

## EDUCATION WEEK

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# Pre-K Lessons Linked to TV Produce Gains in Literacy, Study Says

By **Mary Ann Zehr**

Video and interactive games are effective in teaching disadvantaged preschoolers some of the literacy skills they need for kindergarten, according to a **large-scale evaluation** financed by the U.S. Department of Education and the Corporation for Public Broadcasting.

The randomized controlled study looks at a technology-supported literacy curriculum that involved video from "Super Why!," "Sesame Street," and "Between the Lions," programs that are produced by PBS as part of the Education Department's Ready to Learn Initiative. The study also includes online games developed by the programs' producers, which targeted some of the same literacy skills as the shows themselves.

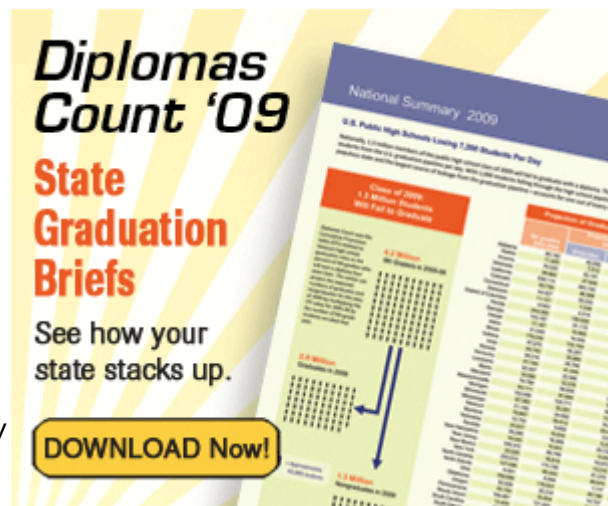
Researchers found that the 398 low-income children picked to participate, from 47 preschool centers in New York City and San Francisco, on average made significant gains in acquiring skills such as naming letters, knowing the sounds associated with those letters, and understanding concepts about stories and printed words. The study compares the children's performance with that of preschoolers taking part in a technology-supported science curriculum. Each set of children received 25 hours of activities over 10 weeks.

"What's really powerful here is the combination of media, digital content, and professional development," said Bill Penuel, the director of evaluation research for SRI International, a research organization based in Menlo Park, Calif., that conducted the study along with the Boston-based Education Development Center. "Particularly when you put these things together, preschool teachers can implement something that is powerful, and it can have effects that help to close the gap between low-income students for school readiness, compared with more advantaged students of this age group."

### 'Engaged Viewing'

Shelley Pasnik, the director of the Center for Children and Technology for the edc, added that though video clips from public-television programs are an important part of the literacy

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curriculum, the study's findings don't imply that parents can get the same effect simply by exposing their children to those programs.

It's "engaged viewing" that counts, she explained. "It's not simply turning on a program and letting it go on the screen unattended, but pausing the video and asking questions."

Preschool teachers in the study got coaching on how to reinforce lessons in digital media, such as pointing to objects in the classroom that begin with a particular letter after a television character has talked about that letter.

Ms. Pasnik observed that the use of technology has been particularly controversial in the preschool classroom. She and other researchers for the study encountered some resistance on the part of the preschool centers against using TV, she said. "This isn't simply about the use of television," Ms. Pasnik said. "What's different here is that the curriculum began with literacy skills that teachers needed to teach, and then the appropriate digital content was pulled in."

The study concludes that "the fact that the curriculum studied proved effective in a randomized controlled trial with this population makes it among the few preschool curricula with strong evidence of a positive impact."

Mr. Penuel said that **a review last year** of 15 randomized controlled studies of preschool curricula by the Institute of Education Sciences found that only two, Bright Beginnings and the DLM Early Childhood Express, had a significant positive effect on student achievement. Only one of the 15 included a technology-supported curriculum; it showed no positive effect.

### **Limits to Findings**

The research methods in the new study appear to be sound, said David K. Dickinson, the chairman of the department of teaching and learning at Vanderbilt University's school of education. But, he cautioned, it hasn't yet appeared in a peer-reviewed journal.

Moreover, teachers received much more professional development than preschool teachers typically do, he noted in an e-mail message. On average, they received eight on-site coaching sessions and had access to a coach throughout the intervention.

Mr. Dickinson also wrote: "It is disappointing that the outcomes examined were strictly limited to code-based learning—letter knowledge, letter-sound associations, and concepts of print."

Those are skills that children quickly acquire in kindergarten, he contended. The early-childhood-education field has been much less successful, Mr. Dickinson said, in figuring out how to teach students to read sound units within words, acquire vocabulary, and use and understand sentences and stories.