

a. Overview

From the 1995-96 academic year, when the Reading Together program was first piloted in several schools in North Carolina to the current 2002-03 academic year, systematic evaluations have been conducted and extensive research data have been collected for purposes of both refinement and continued development of the program and documentation of program effects on students' reading achievement.

The research findings summarized here focus specifically on student achievement and behavioral outcomes associated with participation in the Reading Together tutoring programs. Although research data have been collected from many sites over the eight years in which the program has been implemented in the United States, sample sizes and the ability to include a control group in the research design have varied across sites. Therefore, results summarized here are drawn from those sites with the largest sample sizes and where carefully matched control groups were selected for comparison to Reading Together program participants.

b. Program Effects on Reading Fluency and Comprehension

The Reading Together tutoring programs are specifically designed to target students who demonstrate basic decoding skills, but still need help with reading fluency and comprehension skills in order to achieve at or above grade-level standards for reading proficiency. Thus, the most relevant outcome measures of program success are improved scores on assessments of reading fluency and comprehension and performance at or above grade-level standards in reading. The following summary of results presents evidence of the positive effects of the Reading Together programs on these specific outcome measures.

i. North Carolina Study: Results Based on District-wide Reading Assessments of Fluency

A study of the cross-age Reading Together (RT) program conducted in 1997-98 in 13 schools in several North Carolina county school systems (Hattie and Haines 1998) used the Sunshine Assessment Kit to measure reading fluency and to compare post-intervention achievement of second-grade RT tutees and control group peers who were matched on pre-intervention reading fluency scores. As presented in table 1, results indicated statistically significant differences in favor of the RT tutees at the end of the program. Although prior to intervention the RT and control groups were performing at similar fluency levels (mean score of 8.8 and 8.6, respectively), after the tutoring program intervention, the RT group outperformed the control group in reading fluency.

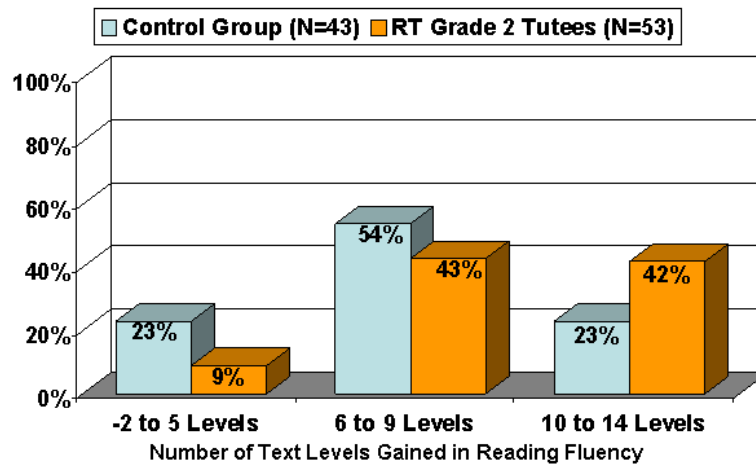
Table 1
Analysis of Variance Results for Post-Intervention Sunshine Reading Fluency Means for RT Tutees and Control Group Students

Group	n	Mean Fluency Level*	df	F	p
Control	47	16.6	1,104	4.31	.04
Reading Together	59	18			

*Levels 1-10 are Grade 1; Levels 11-21 are Grade 2

Analysis of student-level gains as a consequence of participation in the Reading Together program indicated that greater percentages of RT students, as compared to control group students (43 percent vs. 23 percent), increased their fluency level by 10 or more levels by the end of the program (figure 1).

Figure 1
Reading Fluency Gains for Grade 2 Control Students and Reading Together Tutees



Data Source: North Carolina Study (Hattie and Haines 1998)

ii. Maryland Study: Results Based on District-wide Reading Assessments of Fluency and Comprehension

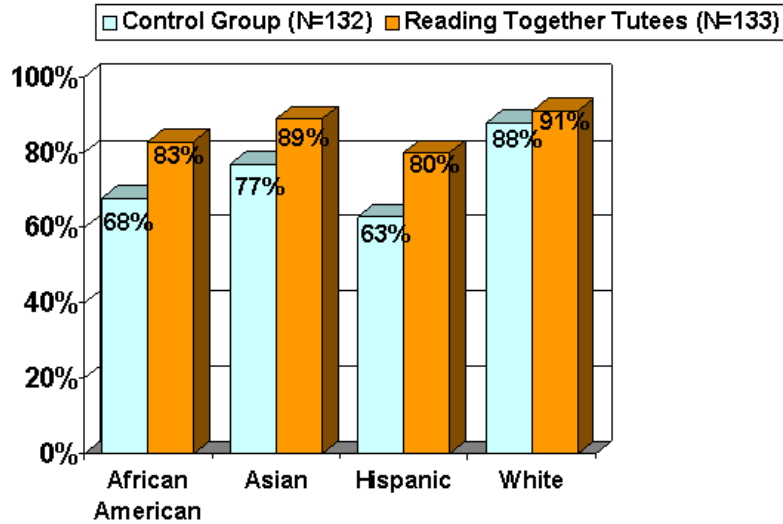
Studies of the Reading Together Family program were conducted in two consecutive school years (2000-01 and 2001-02) with two different cohorts of Grade 2 RT students in Montgomery County, Maryland. In the 2000-01 school year, RT students from 22 schools were matched on demographic characteristics and pre-intervention reading scores to Grade 2 control group peers from the same school. In 2001-02, 43 schools participated in the Reading Together program and the same matching procedure was applied to a selection of control group students.

Using district-administered assessments of reading fluency, end-of-grade 2, post-intervention scores of RT tutees were compared to those of their matched control group peers. Results of these analyses were disaggregated by student subgroups defined by race/ethnicity (figure 2), as well as poverty status (Free and Reduced-Price Meal Services, FARMS, and English Language learning needs, ELL) (figure 3).

As documented in figures 2 and 3, across all disaggregated subgroups of students, greater percentages of students who participated in the RT tutoring program, as compared to their control group peers, achieved or exceeded the benchmark level of reading fluency for Grade 2. Although all RT tutees began the tutoring program in fall marginally at or below grade level in reading skills, within all subgroups, 80 percent or more of the RT tutees, including those from poverty-level families and those with English language learning needs, met or exceeded the end-of-grade 2 benchmark for reading fluency following completion of the program.

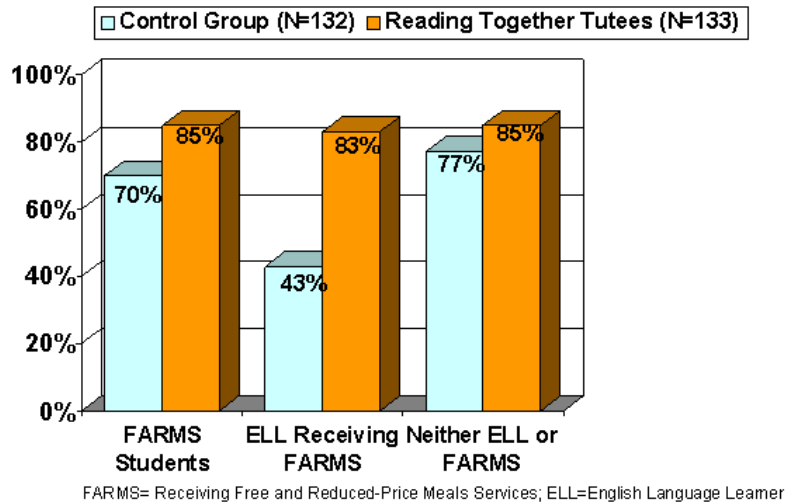
In fact, the greatest differences between the RT group and the control group were exhibited by the African American and Hispanic students when race/ethnicity was examined, and by the highest-risk students (FARMS and ELL) when risk factors of poverty and second language learning were considered.

Figure 2
Grade 2 Control and RT Students Meeting End-of-Grade Reading Proficiency Standard in Fluency



Data Source: Montgomery County Maryland Public Schools, 2000-01

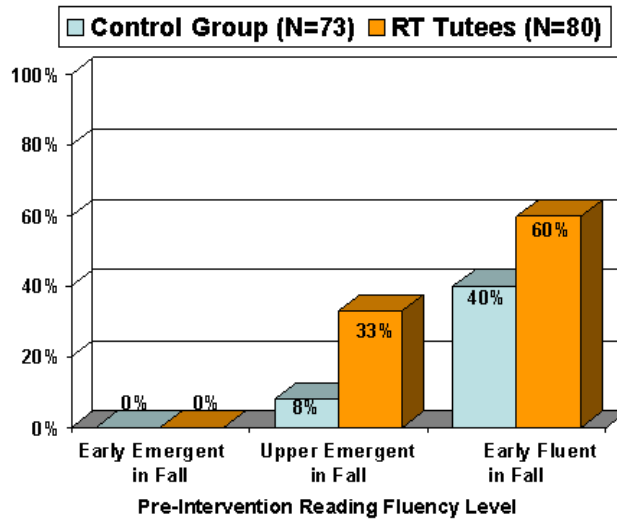
Figure 3
Grade 2 Control and RT Students Meeting End-of-Grade Reading Proficiency Standard in Fluency



Data Source: Montgomery County Maryland Public Schools 2000-01

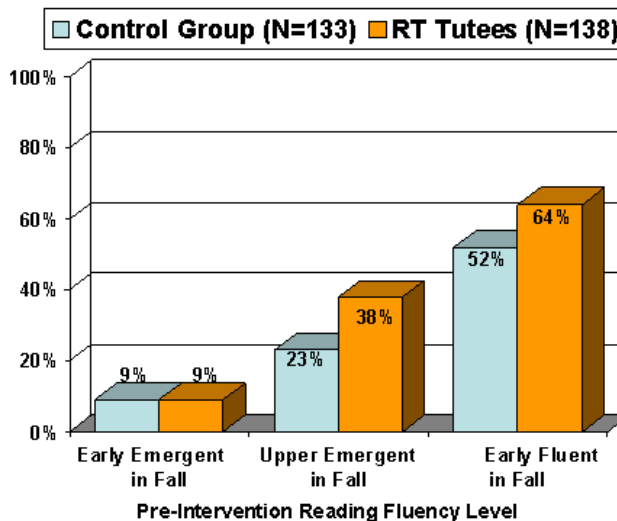
Figures 4 and 5 present results for the 2000-01 and 2001-02 school years, respectively. Results are reported in terms of the percentage of students who met the more rigorous benchmark for the end of Grade 2, which is reading fluent level text **with adequate comprehension**. Students who met this benchmark were able to read fluent level text (Fountas and Pinnell Level M) with 90% or above accuracy and provided written responses to explicit and implicit questions that indicated solid understanding of what was read.

Figure 4
Grade 2 Control and RT Students Who in Spring (Post-Intervention)
Met Proficiency Standards in Fluency and Comprehension



Data Source: Montgomery County Maryland Public Schools 2000-01

Figure 5
Grade 2 Control and RT Students Who in Spring (Post-Intervention)
Met Proficiency Standards in Fluency and Comprehension



Data Source: Montgomery County Maryland Public Schools 2001-02

Differences in the achievement of the Grade 2 fluency and comprehension benchmarks by the tutees and their control group peers are reported for three groups of students who were, to varying degrees, reading below grade level in the fall of Grade 2, prior to intervention.

The first group, identified as Early Emergent in fall, constituted the smallest group of students. These students were reading significantly below grade level (the Early Emergent text level, reading recovery level 3, is the targeted benchmark for Kindergarten). Clearly, very few, if any, of these students achieved the end-of-grade 2 reading benchmarks for fluency and comprehension. Although all of these students exhibited progress in reading over the year, both the small numbers of students in this group and the magnitude of growth required to reach the Grade 2 standards by the end of the year made it difficult to document effects for this group of students in terms of achievement of the Grade 2 standards. Although these students may benefit from the RT program, they are the lowest performing students and likely require more intensive and longer-term intervention before catching up with their grade level peers.

The next two groups, identified as Upper Emergent in fall and Early Fluent in fall were considered marginally below or about a year below grade level prior to beginning the RT program. These two groups differed only in the difficulty level of text that they were able to accurately read; both groups had low comprehension scores in fall.

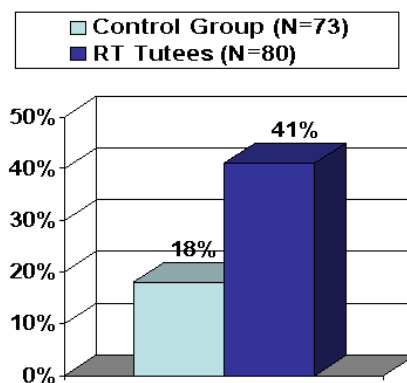
Overall, as documented in figures 4 and 5, findings for both school years indicated significant differences in achievement of Grade 2 reading fluency and comprehension benchmarks in favor of the RT tutees. For the two groups of students who began the program marginally at or moderately below grade level, greater percentages of RT tutees (an average of 18 percent more), as compared to control group students, achieved the end-of-grade reading benchmarks in fluency and comprehension.

iii. Maryland Study: Results Based on Statewide End-of-Year Reading Tests

The 2000-01 Montgomery County, Maryland study examined the effects of the RT program on student performance on the reading test of the Grade 2 end-of-year Statewide test (CTBS). The district-established performance standard for Grade 2 students in spring is the 60th percentile or above on the CTBS reading test.

Grade 2 RT tutees and their control group peers in each of 22 schools were matched on pre-intervention reading scores, using the district reading assessment in fall. All students (RT and control) were scoring below grade level in fall. Figure 6 displays the percentage of Grade 2 students in the RT and control groups who, in spring, scored at the 60th percentile or above on the CTBS reading test. The percentage of RT tutees who met this performance standard in reading exceeded that of control group students by 23 percent (41 percent vs. 18 percent).

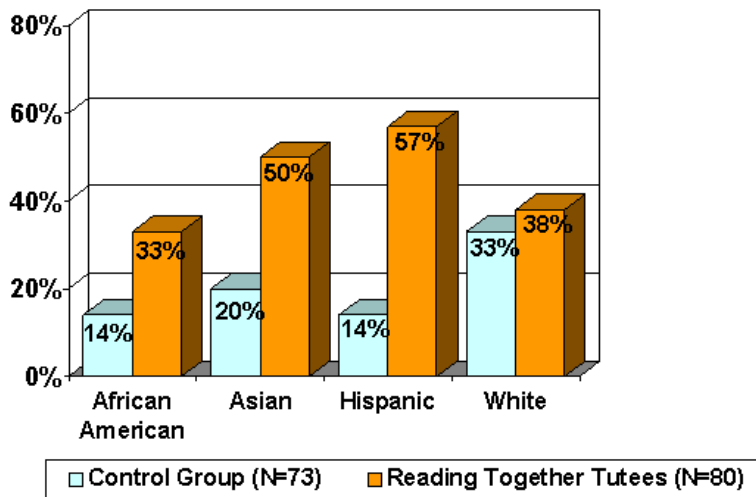
Figure 6
Grade 2 Control and RT Students Reading Below Grade Level in Fall and Scoring At or Above the 60th Percentile in Spring on State Reading Test (CTBS)



Data Source: Montgomery County, Maryland Public Schools, 2000-01

These results, which favored the RT tutees, were replicated when the groups were further disaggregated by race/ethnicity (figure 7) and by poverty status (receiving Free and Reduced-Price Meal Services) (figure 8). Across all of the subgroups examined, the RT tutees outperformed their control group peers with respect to meeting the Grade 2 reading performance standard (scoring at the 60th percentile or above) on the CTBS reading test.

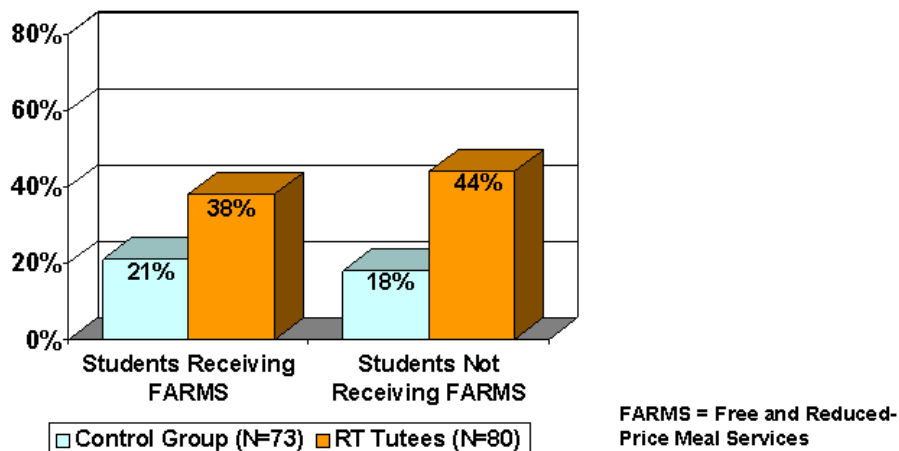
Figure 7
Grade 2 Control and RT Students Reading Below Grade Level in Fall and Scoring At or Above 60th Percentile* in Spring (Post-Intervention) on State Reading Test (CTBS)



*District-set target for Grade 2 reading proficiency

Data Source: Montgomery County, Maryland Public Schools 2000-01

Figure 8
Grade 2 Control and RT Students Reading Below Grade Level in Fall and Scoring At or Above the 60th Percentile* in Spring (Post-Intervention) on State Reading Test (CTBS)



*District-set target for Grade 2 reading proficiency

Data Source: Montgomery County, Maryland Public Schools 2000-01

c. Program Effects on Tutor Social Skills and Attitudes Towards School

iv. Cross-site Study of Principal, Teacher, and Parent's Perceptions of Changes in Tutor Skills and Attitudes Attributable to Reading Together

In the 1998-99 school year, end-of-year surveys were developed for Reading Together to supplement studies of the reading achievement of students with other indicators of growth (SERVE, Inc. 1999). Principal, teacher and parent surveys were distributed to and returned from eight school sites.

As documented in table 2, when asked about whether they saw improvement in 5th grade tutors' skills and attitudes, principals, teachers and parents were, for the most part, very positive about improvements that were attributable to participation in the Reading Together program. Of the three groups of respondents, principals and parents were clearly the most impressed with the 5th grade tutors' personal growth as a result of their participation in the Reading Together program. The 5th grade teachers, while generally positive, provided more tempered assessments of students' personal growth.

Table 2
Principal, Teacher and Parent Perceptions of 5th Grade Tutor Improvements
Attributable to Participation in the Reading Together Program
1998-99 Cross-site Study

Areas of Improvement Attributed to Participation in RT	Percentage of Respondents Who Noted Improvement Among 5 th Grade Tutors		
	Principals (n=7)	Teachers (n=16)	Parents (n=30)
Development of Leadership Skills	100%	69%	100%
Self-confidence about School	100%	62%	93%
Appreciation of Teachers and Teaching	85%	57%	100%
Taking Responsibility for School Work	100%	38%	93%
Planning and Study Skills	86%	56%	78%
Interpersonal Skills	100%	62%	96%
Communication Skills	100%	56%	93%

It is important that all groups of respondents—school staff as well as parents—were most impressed with the extent to which the 5th grade tutors developed leadership skills as a result of their participation in the program. All three groups were consistent as well in their positive evaluations of tutors' improvement in interpersonal skills and self-confidence about school.