Apex Learning®

Proven to Increase Student Achievement

Apex Learning Comprehensive Courses

SEPTEMBER 2013

THE AVERAGE STUDENT
IN SCHOOL YEAR
2010–2011 ACHIEVED A

29 **PERCENTILE**
POINT GAIN ON
THE HSAP EXAM

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IN SCHOOL YEAR
2011–2012 ACHIEVED A
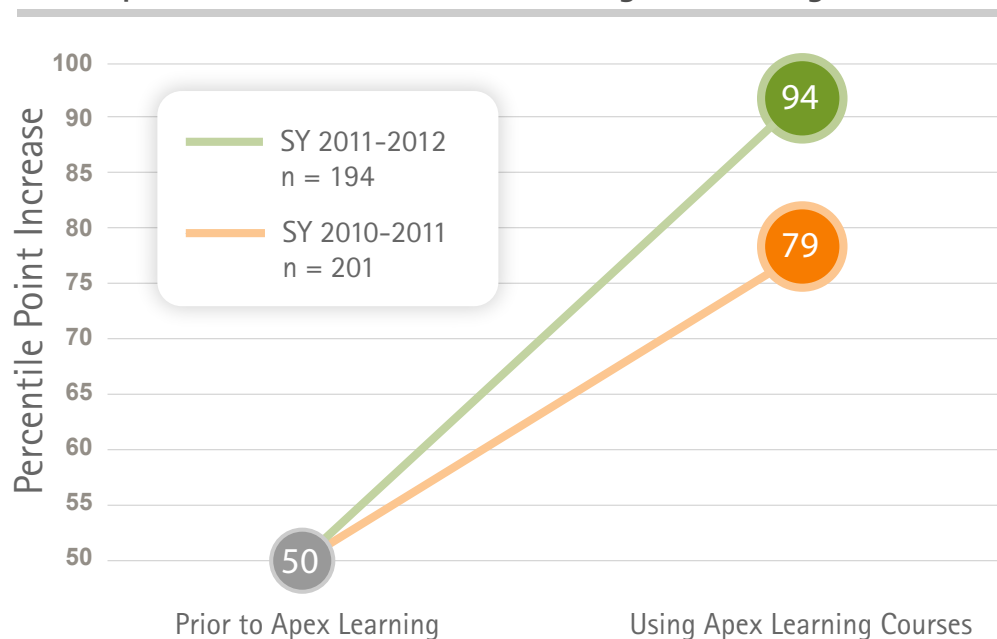
44 **PERCENTILE**
POINT GAIN ON
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❯ Summary

According to the National Center for Education Statistics (NCES), one out of four students will not graduate on time (U.S. Department of Education, 2011). America's Promise reports that for African American and Hispanic students, the ratio increases to one out of two (2012).

School districts challenged to increase their graduation rates are turning to Apex Learning digital curriculum to support programs that increase graduation rates and decrease dropout rates. Apex Learning provides standards-based Comprehensive Courses that make rigorous content accessible to each student and result in increased student outcomes.

A third-party study conducted over two consecutive years in Dorchester School District Two in South Carolina demonstrates the impact that Apex Learning Comprehensive Courses have on student gains. Graph 1 below shows that students recovering credit using Apex Learning courses achieved greater gains on the South Carolina High School Assessment Program (HSAP) during both school years (SY) (Empirical Education, February 2013; Empirical Education, July 2013).

Graph 1: Achievement Gains of Average Performing Student

For the students completing Apex Learning courses for credit recovery in the 2010-2011 school year, the average student achieved a 29 percentile point gain on the HSAP exam, moving from the 50th percentile to the 79th percentile (Empirical Education, February 2013). The average student in the 2011-2012 school year sample achieved a 44 percentile point gain on the HSAP exam, moving from the 50th percentile to the 94th percentile (Empirical Education, July 2013).
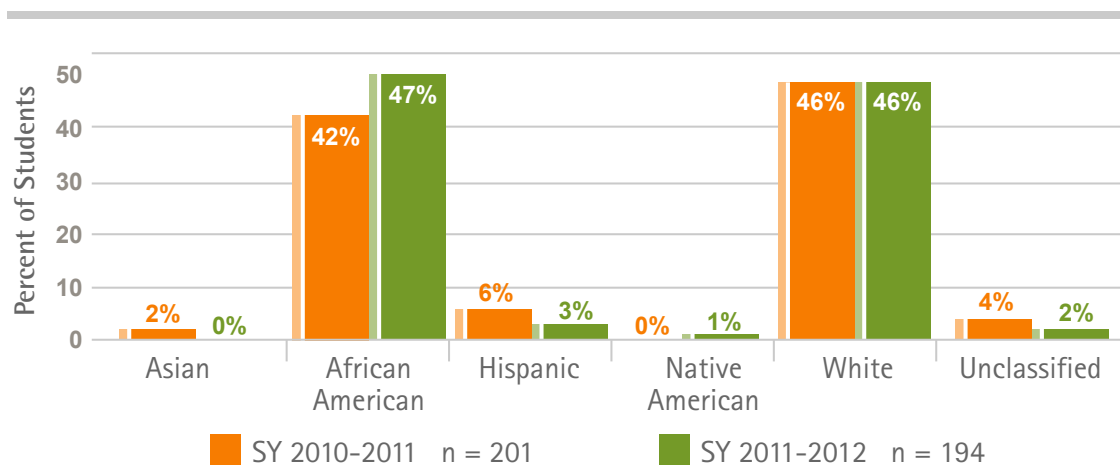
The Challenge: Addressing Deteriorating Graduation Rates

Like many school districts across the nation, Dorchester School District Two faced a deteriorating graduation rate. In 2008, administrators and school leaders began designing a new credit recovery program to give students the opportunity to regain their academic footing and graduate on time.
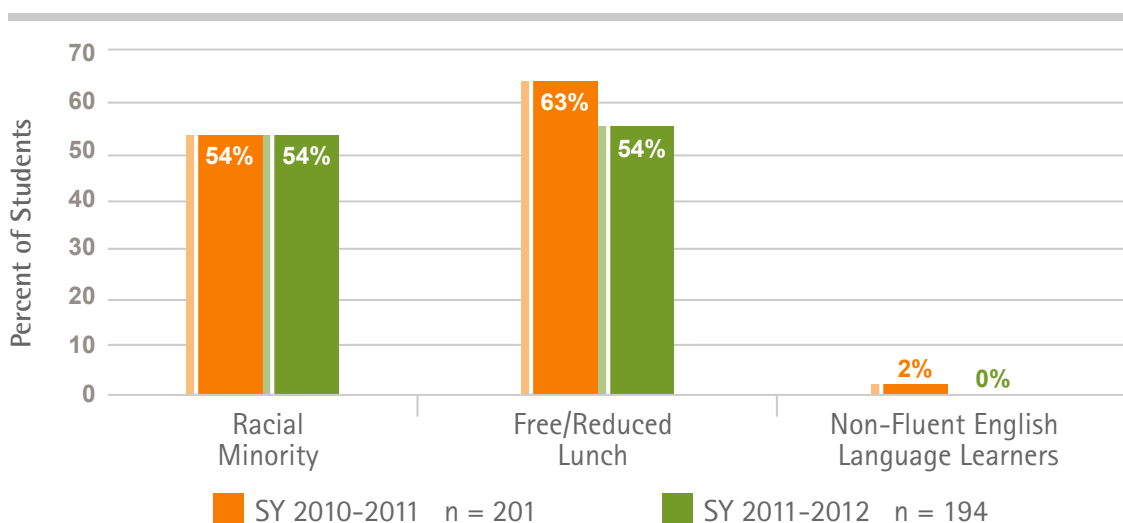
As administrators identified students they wanted to target for credit recovery, they realized that the population was as diverse as their instructional needs. Graphs 2 and 3 identify the demographic characteristics of Dorchester School District Two students completing courses for credit recovery. While "the population of students needing credit recovery overlaps with the population of at-risk students, the two groups are not the same" (Watson & Gemin, 2008). Pat Tolliver, guidance director at Dorchester School District Two, has witnessed this firsthand. "The type of students that fall behind and need to recover credits are just as diverse as the reasons they fall behind, and each has a unique set of needs," said Tolliver. "In our program, we have students who struggle academically, others who are high-performing but are bored from lack of challenge, and those who have life circumstances that keep them from being able to come to school regularly."

Characteristics of Dorchester School District Two Students Completing Courses for Credit Recovery

Graph 2: Racial and Ethnic Characteristics

Graph 2 — Percent of Students by racial/ethnic group.

Group	SY 2010–2011 (n = 201)	SY 2011–2012 (n = 194)
Asian	2%	0%
African American	42%	47%
Hispanic	6%	3%
Native American	0%	1%
White	46%	46%
Unclassified	4%	2%

SY 2010–2011 n = 201   SY 2011–2012 n = 194

Graph 3: Demographic Characteristics

Graph 3 — Percent of Students by demographic characteristic.

Group	SY 2010–2011 (n = 201)	SY 2011–2012 (n = 194)
Racial Minority	54%	54%
Free/Reduced Lunch	63%	54%
Non-Fluent English Language Learners	2%	0%

SY 2010–2011 n = 201   SY 2011–2012 n = 194

At-Risk Learners

The student who struggles academically is perhaps the most common type of student who needs to recover credit. At Dorchester School District Two, students who fail one class are able to complete the corresponding Apex Learning course independently outside of school. Students failing more than one class are given additional guidance and support by attending an in-school credit recovery program where they work online in a computer lab supervised by a teacher. Once the students recover credit for the failed classes, they return to a regular school schedule unless they choose to continue taking online courses to accelerate their learning.

Researchers who study at-risk learners and online education suggest that external factors such as "course design and learning activities can and will influence motivation within the context of learning" (Archambault et. al., 2010). Apex Learning courses are intentionally designed to support content understanding while motivating students to excel. The curriculum's innovative design creates an individualized learning experience by providing multiple layers of scaffolding to increase student understanding. It also uses media in purposeful ways throughout the curriculum to address different learning styles. By providing multiple representations of key concepts, Apex Learning courses give students the opportunity to engage in active learning by reading, listening, watching, manipulating interactive elements, reflecting, and writing.

In addition to factors related to school structure, researchers suggest that a self-paced curriculum, differentiated instruction, and the availability of choice in the curriculum may improve at-risk learner outcomes (Archambault et. al., 2010). Because Apex Learning curriculum is self-paced, students can complete guided practice activities until they master the content. The curriculum provides rigorous instruction embedded with scaffolding, supports, and frequent assessment, all of which enable students to acquire a deeper understanding of the content they may have struggled with in a traditional classroom. As struggling students experience success, they become motivated to learn, and they develop confidence in themselves as learners.

High-Performing Learners

At-risk learners are not the only students who fall behind. High-performing students get off track for a variety of reasons, including boredom because they aren't being challenged, difficult life circumstances, and scheduling issues that conflict with extracurricular pursuits.

Unlike a traditional classroom experience, Apex Learning courses allow students to work at their own speed. Instead of following the teacher's instructional calendar, students are able to move quickly through material they have already mastered and spend more time delving into areas of interest within the course content. Students become engaged with what they are learning as they make decisions, participate in interactive exercises, and complete challenging but achievable tasks in every lesson. Immediate feedback informs students of their content mastery so that they can take time to review challenging concepts as needed.

❯ The Solution: Recovering Credit with Digital Curriculum

Dorchester School District Two leadership knew they would need to base their credit recovery program on a solid curriculum that could address the needs of a broad range of students with a variety of learning styles and life circumstances. Taking advantage of the strength of a digital curriculum to differentiate instruction, the district chose Apex Learning Comprehensive Courses to deliver a series of cascading interventions designed to ensure all students graduate on time.
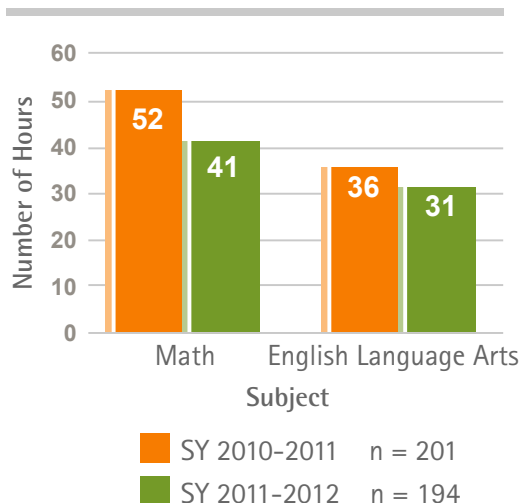
They selected Apex Learning because it provides a rigorous, comprehensive high school curriculum that can be delivered in formats ranging from unit remediation to a complete virtual school experience for homebound students.

Apex Learning courses are designed to provide students — whether they are struggling with literacy or are high performing and in need of enrichment — with an individualized path to access and master a rigorous, standards-based curriculum. Students can move through the curriculum at their own pace, taking additional time to review topics as necessary. Graph 4 shows the amount of time students spend engaged in learning a subject. To ensure that all students achieved mastery, Dorchester School District Two chose to use the mastery-based learning option. The mastery-based learning option permits students to move forward in the curriculum only when they demonstrate understanding by achieving a predetermined percent correct on all formative assessments. Dorchester administration established 70 percent correct as a standard for mastery-based learning. Graph 5 represents the average percent correct on embedded assessments students achieved during the school year.
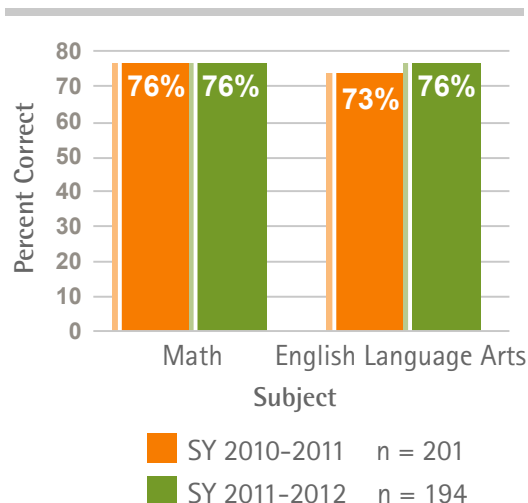
> *Whether a student fails one unit in a single subject or is homebound due to a medical disability and completes high school online, Apex Learning courses offer a rigorous curriculum that can be flexibly delivered to meet a wide range of student circumstances.*
>
> — **Kenneth Wilson, PhD**
> *Director of High Schools and Career/Technical Education Dorchester School District Two South Carolina*

Graph 4: Average Hours of Apex Learning Use

Number of Hours

| Subject | 52 | 41 | 36 | 31 |

Math: 52 (SY 2010–2011), 41 (SY 2011–2012)
English Language Arts: 36 (SY 2010–2011), 31 (SY 2011–2012)

SY 2010–2011   n = 201
SY 2011–2012   n = 194

Graph 5: Average Percent Correct on Embedded Assessments

Percent Correct

Math: 76% (SY 2010–2011), 76% (SY 2011–2012)
English Language Arts: 73% (SY 2010–2011), 76% (SY 2011–2012)

SY 2010–2011   n = 201
SY 2011–2012   n = 194

❯ The Result: Increased Achievement for Students Recovering Credit

The results of the third-party evaluation revealed that Apex Learning courses increase learning gains made by credit recovery students on the South Carolina High School Assessment Program (HSAP) for both school years.

To understand the impact that Apex Learning Comprehensive Courses make on the achievement of credit recovery students, Apex Learning and Dorchester School District Two partnered with a third-party evaluator to study the impact Apex Learning English language arts and math courses have on student performance on the South Carolina HSAP, a state assessment required for high school graduation. The study was initially conducted for the 2010-2011 school year and replicated for the 2011-2012 school year. In both years, researchers investigated the relationship between Apex Learning courses and English language arts and math performance on the HSAP.

Graphs 6 and 7 show the average percent correct score on Apex Learning embedded assessments by quartile. For both school years, a positive relationship was found between students' percent correct scores on Apex Learning assessments and student performance on the HSAP.
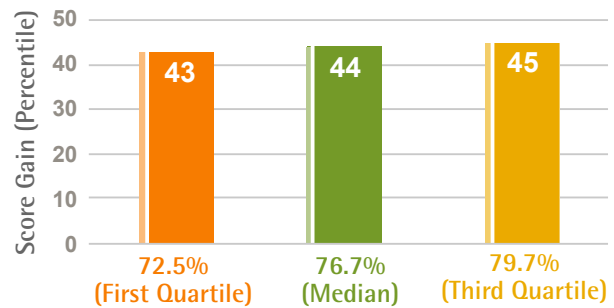
Percentile Gain by Quartile

Graph 6: 2010–2011 School Year

Score Gain (Percentile)

| 26 | 29 | 31 |

70.6% (First Quartile) — 75.4% (Median) — 80.0% (Third Quartile)
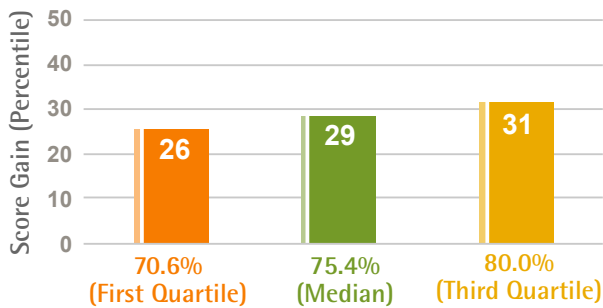
Average Percent Correct on Scored Assessments by Quartile

Graph 7: 2011–2012 School Year

Score Gain (Percentile)

| 43 | 44 | 45 |

72.5% (First Quartile) — 76.7% (Median) — 79.7% (Third Quartile)

Average Percent Correct on Scored Assessments by Quartile

In the 2010-2011 school year, the average student using Apex Learning courses for credit recovery (median) achieved 75.4 percent correct on their Apex Learning assessments. This percent correct score is associated with a gain of 29 percentile points on the HSAP English language arts and math assessments. Students in the first quartile, the lowest performing students, scored an average of 70.6 percent correct on the Apex Learning assessments and achieved a 26 percentile point gain, while students in the third quartile, the highest performing students, scored an average of 80 percent correct on the Apex Learning assessments and saw a 31 percentile point gain.

In the 2011-2012 school year, the average student using Apex Learning courses for credit recovery (median) achieved 76.7 percent correct on the embedded assessments. This percent correct score is associated with a gain of 44 percentile points on the HSAP English language arts and math assessments. Students in the first quartile scored an average of 72.5 percent correct on the Apex Learning assessments and achieved a 43 percentile point gain, while students in the third quartile scored an average score of 79.7 percent correct on Apex Learning assessments and achieved a 45 percentile point gain.

Student achievement in Dorchester School District Two, as demonstrated by a 29 percentile point gain in 2011–2012 and a 44 percentile point gain in 2011-2012 school suggests that partnerships between visionary leadership, supportive teachers, and students engaged in a challenging, high-quality curriculum provided by Apex Learning Comprehensive Courses lead to increased student performance.

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