

iPad in Education Results



Using iPad changes the way teachers teach and students learn.

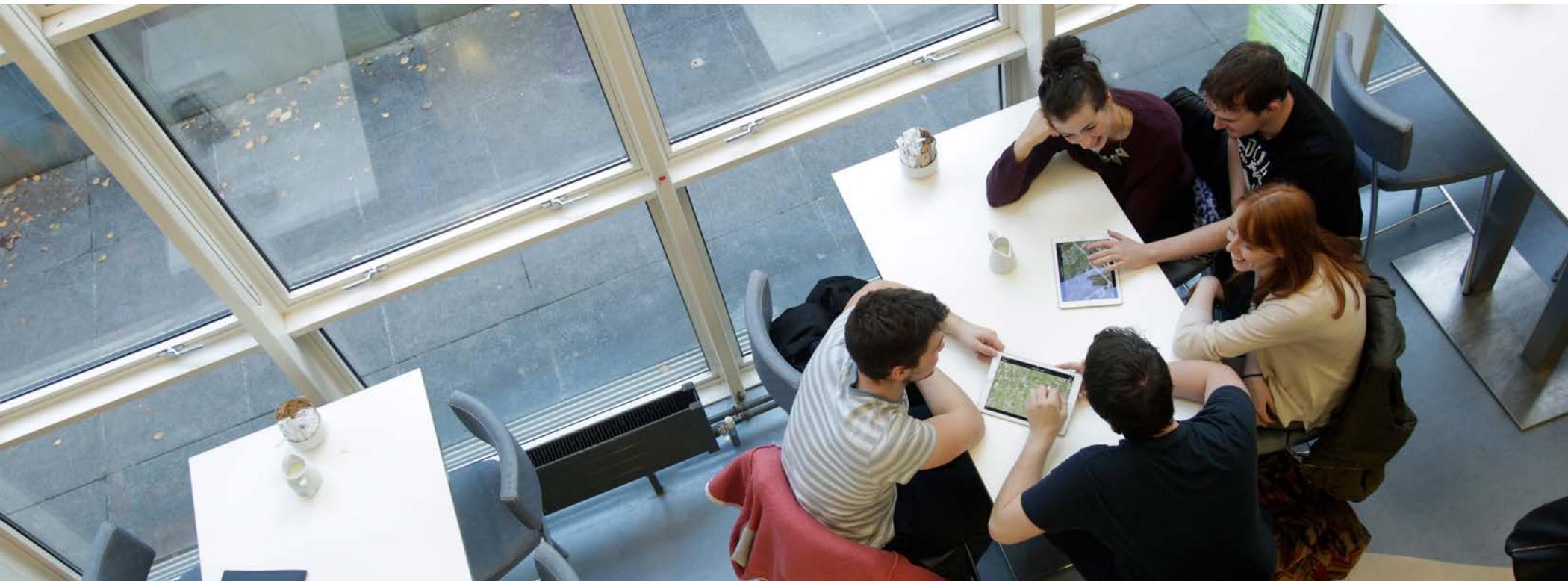
Students, educators, and institutions are using iPad to inspire creativity and hands-on learning that makes learning more powerful. Since Apple launched iPad in 2010, millions have made their way into education. They continue to show significant promise in teaching and learning, often with impressive results.¹ The examples in this document highlight the amazing success stories institutions are self-reporting in the areas below across K–12 and higher education:

- Improvements in academic performance
- Increases in engagement and motivation
- Rise in cost savings and resource efficiency
- Integrated focus on content quality and design



Academic Performance

Schools report that academic performance—as measured by standardized test scores and other key student outcomes—is improving with iPad use. A number of K–12 schools, districts, and higher education institutions have reported seeing substantial gains when comparing current student test scores with prior-year test scores, pre- and post-test measures, and classrooms without iPad. They also report increases in student performance and state and national assessments.





Drayton Hall Elementary School

Charleston, South Carolina

Drayton Hall Elementary puts students at the center of its classrooms with an iPad-based environment that fosters learning through apps, interactive lessons, and teacher-authored Multi-Touch books.

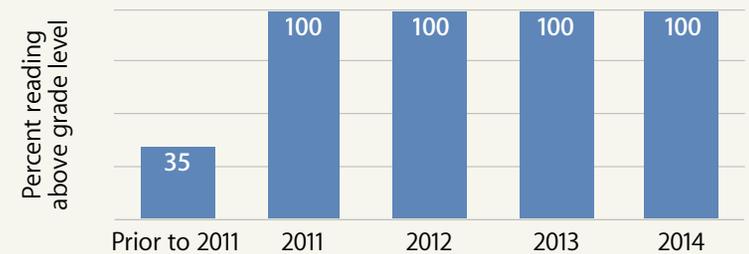
- Before iPad was introduced in Kristi Meeuwse's kindergarten class, about 35% of her students entered first grade reading above grade level. Since iPad was introduced, Meeuwse reports 100 percent of her students have been reading above grade level for four years in a row.
- Kristi uses iPad to help teach the Common Core State Standards, which requires presenting nonfiction text to the class. Because of the limited number of nonfiction books available at the kindergarten level, she creates her own books, taking advantage of the Multi-Touch features of iPad to make them engaging for her students.

[See how Kristi Meeuwse teaches with iPad >](#)

[Read more about Drayton Hall Elementary in their Multi-Touch book >](#)

100%

of kindergarten students reading above grade level for four consecutive years after iPad implementation



Kristi Meeuwse, kindergarten teacher



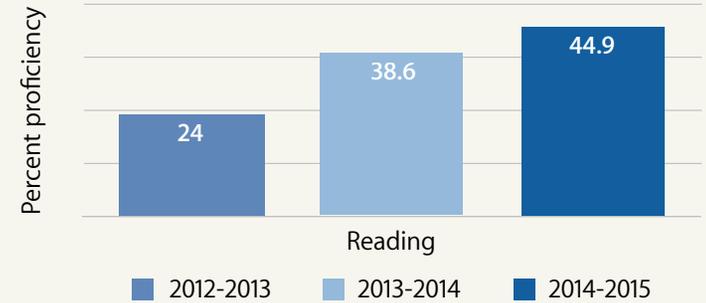


Montlieu Academy of Technology
High Point, North Carolina

Five years after implementing their one-to-one iPad program, this Title 1 school reports growth in test scores in all core subjects. The use of iPad has transformed the way the students learn and in the most recent year, their academic achievement has improved by 44.9 percent in reading and over 55 percent in math and science.

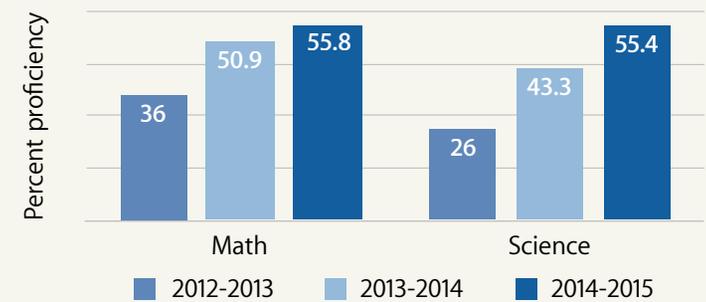
44.9%

increase in reading test scores



55%

increase in math and science test scores





Mater Dei High School

Santa Ana, California

Mater Dei addressed the individual learning styles of students with a one-to-one iPad initiative launched in 2011. iPad provides the tools they need to shift from traditional pedagogy to classroom instruction, and students take ownership of their learning.

Many classrooms are equipped with Apple TV, and teachers and students use AirPlay to collaborate, project, play, and stream projects created on iPad. The class of 2015, Mater Dei's first class to use iPad for four years, broke the school record for the number of students with a 4.0 Grade Point Average (GPA).

4.0

GPA earned by the highest number of students in the school's history



Cathedral School

Portland, Oregon

For three consecutive years, Cathedral School has enhanced teaching and improved learning with iPad by engaging students in the research and critical-thinking skills needed for success in the 21st century. Cathedral continues to see growth. During the 2014–2015 school year, Cathedral School reports that 87 percent of Cathedral School students in grades K through 8 performed at or above grade level in reading and 92 percent of students were at or above grade level in math.

Increases in reading and math proficiency based on assessments





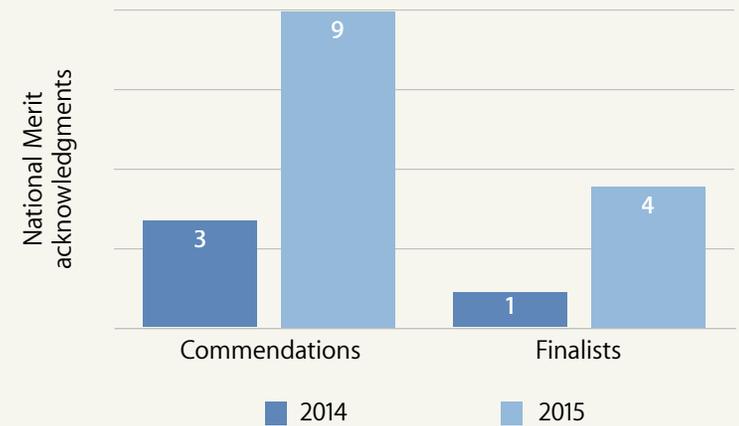
Archbishop Edward A. McCarthy High School

Southwest Ranches, Florida

The academic achievements of students at Archbishop Edward A. McCarthy are evidenced by the number of National Merit acknowledgments, which rose from three to nine commendations and one to four finalists—an increase of more than 200 percent since the introduction of iPad in the classroom. As a result of the rise in academic achievement, Archbishop reports that their 2015 graduates were accepted to colleges and universities such as Cornell, Princeton, Brown, and Duke, just to name a few.

200%

increase in student academic achievement evidenced by rise in National Merit acknowledgment





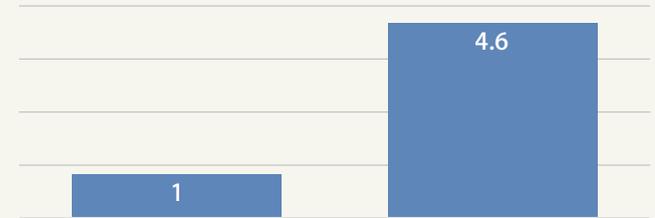
Valencia Park Elementary School Fullerton, California

All classrooms at Valencia Park have implemented a one-to-one iPad learning model, and they've been recognized as one of the top elementary schools in the state for using Apple technology to transform teaching, learning, and their community.

For most second graders, the average expected words per minute reading fluency rate increase is one word per week. Yet, over the course of 8.4 weeks, Valencia Park reports that second grade students participating in the Young Scholars Program, where they used iPad in the classroom, increased their reading fluency rate by 4.6 words per week. Because of this success, they have expanded the Young Scholars program to include a VIP take-home-pad-program for fifth and sixth grades.

[Read more about Valencia Park Elementary School in their Multi-Touch book >](#)

Second grade students increased their reading fluency rate by 4.6 words per minute per week from one word per minute per week





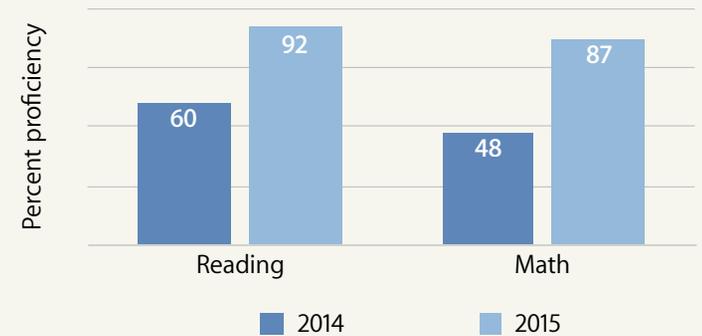
EpiC Elementary School

Liberty, Missouri

EpiC centers learning on empowering creativity by equipping students with mobile technology. In just one academic year, they have seen great results in student academic achievement using iPad that personalizes instruction and I-Ready, an online tool that measures growth. At the beginning of 2014-2015, 60 percent of students were proficient in reading and by the end of the year, student reading proficiency was at 92 percent. Students also experienced growth in math with 48 percent reading proficiency at the beginning of year, increasing to 87 percent by the end of the year.

[Read more about EpiC Elementary School in their Multi-Touch book >](#)

Increase in reading and math proficiency with personalized iPad instruction

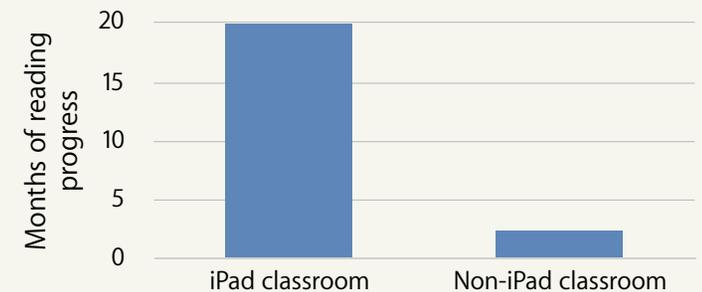


Escondido Union School District

Escondido, California

For the past eight years, Escondido has documented significant student achievement gains in the area of reading comprehension. With two different iPad implementations across their district — 100+ classes with shared iPad and 150+ classrooms with a one-to-one model—Escondido observed that students in the district’s first one-to-one mobile device classroom made nearly two years (one year and eight months) of progress in reading comprehension in just six months, while a comparative classroom showed just two and a half months’ growth in reading comprehension in six months.

2 years
of progress in reading comprehension
in just six months





Gurnee School District 56

Gurnee, Illinois

For the past four years, Gurnee reports that the one-to-one iPad initiative revolutionized the learning experience in Gurnee School District 56 for students, staff, and parents. The program incorporates learning tools that support reflective thinking, match student skill sets, and encourage a free exchange of ideas. The initiative has led to a transformation of student learning through the use of apps, allowing students to demonstrate their learning and open the possibilities to their most creative ideas.

[Read more about Gurnee School District 56 in their Multi-Touch book >](#)

20%

increase in students who met
growth projections in math
within two years

13%

increase in students who met
growth projections in reading
within two years





Roy B. Kelley Elementary School

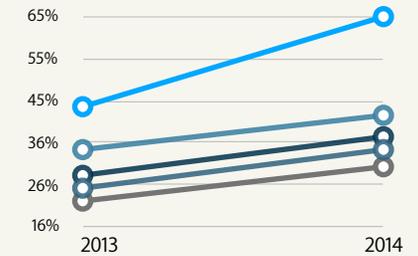
Lockport, New York

A three-year longitudinal study between Roy B. Kelley in partnership with the University of Buffalo compares the academic achievement of students who use iPad in the classroom with other students in the same grade level who don't use iPad in the classroom. Roy B. Kelley reports results that show significant achievement on New York State Assessments in English language arts and math.

When comparing the 2013 to 2014 test results of students using iPad with students not using iPad, a higher percentage of students using iPad scored proficient in English language arts and math (scored a 3 or a 4) and this percentage increased greatly year over year.

41%

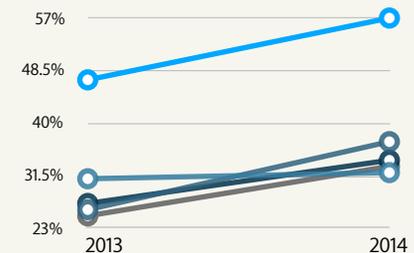
increase in math proficiency on state assessment



- iPad-only class
- Other classes in the same Building
- Other classes in the same District
- Other classes in the Region
- Other classes across the State

10%

increase in English language arts proficiency on state assessment



- iPad-only class
- Other classes in the same Building
- Other classes in the same District
- Other classes in the Region
- Other classes across the State



Mineola Middle School

Mineola, New York

For five years in a row, Mineola has used NWEA* student performance data to assess student progress. Since spring 2012, they've measured student performance in reading and math. Mineola reports results that show aggregate proficiency in grades 3 through 7 over a three-year period that coincides with their iPad initiative, which they say allows students to stay engaged, create, explore, and learn in new ways.

*NWEA = Northwest Evaluation Association



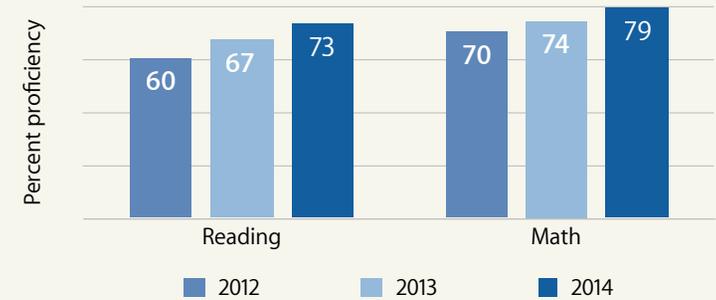
South Belton Middle School

Belton, Texas

State testing results from 2014–2015 show that students at South Belton Middle School are achieving academic success with the 2011 implementation of project-based learning and the integration of a one-to-one iPad environment. For many high schools, Algebra I can become a stop-gap course for students, but with the implementation of iPad, SBMS reports that it's been able to realize academic success with its students.

[Read more about South Belton Middle School in their Multi-Touch book >](#)

Increased reading and math scores
on state assessments



100%

of students passed the state-mandated
assessment in Algebra I



Eastern Howard School Corporation Greentown, Indiana

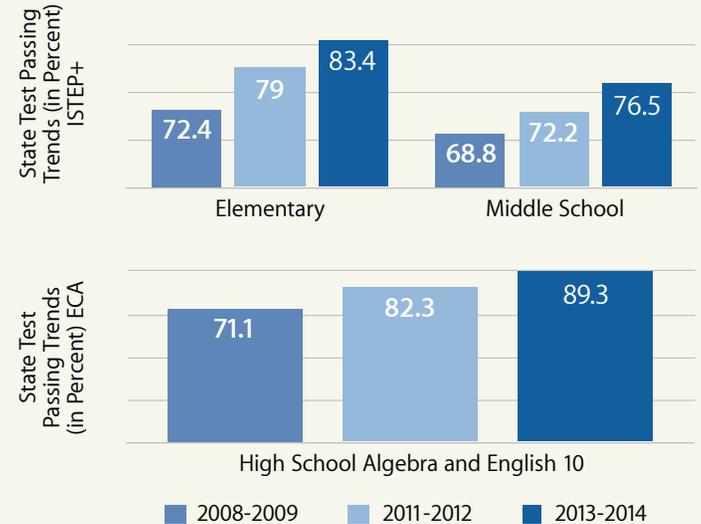
Serving grades K–12 in a rural area, Eastern's one-to-one iPad program provides a model for districtwide iPad adoption by shaping educational practices with state-of-the-art resources and continuous professional development. Students use apps like iTunes, iMovie, and GarageBand tailored to their grade level and subject, along with digital books created by teachers that students can access through iPad.

For the last six academic years in a row, Eastern has seen growth with all grade levels when comparing passing rates for ISTEP* and ECA** standardized tests in English and math.

*ISTEP+—Indiana Statewide Testing for Educational Progress Plus

** ECA—End of Course Assessment

Continuous improvement in state test assessment results at all grade levels for the past six years

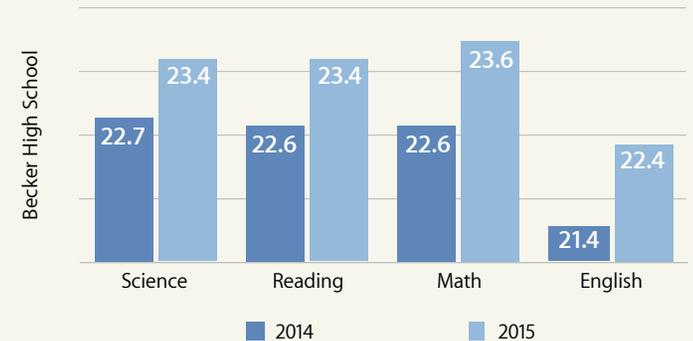


Becker Public Schools Becker, Minnesota

Becker Public Schools is considered a K–12 technology leader in the state of Minnesota. In 2012, Becker High School became one of the first area schools to begin deploying one-to-one iPad in the classroom. As the first class of students to be a part of one-to-one iPad implementation from the beginning, Becker's graduating class of 2015 observed gains in composite ACT* scores in science, reading, math, and English.

*ACT—American College Testing

Higher composite ACT scores in science, reading, math, and English when compared with state performance





California State University Northridge Northridge, California

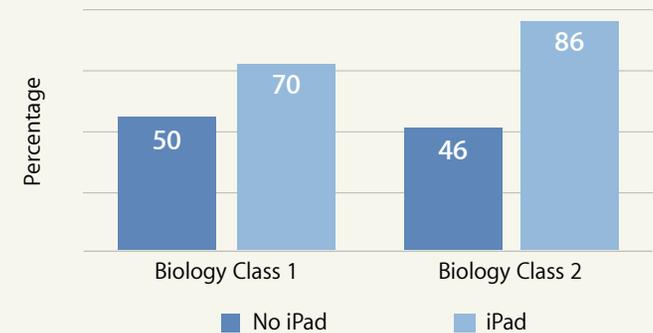
In 2013, Cal State Northridge launched the myCSUNtablet initiative, a one-to-one iPad deployment with the goals of increasing student engagement, improving the quality of teaching materials, and reducing cost. A simple six-step process was developed jointly with CSUN's Centers for Universal Design and Disability Resources toward the goal of making apps easy for faculty to test. The myCSUNtablet initiative has cross-campus commitment of leaders, with a deliberate focus on ADA accessibility.

To address whether iPad has an impact on student learning outcomes, a straightforward "micro-assessment" technique was developed over one academic year, whereby faculty would teach a similar Biology lesson two different ways—once with iPad and once without—and then measure the results of each method.

More than

20%

increase in student assessment scores
in Biology classrooms using iPad as
compared with students not using iPad



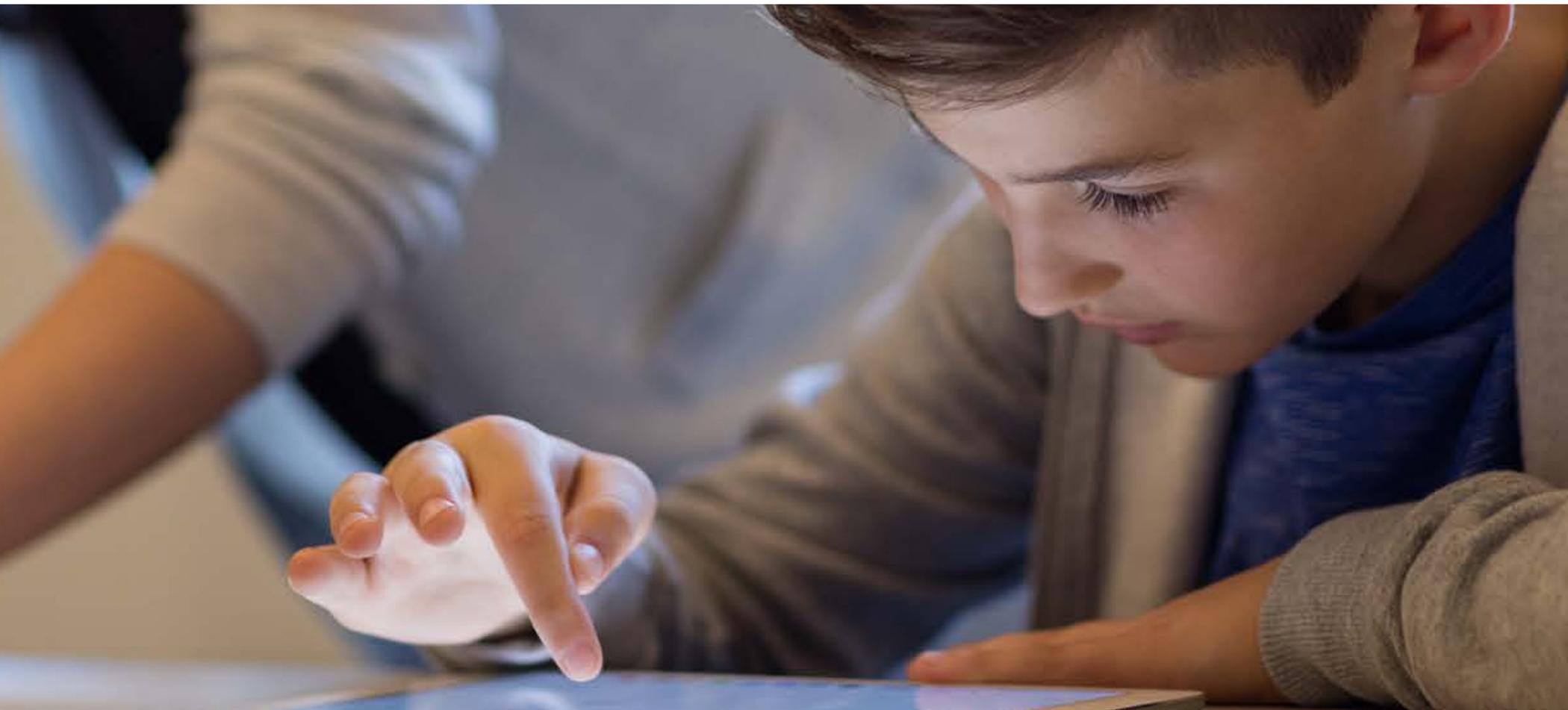
Creighton School District

"Another part of the data that can't truly be measured is the fact that all learning styles are being met. No matter what type of learners my students are, I am able to cater to them by incorporating different activities into the lesson using iPad. This is so important because the teacher is able to differentiate for each student's needs. There is no argument that iPad is a great tool to have in the classroom. Some data cannot be measured by the scores of tests but rather by the projects and assignments completed by the students."

— Fourth grade teacher, Creighton School District—Phoenix, Arizona

Engagement and Motivation

From preschool to college, reports from institutions overwhelmingly indicate that students using iPad find that it increases their engagement in learning and makes them feel more motivated to learn. Other positive outcomes include an increase in attendance and a decrease in discipline problems and dropout rates.





Cedar Valley Catholic Schools

Waterloo, Iowa

In 2012, this school's one-to-one iPad program was built around a clear vision for success, student engagement, and ongoing professional development, resulting in gradual improvements across a variety of measures. Cedar Valley reports a 97 percent attendance rate, 100 percent graduation rate, and 70 percent of all grade levels exceeding national scores on state assessments.

96%

of students report being more engaged in the classroom



Goodland USD 352

Goodland, Kansas

In a rural county where over half of the students are economically disadvantaged, Goodland USD 352 was previously designated as "needing improvement." Goodland reports that the most recent year of one-to-one iPad program implementation resulted in a decrease in classroom failure rates, discipline issues, and dropout rates while attendance and graduation rates increased for middle and high school students.

25%

decrease in high school students failing one or more classes

18%

decrease in middle school students failing one or more classes

10%

decrease in dropout rate



Lynn University
Boca Raton, Florida

Since the launch of their iPad program, Lynn continues to see increases on student satisfaction surveys each year—and now as a result, Lynn is receiving accolades by *U.S. News & World Report*. In spring 2015, Lynn was ranked #21 in *U.S. News & World Report's* Best College rankings as Most Innovative School for innovative updates in curriculum, faculty, students, campus life, technology or facilities. In the most recent student satisfaction survey:

- 72 percent of students thought Multi-Touch books were more effective than traditional paper books (up from 65 percent in 2013).
- 90 percent of students felt iPad would allow them to be better able to connect with classmates (up from 79 percent in 2013).
- 96 percent of students felt comfortable using iPad technology.
- 99 percent of students anticipated iPad would contribute to their learning experience.
- 73 percent of students felt the iPad program influenced their decision to attend Lynn.

[Read more about Lynn University in their Multi-Touch book >](#)

Ranked

#21

in *U.S. News & World Report* as
Most Innovative School



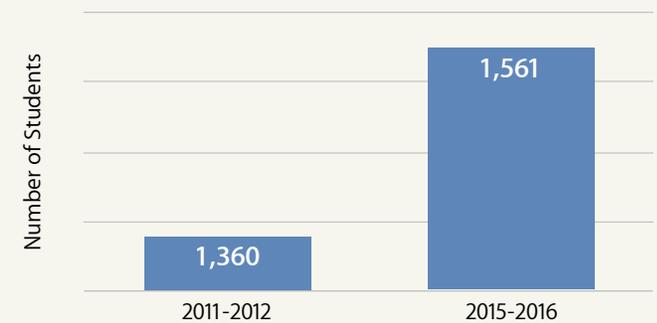
Bluffton-Harrison MSD

Bluffton, Indiana

For the last five years, Bluffton has implemented a one-to-one iPad initiative across all grades in the district. To increase the level of engagement students had with iPad, Bluffton expanded its initiative during the 2015–2016 academic year to allow all students to take their devices home rather than only students in grades 5 through 12. During this expansion year, Bluffton reports that many factors, including increased engagement with iPad, contributed to the 15 percent increase in district enrollment—a rise of 200 students.

15%

growth in enrollment due to many factors, including increased engagement with iPad





Encinitas Union School District

Encinitas, California

For the past two years of Encinitas' one-to-one iPad program implementation, data reflects an increase in attendance rates at all nine schools. While this data could be attributed to a variety of factors, one possible reason (combined with survey data) is that students are more engaged in learning and have a desire to attend school.

[Read more about Encinitas Union School District in their Multi-Touch book >](#)

96%

overall attendance rate

Walters State Community College

"Parents in the community come up to me and say, 'Please, if you keep doing anything, keep bringing the kids to Walters State to engage with the mobile devices because they really enjoy it.' Walters State is in the fourth year of our mEngage Mobile Learning Initiative. The journey has been motivating, engaging, and transformational for our institution."

—Dr. Lori Campbell, Walters State Community College—Morristown, Tennessee



Marymount School of New York
New York, New York

Marymount prefers alternative assessment methods to measure students' academic curiosity, creativity, and achievement. In the spirit of the Maker Movement, Marymount embraces the importance of the process over the product and encourages all students to experiment, tinker, and innovate. In the last few years, the school has also seen a marked increase in the number of students applying to colleges and universities across the country—many of them choosing STEM-related majors.

[Read more about Marymount School of New York in their Multi-Touch book >](#)

100%

of Marymount seniors graduate
on time and go on to college

Jefferson Elementary School

"iPad in our classroom has allowed me to enhance my third graders' learning in ways I never imagined. Instead of the usual report or pencil and paper test, they are able to create a video using iMovie to demonstrate their learning. We are also able to collaborate with other third grade classes in our school and other schools as well. It has changed the way we learn!"

— Leah Antal, third grade teacher, Jefferson Elementary, Manistee Area Public Schools—Manistee, Michigan



Richard J. Lee Elementary School *Coppell, Texas*

Richard J. Lee Elementary School opened in 2014, becoming the first Net-Zero, LEED Gold certified elementary school in Texas. With 93,000 square feet of state-of-the-art physical learning space and a robust information technology infrastructure, this environment helps learners of all ages feel empowered to use the school as a learning tool. iPad devices are assigned to the learners in grades 4 and 5. Younger learners have ubiquitous access to iPad devices, and students use them throughout the school to answer questions and create solutions.

In just one year, they met all 11 performance and participation rates under the Texas States' System Safeguards and got a 4 out of 4 for Accountability Standards, which include Student Achievement, Student Progress, Closing Performance Gaps, and Postsecondary Readiness.

[Read more about Richard J. Lee Elementary School in their Multi-Touch book >](#)

Less than 18 months since the school opened,
Richard J. Lee Elementary has seen a

30%

increase in enrollment and a

2%

increase in attendance rate compared
with the state average



Resource Efficiencies

It has become more important than ever for districts and schools to manage their financial obligations in order to provide great educational experiences on a limited budget. iPad implementation gives schools the opportunity to create efficiencies and explore cost savings, such as reductions in computer lab maintenance, consumables and textbooks, hardware peripherals, print services, and more.





String Theory Schools

Philadelphia, Pennsylvania

This K–12 school built an Apple ecosystem to spark innovation across the curriculum and inspire leaders among students, resulting in significant transformations.

- Replaced all textbooks and school supplies with iTunes U content
- Built the curriculum collaboratively, in real time, and published content on iTunes U

\$100,000

savings per year on textbooks with iTunes U for content and teacher-created courses and curriculum.



Emma K. Doub Elementary School

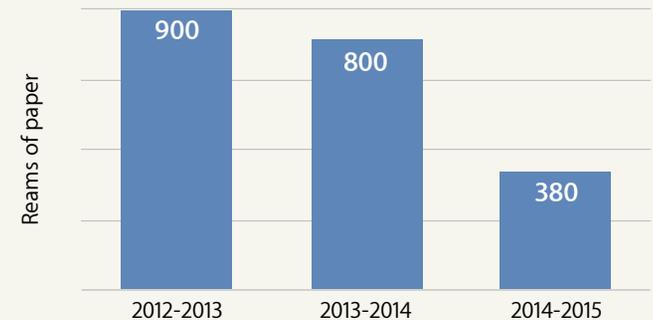
Hagerstown, Maryland

At Emma K. Doub, every student in the school uses iPad in a one-to-one environment throughout the instructional day along with a variety of other tools, including digital photography and green screen technology. The goal at this school is to integrate arts and technology into the curriculum to challenge, connect, and create in order to achieve academic success. Emma K. Doub reports that the initiation of this one-to-one environment has reduced paper costs.

[Read more about Emma K. Doub Elementary School in their Multi-Touch book >](#)

58%

decrease in paper cost over two years





Cathedral Catholic High School
San Diego, California

Since school-wide iPad program implementation, the Cathedral Catholic community has enjoyed \$38,000 in financial savings through the creation of electronic handouts and handbooks for use on iPad. Parents and faculty also report savings after transitioning to iPad.

[Read more about Cathedral Catholic High School in their Multi-Touch book >](#)

\$38,000

in savings through creation of electronic learning materials for use on iPad

Content Quality and Design

Quality content for iPad and apps for iPad in education lead to higher achievement. Research shows the importance of developing features that enhance learning and engage young students, while not distracting from the educational content. Several studies have focused on specific content effectiveness of third-party applications, underscoring that designing quality content matters.





Solar Walk, *Science*

Researchers explored how two specific interactive features in the app Solar Walk would affect high school students' understanding of the solar system and enhance learning on iPad.²

- The Solar Walk app impacted student understanding in 20 minutes.
- Interactive features of iPad enhanced students' understanding of content that is otherwise difficult to demonstrate with traditional instruction methods.

Solar Walk³ impacted student understanding in

20 minutes



Wuzzit Trouble, *Math*

A recent Stanford University study showed that playing the mobile video game app Wuzzit Trouble led to dramatic learning results in math. When researchers compared the written pre- and post-test results of two classes, the students who spent 120 minutes of class time playing Wuzzit Trouble improved their math problem-solving skills.

[Learn more about these results in the Stanford research study >](#)

16.4%

increase in math problem-solving skills after 120 minutes of game play with Wuzzit Trouble



Learn with Homer, *Literacy*

The study "Can an App Close the Literacy Gap?" set out to examine the efficacy of the Learn with Homer app on early literacy development in an effort to improve school readiness skills. In seven Head Start classrooms, 82 children were randomly assigned to treatment and control groups. The treatment group used six levels of Learn with Homer's literacy program.

[Learn more about these results in the research study >](#)

*TOPEL—Test of Preschool Early Literacy

74%

increase in TOPEL* test scores after using the Learn with Homer app 15 minutes a day over six weeks



ST Math, Math

In 2010–2011, the WestEd “Evaluation of MIND Research Institute’s Spatial-Temporal Math (ST Math) Program in California” study looked at the average grade-level math scores on the California Standards Test (CST) at all schools that used the ST Math app. When comparing the test scores with a matched set of other schools that did not use the app, the findings were impressive.

[Learn more about these results in the research study >](#)

16 points

gain on CST test scores after one year of implementing the ST Math app



Teachley: Addimal Adventure, Math

Teachley: Addimal Adventure teaches single-digit addition to kindergarten through second grade students—the goal is to promote conceptual understanding and fact fluency. A pilot study was conducted to determine the effect of Addimal Adventure on students’ accuracy, speed, and strategy use.

[Learn more about these results in the research study >](#)

13%

increase in speed and accuracy of math facts per minute when using the Addimal Adventure app



LightSail, Reading

LightSail reports students reading 25 minutes a day on LightSail are seeing 2+ years of Lexile growth in a single year. In a recent Columbia University Teachers College study, researchers found that students in grades 5 and 6 who use the LightSail app in their reading practice have improved their Lexile measure between 2.6 and 4.3 times the national average, according to MetaMetrics, the creators of the Lexile Framework.

[Learn more about these results in the LightSail research study >](#)

2+ years

of growth in reading ability after one year of reading 25 minutes a day on LightSail



Dexterity, *Special Education*

Dexterity is an application for iPad that can be used to improve fine motor skills through a variety of therapeutic hand exercises. Improving dexterity is essential for children who manage various hand dysfunctions that may require accessibility accommodations. Research conducted in the Occupational Therapy Doctorate program in Huntington, IN, reports findings that indicate fine motor skills may improve with Dexterity.

*NHPT—9-Hole Peg Test

2 points

average point increase on NHPT* test after six 20-minute sessions with the Dexterity app³



eSpark, *Math and Literacy*

Launching their one-to-one iPad implementation in 2013, Elizabeth Forward School District has seen remarkable impact in student engagement and academic achievement using eSpark. Before eSpark, the kindergarten, first, and second grade special education students began the school year significantly behind their peers, averaging 46th percentile nationally. That same group grew 25 percentile points in math and English language arts after using the eSpark app, closing the achievement gap.

*NWEA—Northwest Evaluation Association

**MAP—Measures of Academic Progress

[Learn more about the Elizabeth Forward case study >](#)

25%

point gain on NWEA* MAP** after one semester using the eSpark app

1. The data shown in this document is self-reported by the institution—Apple was not involved in the gathering or analysis of the data reported, nor has any knowledge of the methodology used. This document highlights the results or trends institutions using Apple products have observed, along with studies that demonstrate the positive impact iPad is having on instruction in the classroom.
2. Conceptualizing astronomical scale, *Computers and Education*, January 2014
3. Prior to purchase or download, you should review the terms, representations, policies, and practices of any third-party app to understand whether their treatment of information meets the needs and requirements of your organization, especially as it relates to the treatment of children's data.

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