

Contact: Mike Muir
Tel: 207-333-0450
Email: mmuir@auburnschl.edu

FOR IMMEDIATE RELEASE

EMBARGOED UNTIL 10am, February 16, 2012

Emerging Results From The Nation's First Kindergarten Implementation of iPads

**Damian Bebell, Sue Dorris, Mike Muir
February 2012 - Auburn, Maine**

As one component of Auburn, Maine's yearlong investigation in providing 1:1 iPads to their youngest learners, a nine-week randomized control trial examined the impact of the iPads on kindergarten students' emerging literacy skills.

To better understand how iPads can be leveraged to increase students' early literacy skills, the district randomly assigned half (n=8) of their 16 kindergarten classes to use iPads as a learning tool for a nine week period during the first trimester of the school year. Across iPad and comparison settings, each student completed a series of standardized literacy assessments including the Rigby Benchmark Assessment, the Children's Progress Academic Assessment, and the Observational Survey of Early Literacy Achievement before and after the iPad implementation period. Thus a total of 266 kindergarten students participated in this pre/post quasi-experimental study across all of the district's six public elementary schools (129 iPad students; 137 comparison students).

Pre and post assessment scores from the various literacy assessments were collected from both groups and analyzed to determine if students in the iPad settings performed any differently than students in the traditional (i.e. comparison) settings. Figure 1 compares the average performance gains for students in the iPad and comparison settings experienced during the Fall 2011 study:

Figure 1 shows the average improvement across literacy assessments for iPad (in red) and comparison students (in blue) during the Fall 2011 assessment period. The results show that students in both settings made modest improvements in their RIGBY and CPAA performance during the first months of kindergarten. Comparing the RIGBY and CPAA gains from the iPad and comparison settings, gain scores were consistently greater for the iPad students than observed in the comparison settings. However, the differences in RIGBY and CPAA performance across the two groups were not large enough to be considered statistically significant.

Figure 1: Average performance gains across literacy assessments for iPad and comparison students

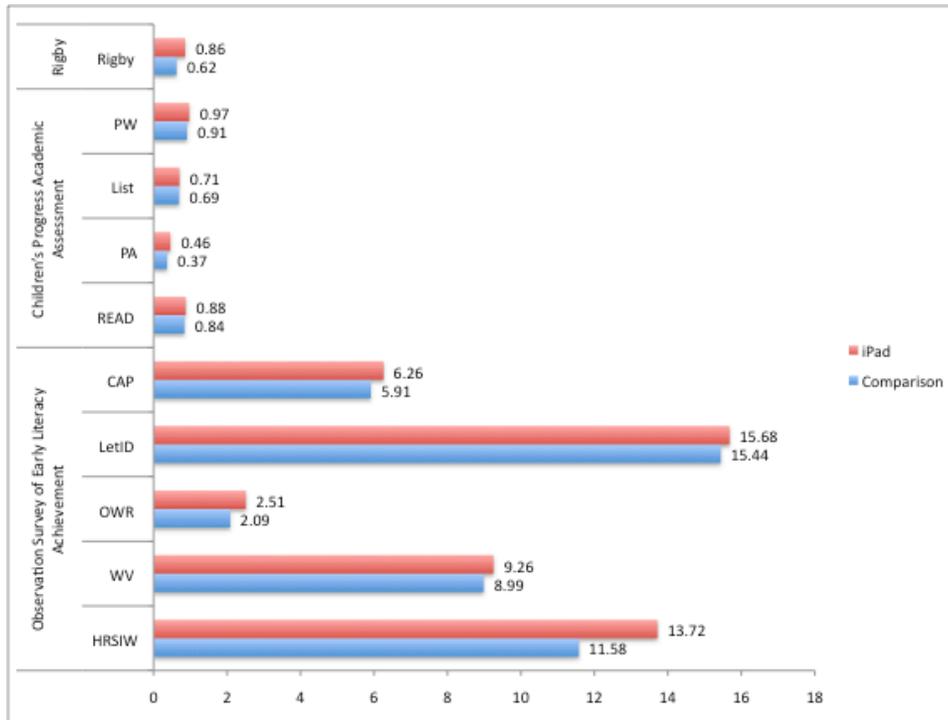


Figure 1 also shows the largest gains in student literacy were found from the Observation Survey of Early Literacy Achievement (OSELA) assessments, where students in both settings showed marked improvement. Comparing the OSELA gains from the iPad and comparison settings, gain scores were again consistently greater for the iPad students than were observed in the comparison settings. Most notably, students in the iPad setting exhibited a substantial increase in their performance on the Hearing and Recording Sounds in Words (HRSIW) subtest, which measures a child’s level of phonemic awareness and ability to represent sounds with letters. Subsequent statistical analyses showed that, after controlling for students’ incoming Fall 2011 scores, the impact of being in an iPad classroom had a statistically significant relationship with students post-HRSIW scores ($t= 2.36, p.<.05$). After controlling for other variables, the nine week impact was equivalent to a 2.1 point increase on the HRSIW, on average, for the iPad cohort.

The OSELA assessments have been found to be reliable and valid measures of early literacy development (Clay, 2002, 2006; Denton, Ciancio, & Fletcher, 2006) and have been positively correlated with the Iowa Test of Basic Skills (Tang & Gómez-Bellengé, 2007).

More information on the OSELA assessment can be accessed at this link:
http://www.readingrecovery.org/pdf/reading_recovery/Observation_Survey-07.pdf

References:

Clay, M. (2002, 2007). *An observation survey of early literacy achievement*.

- Portsmouth, NH: Heinemann.
- Children's Progress (2009). Children's progress technical report. New York City, NY: Children's Progress, Inc.
- Denton, C. A., Ciancio, D. J., & Fletcher, J. M. (2006). Validity, reliability, and utility of the observation survey of early literacy achievement. *Reading Research Quarterly*, 41(1), 8-34.
- Gómez-Bellengé, F. X., & Thompson, J. R. (2005). U.S. norms for tasks of an observation survey of early literacy achievement. (Technical report). Columbus, OH: The National Data Evaluation Center.
- Houghton, Mifflin, Harcourt (2003). *Rigby benchmark assessment*. Wilmington, MA: Houghton, Mifflin, Harcourt.
- Tang, M., & Gómez-Bellengé, F. X. (2007, April). Dimensionality and concurrent validity of the observation survey of early literacy achievement. Paper presented at the annual meeting of the American Educational Research Association in Chicago, Illinois.

###

If you would like more information on this topic, or to schedule an interview with the researchers or school program leaders, please call Mike Muir at 207-333-0450 or email Mike Muir at mmuir@auburnschl.edu