

RESEARCH UPDATE

Startzville Elementary School
Canyon Lake, Texas

Scholastic *Big Day for PreK* Program Shows Positive Impact on Children's Language, Literacy, and Mathematics Development

PROFILE

School: Startzville Elementary School
Evaluation Period: Fall 2010
Model: Full-Day Four-Year-Old Preschool Program
Assessment: Scholastic Early Childhood Inventory (SECI); Teacher Interviews

SCHOOL CHARACTERISTICS

Situated in Central Texas, Startzville Elementary School enrolls 662 students in grades PK-5. About three-quarters (72%) of the student population is white; 25% is Hispanic, approximately 2% is African American, and 2% are from other backgrounds. Sixty-five percent of students are classified as economically disadvantaged, 11% are in special education, and 5% are in Bilingual/ESL Education.

IMPLEMENTATION OVERVIEW

In September 2010, Startzville Elementary began implementing *Big Day for PreK* in three PreK classrooms, to provide a more structured, hands-on approach than their previous preschool curriculum.

IMPLEMENTATION MODEL

Startzville implemented *Big Day for PreK* with four-year-olds in two full-day PreK classrooms, as well as in a half-day classroom that includes children with special needs and three- and four-year-old children of staff. There is a lead teacher and a teacher's aide in each classroom. Implementation followed the research-based *Big Day for PreK* model, with three Big Experiences every day, and Small Group/Learning Centers time each morning (45 minutes) and afternoon (30 minutes).

PARTICIPANTS

This analysis focuses on data from assessments administered to students in the two full-day classrooms. It also includes data from interviews conducted with the school principal and the lead teachers from all three PreK classrooms (two full-day and one half-day). The student sample consists of 37 students enrolled in full-day PreK for the 2010-2011 school year who had both pretest and mid-year test scores. The demographic composition of the study sample includes 63% white, 32% Hispanic, and 3% African American. All of the students are classified as economically disadvantaged, and 8% are identified as Limited English Proficient.

MEASURES

Scholastic Early Childhood Inventory (SECI)

The Scholastic Early Childhood Inventory (SECI), a formal one-to-one assessment, was used to assess students' progress. The SECI consists of four modules in key domains that have been shown to be most predictive of kindergarten readiness: Oral Language Development; Phonological Awareness; Alphabet Knowledge; and Mathematics. Each module consists of 2-4 subtests, on which students receive a score placing them at one of four stages of development: Pre-Emergent, Beginning, Emergent, or Developed. For this report, the results of the beginning of the year (September) and mid-year (November) SECI administrations in the two full-day classrooms were analyzed.

Interviews

All three classroom teachers (from the full-day and half-day classrooms) and the school principal were interviewed in November about their perceptions of the program and of its impact on students since the beginning of the school year. At the time of the interviews, the teachers had nearly completed the first three themes in the program.

RESULTS

Results of the SECI showed that students made progress in every domain (Oral Language, Phonological Awareness, Alphabet Knowledge and Mathematics) over the first three months of the year.

In the **Oral Language** module, *Big Day for PreK* students showed a significant increase in the percentage of students achieving the Developed stage on the Sentence Structure subtest from September to November ($t = 5.24, p = .00$). Students also demonstrated substantial progress, though nonsignificant, in Vocabulary; the percentage of students reaching the Developed stage on the Vocabulary subtest nearly quadrupled, from 5% to 19% (see Graph 1).

Graph 2 shows that on the **Phonological Awareness** module, *Big Day for PreK* students demonstrated significant increases in the percentages of students achieving the Developed stage on all four subtests: Rhyme Identification ($t = 2.74, p = .01$); Sound Matching ($t = 4.95, p = .00$); Phonological Segmentation ($t = 4.48, p = .00$); and Blending ($t = 3.15, p = .00$).

On the **Alphabet Knowledge** module, the percentage of students achieving the Developed stage on the Letter Sounds subtest increased significantly ($t = 3.40, p = .00$). Students also showed an increase, though nonsignificant, in the percentage of Developed students on the Letter Recognition subtest (see Graph 3). A slight decrease was observed in the percentage of Developed students on the Letter Naming Fluency subtest. Since at this point in the year students are in the process of learning many new letters, it would not be surprising to see a decrease in the speed with which students produce letter names until this new knowledge becomes fully assimilated and automatic.

In **Mathematics**, the *Big Day for PreK* students showed significant increases from September to November in the percentages achieving the Developed stage on all four subtests: Number Sense ($t = 2.64$, $p = .01$); Geometry ($t = 2.26$, $p = .03$); Sorting ($t = 6.16$, $p = .00$); Patterns ($t = 2.93$, $p = .01$). See Graph 4.

Interviews with the teachers and principal provided additional support that students are making progress toward kindergarten readiness. All four interviewees felt that *Big Day for PreK* was highly successful at promoting language development. They agreed that the Teacher's Guides and resources such as BookStix, Math Mats, and the Big Wall Charts help them to be purposeful about supporting language development and facilitating conversations with children. One teacher explained, "All of the questions draw kids out." Another noted, "I see an eagerness in kids wanting to talk about the book.... They want to give their opinion and discuss it."

The interviewees also all expressed appreciation for the extensive support for differentiated instruction in *Big Day for PreK*. All three teachers stated that because small groups are built into the daily schedule, they are able to give individualized instruction time to every child nearly every day.

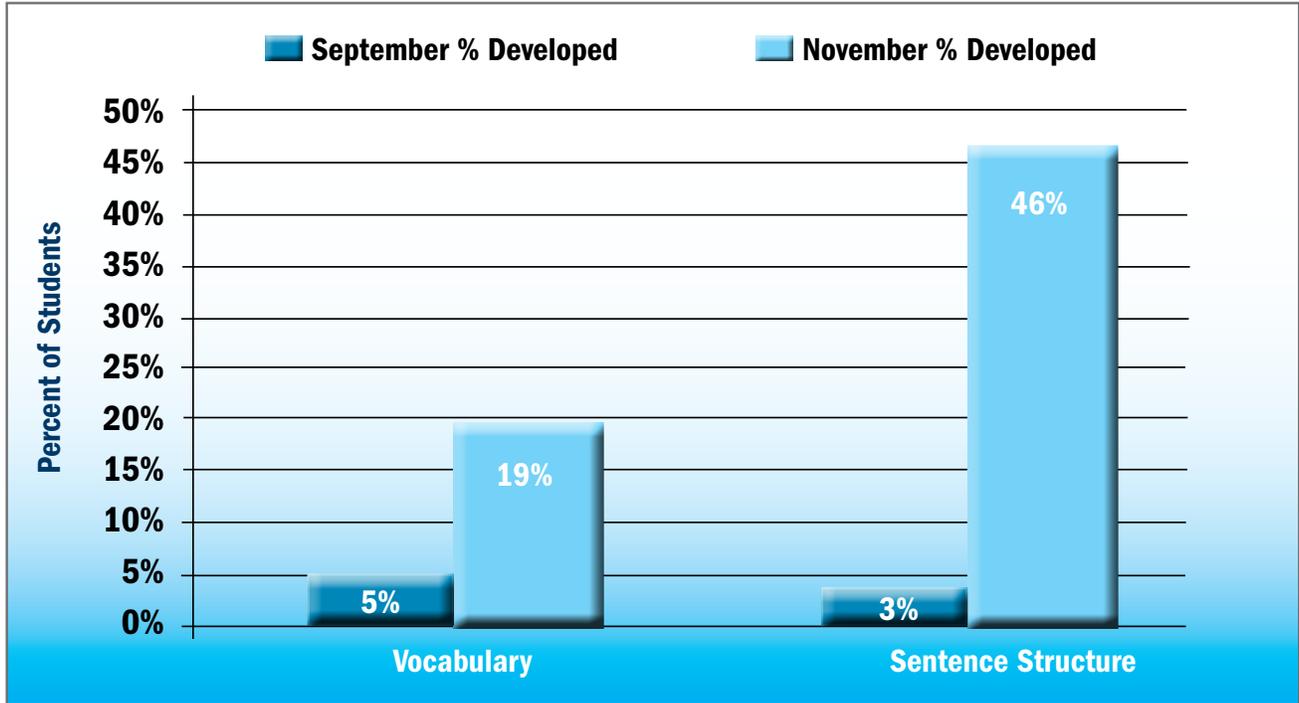
Teachers reported drawing on the program's Responsive Instruction resources to provide follow-up instruction to individuals or small groups as needed. Similarly, the principal observed that with *Big Day for PreK* the teachers are more focused on small groups and on identifying the strengths and weaknesses of individual children.

Overall, the staff reported a high level of satisfaction with *Big Day for PreK*. On a scale of 1 to 10, the three teachers gave the program ratings of 8, 9, and 10, and the principal gave it a 10. Everyone felt that the program was a valuable experience for the children, noting that students were highly engaged because, for example, "they like the conversations," "they like the vocabulary and new words," and the activities "are meaningful to them." The principal also felt that *Big Day for PreK* was a valuable experience for the teachers. She summed up the strength of the program by saying, "Teachers are more hands-on, more involved... The teachers are thinking about children's learning. Before they were more concentrated on teaching than on learning, but the focus in *Big Day* is on kids' learning." The principal felt confident that after participation in *Big Day for PreK*, the preschoolers would be well prepared for kindergarten.

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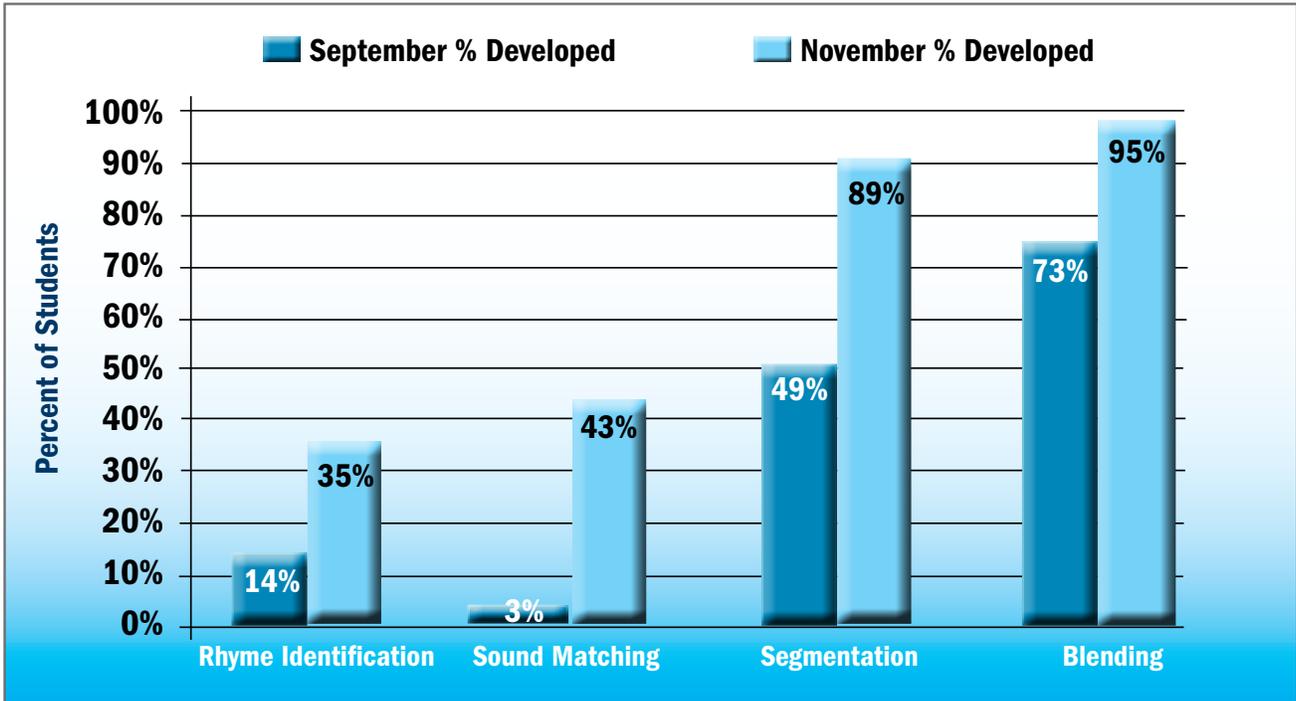
Graph 1. SECI Oral Language Growth

Startsville Elementary School *Big Day* for PreK Students (N=37)



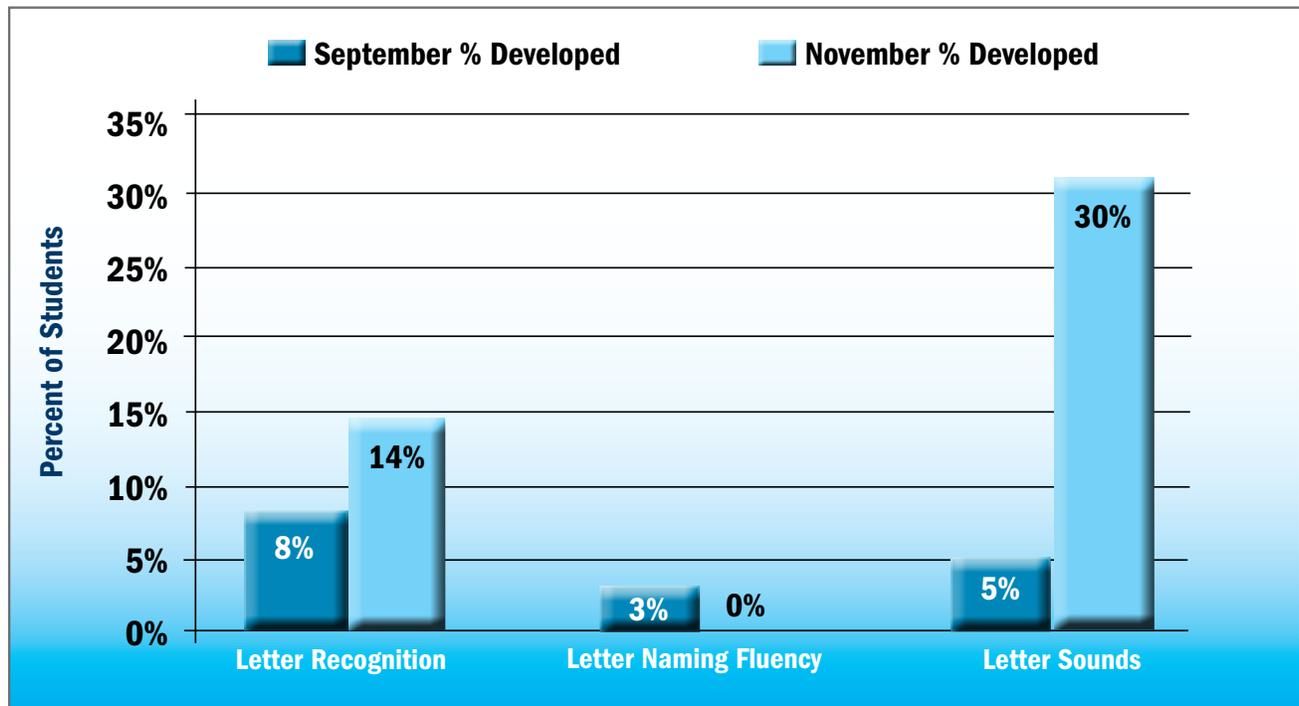
Graph 2. SECI Phonological Awareness Growth

Startsville Elementary School *Big Day* for PreK Students (N=37)



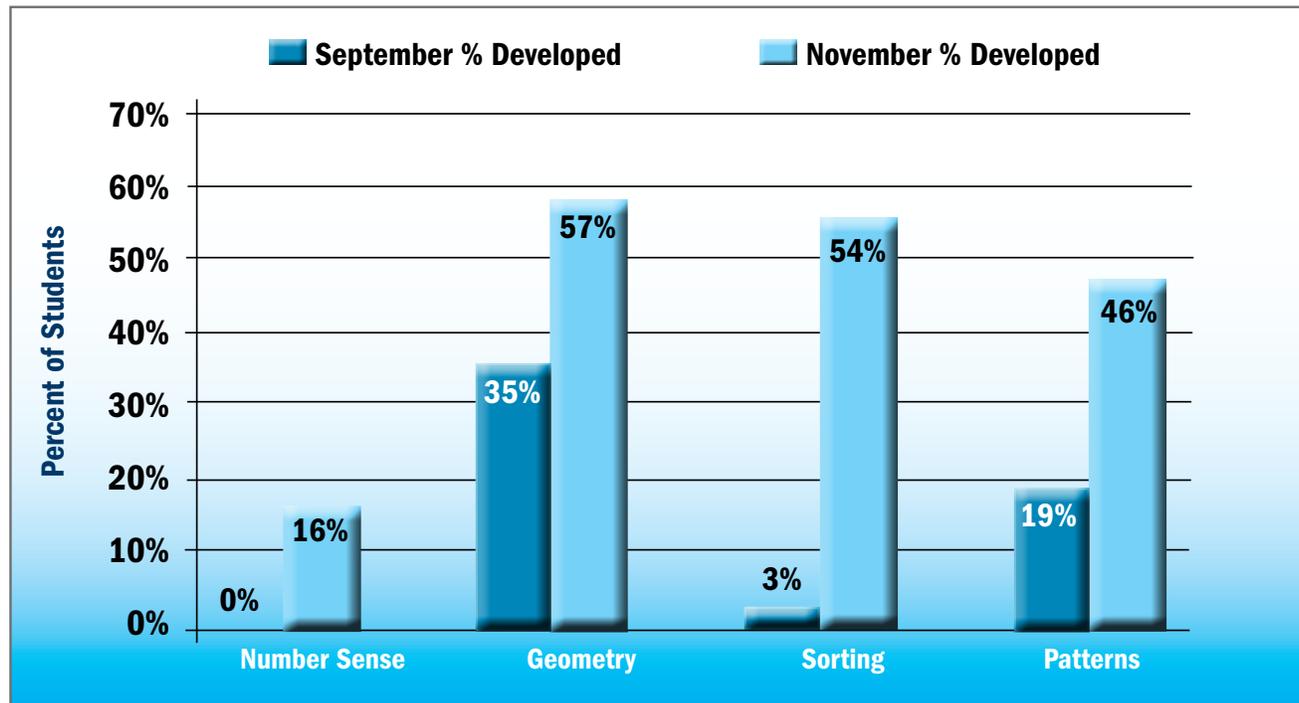
Graph 3. SECI Alphabet Knowledge Growth

Startzville Elementary School *Big Day for PreK* Students (N=37)



Graph 4. SECI Mathematics Growth

Startzville Elementary School *Big Day for PreK* Students (N=37)



CONCLUSION

Preliminary results from the 2010–2011 school year indicate that *Big Day for PreK* students have made substantial progress toward kindergarten readiness. After just three months of instruction, the proportion of students at the Developed stage increased significantly

on subtests in all four domains: Oral Language Development; Phonological Awareness; Alphabet Knowledge; and Mathematics. In addition, the teachers and principal report a high level of satisfaction with the program and feel that it is having a positive impact on students' engagement and learning.

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