Onslow
Mathspace Pilot Study Brief

Product Info

Product Name: Mathspace

Product Description: Mathspace is a web-based math program that features student-led and teacher-assigned questions, videos and lessons, a hint button to assist students in solving problems, and an interactive writing feature that enables students to write "on-screen."

Learning Focus: A supplemental or core curricular adaptive math tool for students in grades 5-12
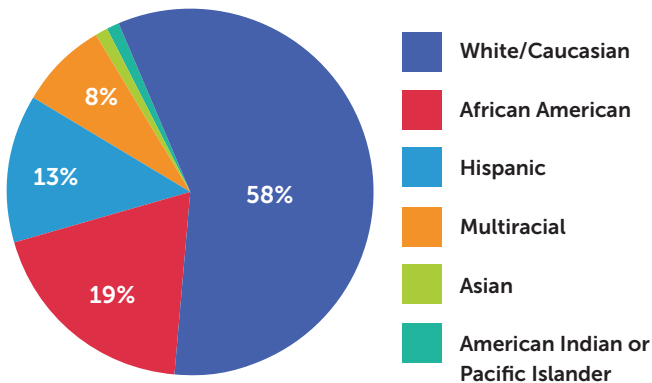
Teacher Training: Offered via webinar

Student Usage Minimum: Teachers assign tasks to students at least three times per week

Device Specifications: Web-based app; requires login and Internet access
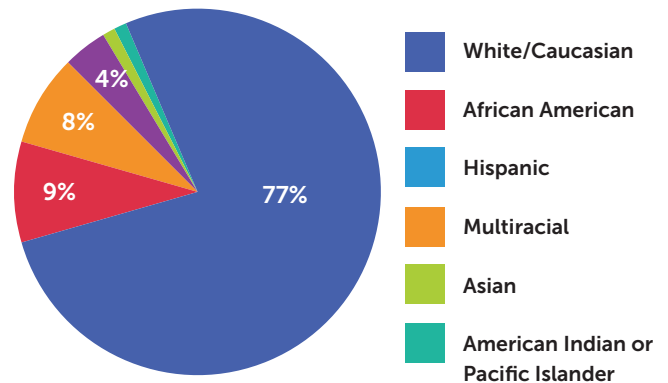
Cost: $20 per student

District Context

Onslow County School System

- 58% White/Caucasian
- 19% African American
- 13% Hispanic
- 8% Multiracial
- Asian
- American Indian or Pacific Islander

Dixon Middle School

- 77% White/Caucasian
- 9% African American
- Hispanic
- 8% Multiracial
- 4% Asian
- American Indian or Pacific Islander

District demographics: Onslow County School System, located on the eastern coast of North Carolina, is comprised of 37 educational facilities, serving approximately 26,000 students.
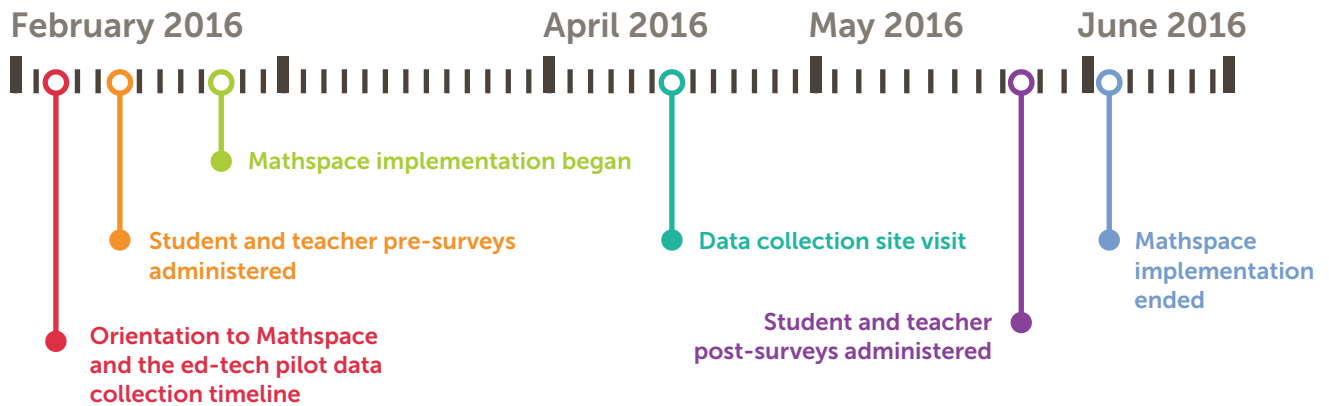
Pilot demographics: Dixon Middle School serves approximately 653 students in grades 6 through 8.

Number of Students in Pilot	Number of Teachers in Pilot	% Free or Reduced Lunch	Speak English at Home	Grade Levels in Pilot	K-12 Students with Access to a Device (1:1)	Students with Access to High Speed Broadband at School
203	2	43.1%	97.8%	7th	42%	100%

Pilot Implementation

Pilot Goal: The initial goal was to improve students' mathematics understanding by implementing a standards-based mathematics technology tool. The goal may have shifted over the course of the pilot, however, as various teachers and school-level administrators described the goal in different ways.

February 2016   **April 2016**   **May 2016**   **June 2016**

Mathspace implementation began

Student and teacher pre-surveys administered

Orientation to Mathspace and the ed-tech pilot data collection timeline

Data collection site visit

Student and teacher post-surveys administered

Mathspace implementation ended

Implementation Model: Student-reported Mathspace use varied considerably, but in general there was limited use of the product, both in and outside of class. Despite the option to create custom and adaptive tasks, teachers only assigned eight custom tasks over the course of the pilot.

Data collected: Student pre- and post-surveys, teacher pre- and post- surveys, teacher interviews, school leader interviews, product usage data (provided by Mathspace); and student pre- and post- learning/benchmark assessments.

Findings

Quality of Support: Teachers involved in the pilot had little buy-in or autonomy in the process, and received limited training. As a result the tool's instructional and data-analysis features were not utilized. Teachers were frequently frustrated by the lack of administrator support.

Educator engagement: Onslow teachers noted positive changes in student attitude and behavior, but were largely skeptical of Mathspace as an instructional tool because they felt it was not well-aligned to their curriculum.

Educator satisfaction: Teachers felt there was an inadequate amount of support in learning the features of Mathspace, and how to best integrate it into their instruction.

Student engagement: Onslow students who already felt secure about math learning enjoyed using the product for the extra practice and rigor it offered, whereas it left less confident students feeling frustrated.

Student satisfaction: While students had positive feedback about Mathspace, they frequently reported disliking their teachers' use of the tool.

Student learning: Student benchmark scores decreased over the period of the pilot; these results were not, however, statistically significant.

Outcome

Purchasing Decision: Onslow decided not to adopt Mathspace because of low student and teacher satisfaction, and because student assessment scores decreased.

For more information, see:

http://digitalpromise.org/wp-content/uploads/2016/11/rapid-cycle-pilots-mathsixdistricts.pdf

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