Study of Preschool Parents and Caregivers Use of Technology and PBS KIDS Transmedia Resources

CONTEXT FOR THE STUDY

The CPB-PBS *Ready To Learn* initiative, funded by the U. S. Department of Education, brings engaging, high-quality media to young children who may be at risk for academic difficulties due to economic and social disadvantages. The initiative aims to deliver early mathematics and literacy resources on new and emerging digital platforms, such as tablet computers, interactive whiteboards, and smartphones, as well as better-established technologies, such as computers, video displays, and gaming consoles, and to create learning experiences that leverage the unique capabilities of these various technology platforms.

STUDY OVERVIEW

This CPB-PBS *Ready To Learn* Study of Preschool Parents and Caregivers Use of Technology and PBS KIDS Transmedia Resources (Parent Study) provides an opportunity to interpret findings from the 2012 Preschool Pilot Study of PBS KIDS Transmedia Mathematics Content while gaining a better understanding of how parents use transmedia and technology in the home as well as parents' perspective on using transmedia and technology in the classroom for early math and literacy learning. Via a paper-and-pencil survey, we asked parents of children included in Preschool Pilot classrooms, to share: (1) their goals for and involvement in their children's literacy and mathematics learning; (2) their attitudes toward reading and mathematics; and (3) their attitudes toward and use of media to support children's learning at home. A small number of parents also expanded on their feedback during focus groups.

METHODS AND SAMPLE

The Parent and Caregiver Study Survey is a paper-based survey that takes 15–30 minutes to complete, and is focused on four aspects of the relationship between parents and technology :

- Parents' use of technology and digital media to support children's math and literacy learning
- What supports parents felt they needed to make these tools more beneficial
- Parents' beliefs and attitudes towards the use of media and technology to support math and literacy learning
- Parents' attitudes and perceptions toward technology and digital media as an educational resource for their children

The parent survey was distributed to parents and caregivers with children enrolled in preschool centers participating in the *Ready To Learn* 2012 Preschool Pilot Study of PBS KIDS Transmedia Mathematics Content. The survey questions were designed to elicit responses about all children in the home between 2–8 years of age. Surveys were made available in Spanish and Chinese in addition to English and were distributed with a sealable envelope that parents returned to teachers. Teachers in all of the participating classrooms were given several weeks after the initial distribution to collect their parents' surveys. Parents received a $20 gift card to a drug or grocery store for completing the parent survey. Three hundred and eighty one surveys were returned from parents in the 16 centers participating in the Preschool study.

To complement survey data, researchers conducted small number of focus groups with parents or guardians who had also completed a survey. The goal of the focus groups was to complement and supplement the parent survey; as such, items were written either to ask new questions or to delve more deeply into topics only touched on briefly in the survey. Parents and caregivers participated in focus groups were recruited from centers participating in our Preschool Pilot. The focus groups allowed parents to share:

- Their views on the use of technology and digital media in the classroom to support learning
- How they extend or support classroom learning for their children
- Their views about transmedia developed as part of the *Ready To Learn* Initiative

Parents were asked to frame their responses to both digital games developed as part of the *Ready To Learn* Initiative, and to technology and digital media in general, with regard not only to those children enrolled in the Preschool Pilot but also all children in their household ages 2–8 years old. To ensure parents participating in our focus groups were familiar with the types of transmedia we would discuss during the group, we brought laptops and MiFi devices to the focus groups so that parents could play the *Ready To Learn* games for themselves. Fourteen parents participated in four focus groups during the study period. Three focus groups were conducted in English and one was conducted in Spanish.

FINDINGS

Parents in our sample overwhelmingly believe that technology is an important part of their children's education, and are comfortable with their children using technology from a very young age, both at home and in the classroom. Respondents to our parent survey and in our focus groups provide their children with access to a wide variety of devices, ranging from commonly adopted technologies such as television to new tools like iPads, and are supportive of efforts to integrate technology into prechool classrooms. At the same time, parents have concerns about children encountering inappropriate content or sacrificing other learning opportunities, such as outside play or time with friends, for time with technology. The study also addresses findings in these areas:

- Parents believe that technology is a powerful support for learning, and see technology skills as a necessary part of their child's 21st-century education.
- Parents support use of technology in the classroom with certain limits.
- Although television and computers are the most commonly used technologies, many children have access to a variety of digital devices within their homes.
- Parents tend to associate specific media platforms with learning, often pairing a device's form with its potential to be educational.
- Despite generally positive attitudes towards technology and its ability to support learning, parents express concern that too much technology can keep children from other healthy experiences and they limit its use.
- Although many parents choose to set limits on their children's media use, these limits vary by family and by the age of the child.
- Parents gravitate toward television programs, Websites, and digital games designed specifically for children by PBS, Nickelodeon, and Disney.

- Although families move fluidly through a great many programs and digital activities, the promise of learning undergirds many of the decisions parents make.

- Home technology-infused routines can be social, as digital play is an occasion for children to watch, explore, and play together with their parents and other family members.

- Parents engage in a wide variety of roles when it comes to media engagement, from technology provider to monitor to learning supporter.

- Parents look to the media, other adults, and their child's school for information when making decisions about children's technology use.

- Parents have a growing appetite for educational technological resources and would like to have more time to use them with their children.

FUTURE CONSIDERATIONS

While a majority of low-income families are using and valuing broadband connectivity and emerging digital technologies such as tablets and smartphones, the "digital divide" is very real for many families who have not adopted these technologies and may not be on a path to doing so anytime soon. With this in mind, producers are encouraged to:

- Draw on the role that transmedia can play in connecting families and teachers, and home environment with school environment

- Provide support for parents as they use and monitor their children's use of media

- Guide parents as they navigate the multiple roles they play in the context of technology use in homes

- Build on families' expectations of high quality educational content produced by CPB and PBS and create games and transmedia that continue this trajectory.

More research is needed to guide the development of transmedia in ways that match and augment family use and expectations, and child needs and interests. Future research can address patterns of media and technology-centered interaction across families, the motives among parents' and children's joint play with technology, the components necessary to engage families in educational transmedia activities, and the decisions parents make about their children's media use.

About EDC/CCT

Education Development Center, Inc. is a global nonprofit organization that develops, delivers, and evaluates innovative programs to address urgent challenges in education, health, and economic development. EDC manages more than 300 projects in 35 countries. For more than 25 years, EDC's Center for Children and Technology has been at the forefront of creating and researching new ways to foster learning and improve teaching through the development and thoughtful implementation of new educational technologies.

About SRI/CTL

SRI International is an independent, nonprofit research institute conducting client-sponsored research and development for government agencies, commercial businesses, foundations, and other organizations. SRI's Center for Technology in Learning (CTL) evaluates large-scale technology innovations, designs assessments that enhance teaching and learning, develops tools to help students master complex ideas, builds online communities of learners, and offers strategic learning consulting services.

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