

**THE HILL READING ACHIEVEMENT PROGRAM IN  
CARTERET COUNTY SCHOOLS:  
FINAL EVALUATION RESULTS (2008-2011)**

By:

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## **EXECUTIVE SUMMARY**

### **Background**

The purpose of this evaluation study was to determine the effectiveness of the Hill Reading Achievement Program (HillRAP) in improving the reading achievement of students who need remediation in reading in Carteret County Schools. Evaluation questions were:

1. Do students who receive HillRAP instruction improve academic achievement in reading, overall, and by student groups?
2. How many sessions of HillRAP instruction did students receive? Is there a relationship between the number of HillRAP sessions students receive and achievement in reading?
3. Do teachers who receive HillRAP training effectively implement HillRAP in a public school setting?

Five samples were included in the evaluation study for separate analysis. Two were annual samples: 2008-2009 sample (n = 94) and 2009-2010 sample (n = 89). Due to size (n = 11), the 2010-2011 annual sample was not included for separate analysis. Two cohort samples of students who received two years of HillRAP were also included. Cohort one included students who received HillRAP from 2008-2010 (n = 19); cohort two included students who received HillRAP from 2009-2011 (n = 43). Finally, a fifth, combined sample, included students from the three annual samples combined (n = 194). Students in the 2008-2009 sample received HillRAP instruction from 17 teachers in 5 elementary schools, 3 middle schools, and 2 high schools. Students in the 2009-2010 sample received HillRAP instruction from 27 teachers in 8 elementary schools and 3 middle schools. Students in the 2010-2011 sample received HillRAP instruction from 20 teachers in 6 elementary schools and 2 middle schools. Data collection included:

- Woodcock-Johnson III Tests of Achievement: Letter-Word Identification, Reading Fluency, Passage Comprehension, and Word Attack tests. These tests were administered prior to HillRAP implementation (pretest) and following one and two years of implementation.
- North Carolina End-of-Grade Reading Comprehension Test: This state assessment is administered at each school to students in grades 3 through 8. Levels I and II indicate below grade level achievement; Levels III and IV indicate at or above grade level achievement.

Student scores for the year prior to HillRAP implementation were obtained (pretest) as well as scores for each subsequent year of implementation.

- HillRAP Attendance Record: HillRAP teachers collected these data to document and monitor student attendance in HillRAP sessions.
- HillRAP Teacher Observation Form: Hill Center Master Teachers/Trainers completed this form as part of their regular observations of HillRAP teachers.

Other data used in the study included student demographic data. All participating students had parental permission (informed consent) to participate in the study. Data analysis included descriptive statistics, t-tests, repeated measures analysis of variance, and correlation.

### **Summary of Findings and Related Recommendations**

Findings provide support for HillRAP as an effective program for improving the reading achievement of struggling readers. Across years and student groups, HillRAP students demonstrated greater than expected growth for average ability students their age on all Woodcock-Johnson III reading tests administered: Letter-Word Identification, Reading Fluency, Passage Comprehension, and Word Attack. They similarly demonstrated notable growth on the North Carolina End-of-Grade Reading Comprehension Test, moving from lower to higher achievement levels. The following are findings and related recommendations for future studies of HillRAP. Findings for specific student groups (e.g., by school level, race/ethnicity) are based on data analysis results from the combined sample.

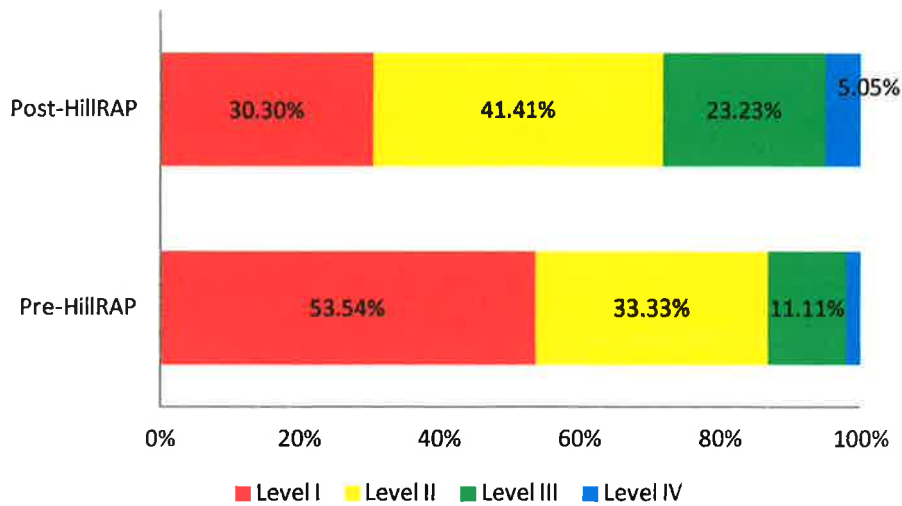
#### **Students in annual, cohort, and combined samples improved academic achievement in reading.**

- Students in the 2008-2009 sample demonstrated statistically significant and greater than expected growth for average ability students their age on all Woodcock-Johnson III reading tests administered. In addition, they decreased the gap between their achievement and the *average* achievement range of the tests. Students also demonstrated notable growth on the North Carolina End-of-Grade Reading Comprehension Test. The percentage of students who scored at or above grade level more than doubled, from 9.43% prior to HillRAP to 28.30%

after one year of HillRAP; the percentage of students who scored at Level I decreased by more than half, from 64.15% to 30.19%.

- Students in the 2009-2010 sample demonstrated statistically significant and greater than expected growth for average ability students their age on all Woodcock-Johnson III reading tests administered. In addition, they decreased the gap between their achievement and the *average* achievement range of the tests and moved into the *average* range for Word Attack. Students also demonstrated notable growth on the North Carolina End-of-Grade Reading Comprehension Test. The percentage of students who scored at or above grade level doubled, from 10.81% prior to HillRAP to 21.62% after one year of HillRAP; the percentage of students who scored at Level I decreased from 40.54% to 32.43%.
- Students in the cohort one sample demonstrated greater than expected growth for average ability students their age on all Woodcock-Johnson III reading tests administered. In addition, they decreased the gap between their achievement and the *average* achievement range of the tests and moved into the *average* range for Word Attack.
- Students in the cohort two sample demonstrated statistically significant and greater than expected growth for average ability students their age on all Woodcock-Johnson III reading tests administered. In addition, they decreased the gap between their achievement and the *average* achievement range of the tests and moved into the *average* range for Word Attack.
- Students in the combined sample demonstrated statistically significant and greater than expected growth for average ability students their age on all Woodcock-Johnson III reading tests administered. They also decreased the gap between their achievement and the *average* achievement range of the tests. Students also demonstrated notable growth on the North Carolina End-of-Grade Reading Comprehension Test. The percentage of students who scored at or above grade level more than doubled, from 13.13% prior to HillRAP to 28.28% after one year of HillRAP; the percentage of students who scored at Level I decreased from 53.54% to 30.30%. The following figure shows this movement.

*North Carolina End-of-Grade Reading Comprehension Test Achievement Levels for Combined Sample (n = 99)*



**There was evidence of students demonstrating greater growth after two years of HillRAP instruction.**

- Students in the cohort one sample made notable growth on the Passage Comprehension Test compared to those in the annual samples.
- Students in the cohort two sample made notable growth on the Word Attack and Reading Fluency tests compared to those in the annual samples.
- To better determine the impact of longer participation in HillRAP, future studies should include a larger sample from the beginning and efforts should be made to ensure that as many students as possible remain in HillRAP after one year.

**Elementary school students who received HillRAP instruction improved academic achievement in reading.**

- Elementary school students demonstrated statistically significant and greater than expected growth for average ability students their age on all Woodcock-Johnson III reading tests administered. In addition, they decreased the gap between their achievement and the *average* achievement range of the tests and moved into the *average* range for Word Attack.

- Elementary school students demonstrated notable growth on the North Carolina End-of-Grade Reading Comprehension Test. The percentage of students who scored at or above grade level more than doubled, from 10.26% prior to HillRAP to 26.92% after one year of HillRAP; the percentage of students who scored at Level I decreased from 55.13% to 30.77%.

**Secondary school students who received HillRAP instruction improved academic achievement in reading.**

- Secondary school students (middle and high school) demonstrated greater than expected growth for average ability students their age on all Woodcock-Johnson III reading tests administered. Although they scored lower at pretest compared to the overall combined sample, they demonstrated greater growth on Letter-Word Identification, Passage Comprehension, and Word Attack tests.
- Subsequent studies of HillRAP should include a larger number of secondary school students, from middle and high school, to better determine the impact of the program on these students.

**Non-minority students who received HillRAP instruction improved academic achievement in reading.**

- Non-minority students demonstrated statistically significant and greater than expected growth for average ability students their age on all Woodcock-Johnson III reading tests administered. They also decreased the gap between their achievement and the *average* achievement range of the tests.
- Non-minority students demonstrated notable growth on the North Carolina End-of-Grade Reading Comprehension Test. The percentage of students who scored at or above grade level more than doubled, from 13.16% prior to HillRAP to 34.21% after one year of HillRAP; the percentage of students who scored at Level I decreased from 52.63% to 26.32%.

**Minority students who received HillRAP instruction improved academic achievement in reading.**

- Minority students demonstrated greater than expected growth for average ability students their age on all Woodcock-Johnson III reading tests administered. In addition, they moved into the *average* achievement range for the Word Attack test.
- Minority students demonstrated growth on the North Carolina End-of-Grade Reading Comprehension Test. Although the percentage of students who scored at or above grade level slightly decreased after one year of HillRAP, the percentage of students who scored above grade level increased from 0% to 4.17% and the percentage of students who scored at Level I decreased from 54.17% to 41.66%.
- Future studies of HillRAP should include larger numbers of minority students to better determine program impacts for minority students and to allow for disaggregation of results by specific racial and ethnic groups.

**Students Identified to Receive Exceptional Children's Services who received HillRAP instruction improved academic achievement in reading.**

- Students Identified to Receive Exceptional Children's Services demonstrated statistically significant and greater than expected growth for average ability students their age on all Woodcock-Johnson III reading tests administered.
- Students Identified to Receive Exceptional Children's Services demonstrated notable growth on the North Carolina End-of-Grade Reading Comprehension Test. The percentage of students who scored at or above grade level nearly doubled, from 15.00% prior to HillRAP to 26.25% after one year of HillRAP; the percentage of students who scored at Level I decreased from 51.25% to 27.50%.
- Future studies of HillRAP should include more students representing the different types of Exceptional Children's services for which students are identified to better understand the effectiveness of the program in meeting the needs of these groups of students. The small number of students in some student groups (e.g., identified as having a mild intellectual disability) limited the conclusions that could be drawn in this evaluation study.