

# EARLY LITERACY ACQUISITION IN PGCPs: DEVELOPMENTAL TRAJECTORY PATTERNS

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## EXECUTIVE SUMMARY

### A. Background

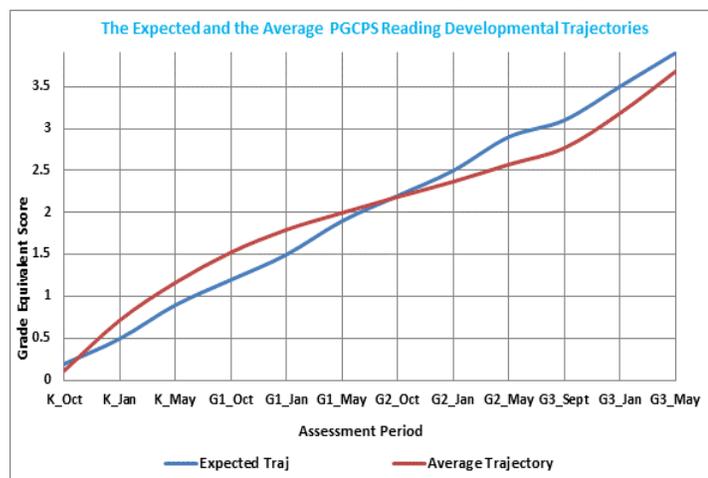
Early literacy skills are crucial building blocks for reading readiness in high school and beyond. The learning that takes place from kindergarten through third grade is an important stage in the developmental trajectory of reading. These grades are critical years for developing mastery of the sounds, structure and functions of language. During this period, children need to learn important skills that become the building blocks for long-term proficiency in reading. An examination of the relationship between where students start in kindergarten and how they progress through the third grade provides insight into the characteristics of students that are ready to transition from ‘learning to read’ to ‘reading to learn’ at the end of third grade.

The study used longitudinal data to identify the typical pattern of growth in reading skills from kindergarten to third grade and to examine any differential patterns of growth among subgroups of students. The study employed Developmental Reading Assessment (DRA) and the Scholastic Reading Inventory (SRI) assessment scores and standardized them into a grade-equivalent metric to create a consistent measure of the typical developmental reading trajectory for the average PGCPs student in reference to the expected path of proficient reading. In this study, trajectories are modeled for 8,939 students who entered PGCPs in SY2010. The study also investigated how this typical reading trajectory varied by selected socio-demographic characteristics of students, the readiness gap at school entry and preschool experience.

### B. Key Findings

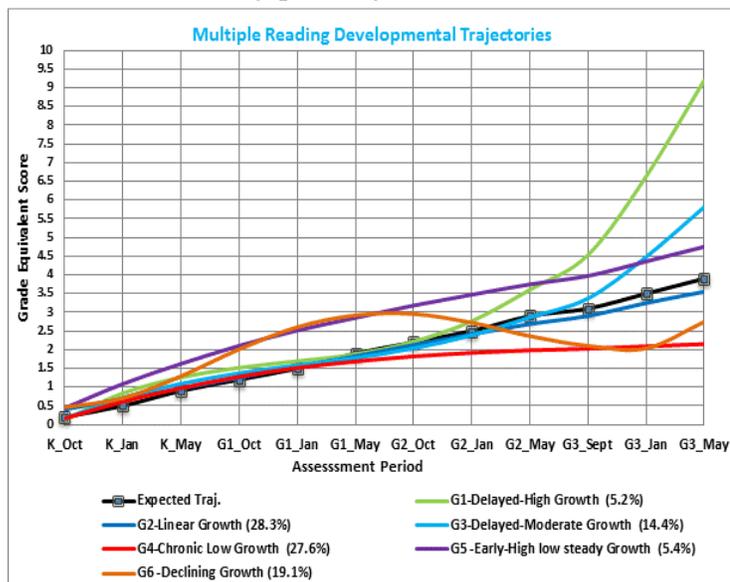
To conduct this research, a cohort was followed through administrative data from kindergarten (2009-10) through the end of third grade (2012-13). Six key findings, outlined below, highlight the findings of the trajectory analysis.

1. The reading trajectory for the average PGCPs student was characterized by rate of growth more than would be expected in kindergarten but the rate of growth started slowing down in the first grade. The slowing down of the rate of growth resulted in the average student falling below-grade expectation in second grade. Despite the recovery made in the third grade, the average student’s reading was slightly below expectation at the end of the school year in third grade. Put in terms of the developmental skills



of reading, the stages of emergent reader (kindergarten) and early reader (beginning to mid first grade) are characterized by growth that is higher than is needed to be on the expected path of proficiency. However, as a transitional reader (from the middle of the first grade through end of second grade) the average student seems to struggle to gain the necessary skills.

- The study identified six unique developmental groups in reading. The six developmental trajectories resemble each other in early grades/assessments but the gap among them widened overtime. The widening of the gap among developmental groups was not a result of differences in initial reading levels at kindergarten entry. While some groups that read below-grade at kindergarten entry were reading at above-grade expectation at the end of third grade, others that read above-grade expectation at kindergarten entry finished third grade reading below-grade expectation. The important predictors of end of third grade underperformance were falling below the expected path of proficiency early in the trajectory and delayed recovery that started late in third grade. Alternatively, those that finished third grade reading above-grade expectation experienced early recovery at higher rates from the deceleration in growth in the first and second grade.



- Students who came to PGCPS ready for school in the domains of language and literacy experienced smaller rate of deceleration in the first and second grade. The results demonstrate that students who were school ready in language and literacy read at higher levels than their classmates that were not school ready at kindergarten entry and had different growth pattern through the end of the third grade. School ready students enjoyed substantively more net growth in the first and second grades and maintained grade proficiency longer than their peers who were not school ready.
- Results of the analysis show that attending a PGCPS program (Pre-K or Head Start) was not associated with reading at higher levels at school entry or different rate of growth from kindergarten to early first grade. The average growth rate in subsequent grades was higher for PGCPS preschoolers than for those who did not attend preschool in PGCPS; however, this did not result in significant performance gap between the two groups at the end of the third grade.
- The reading growth for at-risk groups of children (ELL or SPED) was characterized by bigger rate of deceleration in the first and second grade. Whereas both groups grew at rates that are similar to their peers in kindergarten, the subsequent slowing down of the rates of growth resulted in wider gaps between the groups and their peers. In the third grade, SPED students recovered at the same rate with their non-SPED peers, while ELL students grew at a higher rate than their non-ELL peers did. As a result, the reading gap between SPED and non-SPED students remained intact as the

reading trajectories of ELL students converged with those of their non-ELL peers at the end of the third grade.

6. Finally, the average developmental reading trajectory was applicable to all students irrespective of the quality of instruction in reading. The results of the analysis demonstrated that the typical reading developmental trajectory for the average student was not associated with the quality of instruction in reading the student received, as measured by the number of years of instruction in reading by a highly qualified teacher.

## C. Conclusion

This study employed two assessments that capture different skills at different levels of reading development, and standardized them for easy comparison. The trajectory approach used identified the early acceleration in kindergarten, the slowing down of growth in first and second grades and the recovery in the third grade. The pattern of growth shows a rapid acquisition of the basic skills during the stages of emergent and early reader followed by a decline in the rate of progress during the transitional reader stage and some recovery of the rate of progress in the third grade. This result is similar to previous studies that found that children learning to read English seem to undergo a longer lasting growth spurt in kindergarten and first grade and a slumping of the rate of growth in subsequent grades. The slumping of growth in this study for the average student occurred from the middle of the first grade through end of second grade, with slight variations in the onset and degree of the slump for various groups of students. A common characteristic of students who read proficiently by the end of the third grade was that they recovered earlier and at higher rates from the observed slump of growth. Because of this early recovery, they made significant gains in reading skills in the second grade. In contrast, an important predictor of end of third grade underperformance was falling below the expected path of proficiency early in the developmental trajectory and delayed recovery in the third grade.

The results of the analysis clearly indicate that late first grade through the end of the second grade is a challenge for the majority of students. This period of the developmental trajectory is characterized by a slowing down of the growth in reading. PGCPs should focus on these grades and identify the students' characteristics and learning environments that help or facilitate learning during this time. It is also important that there is focus on literacy skills prior to these grades as reading difficulties that may appear later when students are learning to read in the transitional stage originate early in kindergarten.