

# Using iPad changes the way teachers teach and students learn.

Students, educators, and institutions around the world 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. The examples in this document highlight the amazing success stories institutions worldwide are self-reporting in the areas below across K–12 and higher education:

- Improvement in academic performance
- Increase in engagement and motivation

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. 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.

# Academic Performance

"Using iPad devices has made me a better teacher. I always knew I needed to differentiate my lessons, but it was tough finding the time. Having my students create and innovate through [Apple] apps has been a total game changer."

Mrs. Richards, second-grade teacher Collierville Elementary School

### **Richard J. Lee Elementary School**

#### Coppell, Texas, United States

With 800 K–5 learners, Richard J. Lee Elementary School is the first net-zero, LEED Gold-certified elementary school in Texas. Classrooms have Apple TV for sharing learning and faculty use both MacBook and iPad. Fourth- and fifth-grade students have one-to-one iPad and younger learners have access to MacBook and iPad. Digital courses enable students to set the pace of their own learning. Challenge Based Learning is woven throughout the curriculum, and groups of students from three or more different grade levels often work together on projects.

Richard J. Lee continues to document increases in reading and math scores for their students in third through fifth grade, as well as an increase in science scores for fifth graders.

Read more about Richard J. Lee Elementary School in their Multi-Touch book >



# Archbishop Edward A. McCarthy High School

Southwest Ranches, Florida, United States

In 2018, the academic achievements of students at Archbishop Edward A. McCarthy, as evidenced by the number of National Merit acknowledgments, continued to rise. Commendations rose from three to eight and finalists rose from one to eight—an increase of 200 percent since the introduction of iPad in the classroom. As a result of the rise in academic achievement, Archbishop reports that their 2018 graduates continue to be accepted to top colleges and universities.

Read more about Archbishop Edward A. McCarthy High School in their Multi-Touch book >

# 200%

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



# **Bell's Hill Elementary School**

#### Waco, Texas, United States

Bell's Hill Elementary believes that digital learning is vital for ensuring innovation and excellence in education and for preparing all learners for productive engagement in a global society. With iPad and other Apple tools, students can access, edit, share, and collaborate. They use Apple apps to build fluency, complete projects with graphs and polls, create reports and movies, and document real-life learning experiences.

The school has seen improvement in their State of Texas Assessments of Academic Readiness (STAAR) assessment scores for reading, math, and science. From 2014—when they first started using iPad—to 2018, science scores increased from 68 percent to 88 percent, showing a 20-point growth. In reading, scores increased 11 points, from 66 percent to 77 percent. And math scores increased from 65 percent to 82 percent, a 17-point growth.







# **EPiC Elementary School**

Liberty, Missouri, United States

EPiC centers learning on empowering creativity by equipping students with mobile technology. Since 2014, the school has seen great results in student academic achievement using iPad, which personalizes instruction, and i-Ready, an online tool that measures growth. At the beginning of the 2017–2018 school year, 52 percent of students were proficient in reading, and by the end of the year, student reading proficiency was at 85 percent. Students also experienced growth in math, with 44 percent math proficiency at the beginning of the year, increasing to 90 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



## T.H.E. Leadership Academy

Oceanside, California, United States

T.H.E. Leadership Academy is transforming education into a personalized learning pathway. This exciting journey has challenged them to capture and analyze data in both new and traditional ways for a more complete picture of student achievement. Since starting their personalized learning initiative with iPad, T.H.E. Leadership Academy has seen significant gains in English language arts and math on the California Assessment of Student Performance and Progress (CAASPP) statewide assessments. In addition, they observed that schoolwide disciplinary incidents decreased by 50 percent from the 2016–2017 year to 2017–2018.

Read more about T.H.E. Leadership Academy in their Multi-Touch book >



# **Bishop Verot Catholic High School**

#### Fort Meyers, Florida, United States

Bishop Verot Catholic High School embraces the advances of technology, as well as opportunities for students to "dig in the dirt" and envision solutions to world problems. Students use Apple TV and iPad to engage in project-based learning opportunities, such as building a sustainable garden system and developing electronic communication tools for children with disabilities.

With the school's one-to-one iPad initiative, Bishop Verot focuses on problem-solving and independent thinking. As classrooms shifted from teachercentered to student-centered learning, the school documented increases in average SAT scores of 74 points for the top 10 percent of students and 79 points across the entire student population. The school also observed that over a five-year period starting in 2013, the percentage of students who received college scholarships increased from 63 percent to 71 percent.

Read more about Bishop Verot Catholic High School in their Multi-Touch book >



#### Average SAT scores for all students

# Average SAT scores for the top 10% of students



# West Ridge Middle School

Austin, Texas, United States

West Ridge uses the nationally normed Measures of Academic Progress (MAP) diagnostic test to measure the competencies of students' learning in a one-to-one environment using Apple technology. MAP helps teachers establish a baseline for monitoring progress and identify students who need intervention in math and reading. The school has observed a positive relationship between using MAP to identify interventions for students and the results of students' assessments in math.

For example, sixth graders increased the overall mean scores on their math exams by 4.5 percent from the 2016–2017 school year to the 2017–2018 school year. Seventh graders increased their math scores by 7 percent during the same period.



increase in mean score of sixth-grade math exams

7%

increase in mean score of seventh-grade math exams

### Marymount School of New York

New York, New York, United States

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. For several years, the school has seen a marked increase in the number of students applying to colleges and universities across the country—many of whom choose STEM-related majors. For the last five years, 100 percent of Marymount seniors have graduated and gone on to college.

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

# Zavala Elementary School

#### Harlingen, Texas, United States

Zavala Elementary started using iPad in 2015 and launched their one-to-one initiative in 2016. The school has transformed learning through a broad range of tools on iPad and Mac that encourage critical thinking and real-world problem-solving. They've seen a clear correlation between the rollout of student devices and student progress across all grade levels.

The school measures student achievement and learning from third to fifth grade using the State of Texas Assessments of Academic Readiness (STAAR) standardized test. The results show positive change from 2016 to 2018. Each year, third-grade scores improved an average of 11 percent in reading and 12 percent in math. For fourth grade, scores improved an average of 0.5 percent in reading and 7 percent in math. And for fifth grade, they improved an average of 8 percent in reading, 15 percent in math, and 4 percent in science.

Read more about Zavala Elementary in their Multi-Touch book >



### **Johnston High School**

#### Johnston, Iowa, United States

iPad is integral to learning experiences at Johnston High School. It makes learning more personal, includes apps that expand opportunities for creative expression, and opens a world of communication to students with special needs.

To monitor students' cognitive engagement during class time, Johnston High School uses Instructional Practices Inventory (IPI), a teacher-led process for collecting and organizing data about cognitive engagement. Teachers study the data collaboratively so they can more effectively design and implement quality learning experiences.

Both the ratio and percentage of higher-order thinking are more favorable when students are engaged with technology than when they're not. The data for one checkpoint in the 2017–2018 year shows that when using technology, students were about 50 percent more likely to be engaged in higher-order thinking, as 38.2 percent of classroom observations of students using technology involved higher-order thinking, compared with only 26 percent of observations of students not using technology.

# 50%

increase in likelihood of student engagement in higher-order thinking when engaged with technology for learning

## **California Elementary School**

Orange, California, United States

At California Elementary School, 90 percent of students are socioeconomically disadvantaged and three out of four are English-language learners. In spite of these challenges, the school has dramatically increased literacy gains in the last five years.

When they started their schoolwide Blended Learning Literacy initiative with iPad in 2015, only 15 percent of their students were performing reading work at grade level or above. As of December 2018, 73 percent of students were working at or above grade level in reading, and an additional 12 percent completely finished the program at a middle school level.

Read more about California Elementary School in their Multi-Touch book >



# Mineola Middle School

#### Mineola, New York, United States

For six 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 5 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

#### Increased reading and math scores on state assessments





## **Meadow Ridge School**

#### Orland Park, Illinois, United States

iPad opens up a world of possibilities for communication at Meadow Ridge School, empowering learners to share their ideas and knowledge in meaningful ways and engage in more higher-order thinking.

The school uses Instructional Practices Inventory (IPI) to collect data about student cognitive engagement during class time. The IPI process indicates that every 5 percent increase in higher-order thinking activities is equivalent to 9.5 additional school days of engagement in higher-order thinking activities. While typical elementary schools engage their students in higher-order thinking activities 20 percent of the time, Meadow Ridge's data showed that their learners are engaged 34.2 percent of the time—giving them the equivalent of 25 more days of creativity, collaboration, and problem-solving each year than the average student.

# Class time spent in higher-order thinking activities



# Lynn University

#### Boca Raton, Florida, United States

Since the launch of their iPad program, Lynn continues to see increases on student satisfaction surveys each year—and as a result, Lynn has received 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 2018 student satisfaction survey:

- 78 percent of students thought Multi-Touch books were more effective than traditional paper books (up from 65 percent in 2013).
- 96 percent of students felt comfortable using iPad technology.
- 94 percent of students anticipated that iPad would contribute to their learning experience.

Read more about Lynn University in their Multi-Touch book >

# Ranked #21

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

# Engagement and Motivation

"My third-grade students are so excited to use technology in the classroom and that has led to them producing better work. Technology in the classroom has also given the quietest students a voice."

Mrs. Holt, third-grade teacher Collierville Elementary School

## Magnolia Heights School

#### Senatobia, Mississippi, United States

At Magnolia Heights School, students use Pages, Keynote, Numbers, and iMovie on MacBook and iPad for their assignments, projects, and research. With Apple technology in every classroom, the school is seeing students embrace their different learning styles and immerse themselves in their education. The school uses survey data to ask students about their use of Apple technology and their engagement in the classroom, then to analyze for areas of improvement.

Data from 2018 showed that 97 percent of students feel more engaged in the classroom—an increase from 50 percent in 2014 and 90 percent in 2016. It also showed that 91 percent of students feel better prepared to use technology in college and beyond, and that 97 percent believe Magnolia Heights is similar to or excels compared with other schools and their technology programs.

Read more about Magnolia Heights in their Multi-Touch book >

97%

of students feel more engaged 91%

of students feel confident about using technology after high school 97%

of students feel Magnolia is similar to or excels compared with other schools

# San Antonio Continuation High School

#### Claremont, California, United States

San Antonio High School has reported that students who typically struggled in traditional school settings are more successful because they can use iPad to express their learning in more meaningful ways. With iPad, students compose monologue videos to their current selves from their successful future selves. They create digital scrapbooks for history class of content from a past era and make math videos to share with local elementary schools.

San Antonio has looked at measures of success in learning, attainment toward student goals, and improvement of the learning environment. Staying in school is an important measure for this student population, and as a result of the changes to instruction and learning with iPad, San Antonio High School has documented a drop in suspension and expulsion rates. They believe that iPad helps students develop a skill set that meets 21st-century demands—and this confidence is inspiring students to make better decisions and find reasons to stay in school.

Read more about San Antonio Continuation High School in their Multi-Touch book >

### **Thomas Jefferson Elementary School**

#### Compton, California, United States

The technology-based environment at Thomas Jefferson Elementary School helps develop global, digital citizens who are prepared for their academic and vocational futures. Students learn to code with Swift Playgrounds, improve literacy skills and pronunciation with iPad apps, create presentations about themselves in Keynote, and use GarageBand to compose music that conveys the mood of a novel.

The school has observed that student engagement, project-based learning, and technology have significantly impacted daily attendance. Chronic absenteeism (absence of 10 or more days per year) decreased substantially from 7.5 percent (61 students) in the 2016–2017 school year to 3.4 percent (29 students) in 2017–2018.

#### Decrease in suspensions



#### Decrease in chronic absenteeism



#### Valley Christian Middle School

#### Cerritos, California, United States

An Apple Distinguished School since 2014, Valley Christian Middle School has been using iPad to personalize learning for students, empowering them to make choices about how, when, and where to learn. Students use iMovie, Pages, and Keynote, among many other Apple products, to express knowledge in creative ways and to publish what they've learned—all with iPad. Since the introduction of the school's one-to-one program years ago, annual student surveys show that student engagement continues to soar, and students are increasingly initiating and taking responsibility for their learning.

Read more about Valley Christian Middle School in their Multi-Touch book >

#### Student Survey Results

<b>98%</b> say iPad fosters communication with teachers	
97% say iPad helps them stay organized for school	
<b>96%</b> say their teachers use technology well	
<b>93%</b> say creativity is valued in their classes	
91% say they like using iPad for school	
91% say they feel challenged by the work they're doing	
<b>89%</b> say they enjoy learning because of iPad	

86% say teachers let them choose how to carry out projects

"I enjoy iPad due to the convenience and power of the software. Comparing the time it takes to complete work now with iPad to my older methods of handwriting last year in sixth grade, I see iPad is a valuable asset."

A VCMS student



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- 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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