

THE CARMEL HILL FUND EDUCATION PROGRAM

Evaluation of 2005–2006 School Results



THE CARMEL HILL FUND

The Carmel Hill Fund, a private foundation established by Mr. William Ruane in 1986, supports social service, mental health, and education initiatives. The Carmel Hill Fund Education Program is a branch of the Fund that strives to improve the quality of education for disadvantaged youth in New York, the United States, and beyond.

ACKNOWLEDGEMENT

Carmel Hill would like to acknowledge the significant contribution of Christopher Swenson and the Renaissance Learning™ research department for the development of this study.

EXECUTIVE OVERVIEW

The Carmel Hill Fund asked the Renaissance Learning research department to help it conduct an evaluation of the effectiveness of the Fund's educational programs for the 2005–2006 school year. This report is a result of that collaboration. All data used in this report are available for qualified researchers to independently validate the results reported herein.

Carmel Hill Fund Education Program uses the Accelerated Reader™ (AR™) reading management software and best practices as its primary means to help schools improve.

Carmel Hill supported the use of Accelerated Reader in a total of 43 schools with 10,617 students in 2005–2006 school year, including 22 schools and 5,096 students in Harlem, 2 schools and 1,116 students in Denver (CO), and 19 schools and 4,355 students in Monroe (LA). Major findings include the following:

1. For the school year 2005–2006, reading percentile scores for all students combined (10,617) improved from an average of 23 to 27, a statistically significant increase of 4 percentile points ($p < .001$). This is approximately an improvement of 1/3 school year over normal.
2. The two schools to fully implement Accelerated Reader according to recommended practices, PS 175 Henry Highland Garnet, Harlem, and Lexington Elementary, Louisiana, had extraordinary gains. PS 175 students averaged an increase of 24 percentile ranks, one of the largest single year gains ever recorded by Renaissance Learning from an average percentile rank of 19 at the beginning of the school year to 42 at the end. Lexington Elementary schoolwide gains were 13 percentile for the year. Lexington state test scores ranked 12th highest in the state, only exceeded by magnet schools and other schools with higher socio-economic characteristics. Lexington black students scored higher on state tests than white students statewide.
3. Teacher certification has a significant impact on student achievement. Students in classrooms whose teachers achieved certification for using best practices had a reading percentile gain of 14 versus 2 for non-certified teachers.
4. It is important that students not only spend time reading books; it is also important that they read at 85% comprehension or above. Students who read 30 minutes or more at 85% comprehension gained 9 percentile ranks versus a gain of only 2 percentile ranks for other students.
5. A survey of 297 teachers indicated that 80% agreed that Carmel Hill's use of Accelerated Reader was effective (42% strongly agree, 38% agree) and 91% of principal responses (32) were positive (8% were neutral).

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I. INTRODUCTION AND OVERVIEW OF THE CARMEL HILL FUND EDUCATION PROGRAM

The Carmel Hill Fund's focus on education developed out of the revitalization of a block in Harlem. Bill Ruane selected a destitute block on 118th Street ravaged by drug abuse and property neglect. Teaming up with the Children's Aid Society, Carmel Hill worked to get the drug sellers and addicts off the block, bring the buildings up to code, and obtain vital social services rendered to tenants.

Mr. Ruane's goal from the beginning had been to elevate children from the most desperate living conditions into stable situations so as to break the cycle of poverty in a cost-effective and replicable way. After Carmel Hill petitioned the proper authorities to restore the buildings and worked with Children's Aid Society to begin providing services to the block's residents, Mr. Ruane took a closer look at the children who lived on 118th Street. He discovered that on just that one block, 80 elementary grade students were attending 26 different schools. Mr. Ruane realized that there could never be a strong sense of community with the block's children scattered in so many directions, so he did a search for one school that they all could attend. Soon enough, he hit upon St. Paul School, a small Catholic elementary school a few blocks away that was on the verge of closing due to insufficient funds. Mr. Ruane supported the school to keep it from closing and established a scholarship program that allowed the 118th Street children to attend St. Paul for only a nominal fee.

The 270 students enrolled in St. Paul were very much in need of something to improve their reading abilities, so in 2001 Mr. Ruane purchased Renaissance Learning's Accelerated Reader software at the suggestion of St. Paul's principal Agnes Sayaman. The results were quick in coming and overwhelming in their magnitude. Between 2001 and 2003, St. Paul's overall school score on the Iowa Test of Basic Skills (ITBS) went up by 70%. St. Paul went from scoring near the bottom quartile as compared to schools nationally in 2001, to scoring 8% above the national median in 2003.¹

Because of Accelerated Reader's tremendous success at St. Paul, Mr. Ruane decided to support the implementation of Accelerated Reader in schools worldwide. The Carmel Hill Fund Education Program, in addition to carrying out other initiatives to enhance youth education, is the branch of the Carmel Hill Fund that works with schools to integrate Accelerated Reader into their curriculums.

Accelerated Reader, launched in 1986, is software students use to take quizzes on books and other materials. It provides immediate feedback information about how well students are reading in terms of percent correct on Accelerated Reader quizzes, number of points earned, reading levels, and other scores. Accelerated Reader is a progress-monitoring system that fosters accountable reading practice.

The information Accelerated Reader provides is immediate, reliable, valid, and efficient (Renaissance Learning, 2006a). Students are more motivated to read after taking

¹ For the full story of St. Paul's results and accomplishments, please see our Video Spotlight at: <http://carmelhill.org/vidspot.htm>

quizzes and viewing their progress (Husman, Brem & Duggan, 2005). Teachers can use the information to implement Accelerated Reader best practices, inform instruction, and carefully monitor and guide each student's independent reading to establish individual student goals for time, comprehension, and book level. Over 25 independent experimental and quasi-experimental studies have evaluated the impact of using Accelerated Reader in the classroom, with positive results (for example, Nunnery, Ross, & McDonald, 2006; Borman & Dowling, 2004; Bolt, 2004; Samuels & Wu, 2003).²

Renaissance Learning provides a model and master certification program for teachers in which teachers submit their Accelerated Reader diagnostic report and based on the time students spend reading and comprehension percent, they are certified as using best practices in their classroom. Students in classrooms with certified teachers typically outperform students with non-certified teachers.

The Carmel Hill Fund Education Program's largest effort is still focused in Harlem. Partnering with the New York City Board of Education in Region 10, Carmel Hill funded and guided the implementation of Accelerated Reader in 14 public schools in Harlem during the 2004–2005 school year. Most schools saw results after just this first year of using Accelerated Reader.

For example, the school that began using Accelerated Reader earliest had a 13% increase in its reading test scores as compared to last year. This school's principal identifies Accelerated Reader as a key component of her students' gain in reading ability. Other schools noted the schoolwide enthusiasm for reading that Accelerated Reader generated. For the 2005–2006 school year, 11 new Region 10 schools were brought into the project.

The Carmel Hill Fund Education Program strengthened the impact of Accelerated Reader in its 28 New York schools during the 2005–2006 year by funding the following extended programs:

- After-school programs in selected schools to allow students to have more time to practice their reading.
- Expansion of the Carmel Hill Accelerated Reader Internship program. The Internship program, a venture that developed during the 2004–2005 school year, enables Eugene Lang college students to work in first-grade classrooms, reading to and with the students. This year, more public schools will have Eugene Lang student interns, and the interns' experiences will be enhanced through coursework offered at Eugene Lang's Institute for Urban Education.
- Continued support for Region 10's gifted and talented students by sponsoring their participation in the Summer Institute for the Gifted. Last year, 39 gifted and talented students from Region 10 attended three-week sessions at Amherst, Princeton, and Vassar, where they were challenged to higher levels of critical thinking.

² For summaries of these studies, go to <http://www.renlearn.com/research/>

The Carmel Hill Fund Education Program also sponsored projects in the Monroe City School District of Louisiana and in Denver, Colorado:

- The Monroe City School District, located in Ouachita Parish in Northeast Louisiana, presently serves 9,500 students in 19 schools. This multicultural school district encompasses a diverse population of students, many of whom receive free or reduced lunches. In 2003, the Carmel Hill Fund Education Program and the Monroe City School District became partners in an effort to increase the academic excellence of the district's students, particularly in the area of reading. All 9,500 students now participate in Accelerated Reader.
- In 2005, the Carmel Hill Fund Education Program initiated a project in the Rocky Mountain Region. During this first year, a partnership was formed with two elementary schools in the Denver Public School District, thereby enabling the Carmel Hill Fund Education Program to demonstrate the power of Accelerated Reader and its impact on students' reading abilities first within these schools. One of the schools, Maxwell Elementary, experienced a 21% increase in library circulation. As of the 2006–2007 school year, The Carmel Hill Fund Education Program partners with 16 Denver Public Schools.
- The Boys and Girls Club of Metro Denver (BGCMD) partnered with The Carmel Hill Fund in the summer of 2006 to develop a reading program for their members. The BGCMD consists of 6 branches spread throughout the Denver area. In its first year, 600 members participated in the summer reading program. In 9 weeks, those 600 members read over 12,000 books.
- Funding is provided to Save the Children to support their implementation of Accelerated Reader in various rural sites and Native American reservations across the United States.

II. METHOD

We tracked the achievement test scores of 10,617 students in schools with Carmel Hill support, including 5,096 students from 22 Harlem (NY) elementary and middle schools, 1,116 from 2 Denver (CO) elementary and middle schools, and 4,355 from 19 Monroe (LA) elementary, middle, and high schools. Of these students, 8,615 reported gender, with 4,369 male and 4,246 female students. Since Accelerated Reader does not require teachers to report race and other demographic variables, many of these variables were missing, including racial identification (41 reported) and English language learning status (146 reported as English language learners). Carmel Hill sent Renaissance Learning surveys to teachers and principals within each school and received 297 teacher surveys and 32 principal surveys at the end of the study.

STAR Reading. In addition to using Accelerated Reader (described above), STAR Reading™, also published by Renaissance Learning, was used to track student reading achievement. STAR Reading is the most widely used, nationally normed reading test in the U.S., used in over 40,000 schools. It is a reliable, valid, and efficient computer-adaptive progress-monitoring assessment of general reading achievement and comprehension for grades 1–12 (Renaissance Learning, 2001). The software uses a computer-adaptive method in which the administered questions reflect the abilities of the test-taker. Students work at their own pace, usually taking about 10 minutes to complete 25 questions extracted from an item bank of almost 1,300 questions.

CSAP. The Colorado Student Assessment Program (CSAP) is a set of criterion-referenced tests of how well students in grades 3–10 are meeting state standards in reading, writing, mathematics, and science (Colorado Department of Education, 2006). It has 70 questions with 56 multiple choice and 14 constructed-response questions. The tests are given in three 60-minute sessions (except for third grade, in which the test is divided into two sessions). Students obtain a scaled score on a scale of about 1,000 (the highest possible score varies by grade; see CTB/McGraw-Hill, 2005, p. 10 & 62) and a status of either unsatisfactory, partially proficient, proficient, or advanced.

LEAP tests. The Louisiana Department of Education uses three criterion-referenced tests—the Louisiana Educational Assessment Program (LEAP) for grades 4 and 8; the *i*LEAP (*i* for integrated) for grades 3, 5, 6, 7 and 9; and the Graduation Exit Examination (GEE) for grades 10 and 11 (2006). The Louisiana tests are based on the State’s content standards, including English Language Arts (ELA) measurements of reading and response skills, writing competence, use of language conventions, and reasoning/problem-solving skills.

Surveys. Carmel Hill Staff had teachers and principals fill out surveys regarding their use of Accelerated Reader. Teachers were asked questions with Likert-scale responses (1–5, strongly disagree, disagree, no opinion, agree, strongly agree) with an option at the end to respond with any other comments. Principals were asked open-ended

questions for which they responded by writing short essay answers. See Appendix A and B for the teacher and principal surveys, respectively.

Throughout the 2005–2006 academic year, students took Accelerated Reader quizzes and STAR Reading pre- and post-tests. In the spring, students in Colorado took the CSAP tests and students in Louisiana took the LEAP tests in addition to STAR Reading tests. Carmel Hill staff urged teachers to follow the implementation suggestions acquired during various training and professional development seminars provided by the organization and to seek certification. Since training and professional development were not required, teacher training varied, and ultimately, teacher implementation varied.

Renaissance Learning offers training professional development and certification for Accelerated Reader and STAR Reading. Certification recognizes teachers, librarians, coordinators, and entire schools that have met clear, objective standards of high implementation based on best practices (see Appendix C). For example, in order to certify, teachers must enroll in either Model or Master Classroom Certification and complete the relevant criteria (see Appendix D). Model Certification must be obtained before Master certification. Master Certification requires additional criteria and a longer period of time in which the classroom maintains the criteria. For an example of the differences between Model and Master Certifications, see Appendix D.

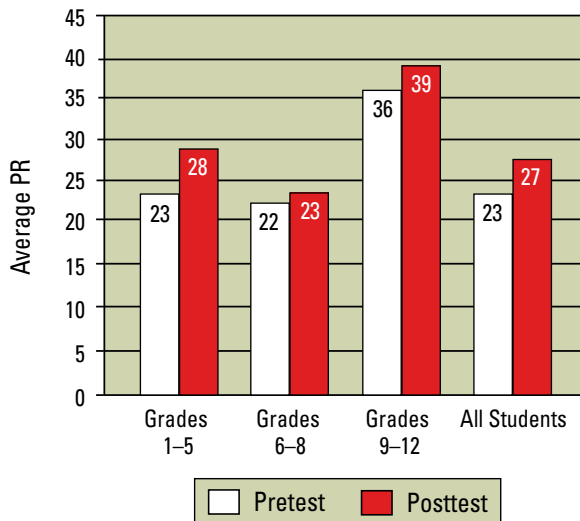
Student data from Accelerated Reader and STAR Reading for some sites were stored in Renaissance Learning servers; data for other sites were stored on-site in the schools. All data were collected during the summer of 2006 by searching Renaissance databases for students within the study schools and requesting data from the schools. Carmel Hill sent the Renaissance Learning surveys in the spring of 2006, and respondent teachers and principals returned surveys during the summer.

The following questions were asked: A) What effect did Accelerated Reader have on site-wide, school-wide, grade-level, and student-level achievement, as measured by STAR Reading, the CSAP, and the LEAP tests? B) What effect did the level of implementation of Accelerated Reader have on student achievement? C) How did teachers and principals respond to using Accelerated Reader? Questions A and B were answered by assessing STAR Reading pretest and posttest scores, and for Colorado and Louisiana students, CSAP, and LEAP scores. Data were analyzed at various levels, by site (that is, Harlem, Denver, and Monroe), school, grade, student, and implementation level in order to assess the effect of using Accelerated Reader at each level. Question C was answered by aggregating teacher and principal survey responses into categories.

III. RESULTS

On average, students read an estimated 20 minutes per day and obtained 75% correct on Accelerated Reader quizzes. (Please note that the recommended average percent correct for the best student achievement gains is 85% or higher.) Over the course of the 2005–2006 academic year, STAR Reading percentile ranks (PR) significantly increased from an average of 23 at the beginning of the year to 27 at the end, or 4 points, $t(10616) = 16.66, p < .001, d = 0.10$ (see Figure 1),³ indicating a significant increase in all students' reading achievement. Similarly, all students gained an average of 69.22 scaled scores and 0.63 grade equivalents ($ps < .001$).

Figure 1. Mean pretest and posttest percentile rank on STAR Reading by grade groups



Students who met or exceeded Renaissance Learning's best practice guidelines for Accelerated Reader (reading 30 minutes per day with 85% correct on Accelerated Reader quizzes) achieved much greater gains (see Figure 2, p. 9).

Grades 2–4 and 7–10 demonstrated significant positive gains, grades 1 and 5 demonstrated marginally significant gains ($ps = .054$ and $.071$, respectively), and grades 6, 11, and 12 demonstrated insignificant changes, although grade 12 demonstrated moderately positive gains (see Table 1, p. 9). Overall, this indicates that there were positive increases in reading achievement in nearly all grades. See Figure 1 for clustered results.

³ All statistical tests for percentile ranks (PR) were conducted on normal curve equivalent (NCE) scores.

Figure 2. Mean percentile rank gain on STAR Reading by Average Percent Correct (APC) and Engaged Reading Time (ERT) ranges

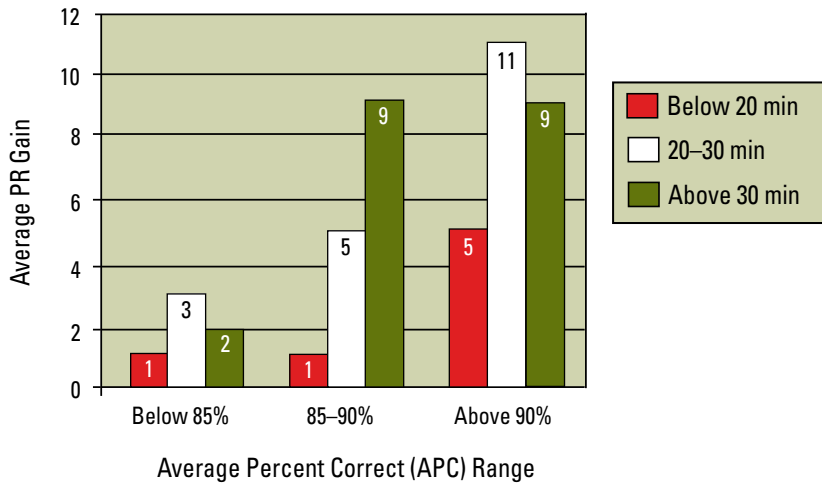


Table 1. Student Data by Grade

Grade	Number of Students				Average PR		
	Male	Female	Missing	Total	Pretest	Posttest	PR Change
Missing	27	47	0	74			
1st	22	24	30	76	46	56	10 †
2nd	347	354	167	868	22	32	10 *
3rd	891	911	275	2077	24	29	5 *
4th	679	637	202	1518	23	28	5 *
5th	755	763	176	1694	21	22	1 †
6th	614	584	637	1835	21	20	-1
7th	425	372	318	1115	22	26	4 *
8th	366	286	197	849	25	27	2 *
9th	134	142	0	276	29	32	3 *
10th	56	52	0	108	29	34	5 *
11th	49	58	0	107	63	63	0
12th	4	16	0	20	36	40	4
Total	4369	4246	2002	10617	23	27	4 *

† Marginally significant at the $p < .10$ level. Tests conducted on normal curve equivalent scores.

* Significant at the $p < .05$ level. Tests conducted on normal curve equivalent scores.

Each school and site appeared to implement Accelerated Reader slightly differently, some with very high use and some with very low use, and these varied implementation levels likely contributed to the wide range of gains (see Table 2). Renaissance Learning uses average percent correct (APC) and estimated reading time (ERT) to determine eligibility for recognition in its teacher certification program for best practices.

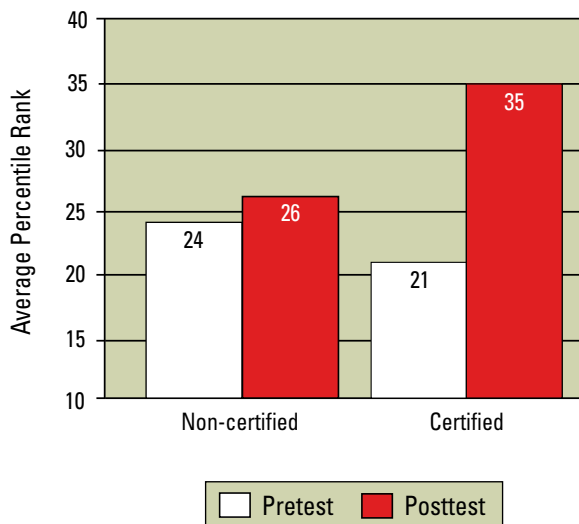
Table 2. Site Averages (Except Site Size)

Site	Site Size	Percent Correct	Reading Time (min)	Points per Student	Pretest PR	Posttest PR	PR Gain
Denver, CO	1166	81.99	48.00	118.77	43	49	6
Harlem, NY	5096	74.06	13.88	18.84	17	19	2
Monroe Co., LA	4355	74.56	18.61	28.30	27	31	4

Note. All PR gains are significant at the $p < .001$ level. Tests conducted on normal curve equivalent scores.

Both non-certified and certified classrooms obtained significant gains from pretest to posttest, $t(10128) = 14.01, p < .001, d = 0.09$ and $t(487) = 12.16, p < .001, d = 0.46$, respectively.⁴ At pretest, students in non-certified classrooms had greater achievement in reading than those in certified classrooms, $t(545) = 2.29, p < .05, d = 0.10$; however, at posttest, students in certified classrooms had greater achievement than those in non-certified classrooms, $t(10615) = 5.56, p < .001, d = 0.25$. Students in certified classrooms gained 14 percentile ranks ($d = 0.46$) compared to only 2 percentile ranks ($d = 0.09$) in non-certified classrooms (see Figure 3).

Figure 3. Non-certified vs. Certified Classrooms

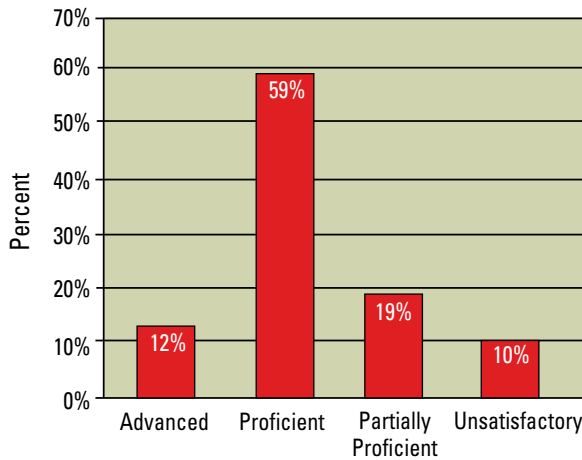


⁴ We were not able to match all students to their teacher. Many students were missing classroom and teacher data. Therefore, some students in certified classrooms may have been misidentified as being in non-certified classrooms.

CSAP

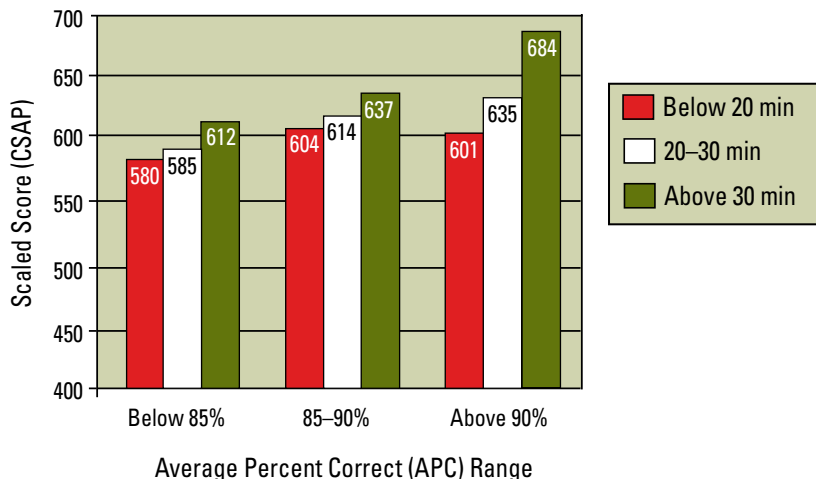
Colorado students ($n = 1018$), in addition to taking STAR Reading tests, also took the CSAP test. We used the reading scaled scores from the CSAP for these analyses. Unfortunately, student-level longitudinal data were not useful due to the small sample size of the data received ($n = 104$). For the 2005–2006 academic year, the scaled score average was 630 ($SD = 75.49$, $Mdn = 638$, $Min = 150$, $Max = 808$) and 71% of the students were proficient or advanced (see Figure 4).

Figure 4. Percent of students at each proficiency level on the CSAP



Students who read for more than 30 minutes per day and achieved greater than 90% on Accelerated Reader quizzes obtained the highest CSAP scaled scores, with an average of 684 ($SD = 47.53$), $F(8, 1009) = 39.24$, $p < .001$, $\omega^2 = .23$ (see Figure 5).⁵

Figure 5. Average scaled score on the CSAP by Average Percent Correct (APC) and Engaged Reading Time (ERT) ranges



⁵ Omega-hat squared (ω^2) ranges from 0 to 1, and can be interpreted like a correlation (r).

Additionally, the same students had a 94% probability—odds 15 times higher than one group of other students—of achieving proficient or advanced status, $\chi^2(2) = 196.89$, $R^2 = .25$, $p < .001$ (see Figure 6). Students who read 20–30 minutes at 90% correct also had a much higher probability of obtaining proficiency than other students (see Table 3).

Figure 6. Percent of proficient and advanced students on the CSAP by Average Percent Correct (APC) and Engaged Reading Time (ERT) ranges

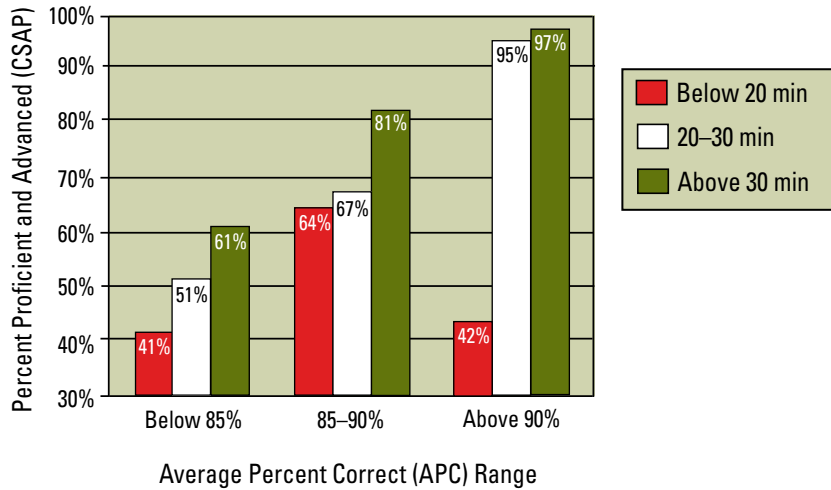


Table 3. Probability and Odds of Obtaining Proficiency or Above

Implementation Group	CSAP		LEAP	
	Probability	Odds	Probability	Odds
< 85%, < 20 min	36.61%	0.58	51.02%	1.04
< 85%, 20–30 min	49.13%	0.97	69.57%	2.29
< 85%, > 30 min	61.75%	1.61	83.38%	5.02
85–90%, < 20 min	63.95%	1.77	68.63%	2.19
85–90%, 20–30 min	74.78%	2.97	82.76%	4.80
85–90%, > 30+ min	83.22%	4.96	91.33%	10.54
> 90%, < 20 min	84.49%	5.45	82.13%	4.60
> 90%, 20–30 min	90.11%	9.11	90.98%	10.08
> 90%, > 30 min	93.84%	15.23	95.68%	22.13

Note. “Proficiency or above” is *proficient* or *advanced* on the CSAP and *basic, mastery*, and *advanced* on the LEAP.

STAR Reading Validity. Another useful analysis, although unrelated to student achievement, is to compare STAR Reading to the CSAP. How closely are STAR Reading and CSAP related? This question can be answered by predictive and concurrent validity analyses. Predictive validity is the correlation between STAR Reading pretest taken in the Fall and the CSAP taken the following Spring; concurrent validity is the correlation between STAR Reading posttest and the CSAP, both taken in the Spring. Overall predictive validity was .84, indicating that STAR Reading, administered most often in September, was highly predictive of students' Spring CSAP scores. Overall concurrent validity was .85, indicating that the abilities measured by STAR Reading are highly related to those measured by the CSAP. Results by grade were also strong (see Table 4).

Table 4. STAR Reading Validity with CSAP and LEAP

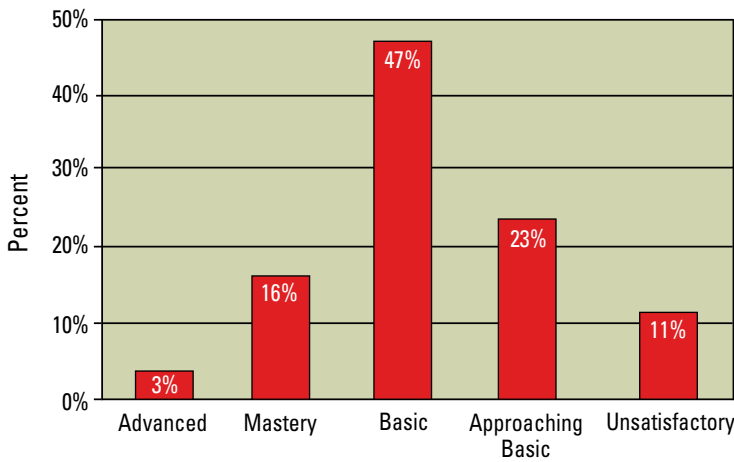
Grade	CSAP				LEAP			
	Predictive		Concurrent		Predictive		Concurrent	
	<i>r</i>	<i>n</i>	<i>r</i>	<i>n</i>	<i>r</i>	<i>n</i>	<i>r</i>	<i>n</i>
3rd	.72	82	.75	82	.71	451	.71	451
4th	.77	79	.83	79	.67	453	.70	453
5th	.70	93	.68	93	.75	530	.74	530
6th	.77	280	.80	280	.77	436	.74	436
7th	.83	299	.84	299	.75	293	.74	293
8th	.83	185	.83	185	.61	219	.53	219
9th	-	-	-	-	.82	219	.81	219
10th	-	-	-	-	.67	68	.68	68
All	.84	1018	.85	1018	.55	2671	.59	2671

Note. All correlations are significant at the $p < .001$ level

LEAP

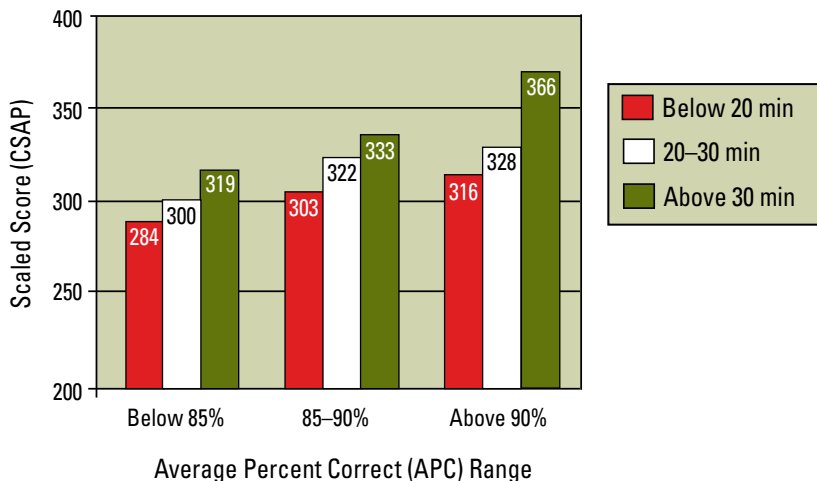
Louisiana students ($n = 2671$), in addition to taking STAR Reading tests, also took LEAP tests (LEAP, iLEAP, and GEE). We used the English languages arts (ELA) scaled scores from the LEAP tests for these analyses. Student-level longitudinal data were not available for this analysis. For the 2005–2006 academic year, the scaled score average was 303 ($SD = 54.72$, $Mdn = 309.00$, $Min = 100.00$, $Max = 500.00$) and 66% of the students achieved basic, mastery, or advanced status (see Figure 7). Please note that the LEAP scaled score has a range of 500.

Figure 7. Percent of students at each proficiency level on the LEAP tests



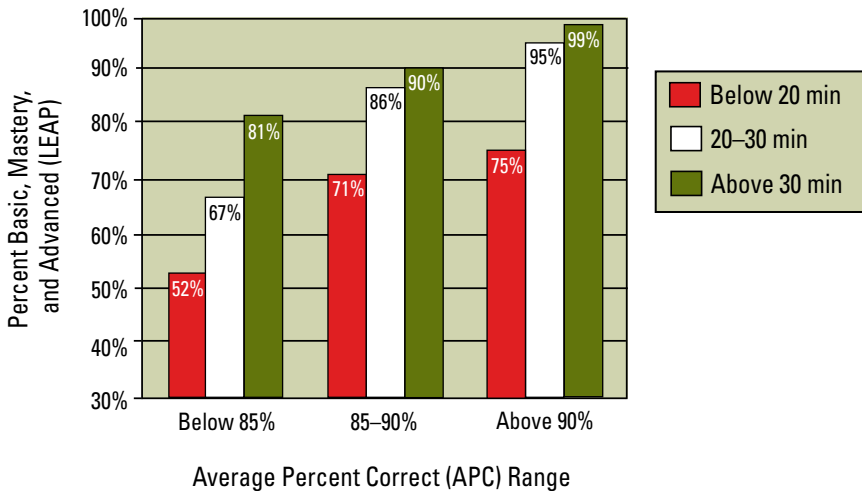
Students who read for more than 30 minutes per day and achieved greater than 90% on Accelerated Reader quizzes obtained the highest LEAP scaled scores, with an average of 366 ($SD = 37.06$), $F(8, 2661) = 86.70$, $p < .001$, $\omega^2 = .20$ (see Figure 8).

Figure 8. Average scaled score on the LEAP tests by Average Percent Correct (APC) and Engaged Reading Time (ERT) ranges



Additionally, the same students had a 96% probability—odds 22 times higher than one group of other students—of achieving proficient or advanced status, $\chi^2(2) = 404.49$, $R^2 = .20$, $p < .001$ (see Figure 9).⁶ Students who read 20–30 minutes at 90% correct and those that read > 30 minutes at 85–90% correct also had a much higher probability of obtaining proficiency than other students (see Table 3, p. 12).

Figure 9. Percent of students who achieved basic, mastery, and advanced status on the LEAP tests by Average Percent Correct (APC) and Engaged Reading Time (ERT) ranges



STAR Reading Validity. How well do STAR Reading and the LEAP align? Predictive validity was .55 overall, .63 with the LEAP, .41 with the iLEAP, and .65 with the GEE, indicating that STAR Reading, administered most often in September, was moderately predictive of students' Spring LEAP scores. Concurrent validity was .59 overall, .65 with the LEAP, .45 with the iLEAP, and .66 with the GEE, indicating that the abilities measured by STAR Reading are moderately similar to those measured by the LEAP tests. Results by grade were often stronger (see Table 4, p. 13). Recall that grades 4 and 8 are tested with the LEAP, grades 3, 5, 6, 7, and 9 with the iLEAP, and grades 10 and 11 with the GEE. Grade 11 reliability was not available due to the small number of students that had paired STAR Reading and GEE scores ($n = 1$).

Case studies

Some schools had a high number of points or certifications—data that might suggest significant increases in reading achievement. Only two schools, PS 175 Henry Highland Garnet (NY) and Lexington Elementary School (LA), obtained Certification in Reading. Both were Master Certified, meaning they were the only two schools funded by Carmel Hill to achieve an average percent correct and estimated reading time sufficient to be certified as a Master School.

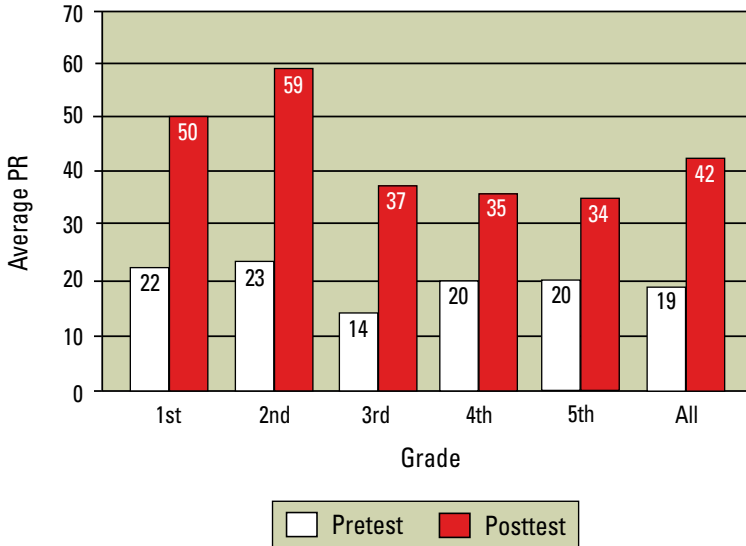
Although neither PS 175 nor Lexington had the highest number of points per student, both schools had the highest achievement gains, demonstrating that a balance between reading quantity and reading quality is the best formula for success. These schools exemplify the strong positive influence of high implementation of Accelerated Reader best practices. Therefore, we will briefly examine these schools.

PS 175. PS 175 Henry Highland Garnet had 21 teachers and librarians with Model Reading Certifications and 11 with Master Reading Certifications, more than any other school. PS 175, located in the Harlem district of New York, implemented Accelerated Reader best practices to a high degree and achieved excellent results (see Table 5). Students at PS 175 ($n = 272$) gained an average of 23 PRs with 91% correct on Accelerated Reader quizzes and 41 minutes of estimated daily reading (see Figure 10).

Table 5. PS 175 Averages by Grade

Variable	Grade					
	3rd	4th	5th	6th	7th	Total
Percent correct	94.53	91.31	89.82	92.86	90.22	91.43
Reading time (min)	36.95	33.63	41.15	45.51	45.28	41.17
Points per student	34.65	36.85	47.17	59.82	65.80	50.96
Pretest GE	1.07	1.62	2.11	2.89	3.55	2.41
Posttest GE	2.07	3.34	3.71	4.24	5.03	3.89
GE gain	0.99	1.72	1.60	1.35	1.48	1.48
Pretest PR	22	23	14	20	20	19
Posttest PR	50	59	37	35	34	42
PR gain	28	36	23	15	14	23

Figure 10. PS 175 Henry Highland Garnet pretest and posttest scores by grade.

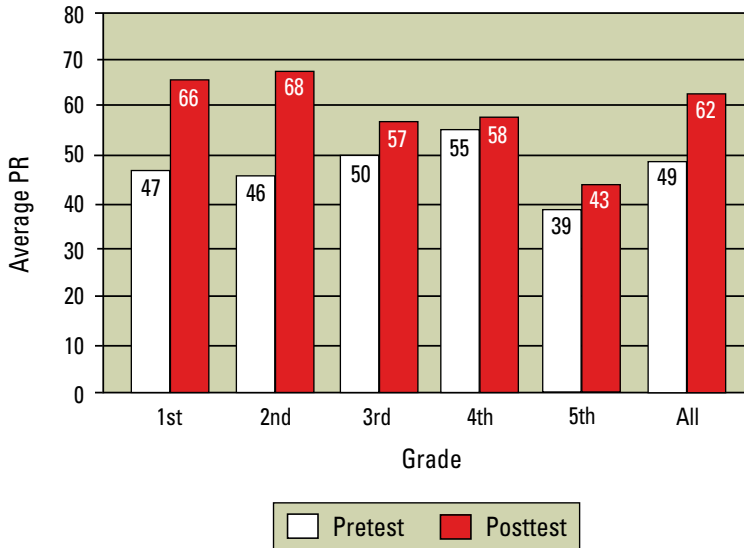


Lexington. Lexington Elementary School had 14 teachers and librarians with Model Reading Certifications and 10 with Master Reading Certifications. Lexington also implemented Accelerated Reader best practices to a high degree and achieved excellent results (see Table 6). Students at Lexington ($n = 326$) gained an average of 13 PRs with 88% correct on Accelerated Reader quizzes and 49 minutes of estimated daily reading (see Figure 11, p. 18).

Table 6. Lexington Averages by Grade

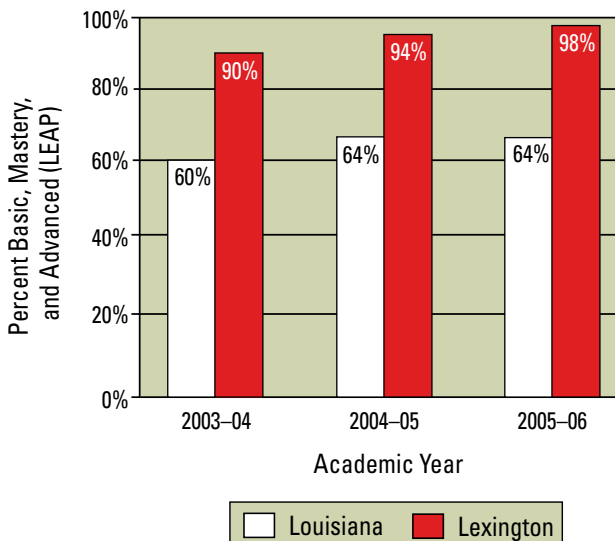
Variable	Grade					
	3rd	4th	5th	6th	7th	Total
Percent correct	89.82	90.62	85.71	83.97	84.15	87.77
Reading time (min)	46.37	61.92	44.36	48.80	47.76	49.38
Points per student	59.78	95.78	72.83	90.19	84.14	76.07
Pretest GE	2.58	4.02	5.01	6.59	5.63	4.25
Posttest GE	4.05	5.80	6.35	7.85	6.78	5.70
GE gain	1.47	1.78	1.34	1.26	1.15	1.45
Pretest PR	47	46	50	55	39	49
Posttest PR	66	68	57	58	43	62
PR gain	19	22	7	3	4	13

Figure 11. Lexington Elementary School pretest and posttest scores by grade.



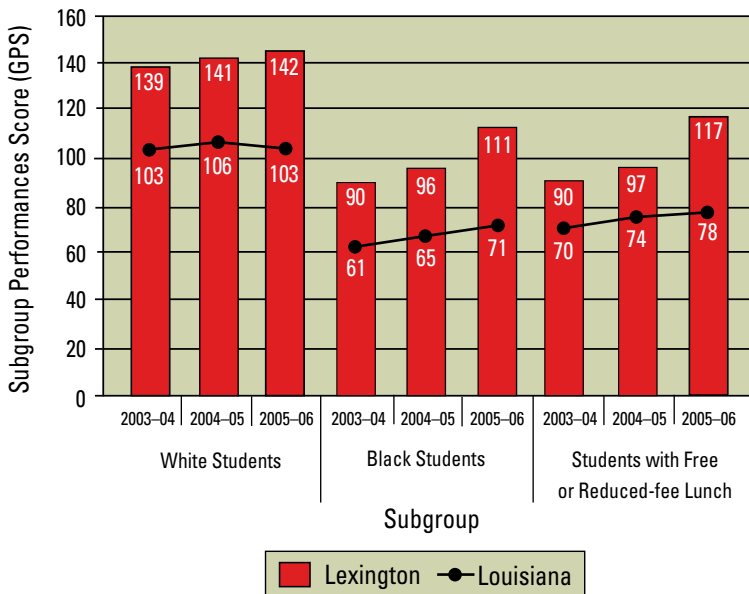
Some school-level longitudinal data from the LEAP 21 test were available for Lexington Elementary School. The data included proficiency levels and subgroup performance scores (GPS) for three academic years from 2003 to 2006. We compared Lexington's proficiency levels and GPS to Louisiana's proficiency levels and GPS. From 2003 to 2006, Lexington's proficiency level rose from 90 to 98%, while Louisiana's level rose from 60 to 64% only from 2003 to 2005, and no gain was evident for the state from 2004 to 2006 (see Figure 12).

Figure 12. Percent of fourth-grade students who achieved basic status or above on the LEAP



From 2003 to 2006, Lexington's GPS rose for white and black students as well as students with free or reduced-fee lunch (FRL). Louisiana's GPS declined among white students and rose among black and FRL students (see Figure 13). Lexington's subgroups were consistently above the state's average for the same subgroups. The scores of black and FRL students at Lexington outperformed the state's average for white students. These results also demonstrated that, with the use of Accelerated Reader, Lexington's educators were able to increase the achievement of all students and decrease the achievement gap between ethnic and socioeconomic groups.

Figure 13. Lexington versus Louisiana from 2003 to 2006



Survey

Teacher Responses. 297 teachers responded, including 4 identified as librarians. About 80% of the responses to all statements were positive, either agree (38%) or strongly agree (42%), 14% were “no opinion,” and 5.4% were either disagree (0.8%) or strongly disagree (4.6%) (see Table 7). The question that had the most disagreements was question e., which asked whether Accelerated Reader helps to reduce discipline problems, with 34% having no opinion, 17% disagreeing, and 3% strongly disagreeing. About 45% agreed or strongly agreed. Many teachers (26%) had no opinion about whether Accelerated Reader makes teaching more enjoyable (question c), although about 69% agreed or strongly agreed. A few other questions had slightly larger groups that had no opinion, including d., g., i., and j. The questions with higher rates of “no opinion” may indicate variables that are somewhat difficult to rate.

Table 7. Teachers’ Responses

Statement	Percent of Responses				
	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
The use of Accelerated Reader helps teachers in the following ways:					
a. Motivates students to read more.	61.62	35.02	1.68	1.01	0.34
b. Helps identify books at appropriate difficulty levels for each student.	59.93	34.01	2.36	3.03	0.34
c. Makes teaching more enjoyable.	30.64	38.38	25.93	4.38	0.67
d. Helps manage the classroom by providing timely information about the quantity and quality of each student’s reading practice.	40.40	42.42	13.13	3.03	0.34
e. Reduces discipline problems and helps teachers to have better control in their classrooms.	21.21	24.24	34.34	16.50	3.37
f. Provides valuable information for communicating with parents about their child’s reading practice.	42.09	46.46	7.74	3.03	0.34
g. Improves communications and enhances teacher relationships with students.	35.69	43.77	14.81	5.05	0.67
h. Helps students to love reading.	48.15	38.05	7.41	2.02	1.01
i. Improves student test scores.	38.72	36.70	17.51	2.02	1.01
j. Helps improve student abilities in academic areas other than reading such as writing, math, science, and social studies.	30.98	41.75	17.85	5.72	0.67
k. Helps all students from lower ability to gifted and talented.	51.18	31.65	10.10	3.70	0.34

Note. 293 teachers and 4 librarians responded to this survey. Not every respondent left a response for each question. The statements appear as used on the survey.

In addition to the survey responses, 144 teachers wrote additional comments. We assessed the general tone of each comment, resulting in 109 positive, 29 neutral,⁷ and 6 negative comments. Overall, 74 teachers provided 136 statements regarding specific ways that Accelerated Reader helped in the classroom. Within each comment, teachers often noticed more than one change in the classroom. For example, one teacher noted: “My students really enjoy the [software],” and “They are very motivated readers as a result!” Therefore, in an attempt to summarize the teachers’ views, distinct parts of each comment were categorized individually (see Table 8).

Table 8. Teacher Survey Optional Comments

Description of comments	Number
AR helps by:	
Improving student attitudes toward reading by increasing enjoyment, excitement, love of reading, or similar positive affect	27
Motivating students to read and/or increasing the amount of reading	26
Improving general reading skills and/or reading comprehension	25
Boosting various psychological traits such as self-esteem, confidence, independence, and/or feeling of success or empowerment	18
Providing valuable information, feedback, or progress-monitoring data	17
Assisting with the instruction of subgroups of students (e.g., students with disabilities, special education students, English language learners, etc.)	10
Challenging students	4
Improving students’ skills in other topics	3
Miscellaneous	
Other benefits (unable to fit above)	6
Negative responses	6
Teachers with a need that inhibited proper implementation of the software	26
Teachers that discovered conflicts between AR and curriculum	12
Comment expressed a misunderstanding of AR, STAR Reading, or best practices	16
Comment demonstrated limited or improper use of AR and/or STAR Reading	5

Note. Some teachers made more than one type of comment in their responses.

⁷ Neutral comments expressed neither positive nor negative responses or expressed both. For example, one teacher noted: “I prefer to say most children because not all children learn at the same pace. We’ll find a few struggling children in every area,” which is a neutral attitude toward the effect of Accelerated Reader.

Twenty-six teachers noted some sort of “need” inhibiting the proper use of the software, requesting better computers or more access to existing computers, or more books, training, or information about the software. For example, one teacher noted: “It is difficult to manage when computers are unreliable and not always accessible.” Twelve teachers noted a conflict between the school or district curriculum and the Accelerated Reader best practices. For example, one teacher wrote that the amount of independent reading suggested by Accelerated Reader best practices conflicted with the curriculum recommendation.

Another teacher noted that Accelerated Reader does not assess critical-thinking skills, fluency, or phrasing, and that it only measures literal comprehension. This teacher also said, “[Accelerated Reader] does not teach reading.” Comments such as these identified a misunderstanding of Accelerated Reader, STAR Reading, and/or the best practices (see Appendix C). Accelerated Reader is not intended to assess critical thinking, fluency, or phrasing, and it is not a reading curriculum or instructional program. Sixteen teachers had such misunderstandings. Similarly, five teachers noted misuse of Accelerated Reader or STAR Reading, either by a teacher or the school, exemplified by comments such as: “I know some [teachers] only let their advanced students test, therefore their percentage was higher.”

Some teachers noted other benefits. These comments were as follows:

“It improved students’ reading scores both in the classroom and their test scores.”

“[Accelerated Reader] goes along hand-in-hand with Reading First.”

“They are able to make personal connections, text-to-text connections and text-to-the-world connections using these books. Children who were not exposed to the computer are now able to use it.”

“The earlier the [software] is initiated, the greater the benefits for the students.”

“At first some of my students were reluctant readers, but after attending the Workshop/Conference in Tennessee last February, I was able to get a lot of ideas to motivate them. Now, they enjoy reading every day. They read in the morning, during lunch time, and also in the afternoon.”

“Accelerated Reader allows children to work at a faster pace, yet does not help them develop a true love for reading.”

The latter comment was also categorized with the negative comments:

“If students don’t like to read, this [software] has no influence one way or the other.”

“Reading in the content areas proved to be still difficult for many of the students.”

“It is not fair when [name] gives to some classes and not others (money incentive) and then doesn’t maintain consistency.”

“I believe the pressure put on students to get their goals can cause stress related to reading and cause students to develop a negative connotation associated with reading. However, some students are able to handle the pressure without responding in such a way.”

“Sometimes students score low on the tests because they’re bad test-takers not because they don’t understand what they’ve read.”

Based on the survey comments, most of the teachers were generally positive about the impact of Accelerated Reader, and most did not express a misunderstanding of the software that could skew results due to improper implementation. A full list of comments, without identifiers such as teacher or school name for the sake of confidentiality, is available upon request.

Principal Responses. Principal responses numbered 32; about 91% of the responses to all statements were positive, 8% were neutral, 1 (< 1%) was negative, and 8 comments were left blank. As with the teacher comments, principals often noted more than one change. Distinct parts of each comment were categorized individually (see Table 9, pp. 24–25). On the third question, 13 principals were awaiting test scores. Of those, six claimed that test scores would likely increase.

Principals often responded by writing how Accelerated Reader helped with particular parts of the academic environment. Overall, principals responded that Accelerated Reader helps to improve the following areas:

- Instruction, matching students to books, assessing reading levels, monitoring progress, or identifying weaknesses (54 responses)
- The amount of reading, extra reading, or independent reading (42)
- Achievement on standardized tests (projected or actual) (32)
- Student abilities or other characteristics (e.g., confidence) (27)
- Communication with or involvement of parents (27)
- Motivation, engagement, or attitudes toward reading (23)

On question 2, six principals noted that improvements needed to be made in their schools. One wrote that more training was required, and another asked for help with data analysis. On question 4, four principals noted that parent involvement was minimal before and/or after the school's use of Accelerated Reader. Another principal suggested a parental workshop for Accelerated Reader in order to increase the parents' understanding of the software. In the space for additional comments, five principals noted a need for improvements. One of these comments suggested that the 90% criteria for lower grades was unfair, since it resulted in needing to obtain 4 out of 5 questions correct. See Table 9 (pp. 24–25) for more responses, including additional miscellaneous comments.

Table 9. Principal Survey Comments

Questions and Types of Responses	Number
Please comment on the impact that Accelerated Reader has had on your school in terms of the following areas:	
The amount of reading that students do and student motivation to read?	
Accelerated Reader had a positive impact on:	
The amount of reading	24
Motivation or engagement	15
Extra reading, independent reading, or the amount of time spent reading	12
Attitudes toward reading (excitement, pleasure, or desire to read)	8
Library circulation	6
Reading levels	4
Miscellaneous	
Used incentives/incentives helped	6
Competition helped	5
<i>Other comments:</i> Accelerated Reader reduced frustration, increased self-motivation, helped with lower grades, and increased test scores. Obtaining or striving for certification also helped.	
Teachers' effectiveness in teaching reading, particularly their ability to adjust instruction based on the reading practice data tracked by Accelerated Reader for each student?	
Accelerated Reader helped with:	
Adjusting or individualizing instruction	19
Facilitating matching or assessing reading levels	12
Monitoring progress	9
Identifying weaknesses	4
Miscellaneous	
School or teachers need to improve on certain aspects	6
<i>Other comments:</i> Accelerated Reader provided information for placement. Students responded positively to Accelerated Reader, which aided instruction. School needs in-services. School needs help with data analysis. Obtaining or striving for certification also helped.	

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Questions and Types of Responses	Number
Please comment on the impact that Accelerated Reader has had on your school in terms of the following areas:	
Overall student achievement, in terms of test scores or how improved reading ability may help students in other subject areas (math, science, social studies, etc.)?	
Accelerated Reader helped to increase:	
State test scores	15
Achievement in other subjects	11
Student abilities or other characteristics (e.g., confidence, critical thinking)	11
Projected test scores (still waiting for data)	6
Miscellaneous	
Still waiting for test scores	13
<i>Other comments:</i> After using Accelerated Reader, students spoke about nonfiction with more interest and background knowledge than before. Students' confidence, critical-thinking skills, and ability to make connections improved.	
Relationships between parents and teachers/administrators?	
Accelerated Reader helped to increase:	
Communication with parents	17
Involvement of parents	10
Miscellaneous	
Used reports to communicate to parents	7
Will improve/focus on parental involvement in the future	5
Parents were not involved much before or after	4
<i>Other comments:</i> Teachers' morale increased after certifying. Parents were excited about AR. Parents liked Accelerated Math. The entire school worked as a "unit." School needs a parental workshop to increase the understanding of Accelerated Reader.	
Please share any other comments regarding Accelerated Reader.	
Accelerated Reader helped to improve:	
Student abilities	8
Other characteristics (e.g., confidence, skills)	8
Instruction	6
Miscellaneous	
Looking forward to next year	6
Need improvements in some areas of implementation	5
<i>Other comments:</i> Teachers liked reading program and wanted to see a similar program in math. "Best education tool." Teachers were more able to differentiate instruction. Teachers were able to use Accelerated Reader as an assessment. Teachers were involved by competing for certification. If all stakeholders were involved, achievement would improve even more. National Conference improved teaching (of those that attended). The 90% criterion is unfair in lower grades.	

Note. Some principals made more than one type of comment in their responses.

IV. DISCUSSION & CONCLUSIONS

The purpose of this analysis is to describe how Accelerated Reader affected student achievement in schools supported by the Carmel Hill Fund during 2005–2006. The following questions were asked: A) What effect did Accelerated Reader have on: site-wide, school-wide, grade-level, and student-level achievement? B) What effect did the level of implementation of Accelerated Reader have on student achievement? C) How did teachers and principals respond to using Accelerated Reader?

First, Accelerated Reader use was associated with greater than average gains in reading achievement at every level, as measured by STAR Reading, the CSAP, and the LEAP tests. In addition to these results, STAR Reading is highly correlated to the CSAP and moderately correlated to the LEAP tests on predictive and concurrent validity.

Second, achievement results improved by 4 percentiles overall, with especially high gains in classrooms with high implementation of Accelerated Reader best practices and for model and master certified teachers. The results indicated that the combination of high quantity (time) and quality (percent correct) reading positively affected student achievement. Students who read at very high comprehension levels (above 90% on Accelerated Reader quizzes) gained the most. Students who read at high comprehension levels (85% to 90%) gained the most when they read more than 30 minutes. The general trend is that students who read more and read at high to very high comprehension levels achieve more than those who read less and read poorly. It is clear based on the results of this study and other studies (e.g., Bolt, 2004; Borman & Dowling, 2004) that teachers can directly affect student comprehension levels through careful monitoring and instruction.

Third, teachers and principals were very positive about using Accelerated Reader and its effects on students' achievement and motivation and on classroom management. A number of teachers addressed particular concerns, including a desire for more books, training, technology, and access. Further, a few teachers misunderstood or misused Accelerated Reader, STAR Reading, or the best practices.

The results indicate that Carmel Hill is successfully helping disadvantaged schools in Harlem, Louisiana, and Denver to improve student reading performance based on multiple measures including results from STAR Reading, the CSAP, and the LEAP tests. In addition, teacher and principal surveys were very positive regarding Accelerated Reader and the support they received from Carmel Hill.

V. REFERENCES

- Bolt, D. (2004). *HLM analysis of effect of Reading Renaissance implementation on various reading curricula*. Unpublished manuscript, University of Wisconsin-Madison.
- Borman, G. D., & Dowling, N. M. (2004). *Testing the Reading Renaissance program theory: A multilevel analysis of student and classroom effects on reading achievement*. Unpublished manuscript, University of Wisconsin-Madison.
- Carmel Hill Fund. (2005). *The Carmel Hill Fund Education Program*. Retrieved August 2, 2006, from <http://www.carmelhill.org>
- Colorado Department of Education. (2006). *CSAP assessment framework*. Retrieved September 8, 2006, from http://www.cde.state.co.us/cdeassess/documents/csap/csap_frameworks.html
- CTB/McGraw-Hill. (2005). *Colorado Student Assessment Program* (Tech. Rep.) Colorado Department of Education. Retrieved September 8, 2006, from <http://www.cde.state.co.us/cdeassess/publications.html>
- Husman, J., Brem, S., & Duggan, M. A. (2005). Student goal orientation and formative assessment. *Academic Exchange Quarterly*, 9(3), 355-359.
- Louisiana Department of Education. (2006). *Interpretive guide*. Retrieved October 18, 2006, from <http://www.louisianaschools.net/LDE/saa/2273.html>
- Nunnery, J. A., Ross, S. M., & McDonald, A. (2006). A randomized experimental evaluation of the impact of Accelerated Reader/Reading Renaissance implementation on reading achievement in grades 3 to 6. *Journal of Education for Students Placed at Risk*, 11(1), 1-18.
- Renaissance Learning. (1999). *The teachers' Reading Renaissance survey*. Madison, WI: Author.
- Renaissance Learning. (2001). *STAR Reading: Understanding reliability and validity*. Wisconsin Rapids, WI: Author.
- Renaissance Learning. (2006a). *Accelerated Reader: Understanding reliability and validity*. Madison, WI: Author.
- Renaissance Learning. (2006b). *Facts and myths about the reading gap and how to close it*. Madison, WI: Author.
- Renaissance Learning (2006c). *Renaissance Certification*. Retrieved October 2, 2006, from <http://renlearn.com/rencertification/>
- Renaissance Learning. (2006d). *The design of Accelerated Reader assessments*. Madison, WI: Author.
- Samuels, S. J., & Wu, Y. (2003). *The effects of immediate feedback on reading achievement*. Unpublished manuscript, University of Minnesota.

APPENDIX A

Survey of Teachers Implementing Accelerated Reader

Overview and instructions: We want your feedback to help us assess our efforts and consider what is being done well and what needs improvement. Please fill in the following survey to assist us in gathering this important information, and then mail it using the envelope provided.

1. Name of school: _____

2. Grade/s taught: _____ 3. Your name (optional): _____

4. Please state your level of agreement with the following statements:

The use of Accelerated Reader helps teachers in the following ways:	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
a. Motivates students to read more.	5	4	3	2	1
b. Helps identify books at appropriate difficulty levels for each student.	5	4	3	2	1
c. Makes teaching more enjoyable.	5	4	3	2	1
d. Helps manage the classroom by providing timely information about the quantity and quality of each student's reading practice.	5	4	3	2	1
e. Reduces discipline problems and helps teachers to have better control in their classrooms.	5	4	3	2	1
f. Provides valuable information for communicating with parents about their child's reading practice.	5	4	3	2	1
g. Improves communications and enhances teacher relationships with students.	5	4	3	2	1
h. Helps students to love reading.	5	4	3	2	1
i. Improves student test scores.	5	4	3	2	1
j. Helps improve student abilities in academic areas other than reading such as writing, math, science, and social studies.	5	4	3	2	1
k. Helps all students from lower ability to gifted and talented.	5	4	3	2	1

5. Please share any other comments regarding Accelerated Reader.

APPENDIX B

Survey of Principals/Coordinators in Schools Implementing Accelerated Reader

Overview and instructions: We want your feedback to help us assess our efforts and consider what is being done well and what needs improvement. Please fill in the following survey to assist us in gathering this important information, and then mail it using the envelope provided.

1. Name of school: _____

2. Your name: _____

3. Please comment on the impact that Accelerated Reader has had on your school in terms of the following areas:

a. The amount of reading that students do and student motivation to read.

b. Teachers' effectiveness in teaching reading, particularly their ability to adjust instruction based on the reading practice data tracked by Accelerated Reader for each student.

c. Overall student achievement, in terms of test scores or how improved reading ability may help students in other subject areas (math, science, social studies, etc.).

d. Relationships between parents and teachers/administrators.

4. Please share any other comments regarding Accelerated Reader.

APPENDIX C

The Best Practices of Accelerated Reader (from Renaissance Learning, 2006d)

- 1. Reading Time.** Teachers ensure that students have an appropriate amount of time for teacher-guided, independent reading of self-selected books.
- 2. Reading Success.** Teachers ensure that students are highly successful readers, with an average percent correct of 85% or above on Accelerated Reader quizzes.
- 3. Appropriate Reading Level.** Teachers ensure that students are reading books at levels appropriate to their age and abilities, i.e., within the recommended ZPD range.
- 4. Progress Monitoring.** Teachers obtain information for progress monitoring from three sources: daily feedback from direct teacher monitoring and conferencing with each student (called Status of the Class), daily and weekly feedback from Accelerated Reader, and periodic (3 to 10 times per year) feedback from STAR Reading or another reliable and valid reading assessment.
- 5. Personalized Goals.** Teachers ensure that students establish personalized goals in three areas: reading practice time, average percent correct, and average book level.
- 6. Personalized Instruction.** Teachers combine information from daily progress monitoring, Accelerated Reader, STAR Reading, and student goals to inform, improve, and assess instruction at a personal level.

APPENDIX D

Classroom Certification Criteria (derived from Renaissance Learning, 2006c)

Model Classroom Criteria

To certify for Model Classroom, a teacher must maintain the following criteria in one classroom for any 12-week period.

- Implementing Accelerated Reader and best practices in the classroom
- Implementing a majority of techniques listed on the Model Classroom checklist
- No more than 10% of students average less than 85% correct on Reading Practice quizzes
- Median of points earned is at least 80% of the goal for the class according to the class grade equivalent or book level
- For classes of established readers, at least 80% of points earned is from independent reading practice—rather than “read to” or “read with” practice
- No more than 10% of students “at risk” (low average percent correct or low points)

Master Classroom Criteria

To certify for Master Classroom, a teacher must maintain the following criteria in one classroom for any 18-week period.

- Obtaining Model Educator status
- Successful completion of one of the following: 601 Advanced Reading Renaissance Seminar, Remote Training, Renaissance National Conference Attendance, Implementation Services, or another pre-approved training
- For classes of established readers, at least 80% of points earned is from independent reading practice—rather than “read to” or “read with” practice
- No more than 10% of students average less than 85% correct on Reading Practice Quizzes
- Median of points earned is at least 80% of the goal for the class
- No more than 10% of students “at risk” (low average percent correct or low points)
- For classes of established readers, set and monitor goals
- Optional—For emergent readers, work toward achieving these goals by the end of the school year:
 - Kindergarten—at least 10% of students certified as Independent Readers
 - Grade 1—at least 90% of students certified as Independent Readers
- Established readers as a group show improvement in their Percentile Rank and Normal Curve Equivalent between pre- and post-tests of STAR Reading or other standardized test taken at least 18 weeks apart
- Emergent readers as a group show improvement in their Scaled Score between pre- and post-tests of STAR Early Literacy or other standardized test taken at least 18 weeks apart

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THE FOUNDER

Mr. William Ruane

(October 24, 1925–October 4, 2005)

Mr. Ruane was a phenomenally successful man in all his ventures and an even more remarkable human being. From modest beginnings, growing up in a middle class neighborhood in Chicago where he attended Catholic schools and was an average student, Mr. Ruane went on to create and manage the Sequoia Fund, one of the most consistently high-performing investment funds on Wall Street. Mr. Ruane approached his philanthropic work with the same keen intelligence, meticulous attention to detail, concern for others, and wonderfully easygoing humor that he brought to the business world. Particularly interested in identifying and treating mental illness and righting educational inequities in this country, Mr. Ruane was passionate about the thousands of children that his programs impacted. He was generous both in his financial giving and in his immense level of personal involvement with his philanthropic initiatives. The Carmel Hill Fund Education Program became a unified, tireless team through his spirited leadership and guidance. We miss our hours-long Saturday phone conversations, when he would call to ponder classroom after classroom's worth of student reading data. Always charming, always a gentleman, and yet always humble and unassuming, Mr. Ruane is a presence that continues to shape and direct the work we so gladly carry out on his behalf. We regret that he cannot be with us to share in the unfolding triumphs of individual students and schools, but we take comfort in the knowledge that his legacy lives on. We proudly strive to realize his vision and change the educational road traveled by all children in this country.