

Literacy Ready

Three Years of Evidence



SREB

Southern Regional
Education Board

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The Southern Regional Education Board works with states to improve education at every level, from early childhood through doctoral education. A nonprofit, nonpartisan interstate compact based in Atlanta, SREB was created in 1948 by Southern governors and legislators to help leaders in education and government advance education to improve the social and economic life of the region. Member states are Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia and West Virginia.

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Introduction

As part of SREB's suite of Readiness Courses, Literacy Ready was designed to help seniors master literacy skills before transitioning from high school to postsecondary education and the workplace and avoid costly remediation at the postsecondary level. Schools typically use a state-approved college readiness assessment to identify seniors whose scores fall a few points below readiness benchmarks and enroll them in the course. In Literacy Ready, seniors strengthen their critical thinking and communication skills by developing and defending ideas from texts in diverse disciplinary areas and writing about those ideas at the level of college course work.

SREB worked with partnering states to develop Literacy Ready from 2012-14; the course was then made available for implementation in the 2015-16 school year. To date, Literacy Ready has been implemented in hundreds of schools around the nation.

Study Overview

This study examines three years of data collected from 15 schools in three states that implemented Literacy Ready. Two of these states implemented the course in 2015-16 and the third state implemented the course in 2016-17. Schools received funds or vouchers to increase the number of students who retook the ACT after completing Literacy Ready. A limitation of this study is that not all Literacy Ready students chose to retake the ACT after completing the course. As such, this study examines data collected for 389 Literacy Ready students in the three states, 142 of whom retook the ACT exam after taking the course.

In addition to performance on the ACT exam, schools reported course performance data, high school graduation data and college entrance data for all students enrolled in Literacy Ready at the participating schools. Participating schools included both rural and suburban schools that varied in demographics and size. Table 1 summarizes school demographics with entries rounded to the nearest percent.

Student Demographics	Percentage (%)
Gender	
Female	42
Male	58
Race/Ethnicity	
African-American	32
White	58
Hispanic	6
Other Race or Ethnicity	4
Income	
Free- or Reduced-Price Lunch	57
Not Free- or Reduced-Price Lunch	43

This study¹ examines the impact of Literacy Ready on the following student outcomes: (1) Literacy Ready course performance, (2) performance on the ACT exam before and after taking the course, (3) ACT performance in schools that implemented the course for three years, (4) achievement gaps on the ACT exam by gender, race and income, (5) high school graduation rates, (6) college entrance rates and (7) results from Literacy Ready student and teacher surveys administered nationwide.

Students with ACT scores higher than 19 are typically considered ready for college and placed into non-remedial courses when they enter postsecondary programs. SREB’s Literacy Ready course was designed to help students who fall a few points below literacy readiness benchmarks improve their scores and avoid costly remediation at the postsecondary level. This study thus examined only those students in participating schools whose ACT English and reading exam scores were less than or equal to 19 (see the Note on Methodology, page 7). This sample included students from diverse racial and socioeconomic backgrounds. However, it is important to note that only 10 percent of underserved students in the United States — such as minorities and students from low-income families — show “strong readiness” for college-level course work by meeting at least three of ACT’s college readiness benchmarks (ACT, 2018a).

The majority of African-American and Hispanic students have ACT scores below 19, whereas less than 50 percent of white students fall in this range (ACT, 2018b). In this light, it is still important to examine achievement gaps for students who do not meet college- and career-readiness benchmarks, as any intervention should seek to close or narrow these gaps instead of perpetuating them.

SREB analyzed the ACT English and reading scores of Literacy Ready students. In the case of race or ethnicity, there were insufficient scores in the Other Race or Ethnicity and Hispanic categories to make valid comparisons to other student subgroups.

Performance in Literacy Ready

Literacy Ready students performed at a high level in the course, with an average numerical grade of 81.8 and a course grade point average of 2.8, where a GPA of 4.0 represents an A. Table 2 shows 90 percent of Literacy Ready students earned a letter grade of C or better in the course, whereas 99 percent received a D or better.

Table 2: Student Performance in Literacy Ready (N = 389)				
Course	Numerical Grade Average (%)	Course GPA Average (A = 4.0)	Percentage of Students Earning C or Better (%)	Percentage of Students Earning D or Better (%)
Literacy Ready	81.8	2.8	90	99

Source: SREB analyses of Literacy Ready student GPA data.

Performance on the ACT Exam

SREB’s Literacy Ready course is designed to increase critical thinking and communication skills. To assess students’ attainment of these skills, SREB analyzed Literacy Ready students’ performance on the ACT English and reading exams. It is important to note that Literacy Ready is not an “ACT prep” course; nor does it emphasize rote memorization of concepts.

Table 3 shows that Literacy Ready students made significant gains on the ACT English and reading exams. Among students who showed improvement, the typical gain was 2.7 points on the ACT English exam and 3.2 points on the ACT reading exam. The effect size was moderate for both the English and reading exams.

Table 3: ACT Results of Literacy Ready Students (N = 142)							
ACT Exam	Average ACT Score Before Literacy Ready	Average ACT Score After Literacy Ready	Improvement in Points	Percentage of Students Who Improved (%)	Typical Student Improvement in Points	Statistically Significant	Effect Size
English	14.7	16.0	1.3	61	2.7	Yes	0.54
Reading	15.4	16.9	1.5	60	3.2	Yes	0.51

Source: SREB analyses of ACT scores for 142 students in 15 high schools who were enrolled in Literacy Ready and retook the ACT after completing the course.

Performance in Schools Implementing Literacy Ready for Three Years

SREB conducted separate analyses of data from six schools that implemented Literacy Ready for three years, beginning in 2015-16. Although results varied from year to year, Tables 4, 5 and 6 show sustained improvement and statistically significant gains on the ACT English and reading exams for Literacy Ready students.

Table 4: Year 1 (2015-16; N = 48)					
ACT Exam	Average ACT Score Before Literacy Ready	Average ACT Score After Literacy Ready	Improvement in Points	Statistically Significant	Effect Size
English	14.0	15.8	1.8	Yes	0.85
Reading	15.5	17.0	1.5	Yes	0.45

Source: SREB analyses of ACT scores for Literacy Ready students in schools that implemented the course for three years.

Table 5: Years 2 and 3 (2016-17 and 2017-18; N = 40)					
ACT Exam	Average ACT Score Before Literacy Ready	Average ACT Score After Literacy Ready	Improvement in Points	Statistically Significant	Effect Size
English	15.2	16.6	1.4	Yes	0.61
Reading	15.8	16.9	1.1	Yes	0.39

Source: SREB analyses of ACT scores for Literacy Ready students in schools that implemented the course for three years.

Table 6: Aggregate Data for Years 1 – 3 (2015-16 to 2017-18; N = 88)					
ACT Exam	Average ACT Score Before Literacy Ready	Average ACT Score After Literacy Ready	Improvement in Points	Statistically Significant	Effect Size
English	14.6	16.2	1.6	Yes	0.74
Reading	15.6	16.9	1.3	Yes	0.43

Source: SREB analyses of ACT scores for Literacy Ready students in schools that implemented the course for three years.

Achievement Gaps by Gender, Race and Income

Achievement gaps on the ACT based on gender, race and income have been well-established. On the ACT English and reading exams, females typically perform better than males (Perry, 2016); low-income students have lower scores than their peers from higher income households (Mattern, Radunzel & Harmston, 2016); and African-American and Hispanic students have lower scores than white students (Laird & Gehring, 2016). Hence, any closing or narrowing of achievement gaps on the ACT English and reading exams should be identified as meaningful progress, whereas persistent gaps should be noted.

Performance on the ACT Exam by Gender

Female and male Literacy Ready students both made gains on the ACT English and reading exams, with males making larger gains on the English exam and females making larger gains on the reading exam. The gaps were not significant before students took the Literacy Ready course, and that remained the case after students took the course. As Table 7 indicates, gender was not a factor in determining performance on the ACT English and reading exam for Literacy Ready students.

Table 7: Literacy Ready Students' Performance on the ACT by Gender (N = 142)

Statistical Measure	Female Students (n = 62)	Male Students (n = 80)	Female/Male Gap	Statistically Significant
ACT English				
ACT English Score Before Literacy Ready	14.8	14.7	0.1	No
ACT English Score After Literacy Ready	15.9	16.1	- 0.2	No
Improvement	1.1	1.4	- 0.3	
ACT Reading				
ACT Reading Score Before Literacy Ready	15.2	15.6	- 0.4	No
ACT Reading Score After Literacy Ready	17.1	16.8	0.3	No
Improvement	1.9	1.2	0.7	

Source: SREB analyses of ACT scores for Literacy Ready students.

Performance on the ACT Exam by Race

When examining achievement gaps on the ACT exam by race, data showed all student groups made gains after taking Literacy Ready, but improvement varied among groups. A significant gap existed on the ACT English and reading exams, as African-American students had significantly lower scores than white students. There were insufficient scores in the Other Race or Ethnicity and Hispanic categories to make valid comparisons to the other student subgroups. Results are summarized in Table 8.

Table 8: Literacy Ready Students' Performance on the ACT by Race (N = 130)

Statistical Measure	African-American Students (n = 55)	White Students (n = 75)	African-American/ White Gap	Statistically Significant
ACT English				
ACT English Score Before Literacy Ready	14.5	14.9	- 0.4	No
ACT English Score After Literacy Ready	15.3	16.5	- 1.2	Yes
Improvement	0.8	1.6	- 0.8	
ACT Reading				
ACT Reading Score Before Literacy Ready	15.2	15.5	- 0.3	No
ACT Reading Score After Literacy Ready	15.9	17.3	- 1.4	Yes
Improvement	0.7	1.8	- 1.1	

Source: SREB analyses of ACT scores for Literacy Ready students.

Performance on the ACT Exam by Family Income

When examining performance by income, both student groups made gains on the ACT English and reading exams after taking the Literacy Ready course. Students receiving free- and reduced-price lunch, a proxy for low socioeconomic status, scored significantly lower than their peers on the ACT English exam, perpetuating a gap that existed before Literacy Ready. On the ACT reading exam, the students who did not receive free- or reduced-price lunch made larger gains after taking Literacy Ready. However, as Table 9 shows, the gap between the two groups was not statistically significant.

Statistical Measure	Free- and Reduced-Price Lunch (n = 51)	Not Free- and Reduced-Price Lunch (n = 70)	Free- and Reduced-Price Lunch/Not Free- and Reduced-Price Lunch Gap	Statistically Significant
ACT English				
ACT English Score Before Literacy Ready	14.2	15.3	- 1.1	Yes
ACT English Score After Literacy Ready	15.3	16.4	- 1.1	Yes
Improvement	1.1	1.1	0.0	
ACT Reading				
ACT Reading Score Before Literacy Ready	15.2	15.4	- 0.2	No
ACT Reading Score After Literacy Ready	16.3	17.1	- 0.8	No
Improvement	1.1	1.7	- 0.6	

Source: SREB analyses of ACT scores for Literacy Ready students.

High School Graduation Rates

SREB collected data on high school graduation rates from each of the participating schools for Literacy Ready students. Overall, Literacy Ready students had a 98 percent graduation rate. In each of the three states, the high school graduation rate for Literacy Ready students was higher than the rate reported for all students at the participating high schools. This promising finding warrants further study.

College Entrance Rates

Information on college entrance rates was collected from the six schools that implemented Literacy Ready starting in 2015-16. Literacy Ready students had a 72 percent college entrance rate at these six schools. These promising data suggest that further study is needed of the impact of Literacy Ready on college entrance. The other nine schools participating in the study reported data for students from 2017-18. As such, college entrance data were not available for this report.

Course Surveys

SREB administers an annual survey to all teachers and students nationwide who participate in Literacy Ready; however, not all Literacy Ready students and teachers choose to take the survey. Surveys are used to gather information about teacher and student experiences as well as the quality of the course materials. Table 10 reflects responses for selected questions from teachers and students nationwide in schools that participated in Literacy Ready in 2016-17 and 2017-18, including schools that did not participate in this study. Table 10 presents average responses on a 4-point Likert-type scale.

Table 10: Teacher and Student Survey Responses (N = 422 students, 78 teachers)

Survey Question	Student Responses	Teacher Responses
Students take responsibility for their own learning.	3.2	2.4
Literacy Ready is preparing students for college-level course work.	2.9	3.1
Taking Literacy Ready has impacted the way I learn.	2.8	--
Taking Literacy Ready has impacted the way I teach.	--	2.9

Source: Student and teacher response data from SREB Readiness Course surveys collected in 2016-17 and 2017-18. Average responses are presented on a 4-point Likert-type scale.

The following comments were representative of Literacy Ready students who took the survey:

“This course has expanded my reading techniques and helped challenge me with obstacles that I thought were impossible.”

“This course is really helping me get ready for college and teaching me new ways on how I can increase my studying skills.”

Literacy Ready teachers who took the survey made comments like the following:

“This course has really helped our students improve their critical thinking skills.”

“I feel that it has truly exposed my seniors to how a college class will be.”

Summary

As noted in the Study Overview (see page 1), SREB’s sample was limited to a small number of states and only those Literacy Ready students who chose to retake the ACT after completing the course. As such, this study’s findings should be seen as preliminary. However, the data collected over a three-year period indicate that Literacy Ready students performed well in the course and improved their scores on the ACT English and reading exams after taking it. Schools that implemented Literacy Ready for three years showed sustained gains on the ACT exam. When looking at performance on ACT’s English and reading exams, all groups showed improvement, but the amount of the improvement varied between groups. Gender gaps on the ACT exam did not exist for Literacy Ready students, although gaps did exist based on race and income. Overall findings showed the following:

- **Course performance.** Students in Literacy Ready succeeded at a high level, with an average numerical grade of 81.8 and an average course GPA of 2.8, where 4.0 represents a grade of A.
- **Performance on the ACT English and reading exams.** Students showed significant improvement on the ACT English and reading exams, with the average score increasing by 1.3 points and 1.5 points, respectively. Effect sizes were moderate for both the ACT English and reading exams.

- **Schools implementing Literacy Ready for three years.** Data collected from six schools that implemented the course for three years revealed sustained, significant gains on the ACT English and reading exams, with a moderate effect size on both exams.
- **Achievement gaps on the ACT exam.** Achievement gaps on the ACT exam based on gender, race and income are well-documented. When looking at performance on the ACT exam for Literacy Ready students, all groups showed improvement on the English and reading exams, but the amount of the improvement varied between groups. Gender gaps on the ACT English and reading exams did not exist for Literacy Ready students, although some gaps did exist based on race and income.
- **High school graduation rates.** The data collected indicated 98 percent of the Literacy Ready students graduated from high school.
- **College entrance rates.** Data showed that 72 percent of Literacy Ready students enrolled in college.
- **Student and teacher surveys.** Course surveys indicate that Literacy Ready is well-received by both students and teachers, as evidenced by both survey responses and comments. Students report a high level of self-efficacy after taking Literacy Ready.

Future Studies

SREB recommends that additional longitudinal studies be conducted in two areas. First, although evidence regarding the impact of Literacy Ready on high school graduation is limited, further study in this area is merited. Second, the effects on remediation and performance in college should be examined as Literacy Ready students move from high school into postsecondary education.

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Note on Methodology

This study was designed as a quasi-experimental analysis using paired *t*-tests to measure ACT gains, independent samples *t*-tests to identify achievement gaps based on gender and income, and an ANOVA test to determine achievement gaps based on race. For the ANOVA, Levene's test was used to test the homogeneity of variances, and Tukey's Honestly Significant Difference test was used for post hoc pairwise tests. To determine the effect size on paired *t*-tests, Cohen's *d* was calculated. All statistical tests were set at a 95 percent level of significance. Statistical analyses were not performed on groups with less than 10 students. Throughout this study, the terms *significant* and *statistically significant* indicate the application of a statistical test with $p < .05$.

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