PBS: Learn More
The Impact of America’s Largest Classroom on Learning

Education is a central part PBS’s mission. For decades, PBS has used its on-air content to get children ready for success in school and in life. PBS also has sparked people’s curiosity about the world around them, paving the way for a nation of lifelong learners. To ensure that its programming is educationally effective, and to develop new content and programming, PBS regularly invests in evaluations of its on-air content and supporting digital and classroom materials. In 2015, PBS commissioned three studies from outside organizations to understand PBS’s impact on learning: a literature review and quantitative analysis of 146 scholarly studies; a research study of the effect of PBS materials on classroom learning; and a survey of teachers on the future of digital learning.

PBS content has educational effectiveness and a significantly positive impact on learning.

In an analysis of 146 scholarly studies conducted in the last 15 years, the independent research organization, Education Development Center, Inc. (EDC) concluded that 90 percent or more of the studies with measurable outcomes* show that PBS assets have significant positive impacts. The research on studies in six core areas found, for example:

- In early learning, 97 percent of studies looking at English language arts in grades preK to three showed PBS educational content had a significant effect on learning. Some 94 percent of studies of the impact of PBS content in classroom and lab settings showed significant impact on learning.
- In other core areas, such as out-of-school and lifelong learning, and STEM learning across the lifespan, PBS content and learning tools consistently demonstrated similarly high impact, ranging from 97 percent to 100 percent. Studies also looked at PBS use of varied media to meet students where they are on technology platforms. There, 99 percent of research showed statistically significant impacts for PBS content in games, interactives, and tablets; Web pages; and use of documents and lesson plans.
- The research also shows that teachers who use PBS teaching and learning tools become more effective in teaching literacy, math, and science skills; more knowledgeable about subject matter; more able to integrate technology; more adept at introducing instructional approaches tied to best practices; and more confident in their teaching.

Taken as a whole, the findings reveal that PBS content has a consistently positive and statistically significant effect on learning. The research provides comprehensive evidence that PBS content makes a difference for all age groups and across commonly studied subjects and all delivery platforms.

*These studies include both positive findings (in this report, called “fully positive” findings) or a mix of measured outcomes (referred to here as “mixed” findings). The mixed findings show positive impact for many, but not all outcomes. Only a miniscule percentage of studies found no impact across all of the areas measured. This synthesis of the results of the studies presents a top-level review of the findings, which did not take into account many of the specific features of the measures used, and thus provides a summary of findings but does not constitute a meta-analysis.

PBS LearningMedia tools improve classroom learning.

The second study reveals the impact of PBS LearningMedia content on achievement and learning when teachers in 36 middle school science, math, English language arts, and social studies classrooms used these learning tools extensively over a six- to 10-week period.

The study of learning outcomes revealed that students made sizable gains in content knowledge across all four subjects. The number of students who answered the content questions correctly from pretest to post-test increased 8 percentage points across the subject areas. On several questions, students who performed below national norms on pretests significantly exceeded them after using PBS LearningMedia. On average, students in
the study outperformed national assessment norms (NAEP) by 10 percentage points and state assessment norms by 11 percentage points.

The study also found two additional powerful benefits of using PBS LearningMedia—**students made significant gains in critical thinking skills and teachers improved their teaching**. Some 56 percent of the students participating in the study showed an increase in critical thinking abilities. Teachers using PBS LearningMedia materials spent less time lecturing and reported that the digital resources helped make student learning more active, collaborative, and engaging; improved critical thinking in the classroom; increased classroom resources; and provided more ways to use technology and individualize instruction.

The research reiterates what scores of other studies have shown: **PBS digital resources add significant value to student knowledge, engagement, and higher-order thinking skills and help teachers work smarter and more effectively.**

**2015 digital learning study indicates changing uses of technology and how it is redefining teaching.**

In order to understand the changing landscape of digital learning, PBS LearningMedia conducted a survey of 1,540 educators, nearly two-thirds of whom (65 percent) were classroom teachers across all levels of schooling. The findings reveal that:

**Technology is reshaping learning.** Large majorities of respondents agree or strongly agree that technology is a new and exciting way to communicate with and motivate students (92 percent), that classrooms need to embrace a 21st century curriculum (88 percent), and that technology has a noticeable positive impact on student learning (86 percent). The vast majority of teachers also believe that using educational technology helps them reinforce and expand on the content they are teaching (88 percent), demonstrate something they couldn’t otherwise show (80 percent), and helps them respond to students with different learning styles (79 percent).

**In the future, learning tools will become more mobile—and more personal.** Teachers say they use tools that support self-directed, 1:1 learning (each student with his or her own technology device), including tablets, e-readers, and mobile devices encouraged by bring-your-own device (BYOD) policies. But not all technology-savvy teachers have access to multiple media. While more than eight in 10 have access to personal computers, only a little more than half have interactive whiteboards, tablets, and electronic readers. Other tools, including tablets, mobile devices, and Chromebooks are used daily by at least one-fourth of teachers.

**Teachers most value digital resources—such as images, videos, and online lesson plans—that support their lessons.** They believe that digital resources will continue to play an important but supplementary role over the next five-to-seven years—not replacing textbooks or traditional lessons, but helping bring material to life in ways that engage students. Nearly six in 10 educators (58 percent) think that they will use digital media to supplement textbooks, indicating that they will look to content like PBS LearningMedia to supply what textbooks alone cannot.

**Teachers say that project-based learning, 1:1 device implementation, game-based learning, and blended learning will become increasingly important.** These strategies are already being put into use, with two-thirds of teachers using project-based learning, while half have used game-based learning and 44 percent have used blended learning strategies.

**Technology is changing teachers’ roles.** Increasingly, teachers say they will spend more time implementing new technologies and will spend more time teaching online.

**To help prepare for these changes, educators want more training on how to put technology to better use in their classrooms.** More than half (51 percent) want more training on tablets and electronic readers, while 36 percent want training on supporting the use of mobile devices by students. Nearly as many (46 percent) say they need more training for interactive whiteboards. Nearly four in 10 educators say they wish their schools or districts had a special department to support teachers on technology.

To download the *PBS: Learn More* report, go to [azpbs.org/educator](http://azpbs.org/educator) – explore the PBS LearningMedia Toolkit.