

iPad in Education Results



iPad changes the way teachers teach and students learn.

Students, educators, and institutions are using iPad for countless educational purposes and finding both anticipated and surprising benefits. Examples in this document highlight the following areas across K–12 and higher education:

- Improvements in academic performance
- Increases in engagement and motivation
- Added instructional flexibility and resource efficiency
- Integrated focus on content quality and design

Since Apple launched iPad in 2010, millions have made their way into education. They are showing significant promise in instruction, often with profound results.

This document highlights many of these results as reported by schools, along with studies that demonstrate the positive impact iPad is having on teaching and learning.



Academic Performance

Academic performance—as measured by standardized test scores and other key student outcomes—is improving with iPad use. A number of K–12 schools and districts in the United States are seeing substantial improvements when comparing:

- Current student test scores to prior-year test scores
- Student test scores to norms
- Student performance on pre- and post-test measures

The story is similar in higher education where, in a survey of 1206 U.S. college students and 204 college-bound high school seniors, 90 percent believe that tablets are valuable for educational purposes.¹ A majority believe that tablets help them study more efficiently and perform better than without tablets.





Drayton Hall Elementary

Charleston, South Carolina, United States

Drayton Hall puts elementary 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 percent of her students entered first grade reading above grade level. With iPad, 100 percent of her students have been reading above grade level for two years running.
- Kristi used iPad to help teach the Common Core State Standards, which required the incorporation of nonfiction informational text in her classroom. Because of the limited number of nonfiction books at the kindergarten level, she decided to create them herself, taking advantage of the Multi-Touch features of iPad to make them engaging for her students.

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

100%

of kindergarten students
reading above grade level

Kristi Meeuwse, kindergarten teacher





Auburn School Department
Auburn, Maine, United States

In a randomized comparison study during the 2011–2012 school year, eight kindergarten classrooms used iPad for nine weeks, while eight kindergarten classrooms did not.

- Students using iPad outperformed the non-iPad students in every literacy measure they were tested on.
- By the end of the 2012–2013 school year, kindergartners had a 40 percent increase in overall reading proficiency rate on top of an increase of 38 percent for the 2011–2012 school year when compared to the prior year.

“With the right kind of teaching, the right kind of apps, and the selective process of using iPad with traditional teaching methods, our students are able to achieve more than they did in the past.”

—Amy Heimerl, kindergarten teacher

[See how Amy Heimerl teaches with iPad >](#)

38%

increase in kindergarten reading proficiency rate in 2011–2012 school year

40%

increase in kindergarten reading proficiency rate in 2012–2013 school year

Amy Heimerl, kindergarten teacher





Montlieu Academy of Technology
High Point, North Carolina, United States

First year of iPad use at this Title 1 Pre-K through 5 school resulted in jump of nearly 13 percent to 72.1 percent in end-of-grade composite test scores that include reading, math, and science. Scores also improved by nearly 29 percent in science, which the principal says is also because of the iPad program.

29%

increased science
test scores



Prince George's County Public Schools, Title I Office
Landover, Maryland, United States

The number of students at "advanced" level math is 175 percent higher at four iPad one-to-one middle schools than similar schools without iPad. The number of students at "advanced" level of reading is 35 percent higher, based on state assessments.

175%

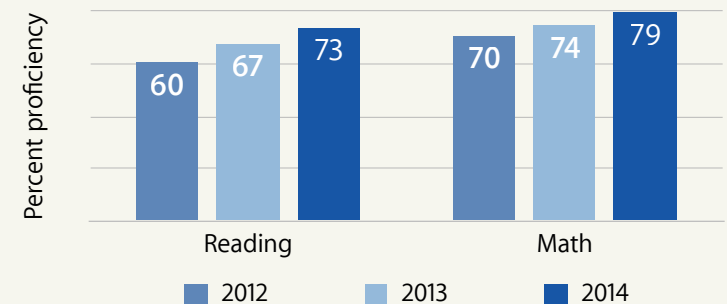
more students at "advanced" level
math compared to students at
similar schools without iPad



Mineola Public Schools
Mineola, New York, United States

Over the last five years, Mineola has used NWEA student performance data to assess student progress. Since spring 2012, they've measured student performance in reading and math. Results 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.

Increases in reading and math
proficiency based on assessments





Coachella Valley Unified School District

Thermal, California, United States

The iPad program at this economically challenged, rural district puts knowledge-creation tools in students' hands and teaches them to think critically.

"We will lead the way in adopting the Common Core State Standards, the Smarter Balanced Assessments and we will utilize Challenge Based Learning and combine technology, content, and pedagogy that helps us construct the new Road to Educational Excellence, which will prepare our students for college, career, and citizenship."

—Dr. Darryl Adams, superintendent

95%

increase in fourth-grade student proficiency after iPad

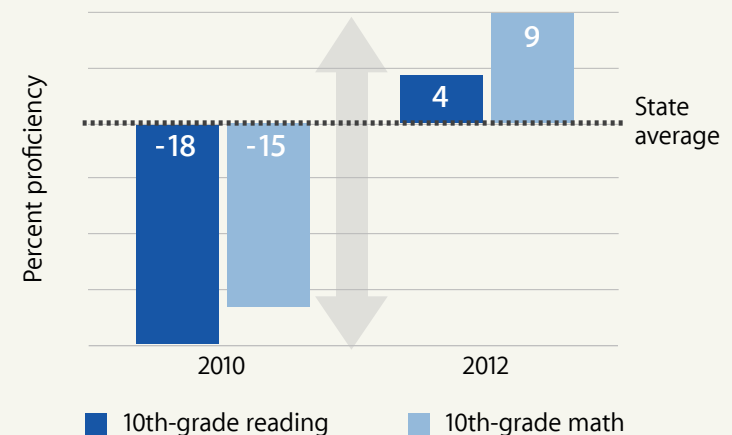


Howard High School of Technology

Wilmington, Delaware, United States

In a setting where half of incoming high school students perform below state proficiency standards, Howard uses iPad to bridge the economic and digital divide. In the two years since iPad was introduced, Howard's tenth-grade students are performing above standards in both reading and math.

Increased reading and math scores on state assessments





Cedar Valley Catholic Schools

Waterloo, Iowa, United States

This school's one-to-one iPad program was built around a clear vision for success and ongoing professional development, resulting in higher test scores and increased student enrollment.



Cathedral School

Portland, Oregon, United States

The one-to-one iPad program at this school enhances teaching and improves learning by engaging students in the research and critical-thinking skills needed for success in the 21st century. Assessments of student proficiency in reading and math showed increases in the year following their iPad implementation.



UC Irvine Medical School

Irvine, California, United States

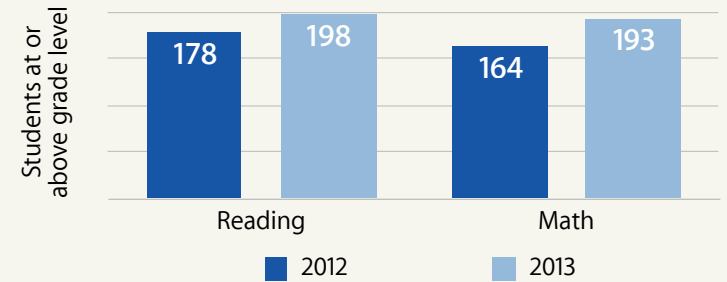
The iMedEd Initiative at UC Irvine School of Medicine is reinventing the traditional medical school curriculum, building a completely digital, interactive learning classroom and clinical training environment.

- Using iTunes U courses and blogs, the program serves as a sharing hub of communications and best practices worldwide for using iPad in healthcare higher education, including nursing and pharmacy.
- The first class to receive the iPad devices scored an average of 23 percent higher on national exams than previous classes, even though their incoming GPA and MCAT scores were comparable.

70%

of grade levels exceeded national scores on state assessments after iPad program was implemented

Increases in reading and math proficiency based on assessments



23%

higher scores in iPad-equipped medical school class



Victoria Department of Education

Victoria, Australia

The Victorian government completed a trial of 700 iPad devices in primary and secondary schools to test whether they would improve education outcomes. The results were very positive, especially in primary grades and special education. (2012)

- In addition to improved academic performance, 85 percent of primary teachers and 90 percent of special school teachers thought that students were more motivated and engaged in learning.

83%

of primary teachers saw improved literacy outcomes²



Thierry Karsenti & Aurélien Fievez

Quebec, Canada

A preliminary report of key findings in a survey of 302 teachers and 6057 students (grades 6 through 10) showed that the use of iPad has significant cognitive potential.

95%

of teachers and students reported iPad increased student learning³



Linda Chmiliar, LMC Academy

Edmonton, Alberta, Canada

Findings⁴ in a study of children with mild to moderate disabilities in an inclusive preschool program concluded that using iPad resulted in positive changes in the following skills:

- Letter and number recognition
- Counting
- Tracing of letters, ability to write letters and name
- Puzzle completion
- Problem-solving and faster thinking

Engagement and Motivation

From preschool to college, reports 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 a decrease in discipline problems and dropout rates.

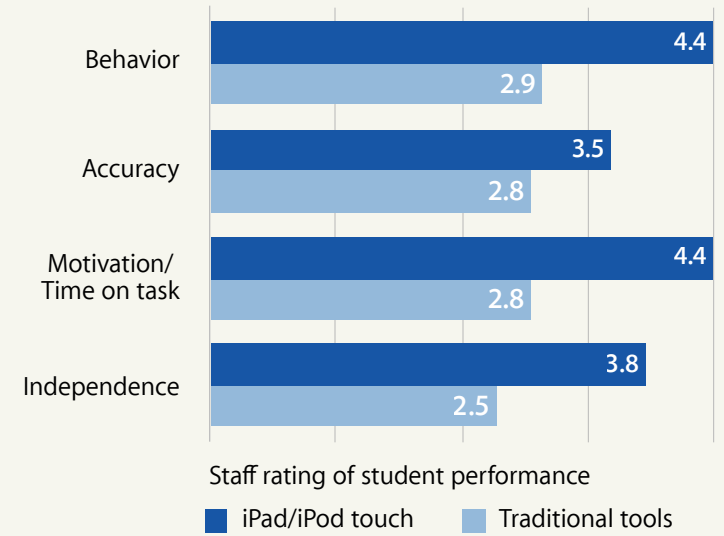




Northern Suburban Special Education District

Highland Park, Illinois, United States

A study at this special-ed-only school district determined that when iPad and iPod touch devices were used to support classroom instruction, students tended to be more independent, on task, accurate, and behaviorally appropriate as compared to when traditional tools were used.⁵



Goodland USD 352

Goodland, Kansas, United States

In a rural county where over half of the students are economically disadvantaged, Goodland USD was previously designated as “needing improvement.” In this one-to-one iPad for middle and high school students, books are created in iBooks Author, courses are delivered through iTunes U, and FaceTime and other apps make learning interactive, self-paced, and available 24/7. The district has seen student performance improvement, increased attendance, and decreased dropout rate since beginning the program.

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



Prince George's County Public Schools, Title I Office

Landover, Maryland, United States

To boost student achievement and engagement in struggling schools, particularly at four Title 1 middle schools, Prince George's County Public Schools made iPad an integral part of their digital learning environment.

33%

decline in disciplinary referrals at four iPad one-to-one middle schools when compared to similar middle schools



Reno Valley Middle School

Hutchinson, Kansas, United States

Data shows that Reno Valley Middle School students have both benefitted academically and socially from the school's iPad program.

50%

reduction in suspension and detention rates



Lynn University

Boca Raton, Florida, United States

Faculty at Lynn University use Apple TV, iPad, iTunes U, iBooks, and iBooks Author to put transformational learning devices into the hands of all students.

- Students find that books created in iBooks Author are more effective than traditional books.

94%

of students say iPad contributed to their learning experiences



Victoria Department of Education
Victoria, Australia

A 700-plus iPad trial in nine primary, secondary, and special schools, as well as at the Royal Children's Hospital Education Institute, showed that students were more motivated when learning with iPad. Ninety percent said learning was fun when using iPad.

Seventy-six percent of teachers said that students had greater choice and flexibility in their learning. And 85 percent of primary teachers thought students were more motivated and engaged in learning.

85%

of primary teachers found students more motivated when learning with iPad²



Thierry Karsenti & Aurélien Fievez
Quebec, Canada

A study of 302 teachers and 6057 students in grades 6 through 10 showed an increase in literary skills and differentiation with the use of iPad. In addition, they experienced an increase in student creativity (as reported by 97.2 percent of students and 96.9 percent of teachers).

98%

of teachers and students reported that iPad increased student engagement³

Instructional Flexibility

iPad is providing substantive and creative education opportunities—and educators who are open to exploring new ways of teaching and learning are seeing transformational results. From discovering iPad and apps for the first time to designing new ways to create, curate, and deliver learning materials, educators are excited and energized by the possibilities with iPad.





Manhattan Beach Unified School District

Manhattan Beach, California, United States

Using iOS apps and websites on iPad, teachers check for understanding during lessons and adjust instruction to meet the needs of each student. Teachers have become experts in designing innovative curriculum and lessons using multiple apps.

- Manhattan Beach now uses its own teacher experts for professional development of staff in their district as well as for teachers across the state.



Cathedral Catholic High School

San Diego, California, United States

- Cathedral Catholic High School integrates Apple technology into a multidisciplinary curriculum that combines physical, spiritual, social, and intellectual education.
- Teachers create custom courses with iTunes U and iBooks Author, and most have a completely digital workflow. About 85 percent of courses are taught using digital books and apps in place of traditional textbooks.
- Digital textbooks reduce costs and engage students.



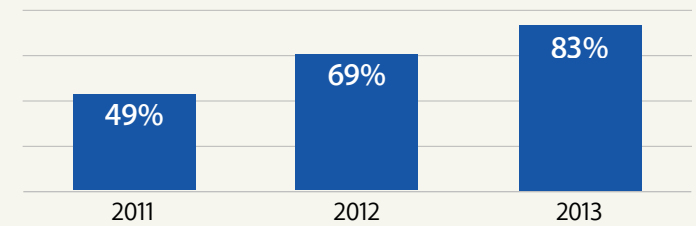
String Theory Schools

Philadelphia, Pennsylvania, United States

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

- Replaced all textbooks and school supplies with iTunes U content.
- Teachers build curriculum collaboratively in real time and publish on iTunes U.
- Seventh-grade math scores increased 21 percent in first year.

Increased test scores after iPad one-to-one implementation



Percentage of students scoring advanced and proficient before iPad (2011) and after iPad (2012 and 2013)

\$100k

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



Department of Education of Western Australia

Perth, Western Australia, Australia

A 2013 independent study⁶ from Department of Education of Western Australia on the use of iPad with early childhood learners revealed the following benefits for students with special needs:

- New communication options
- Increased independence
- Possibility to receive the same challenges and opportunities as other students
- Neurocognitive learning capabilities



The Ohio State University

Columbus, Ohio, United States

Digital First is Ohio State's plan to support and foster a mobile learning environment across every aspect of the university.

- Twenty departments and colleges have a one-to-one iPad implementation.
- Faculty developed more than 40 iTunes U courses in less than one academic year.
- Fifty-five iTunes U courses are open to the public, with over 650,000 subscriptions.
- Marching band distributes biweekly sheet music and drill instructions for routines through iPad.



The University of Oklahoma

Norman, Oklahoma, United States

University of Oklahoma Rainbolt College of Education is preparing K–12 teachers to teach with iPad in the classroom.

- The use of iPad has helped increase confidence among both teachers and students.
- The school is conducting research on an iPad rollout for use with other departments, including journalism, business, and graphic arts.

650,000

Fifty-five iTunes U courses are open to the public, with over 650,000 subscriptions.

Content Quality and Design

Designing quality content for iPad is an emerging area in education. 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, underscoring that designing quality content matters.^{7,8}





**Professor Michelle Risconscente,
University of Southern California**
Los Angeles, California, United States

An experimental study looked at whether using the Motion Math app on iPad could strengthen fifth-grade students' fraction knowledge and attitudes.⁹

15%

improvement on math assessment scores
after only 20 minutes of play for 5 days



Harvard Smithsonian Center for Astrophysics
Cambridge, Massachusetts, United States

Researchers explored how two specific interactive features in the app Solar Walk—3D Solar System Model would affect high school students' understanding of the solar system and enhance learning on iPad.¹⁰

- Solar Walk impacted student understanding in 20 minutes.
- Interactive features of iPad enhanced students understanding of concepts, which are otherwise difficult to demonstrate with traditional instruction methods.

Solar Walk impacted
student understanding in

20
minutes



Brooks, M. K. & Moon, M., Sesame Workshop
New York, New York, United States

Connecting learning to the real world can provide a deeper understanding and context for words in their environment. In a controlled, experimental study of preschoolers, students who used Big Bird's Words by Sesame Street had higher gains in word identification and word definition measures than those who didn't use the app.¹¹

40%

increase in knowledge of target words
by preschoolers after using apps on iPad

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