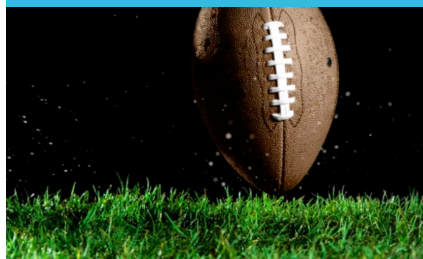


MathCloud Case Study



Franklin High School “HSPA Blitz” Program



HSPA BLITZ KEY FIGURES

PARTICIPANTS

126 High School Seniors

6 Classes (15–25 students/class),
each meeting 4 hours / week

3 Teachers

3 MathCloud Facilitators

PROGRAM DETAILS

September 10–30, 2013

In-class practice 4x / week

4 2-hour Mock Test sessions

2 after-school help sessions

HSPA MATH EXAM DETAILS

Graduation requirement in NJ

Offered in October and March

3 40-minute sections of:

10 multiple-choice questions

2 open-ended questions

4 subject clusters:

Numbers and Numerical Ops

Patterns and Algebra

Geometry and Measurement

Data Analysis, Probability, and

Discrete Math

BACKGROUND

Franklin High School’s 12th grade Math Skills Lab class (MSL-12) is tasked with helping students pass the High School Proficiency Assessment (HSPA) exam, which all New Jersey high school students must pass in order to graduate. The MSL-12 class consists of 126 students, 76 of which previously failed to pass the HSPA. Their first opportunity to retake the HSPA is October 1st. This gives teachers an extremely limited window to prepare them for the test. Following the success of an earlier Algebra I summer program using MathCloud, Franklin High School asked MathCloud to provide an intensive, 3-week HSPA prep course for MSL-12 students.

PROGRAM DESIGN

The MathCloud team created “HSPA Blitz”, a customized program for the MSL-12 classes, using HSPA content the school provided to MathCloud. The program had a 4-day review cycle to review the 4 clusters tested on the HSPA: Number and Numerical Operations; Patterns and Algebra; Geometry and Measurement; and Data Analysis, Probability, and Discrete Mathematics. The program also included 4 HSPA Mock Tests, each 2 hours in length (the same as the actual HSPA math exam).

The program was primarily designed to be used during class time, with each student using a MacBook computer provided by the school. MathCloud worked with the building administration to arrange additional sessions for Mock Tests and extra help. Students were excused from their last period class for Mock Test sessions and were encouraged to stay after school to complete the tests. Two extra-help sessions were also scheduled. Late buses were provided to bring students home.

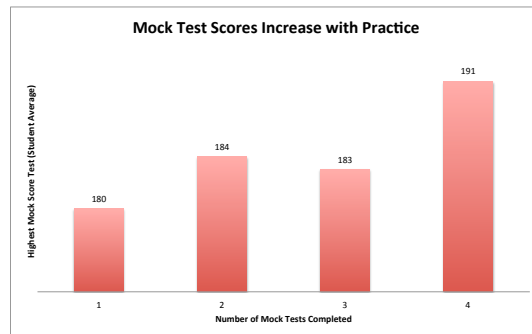
IMPLEMENTATION & BLENDED LEARNING APPROACH

MathCloud introduced the program to MSL-12 teachers in a 90-minute Professional Development, then provided continued technical and strategic support throughout the three-week program.

MathCloud seamlessly and effectively complemented MSL-12 classes to create a blended-learning environment. Since the content on the HSPA is material that students were expected to have learned, during the first week, students utilized MathCloud’s Smart Task system to assess their abilities. The MathCloud team and teachers analyzed the data from the Smart Tasks to identify patterns of understanding. Teachers then developed short lessons based on the question types that students struggled with. After the teacher covered 3-4 question types, students used the remaining time in class to practice those topics with MathCloud’s ‘Recommended/Bring It’ tool, as well as any question types that they were individually struggling with. Teachers could then determine whether students had properly grasped those concepts.

INTERNAL RESULTS

The official HSPA results will be available in December. In the meantime, the HSPA Blitz program showed some promising internal data. 25% of students who attempted at least one Mock Test achieved a passing score of 200 or higher; another 15% of students were within 10 points of that mark. The more students utilized MathCloud, the better their results. In particular, of those students who attended after-school sessions, whether for extra help or for Mock Test practice, a full 56% achieved a Mock Test score of 200 or higher.



TESTIMONIALS

Franklin's MSL-12 teachers responded enthusiastically to the HSPA Blitz program. In particular, the *Recommended / Bring It!* feature drew praise for its ability to target individual students' weaknesses and offer practice where it was needed most.



The blended learning approach worked great in my classroom. Students received a mini lesson at the beginning of each class period and then were able to work on their laptops to practice what I had taught them, as well as to go back and practice other topics they were still struggling with. This gave me a chance to meet with individuals and small groups to give further instruction where needed. It was easy to differentiate my lessons using MathCloud.

Katie Mallon, Franklin High School MSL-12 Teacher, Mathematics Department Chair



The *Bring It!* feature was very good and very helpful; it was the best aspect of the program for me, as it gives good feedback right away. Blended learning was perfect for the teacher and easy to use. It brings diversity to the teaching experience, rather than just the normal lecture style.

Rozaliya Uchitel, Franklin High School MSL-12 Teacher



There are a lot of elements that I like about MathCloud. I like the question types. I like how a student can go back to the problems they got wrong. I like the *Recommended / Bring It!* feature because it is a type of differentiation that students benefit from. The program also works well in conjunction with classroom instruction. It was great to be able to see exactly where my students needed the most help.

Pamela Knapp, Franklin High School MSL-12 Teacher

STUDENT FEEDBACK

55% of students polled ranked MathCloud as "helpful" or "very helpful" in preparing for the HSPA.

Mock Tests were ranked the most helpful aspect, followed by *Recommended / Bring It!*

51% of students reported using MathCloud at home. 26% utilized after-school help.

