

EARLY DISCOVERIES LONGITUDINAL STUDY

An Update of the Longitudinal Study of the Early Elementary
Experiences of At-Risk Students in Virginia Beach City Public Schools

VIRGINIA BEACH CITY PUBLIC SCHOOLS
Department of Research, Evaluation, and Assessment
2512 George Mason Drive
P.O. Box 6038
Virginia Beach, VA 23456-0038

AN UPDATE OF THE LONGITUDINAL STUDY OF THE EARLY ELEMENTARY EXPERIENCES OF AT-RISK STUDENTS IN VIRGINIA BEACH CITY PUBLIC SCHOOLS

EXECUTIVE SUMMARY

AUTHOR: Lisa A. Banicky, Ph.D., Research Specialist
Department of Research, Evaluation, and Assessment

OTHER CONTACT PERSON: Jared A. Cotton, Ed.D., Assistant Superintendent
Department of Research, Evaluation, and Assessment

INTRODUCTION

The purpose of this study was to provide information on the early elementary experiences of at-risk students as they progressed through Virginia Beach City Public Schools with a special focus on students who participated in the Early Discoveries program funded by the Virginia Preschool Initiative. A quasi-experimental longitudinal panel design, involving three cohorts of students,¹ was used to examine children's readiness for kindergarten and their progression through third grade based on a variety of measures including teacher assessment of student readiness, report card grades, standardized assessments, state-level assessments, school attendance, discipline referrals, and grade retention. The study was guided by two overriding research questions:

- To what extent were the Early Discoveries students prepared for and successful in kindergarten compared to similar students who did not attend preschool or students who attended some other preschool program?
- How did the Early Discoveries students progress and perform through the early elementary grades (i.e., first through third grade) compared to similar students who did not attend preschool or students who attended some other preschool program?

All students who participated in the Early Discoveries program for more than half of the year were included in the cohorts, while students attending the program for less than half of the year were excluded. A comparison group of kindergarten students with characteristics similar to the Early Discoveries participants (i.e., gender, ethnicity, economic status, and instructional setting) were identified for each cohort and were further divided into students who did not attend preschool and students attending some other preschool program.

The primary comparisons of interest in the current study involved the performance of Early Discoveries students relative to similar students who did not attend a preschool program prior to kindergarten. The comparison of the Early Discoveries participants to students who attended some other preschool program was of secondary interest in the current examination.

¹ Students in Cohort 1 were in kindergarten in 2003-04, students in Cohort 2 were in kindergarten in 2004-05, and students in Cohort 3 were in kindergarten in 2005-06.

When available, data for all other kindergarten students were provided for reference purposes. However, the demographic characteristics of All Other Kindergartners² for each cohort under examination were markedly different from the Early Discoveries students with respect to ethnicity and socioeconomic status. A larger percentage of the Early Discoveries participants were African American and economically disadvantaged. The findings reported reflect interim results of the longitudinal study that will not be completed until the fall of 2009.

FINDINGS

Kindergarten Readiness and Success

- More than 75 percent of the Early Discoveries students in each cohort were rated as developmentally ready or more than ready for kindergarten by their teacher. Across all three cohorts, larger percentages of Early Discoveries participants were rated as ready or more than ready for kindergarten relative to peers who did not attend a preschool program. Comparisons between students attending Early Discoveries and students attending some other preschool program did not yield statistically significant differences.
- Early Discoveries participants consistently evidenced higher achievement in the fall and spring of the kindergarten year as measured by report card ratings in the areas of letters and sounds, reading, writing, and mathematics relative to students who did not attend a preschool program. Comparisons between Early Discoveries students and students attending some other preschool program did not yield statistically significant differences for more than one cohort.
- More than 78 percent of the Early Discoveries students in each cohort met the fall benchmark on the PALS-K assessment. Across all three cohorts, larger percentages of Early Discoveries students met the fall PALS-K benchmark and earned a higher average score on the assessment when compared to similar students who did not attend preschool. The differences observed with respect to fall PALS-K performance between Early Discoveries participants and students participating in some other preschool program were not statistically significant. Comparisons between Early Discoveries participants and All Other Kindergarten students revealed only small differences with respect to performance on the fall PALS-K assessment.
- More than 82 percent of the Early Discoveries students in each cohort met the spring benchmark on the PALS-K assessment. In addition, the differences observed between Early Discoveries students and similar peers who did not attend preschool were not statistically significant for more than one cohort under study. No statistically significant differences were observed when comparing Early Discoveries students to similar peers who attended some other preschool program. Only small differences were observed between Early Discoveries participants and All Other Kindergarten students with respect to performance on the spring PALS-K assessment.

² The All Other Kindergartners group did not include students in the study participant groups (i.e., Early Discoveries, No Preschool, Other Preschool).

- In the fall of their kindergarten year, more than 50 percent of the Early Discoveries students in each cohort met the suggested end-of-year level on the Developmental Reading Assessment (DRA). By spring, more than 97 percent of these students were meeting the suggested levels. An examination of the percentages of students that were meeting the suggested end-of-year DRA levels in the fall and spring of kindergarten did not yield statistically significant differences between the study participant groups (i.e., Early Discoveries, No Preschool, Other Preschool) that were consistent across more than one cohort.
- Approximately 3 percent of the Early Discoveries students in each cohort were retained in kindergarten. An examination of the kindergarten in-grade retention rates observed among the study participant groups did not reveal any statistically significant differences that were consistent across more than one cohort. In addition, a comparison of the retention rates observed among Early Discoveries participants and students from the All Other Kindergartners group revealed that the two groups were retained at similar rates.
- Similar percentages of students in each study participant group received at least one discipline referral during the course of their kindergarten year.
- During the kindergarten year, Early Discoveries students did evidence higher attendance relative to their peers who did not attend a preschool program. No significant differences in kindergarten attendance were observed when comparing Early Discoveries students to similar peers who attended some other preschool program. The attendance percentages observed for the Early Discoveries students and All Other Kindergarten students did not differ by more than one-tenth of a percentage point.

Progression and Performance Throughout the Early Elementary Grades

- Overall, as students progressed into first and second grades, the readiness ratings that Early Discoveries students received from their teachers were not significantly different from the ratings received by similar peers who did and did not attend preschool.
- An examination of the report card grades students received in first and second grades did not yield any significant differences that were consistently observed among the three study participant groups or study cohorts.
- At the third-grade level, based on a single cohort of students, none of the differences observed in the percentage of students meeting or exceeding grade-level expectations in reading, writing, mathematics, science, and history were statistically significant.
- An examination of the percentage of students meeting the suggested end-of-year DRA levels in the fall and spring of first, second, and third grades did not yield

statistically significant differences between the study participant groups that were consistent across more than one cohort.

- A smaller percentage of Early Discoveries students were meeting the suggested end-of-year DRA levels in the fall of their first-, second-, and third-grade years compared to students in the All Other Kindergartners group, but the differences decreased by the time of the spring administration and did not differ by more than 7 percentage points.
- Based on a single cohort, the grade 3 SOL passing rates and average scale scores for Early Discoveries students were not significantly different from the passing rates and average scale scores observed among similar peers who did not attend preschool. Other comparisons revealed that similar peers who attended some other preschool had a higher passing rate in reading (88 percent vs. 76 percent) and higher average scale scores in reading (477 vs. 452) and mathematics (496 vs. 475) than Early Discoveries students.
- Based on a single cohort, comparisons of SOL passing rates between Early Discoveries students and All Other Kindergarten students revealed differences that ranged from 13 percentage points (reading) to 4 percentage points (history). The differences in average scale scores between these two groups ranged from approximately 30 scale score points in mathematics and history to approximately 37 scale score points in reading and science with Early Discoveries students performing at a lower level.
- An examination of first-, second-, and third-grade retention rates for each of the study participant groups revealed no statistically significant differences. In addition, a comparison of the retention rates observed between Early Discoveries participants and students from the All Other Kindergartners group revealed that the two groups were retained at similar rates in each of the years examined.
- Similar percentages of students in each group received at least one discipline referral during the course of each school year examined.
- In the subsequent years examined after kindergarten, attendance rates observed among Early Discoveries students and similar peers in the comparison groups were not significantly different. In addition, the attendance rates observed among All Other Kindergarten students were similar to the rates observed among Early Discoveries students.