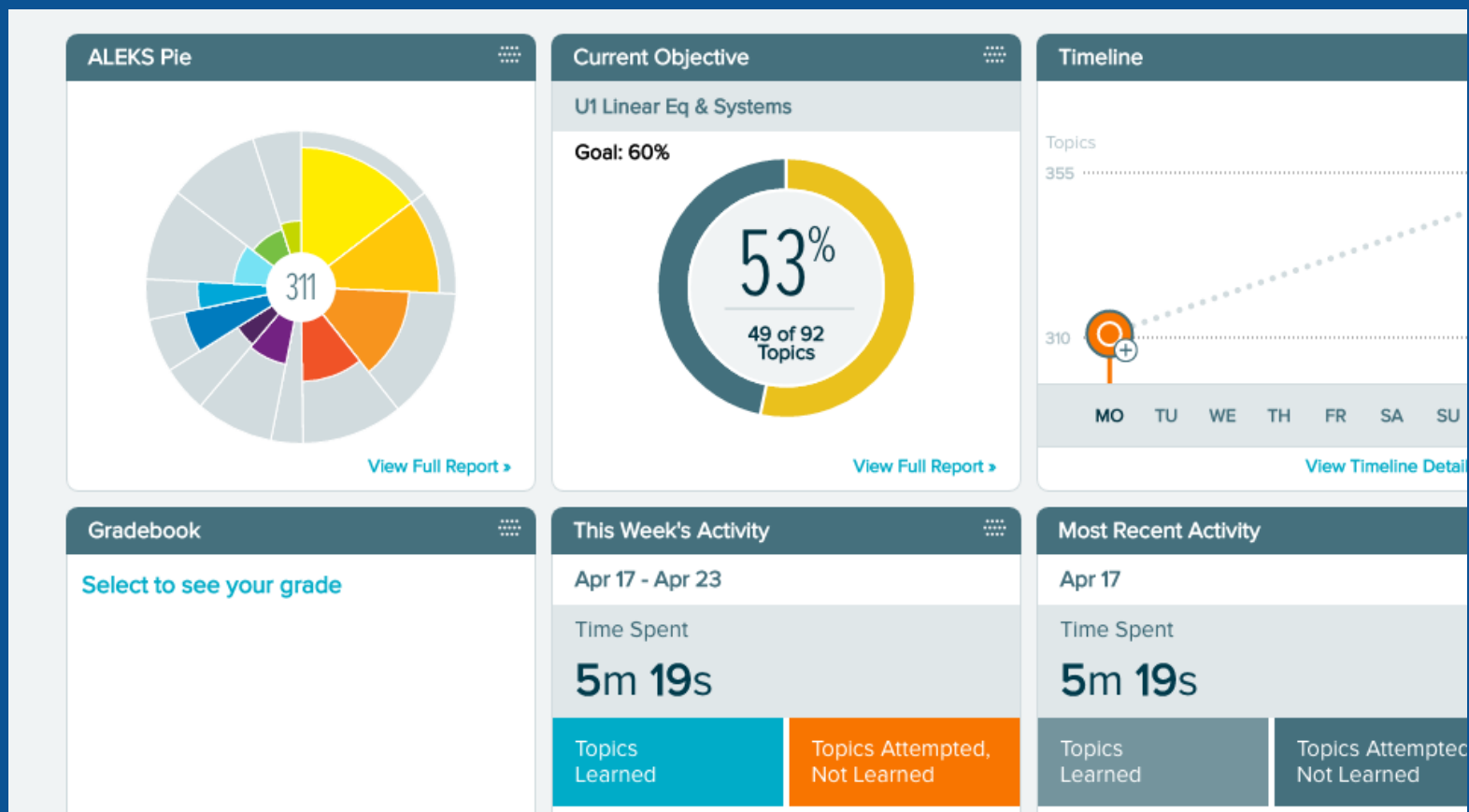
ALEKS is partnered with Core Plus Mathematics Investigations

Time/Topic/Percent Goals

Challenge

Support

Student Dashboard



Teacher Dashboard



What are Core Plus Investigations?

- ❑ Integrated Problem Based curriculum
- ❑ Emphasizes mathematical modeling
- ❑ Makes sense of data and problems that arise in multiple contexts
- ❑ Collaborative
- ❑ Engages students in exploring, conjecturing, verifying, generalizing, applying and

Why are Investigations Important?

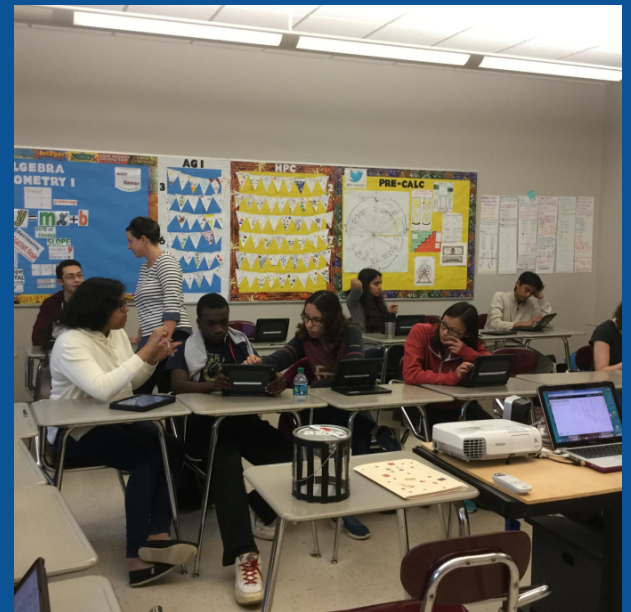
Engagement

Ownership

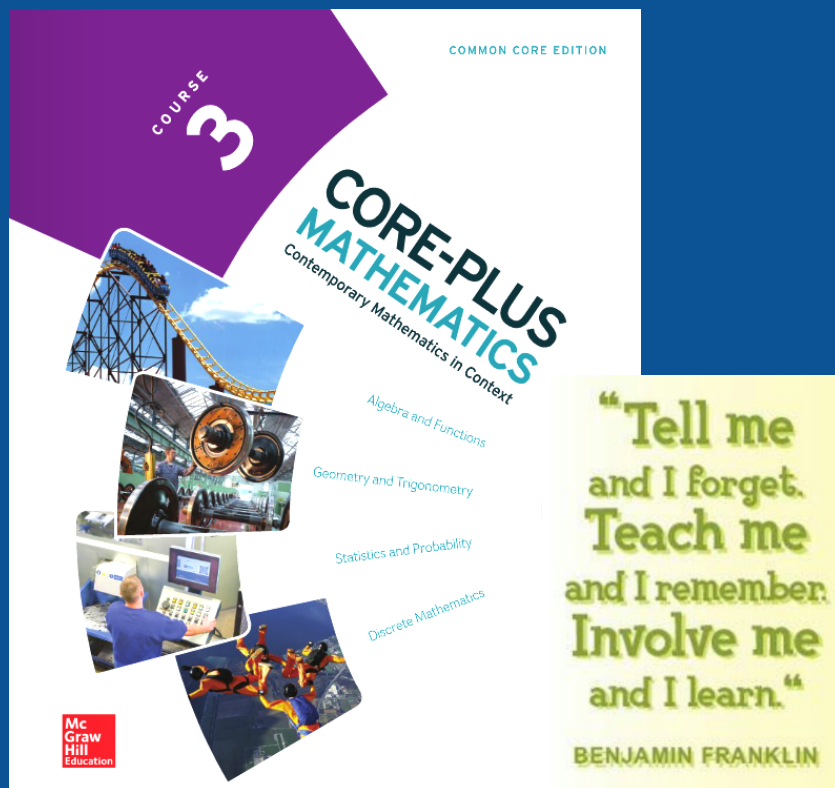
Perseverance

Creativity

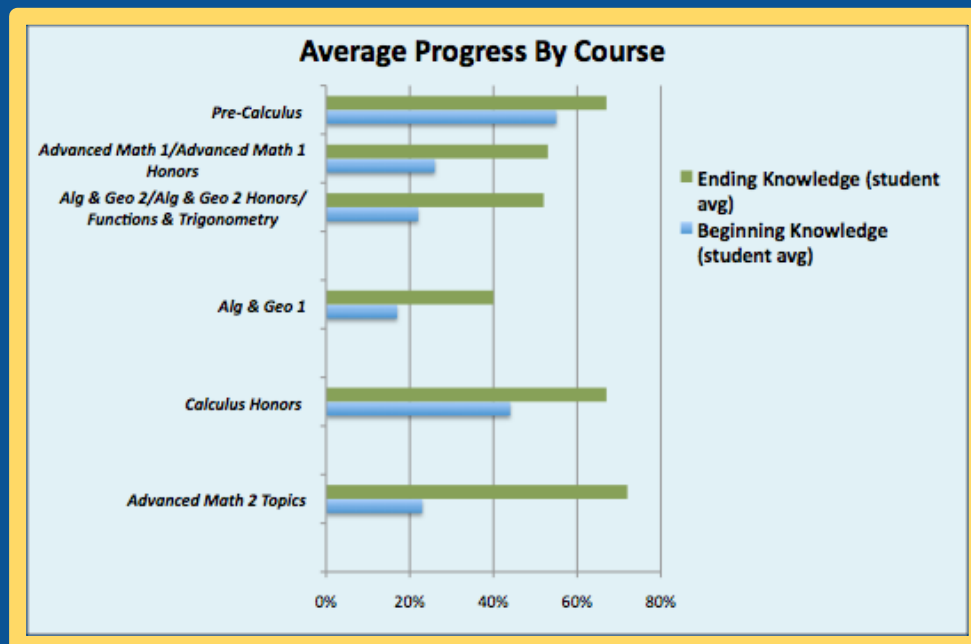
Critical Thinking



What Does The Picture Look Like For Our Students?



Blended Learning

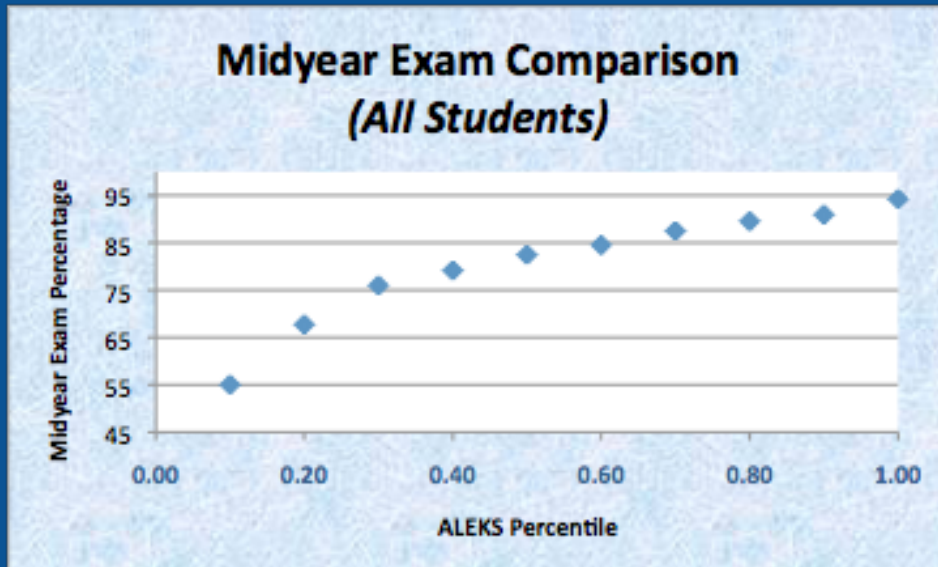


Average percent growth of students with more than 30 hours time spent in their ALEKS course.

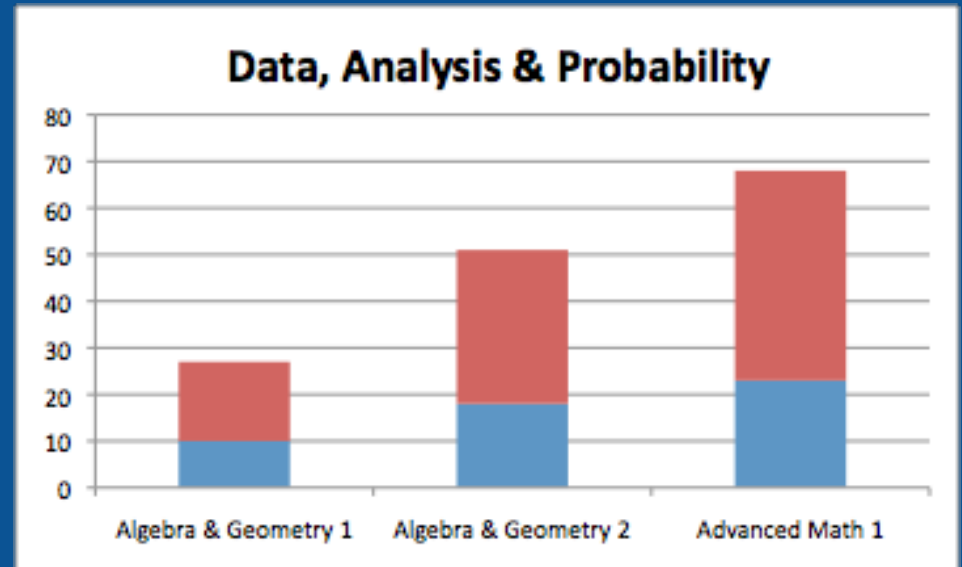
Approximately 53%

What Does The Picture Look Like For Our Students?

Consistency



Guided Access



Year 1 Experience

Successes

Support for struggling learners

- Challenge for advanced learners
- Access to content
- Ongoing review/practice with skill based content - Year Round

Next Steps

- ❑ Student Support/Motivation
- ❑ Best practice implementation strategies
- ❑ Analytics
- ❑ Mathematical Modeling
- ❑ Math Support Team
- ❑ Communication

SHS Response to Post-Secondary Math Remediation

Advanced Math II Topics

What is it Advanced Math II Topics?

Partnership with QCC

QCC Curriculum for Math 095 & Math 099

Why is this course important?

Prepares students who struggle with mathematics



Advanced Math II Topics

- ❑ 17 students / 24 students
- ❑ Co-taught class (*Math/Special Education*)
- ❑ QCC Curriculum/ALEKS supported
- ❑ Final Exam (*May 24*)
- ❑ Accuplacer (*May 11*)



QUESTIONS