



VOYAGER SOPRIS
LEARNING®

***Passport Reading Journeys™* Effectiveness
with Ninth Grade Students Identified for
Reading Improvement Instruction in an Urban
High School**

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**EXECUTIVE
SUMMARY**

Grade 9 students (N = 123) were enrolled in *Passport Reading Journeys*™. The majority were limited English proficient (63%), Hispanic (78%) and received free- or reduced-lunch (68%). A control group (N = 59) had similar demographic characteristics. Seventy percent read below the seventh grade.

The percent of students reading at the grade 9 Lexile range increased from 13% to 50%. There was statistically significant growth between the fall 2007 and spring 2008 Gates-MacGinitie reading comprehension test. The fall mean scale score was 508 (grade equivalent of approximately 5.7). The spring mean scale score was 530 (grade equivalent of 7.6).

A three-year analysis revealed that the current year saw significant higher growth for students using *Passport Reading Journeys*, particularly those for whom there is the most concern- Hispanic and African American, limited English proficient, and low SES. *Passport Reading Journeys* students had higher gains than the control students for each of the analyses.

**EVALUATION OF W.T. WHITE
HIGH SCHOOL PASSPORT
READING JOURNEYS II
STUDENTS, 2007-08**

Passport Reading Journeys™ is a reading intervention system for adolescent students in the middle grades. The Curriculum Overview states, “*Passport Reading Journeys* provides targeted instruction informed by benchmark assessments to help accelerate struggling students toward reading proficiency” (p. 1). Research-based assessments including the Lexile Framework® for Reading, Reading Benchmarks and Vital Indicators of Progress® (VIP®) Reading Connected Text (RCT) are provided to assist the teacher to group for instruction and to monitor the progress of each student.

In cooperation with the Dallas Independent School District (Dallas ISD), Voyager pilot tested the *Passport Reading Journeys* II program with two Reading Improvement teachers at W. T. White High School. Students are placed in Reading Improvement if they (a) are in Grades 7–9, (b) have a scale score below 2200 on Texas Assessment of Knowledge and Skills (TAKS) reading, and (c) are proficient in English or classified as bilingual program level “Advanced,” “Transitional,” or “Post-Transitional.” For students without a current TAKS reading score, a current norm-referenced standardized reading test score is honored in determining the Reading Improvement eligibility of students transferring from other districts. Students with a reading comprehension score below the 40th percentile are eligible for Reading Improvement. The Reading Improvement course for Grade 9 students is Reading I.

The purpose of this report is (a) to describe the students participating in the 2007-08 Reading Improvement program at W. T. White High School, (b) to describe students’ performance on the *Passport Reading Journeys* assessments, (c) to assess the relationship of *Passport Reading Journeys* measures to the standardized achievement tests given by the DISD, including the Gates-MacGinitie Reading Tests (Gates) and the Texas Assessment of Knowledge and Skills (TAKS), (d) to assess the reading achievement growth of Reading Improvement students participating in the *Passport Reading Journeys* program, and (e) to compare the TAKS reading achievement of *Passport Reading Journeys* students at W. T. White High School with a group of control students from another high school.

METHODOLOGY

Data Management

A data file of students using *Passport Reading Journeys* II was obtained from the school. Gates MacGinitie Reading Comprehension scores were supplied by the teachers. *Passport Reading Journeys* assessments, including Lexile and Reading Connected Text (RCT) were provided. Current year (2008) and previous years (2006 and 2007) TAKS scores for participants were obtained from Dallas ISD data files.

Reliability and Validity of Achievement Measures

Gates-MacGinitie Reading Tests. Reliability is the extent to which a test yields consistent results. Estimates of reliability of the Gates were computed with the Kuder-Richardson Formula 20 (KR-20) alternate form reliability coefficient. For the comprehension subtests used in this report, reliabilities ranged from .87 to .92. Validity is the extent to which a test measures what it says it is measuring. The Gates has an informal degree of content or curricular validity. Construct validity has not been addressed by the test publishers.

Texas Assessment of Knowledge and Skills (TAKS). The KR-20 for TAKS reading assessments ranged from .81 to .93. Both content and criterion-related validity have been established.

Lexile measures. Reliability for the semantic component was computed by “analyzing more than 50 semantic variables in order to identify those elements that contributed to the difficulty of the 350 vocabulary items on Forms L and M of the Peabody Picture Vocabulary Test. The mean log word frequency provided the highest correlation with item rank order ($r = -0.779$) for the items on the combined form” (p. 45). The reliability of text difficulty was established through a regression equation, yielding the correlation between the observed logic difficulties and the theoretical calibrations across the 9 tests of 0.93 after correction for range restriction and measurement error.

Construct validity was well documented through correlations of Lexile measures and 12 separate reading achievement measures including the Iowa Tests of Basic Skills ($r = .88$), the Stanford Achievement Tests ($r = .92$), the Metropolitan Achievement Test ($r = .93$) and the Gates-MacGinitie Reading Tests ($r = .92$). Correlations between theory-based calibrations produced by the Lexile equation and the rank order of unit in basal readers (i.e., grade 4 is harder than grade 3, the beginning of grade 4 is easier than the end of grade 4) were also high ($r = .995$).

Statistical Analysis

Change in Lexile and RCT score. Repeated measures analyses of variance (ANOVA) were used to measure the change in Lexile and Reading Connected Text (RCT) scores across the three benchmark periods. Students had to have all three measures for each assessment to be included in the analyses. Differences for both Lexile and RCT were also assessed by ethnicity, English proficiency, and economic status.

Correlations between *Passport Reading Journeys*' and standardized assessments. For the Gates-MacGinitie, correlations were computed between the Benchmark One

and Three Lexile and the Gates fall and spring extended scale score, respectively. Correlations between TAKS Lexile and *Passport Reading Journeys* Lexile measures were computed for (a) spring 2007 TAKS and Benchmark One and (b) spring 2008 TAKS and Benchmark Three.

Growth on standardized test measures. A repeated measures ANOVA was used to assess growth in reading comprehension using the Gates Extended Scale Score. Also, a repeated measures ANOVA was used to analyze growth on TAKS Reading. Three years of scale scores (2006, 2007 and 2008) were used as the measure. Analyses were also conducted for both measures using ethnicity, English proficiency and economic status as between-subjects variables.

Comparison of TAKS Reading for *Passport Reading Journeys* and control students. Control students were selected from a district high school with similar demographic characteristics as W.T. White High School. Students were enrolled in 2007-08 in a Reading Improvement course that did not use any computer-assisted instructional program. Students had to have three years of TAKS reading scores (2006, 2007 and 2008) to be included in the comparison. A repeated measures ANOVA was used to analyze differences by treatment group (*Passport Reading Journeys* or control), ethnicity, English proficiency and economic status as between-subjects variables.

RESULTS

Student Demographic Characteristics

There were 123 students enrolled in nine sections of Reading I (Table 1). Five sections (N = 69) were taught by a teacher who has used the program for three years (2005-06, 2006-07 and 2007-08), while the other four sections (N = 54) were taught by a teacher using *Passport Reading Journeys* for two years (2006-07 and 2007-08).

There were similar percentages of male (53%) and female (47%) students. Slightly more than half of the students were limited English proficient (LEP) (24%) or exited LEP students (39%). LEP students have a home language other than English reported as the primary language spoken at home and a Woodcock Muñoz Language Survey (WMLS) score of less than 3 (on a scale of 1–5). Exited students were previously served in a bilingual education (BE) or English as a Second Language (ESL) program, but exited the BE/ESL program with a WMLS score of 3, 4 or 5 and (a) have passed the Texas Assessment of Knowledge and Skills (TAKS) or (b) earned above the 39th percentile on a norm-referenced test of reading comprehension and language.

The majority of students were Hispanic (78%) or African American (13%). Sixty eight percent was classified with low economic status based on free- or reduced-lunch qualification.

¹Cooter, R.B. (1989). Test review: *Gates-MacGinitie* Reading Test, Third Edition. *Journal of Reading*, April 1989, 656-658.

²Texas Education Agency (2006). Technical Digest for the Academic Year 2004–05. Texas Student Assessment Program, Texas Education Agency.

³MetaMetrics, Inc. (2006). *Passport Reading Journeys* benchmark assessments: Development and technical guide.

Five (4%) students served in special education were spread across the nine sections. A longitudinal analysis looked at growth on TAKS for students that participated in *Passport Reading Journeys II* in 2007-08 versus a control group of students from another high school in the district. The control students were also enrolled in a Reading Improvement course, and they did not use any computer-assisted learning programs. Although there were not as many students in the control group, demographic characteristics were similar for both groups (Table 1).

TABLE 1:
DEMOGRAPHIC
CHARACTERISTICS OF
PASSPORT READING
JOURNEYS II STUDENTS AT
W.T. WHITE HIGH SCHOOL
CONTROL STUDENTS,
2007-08

Characteristic	Enrolled in <i>Passport Reading Journeys</i> in 2007-08		<u>Have Complete Longitudinal Data^a</u>			
	N	%	<i>Passport Reading Journeys</i> Students		Control Students	
			N	%	N	%
Gender						
Male	65	52.8	40	50.0	29	50.8
Female	58	47.2	40	50.0	30	49.2
Total	123		80		59	
Ethnicity						
African American	22	17.9	10	12.5	8	13.6
Hispanic	96	78.0	68	85.0	49	83.1
White	5	4.1	2	2.5	2	3.4
English Proficiency						
English Proficient	45	36.6	22	27.6	19	32.2
Limited English	30	24.4	16	20.0	11	18.6
Exited	48	39.0	42	52.5	29	49.2
Other Characteristics						
Low Economic	83	67.5	58	72.5	41	69.5
Special	5	4.1	2	2.5	2	3.4

^aData includes 2006, 2007, and 2008 TAKS Reading scores.

Standardized Reading Achievement Pretest Scores

There were 123 students enrolled in nine sections of Reading I (Table 1). Five sections (N = 69) were taught by a teacher who has used the program for three years (2005–06, 2006–07 and 2007–08), while the other four sections (N = 54) were taught by a teacher using *Passport Reading Journeys* for two years (2006–07 and 2007–08).

Gates-MacGinitie Reading Comprehension Grade Equivalent Scores

The Reading Improvement teachers administered the Gates to students in their classes in fall 2007. Twelve percent of the students had no fall score (Table 2). Of those that had scores, 52 (58.5% of total students) had a grade equivalent below grade 6.9. Another 16 (13%) were only slightly below grade level. Ten students (8%) measured at or above grade level.

TAKS Reading Subtest

Of the 123 students, 96 had scorable April 2007 TAKS tests (Table 2). Three students were LEP exempt, meaning that they had been in the US less than 30 months, 1 student was absent, and 23 did not take the test. Of the 96 students, 61% met the minimum requirements for passing the reading subtest.

TABLE 2:
STANDARDIZED READING
ACHIEVEMENT PRETEST
SCORES FOR *PASSPORT*
READING JOURNEYS II
STUDENTS AT W.T. WHITE
HIGH SCHOOL, 2007-08

Characteristics	Number	Percent
Fall 2007 Gates-MacGinite Reading Comprehension		
No Score	15	12.2
Below Grade 4	5	4.0
Grade 4.0 through Grade 4.9	28	22.8
Grade 5.0 through Grade 5.9	19	15.4
Grade 6.0 through Grade 6.9	20	16.3
Grade 7.0 through Grade 7.9	5	4.0
Grade 8.0 through Grade 8.9	11	8.9
Grade 9.0 and above	10	8.1
2007 TAKS Reading		
Had Scorable Test	96	78.0
Met Minimum Expectations	59	61.4

Passport Reading Journeys Assessments

There are three teacher-administered assessments contained within the *Passport Reading Journeys* program: (a) the Reading Benchmark, including the Lexile measure, (b) the VIP Reading Connected Text (RCT), and (c) Comprehension and Vocabulary Assessments, which are not discussed in this report.

Lexile Framework

MetaMetrics, Inc. developed the *Passport Reading Journeys* Benchmark assessments. Results for the benchmarks are calculated using the Lexile scale and the Lexile Framework for Reading, also developed by MetaMetrics. Materials from the MetaMetrics website (www.Lexile.com) indicate that there is not a direct translation from a specific grade level to the corresponding Lexile measurement. Approximate mid-year reader measures show where students should be reading if they comprehend about 75% of the material. A higher Lexile score for a grade level indicates increased comprehension rather than the ability to read more difficult material. There is considerable overlap of Lexile levels between grades (Table 3). For grade 9, the recommended reader measure is 855L to 1165L at mid-year.

TABLE 3:
TYPICAL READER AND TEXT
MEASURES BY GRADE

Grade	Reader Measures	Text Measures
1	Up to 300L	200L to 400L
2	140L to 500L	300L to 500L
3	330L to 700L	500L to 700L
4	445L to 810L	650L to 850L
5	565L to 910L	750L to 950L
6	665L to 1000L	850L to 1050L
7	735L to 1065L	950L to 1075L
8	805L to 1100L	1000L to 1100L
9	855L to 1165L	1050L to 1150L
10	905L to 1195L	1100L to 1200L
11–12	940L to 1210L	1100L to 1300L

NOTE: Data were obtained from the Lexile website.

READING BENCHMARK

The Reading Benchmark is administered three times per year during benchmark periods. The test is administered to the whole class and is a multiple-choice test that takes one class period to complete. Items on the benchmarks are calibrated for reading level using the same equation used to measure books or other text. This allows students to be matched to reading materials on the appropriate Lexile level.

Because of the great overlap in Lexile score bands, it is difficult to assign specific grade levels to students' scores. In Table 4, the Lexile score ranges end at the highest Lexile for each grade. Refer to Table 3 for a more specific grade level range. Regardless of grade level, students clearly made progress from Benchmark One to Three. At Benchmark One, there was only the possibility that 12.9% of the students fell in the Lexile range for grade 9 (855L to 1165L), while by Benchmark Three, 50.4% of the students scored in the grade 9 range.

TABLE 4:
BENCHMARK LEXILE SCORES
FOR PASSPORT READING
JOURNEYS II STUDENTS AT
W.T. WHITE HIGH SCHOOL,
2007-08

Lexile Score	<u>First Benchmark</u>		<u>Second Benchmark</u>		<u>Third Benchmark</u>	
	Number	Percent	Number	Percent	Number	Percent
0–300	0	–	0	–	1	0.8
301–500	5	4.3	2	1.6	2	1.6
501–700	60	48.8	6	4.9	24	19.7
701–810	33	26.8	27	22.1	35	28.4
811–910	9	7.3	45	36.9	29	23.8
911–1000	9	7.3	19	15.4	15	12.3
1001–1065	0	–	6	4.9	16	13.1
1066–1100	0	–	17	13.8	0	–
1101–1165	0	–	0	–	0	–
> 1165	<u>0</u>	–	<u>0</u>	–	<u>0</u>	–
Total	116		122		122	

NOTE: Percents may not add to 100 due to rounding.

Lexile Growth

There was a significant within-subjects difference in rate of growth on the three Lexile measures [F (2, 230) = 139.96, $p < .001$, $\eta^2 = .549$] (Figure 1). The mean growth of 119 Lexiles from Benchmark 1 to 2 was a sharper increase than from Benchmark 2 to 3 (62 Lexiles).

Differences by Ethnicity

Although Lexile growth across the Benchmarks was significant, between-subjects effects due to ethnicity was not significant [F (4, 226) = .109, $p = .987$]. Students progressed at about the same rate, regardless of ethnicity, with the five W. T. White students consistently ahead, followed by Hispanic and African American (Figure 1).

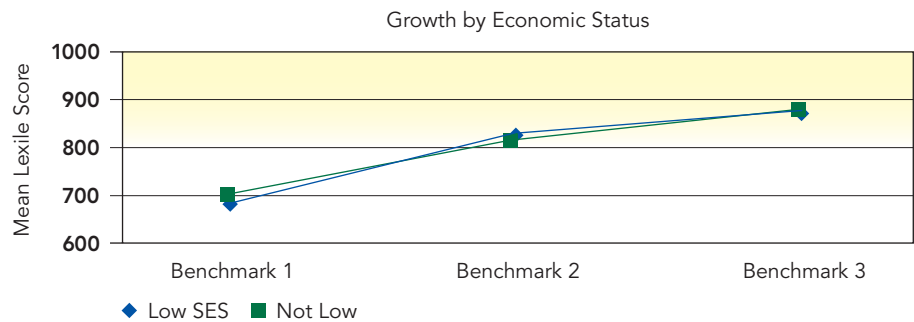
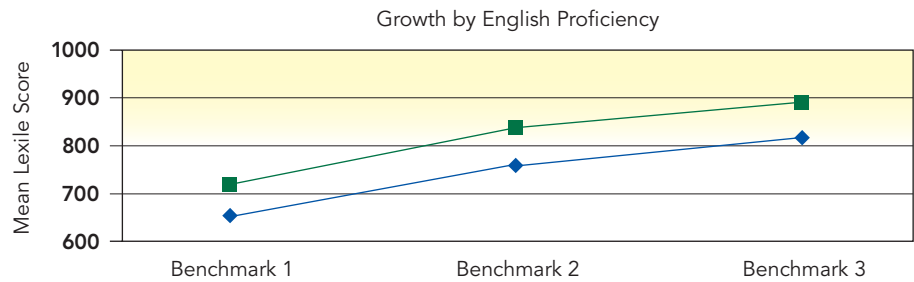
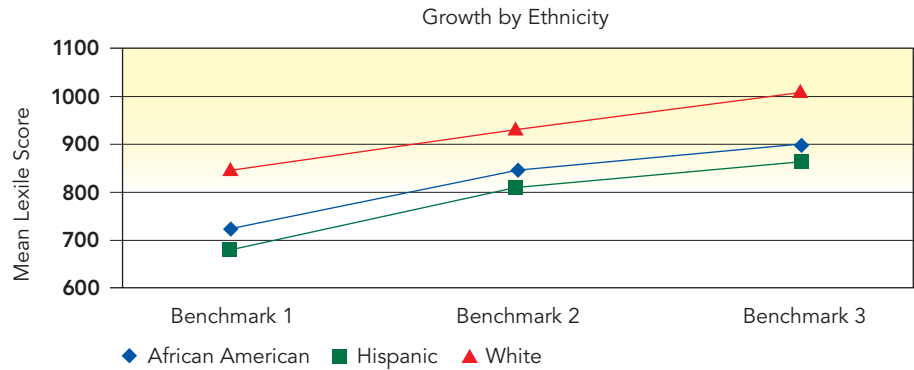
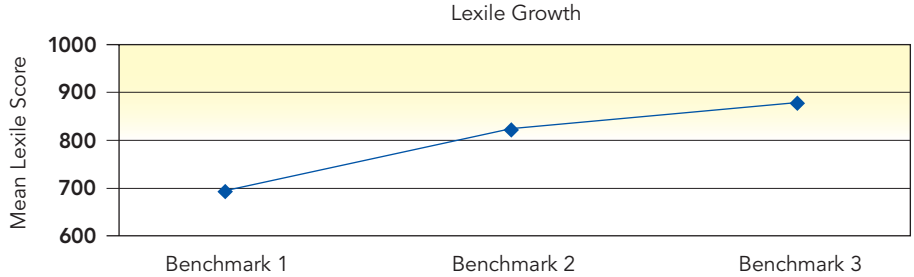
Differences by English Proficiency

Between-subjects differences due to English proficiency was not significant [F (2, 228) = .153, $p = .697$]. Both English and limited English proficient students had consistent growth from Benchmark One to Three (Figure 1).

Differences by Economic Status

There was no significant between-subjects difference in rate of growth on the three Lexile measures [F (2, 228) = .386, $p = .535$]. In fact, at each Benchmark, there was little difference in students' scores, regardless of economic status (Figure 1).

FIGURE 1:
GROWTH IN LEXILE MEASURES BY ETHNICITY, ENGLISH PROFICIENCY AND ECONOMIC STATUS.



Reading Connected Text (RCT)

RCT determines a student’s fluency rate when reading a grade-level passage. It is administered three times a year at the same time as the Benchmark assessment. It is a one-minute timed measure that is given individually. The *Passport Reading Journeys* materials indicate that RCT is predictive of a student’s ability to read on grade level. *Passport Reading Journeys* has goal scores for each benchmark period: (1) 109 words per minute (wpm), (2) 120 wpm, and (3) 125 wpm. Students reading 60 or less wpm are seen as struggling readers.

From the first RCT assessment, 16.7% (N = 19) of the students read below the goal for Benchmark One (109 wpm) (Table 5). By Benchmark Two, 25.8% (N = 31) were below the goal of 120 wpm. However, by Benchmark Three, 38.5% (N = 47) had not reached the goal of 125 wpm, yet no students were below 60 wpm and seen as struggling readers.

TABLE 5:
READING CONNECTED
TEXT SCORES FOR
PASSPORT READING
JOURNEYS II STUDENTS
AT W.T. WHITE HIGH
SCHOOL, 2007-08

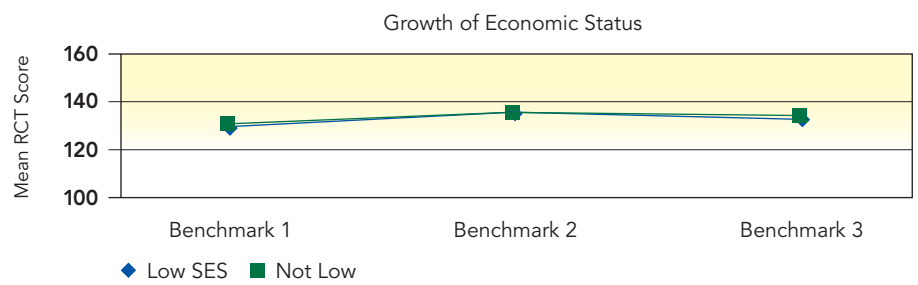
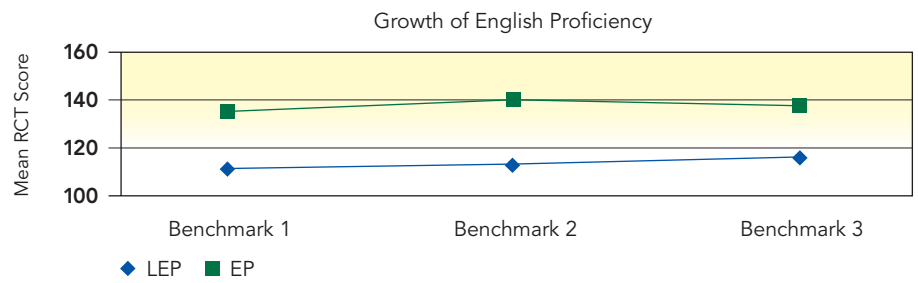
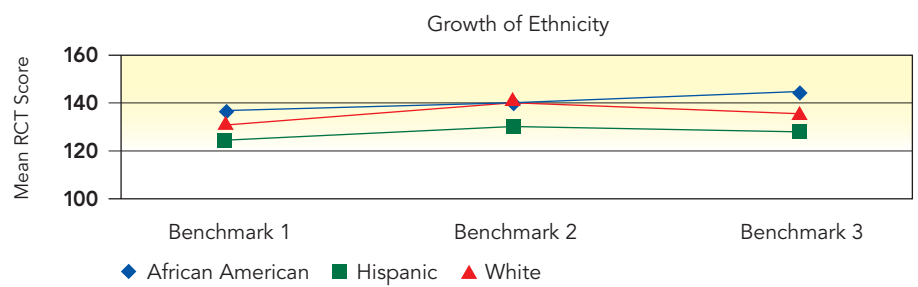
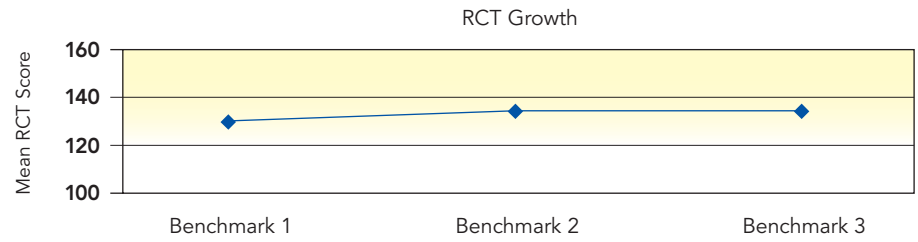
Reading Rate	First Benchmark		Second Benchmark		Third Benchmark	
	Number	Percent	Number	Percent	Number	Percent
<71	0	–	1	0.8	0	0
71–80	1	0.8	1	0.8	2	1.6
81–90	5	4.3	4	3.3	3	2.4
91–100	7	6.1	7	5.8	4	3.3
101–110	6	5.2	5	4.2	16	13.1
111–120	22	19.3	13	10.8	13	10.6
121–130	18	15.8	16	13.3	18	14.7
131–140	21	18.4	22	18.3	13	10.6
141–150	15	13.2	24	20.0	12	9.8
151–160	7	6.1	14	11.7	24	19.7
161–170	7	6.1	8	6.7	9	7.4
171–180	5	4.3	2	1.6	4	3.3
>180	0	–	3	2.4	3	2.4
Total	114		120		122	

NOTE: Percents may not add to 100 due to rounding.

Growth in Words Per Minute Read (RCT Score)

There was a statistically significant difference in RCT scores from Benchmark 1 to Benchmark 3 [F (2, 226) = 4.965, p = .008, $\eta^2 = .042$], although the mean gain was only 4 wpm (Figure 2). There was virtually no difference in the mean RCT score from Benchmark 2 to 3.

FIGURE 2:
GROWTH IN RCT MEASURES
BY ETHNICITY, ENGLISH
PROFICIENCY AND
ECONOMIC STATUS.



Differences by Ethnicity

When differences in RCT scores were assessed by ethnicity, the within-subjects differences were not significant [$F(2, 222) = .434, p = .784$], nor were between-subjects effects [$F(2, 111) = 1.616, p = .203$]. Hispanic and White students had growth from Benchmark One to Two, but scores remained similar at Benchmark Three. African American students maintained a minimal growth from Benchmark One to Three (Figure 2). Seventy-eight percent of the students with all three scores were Hispanic; therefore, results should be interpreted with caution.

Differences by English Proficiency

There was a significant within-subjects difference in rate of growth on the three RCT measures [$2, 224) = 6.406, p = .034, \eta^2 = .030$]. Between-subjects effects also was significant [$F(1, 112) = 26.721, p < .000, \eta^2 = .193$]. LEP students maintained a slight growth from Benchmark One to Three, while English proficient students had a slight drop at Benchmark Three (Figure 2). English proficient students maintained higher scores than LEP students at each Benchmark.

Differences by Economic Status

There was a significant within-subjects difference in rate of growth on the three RCT measures [$F(2, 224) = 4.988, p = .008, \eta^2 = .043$], but between-subjects effects was not significant [$F(1, 112) = .001, p = .991$]. Scores were almost the same at each Benchmark, regardless of economic status (Figure 2).

Relationship of Standardized Assessments to *Passport Reading Journeys* Assessments

GATES-MACGINITE READING COMPREHENSION

The correlation between the Benchmark One Lexile and the fall Gates was statistically significant [$r(106) = .514, p < .001$]. In the spring, there was a significant correlation between the Benchmark Three Lexile and the Gates scale [$r(117) = .617, p < .001$].

TAKS READING

There was a significant correlation between the spring 2007 TAKS Lexile and the fall *Passport Reading Journeys* Benchmark One Lexile [$r(98) = .278, p = .006$]. The mean Lexile assigned by the TAKS was higher than the Lexile from the *Passport Reading Journeys* Benchmark. Similarly, there was a significant correlation between the 2008 TAKS Lexile and the *Passport Reading Journeys* Benchmark Three Lexile [$r(121) = .576, p < .001$]. Again, TAKS Lexile scores were much higher than the *Passport Reading Journeys* Lexile.

Growth on Standardized Assessments

GATES-MACGINITE READING COMPREHENSION

Growth in Reading Comprehension

There was statistically significant growth between the fall 2007 and spring 2008 administrations of the Gates-MacGinite reading comprehension test [F (1, 101) = 71.819, $p < .001$, $\eta^2 = .416$] (Figure 3). In the fall, the mean scale score was 508, roughly corresponding to a grade equivalent of 5.7. By spring, the mean scale score was 530, with a corresponding grade equivalent of 7.6.

Differences by Ethnicity

There was a significant within-subjects difference in rate of growth from fall to spring [F (1, 99) = 14.892, $p < .001$, $\eta^2 = .131$]. Between-subjects effects also was significant [F (2, 99) = 3.176, $p = .046$, $\eta^2 = .060$]. Mean scale scores for African American and Hispanic students were similar at both testings (Figure 3). White students had significantly higher scores at both administrations, but there were only four White students in this analysis, so results should be interpreted with caution.

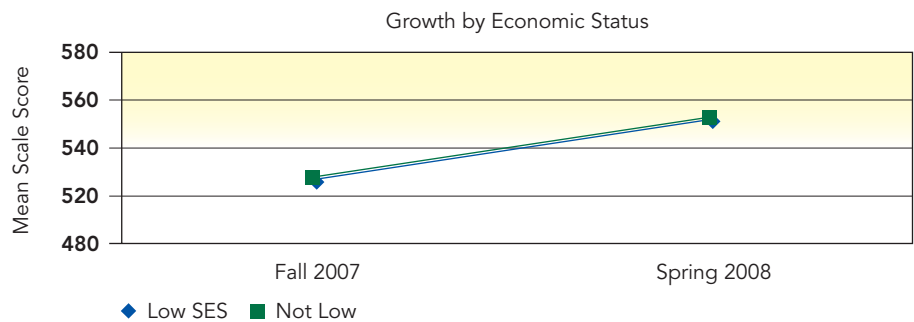
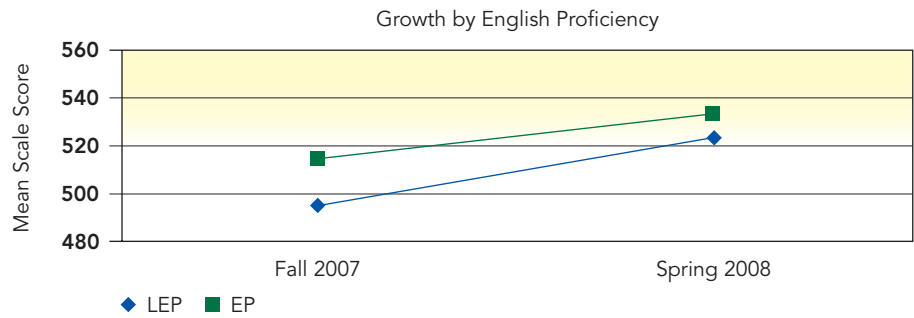
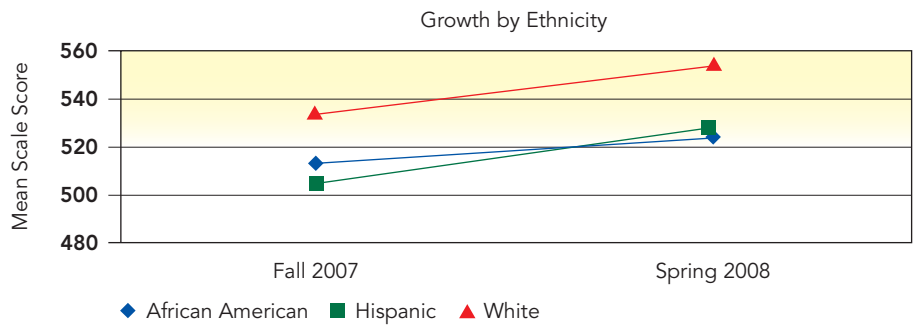
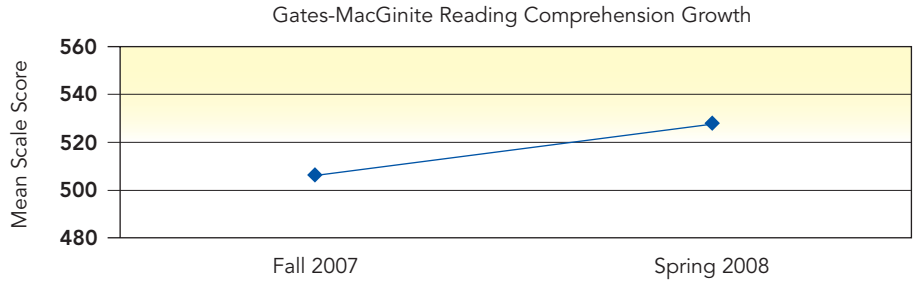
Differences by English Proficiency

There was a significant within-subjects difference in rate of growth on the Gates [F (1, 99) = 67.544, $p < .001$, $\eta^2 = .403$]. Between-subjects effects also was significant [F (1, 100) = 11.078, $p = .001$, $\eta^2 = .100$]. Both English proficient and LEP students had growth from fall to spring. However, the rate of growth was higher for LEP students, gaining 28 points, while English proficient students gained only 19 points (Figure 3).

Differences by Economic Status

There was a significant within-subjects difference in fall and spring Gates scale scores [F (1, 100) = 54.915, $p < .001$, $\eta^2 = .354$], but between-subjects effects was not significant [F (1, 100) = .001, $p = .980$]. Both groups of students had growth from fall to spring, when scale score means were the same (Figure 3).

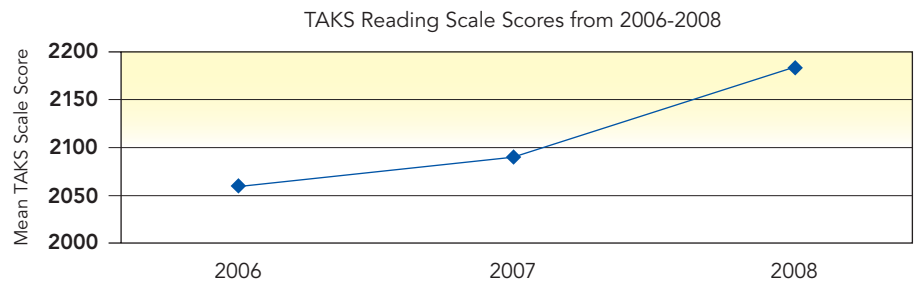
FIGURE 3:
GROWTH ON THE
GATES-MACGINITE
BY ETHNICITY, ENGLISH
PROFICIENCY
AND ECONOMIC STATUS.



TAKS READING FOR PASSPORT READING JOURNEYS STUDENTS, 2006-2008

A repeated measures ANOVA found a significantly different rate of growth in TAKS scale score from 2006 to 2007 and 2007 to 2008 for the 80 *Passport Reading Journeys* students with three years of TAKS scores [F (2, 158) = 45.8, $p < .001$, $\eta^2 = .367$]. There was a significant quadratic trend [F (1, 79) = 4.479, $p = .037$, $\eta^2 = .054$] because mean growth from grade 7 to grade 8 (2006 to 2007) was only 38 points. However, from grade 8 to grade 9, after participating in a Reading Improvement course using *Passport Reading Journeys*, mean growth was 88 points (Figure 4).

FIGURE 4:
MEAN TAKS READING
SCALE SCORES
FROM 2006-2008



Differences by Ethnicity

There was a significant within-subjects difference in rate of growth from 2006 to 2008 [F (2, 152) = 19.082, $p < .001$, $\eta^2 = .201$]. Between-subjects effects was not significant [F (1, 76) = .49, $p = .486$]. Although African American and Hispanic students had the same mean scale score in 2007, African Americans were slightly higher in 2008 (Figure 5). There were too few White students to include in the analysis.

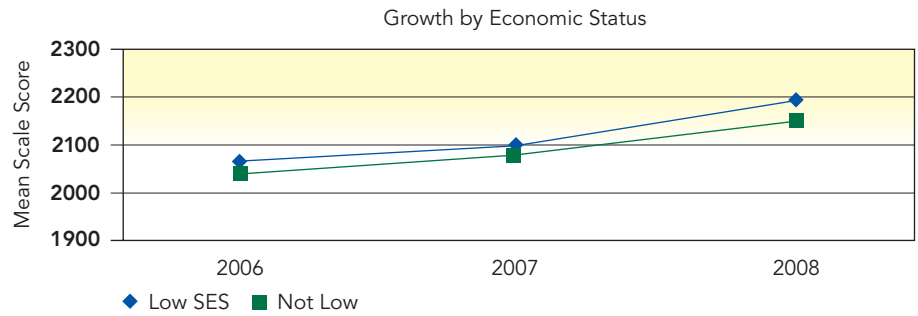
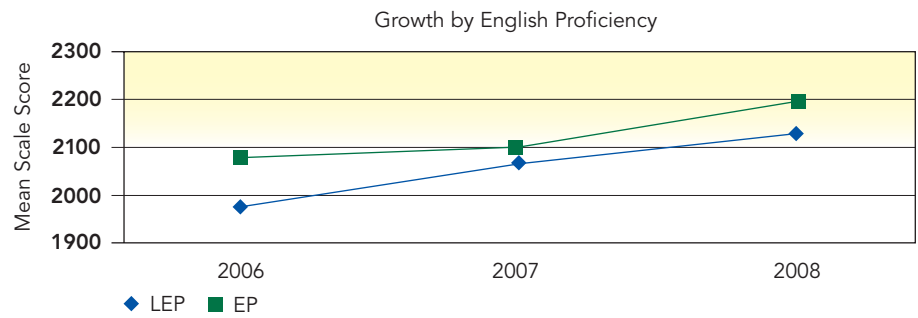
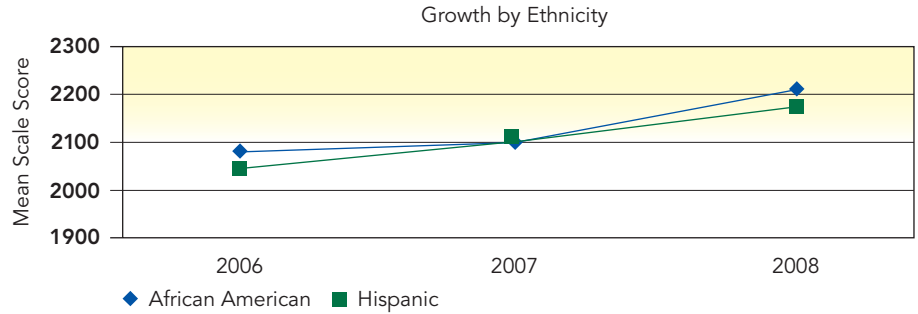
Differences by English Proficiency

There were statistically significant within-subjects interaction [F (2, 156) = 3.095, $p = .048$, $\eta^2 = .038$] and between subjects differences for rate of growth on TAKS Reading [F (1, 78) = 6.398, $p = .013$, $\eta^2 = .076$]. Both English proficient and LEP students had growth from 2006 to 2008. However, the rate of growth varied by English proficiency. LEP students had consistent growth each year. English proficient students had little growth from 2006 to 2007, but gained almost 100 points from 2007 to 2008 (Figure 5).

Differences by Economic Status

There was a significant within-subjects difference in TAKS scale score growth [F (2, 156) = 33.006, $p < .001$, $\eta^2 = .297$], but the between-subjects effects was not significant [F (1, 78) = 1.486, $p = .226$]. In this particular group of students, those with a low economic status had slightly higher mean scale scores than their more advantaged peers each year (Figure 5).

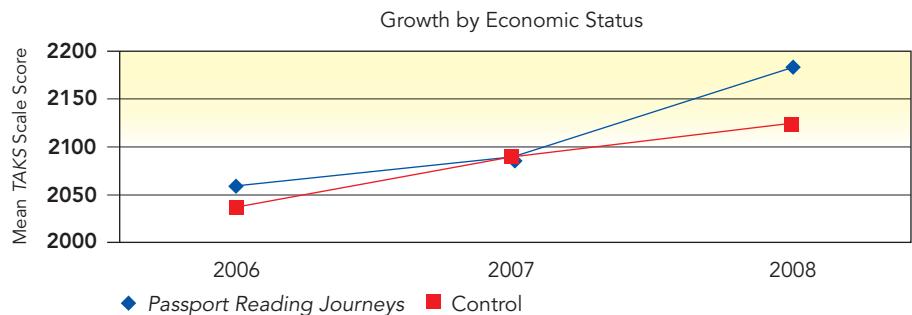
FIGURE 5:
GROWTH ON TAKS READING SCALE SCORE BY ETHNICITY, ENGLISH PROFICIENCY AND ECONOMIC STATUS.



COMPARISON OF TAKS READING FOR PASSPORT READING JOURNEYS AND CONTROL STUDENTS, 2006-2008

A repeated measures ANOVA found a significantly different rate of growth in TAKS scale score from 2006 to 2007 and 2007 to 2008 between the *Passport Reading Journeys* and control students with three years of TAKS scores (see Table 1 for demographic characteristics of these students) [F (2, 274) = 6.130, $p = .002$, $\eta^2 = .043$]. There was a significant quadratic trend for the interaction between treatment status and TAKS growth [F (1, 137) = 5.89, $p = .017$, $\eta^2 = .041$]. *Passport Reading Journeys* students had a slightly higher mean scale score in 2006 than the control students. Mean scores were almost identical in 2007. Yet, by 2008, after a year using the *Passport Reading Journeys* program, students at W.T. White High School scored 66 points higher than their peers at another high school that had no computer-assisted instruction (Figure 6).

FIGURE 6:
MEAN TAKS READING
SCALE SCORES
FROM 2006-2008 FOR
*PASSPORT READING
JOURNEYS* AND CONTROL
STUDENTS.



Repeated measures analyses and their accompanying graphs can often be complex, particularly when assessing interactions among the treatment groups and demographic characteristics. The following analyses and graphs are described as simply as possible, with statistical significances presented first, then a verbal explanation. The reader will want to study each graph for significant trends.

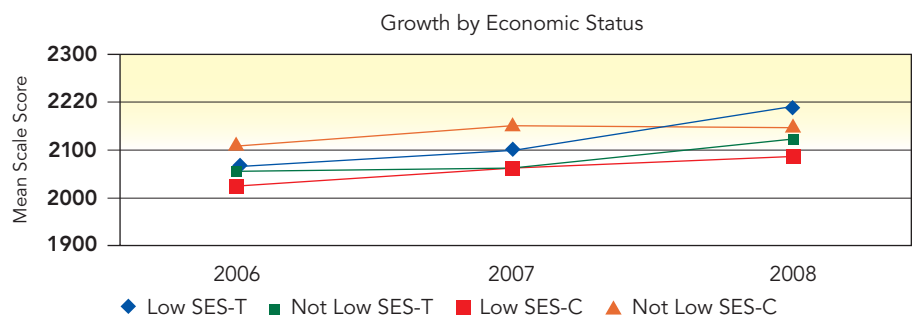
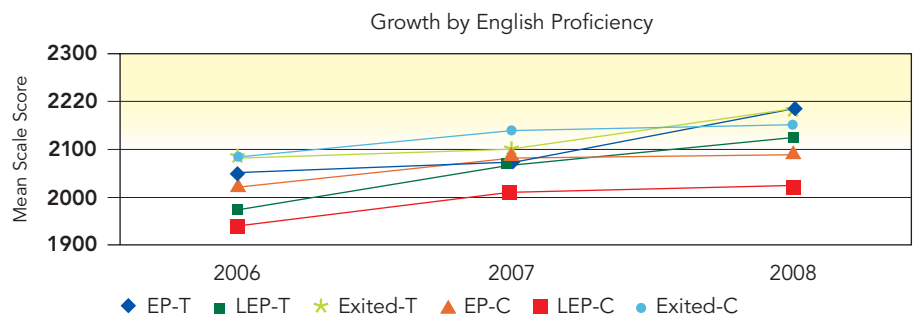
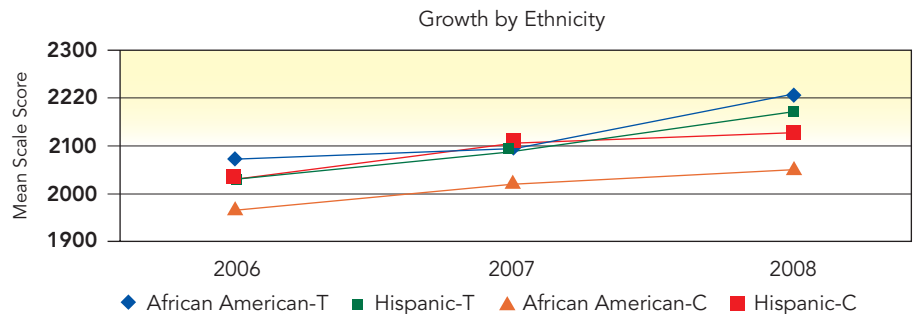
Differences by Ethnicity

There was a significant within-subjects difference in rate of growth from 2006 to 2008 [F (2, 262) = 21.832, $p < .001$, $\eta^2 = .143$] because all groups had significant growth. There was a significant between-subjects interaction [F (1, 131) = 4.279, $p = .041$, $\eta^2 = .032$]. African American students in the control group scored lower than all other groups every year. Hispanic control students were similar to the treatment students in 2006 and 2007, but did not make as much progress as both the African American and Hispanic treatment group students. There were too few White students to include in this analysis.

Differences of English Proficiency

There was a statistically significant within-subjects interaction between TAKS growth and treatment status [F (2, 258) = 6.347, $p = .002$, $\eta^2 = .047$]. In 2006, students displayed a very common pattern of achievement (for Dallas ISD), with exited students scoring highest, then English proficient, and LEP students scoring lowest (Figure 5). In 2007, LEP students in the treatment group (although they had yet to receive the treatment) outscored their control LEP peers, scoring relatively the same as all other groups. But in 2008, after a year in *Passport Reading Journeys*, LEP students moved ahead of control English proficient and LEP students, matching exited students from both treatment and control groups.

FIGURE 7:
GROWTH ON TAKS
READING SCALE SCORE
BY TREATMENT STATUS,
ETHNICITY, ENGLISH
PROFICIENCY AND
ECONOMIC STATUS.



SUMMARY AND CONCLUSIONS

Passport Reading Journeys is a reading intervention system for adolescent students in the middle grades. Research-based assessments including the Lexile Framework for Reading, Reading Benchmarks and Vital Indicators of Progress (VIP) Reading Connected Text (RCT) are provided to assist the teacher to group for instruction and to monitor the progress of each student. In cooperation with the Dallas Independent School District (DISD), Voyager has pilot tested the *Passport Reading Journeys* II program with two Reading Improvement teachers at W.T. White High School for the past three years. Primarily, Reading Improvement is for students in Grades 7–9 that have a scale score below 2200 on TAKS reading.

A variety of data including *Passport Reading Journeys* assessments, Lexile, Reading Benchmark, Reading Connected Text (RCT), and Reading Status, and standardized reading test scores, TAKS and Gates-MacGinitie, were used to assess growth in reading for these Dallas ISD students. There was a control group from another district high school Reading Improvement classes with TAKS scores. Repeated measures ANOVAs were generally used to assess growth.

Student Demographics

There were 123 students enrolled in nine sections of Reading Improvement. Five sections (N = 69) were taught by a teacher who worked with the program in 2005–06, while the other four (N = 54) were taught by a teacher using *Passport Reading Journeys* for the first time in 2006–07. Sixty-three percent of the students were limited English proficient (LEP) (24%) or exited LEP students (39%). The majority of students was Hispanic (78%) or African American (18%) and had a low economic status based on free- or reduced-lunch qualification (68%). A control group of students from another district high school (N = 59) had similar demographic characteristics.

The Gates, administered in fall 2007, confirmed that most students read below grade level. Seventy percent had a grade equivalent below the seventh grade. Only 61% had passed the spring 2007 TAKS reading subtest.

Passport Reading Journeys Assessments

Benchmark assessments are given three times per year. Reported results include Lexile, Reading Connected Text and Reading Status.

LEXILES

At Benchmark One, there was only the possibility that 12.9% of the students fell in the Lexile range for Grade 9 (855L to 1165L), while by Benchmark Three, 50.4% of the students scored in the Grade 9 range. The rise in Lexile score was not as steep from the second to third benchmark as it was from the first to second, however the amount of growth was statistically significant.

Students progressed at about the same rate, regardless of ethnicity, with the five White students consistently ahead, followed by Hispanic and African American. Both English and limited English proficient students had consistent growth from Benchmark One to Three, but differences by LEP status were not significant. Both low and not low economic status students had continuous growth from Benchmarks One to Three. At each Benchmark, there was little difference in students' scores, regardless of economic status.

READING CONNECTED TEXT

RCT determines a student's fluency rate when reading a grade-level passage that is predictive of a student's ability to read on grade level. At Benchmark One, there was only the possibility that 12.9% of the students fell in the Lexile range for grade 9 (855L to 1165L), while by Benchmark Three, 50.4% of the students scored in the grade 9 range.

Hispanic and White students had growth from Benchmark One to Two, but scores remained similar at Benchmark Three. African American students maintained a minimal growth from Benchmark One to Three. Results by ethnicity should be interpreted with caution because 78% of the sample was Hispanic. LEP students maintained a slight growth from Benchmark One to Three, while English proficient students had a slight drop at Benchmark Three (Figure 2). English proficient students maintained higher scores than LEP students at each Benchmark. Scores were almost the same at each Benchmark, regardless of economic status.

Relationship of Standardized Assessments to *Passport Reading Journeys* Assessments

Correlations revealed that Benchmark Three assessments (Lexile and RCT) had stronger correlations with spring 2008 standardized assessments, such as TAKS and Gates, than did Benchmark One assessments. TAKS-assigned Lexiles were consistently higher than *Passport Reading Journeys* Lexile scores.

Growth on Standardized Assessments

GATES-MACGINITIE READING COMPREHENSION

There was statistically significant growth between the fall 2007 and spring 2008 administrations of the Gates-MacGinitie reading comprehension test. In the fall, the mean scale score was 508, roughly corresponding to a grade equivalent of 5.7. By spring, the mean scale score was 530, with a corresponding grade equivalent of 7.6.

Mean scale scores for African American and Hispanic students were similar at both testings. White students had significantly higher scores at both administrations, but there were few White students in this analysis. Both English proficient and LEP students had growth from fall to spring. However, the rate of growth was higher for LEP students, gaining 28 points, while English proficient students gained only 19 points. Both economically advantaged and disadvantaged students had growth from fall to spring, when scale score means were the same.

TAKS READING COMPREHENSION

Passport Reading Journeys Students

Growth on TAKS Reading was assessed over three years: from the 2005–06 to 2006–07 school years, when students were in middle school, and from 2007 to 2008 when students were using *Passport Reading Journeys* in Reading Improvement. Mean growth from Grade 7 to Grade 8 (2006 to 2007) was only 38 points on the reading scale score. However, from Grade 8 to Grade 9, after participating in a Reading Improvement course using *Passport Reading Journeys*, mean growth was 88 points. Only students with three years of TAKS scores were included in the analysis (N = 80).

Although African American and Hispanic students had the same mean scale score in 2007, African Americans were slightly higher in 2008. There were too few White students to include in the analysis. Both English and limited English proficient students had growth from 2006 to 2008. However, the rate of growth varied by English proficiency. LEP students had consistent growth each year. English proficient students had little growth from 2006 to 2007, but gained almost 100 points from 2007 to 2008. In this particular group of students, those with a low economic status had slightly higher mean scale scores than their more advantaged peers each year.

Comparison of Passport Reading Journeys Students with Control Students

Passport Reading Journeys students had a slightly higher mean scale score in 2006 than the control students. Mean scores were almost identical in 2007. Yet, by 2008, after a year using the *Passport Reading Journeys* program, students at W.T. White High School scored 66 points higher than their peers at another high school that had no computer-assisted instruction.

African American students in the control group scored lower than all other groups every year. Hispanic control students were similar to the treatment students in 2006 and 2007,

but did not make as much progress as both the African American and Hispanic treatment group students. There were too few White students to include in this analysis. In 2006, exited students scored highest, then English proficient, and LEP students scored lowest. In 2007, LEP students in the treatment group (although they had yet to receive the treatment) outscored their control LEP peers, scoring relatively the same as all other groups. But in 2008, after a year in *Passport Reading Journeys*, LEP students moved ahead of control English proficient and LEP students, matching exited students from both treatment and control groups.

In 2006 and 2007, economically advantaged students in the control group had the highest mean scale scores, followed by the disadvantaged treatment students. But in 2008, economically disadvantaged students in the *Passport Reading Journeys* group had the highest mean scale scores of any group.

Results in this study support that using the *Passport Reading Journeys* program assists students in gaining reading proficiency. *Passport Reading Journeys* assessments showed continuous growth, while remaining consistent with standardized achievement measures. For this group of predominantly Hispanic, low income students, many with current or previous English language deficiencies, and the majority with well-defined reading inadequacies, increased reading proficiency was clearly demonstrated.

All students made growth on the *Passport Reading Journeys* and TAKS Lexiles, Gates, and TAKS Reading scale score. Interpreting differences by ethnicity should be done with caution because 78% of this dataset were Hispanic and there were few White students. When disaggregated by ethnicity, Hispanic and African American students made particularly notable progress. On the *Passport Reading Journeys* Lexile, Hispanic and African American students had similar growth patterns, with African American students having a slight, but consistently higher mean Lexile score. Growth on the Gates from fall to spring was greater for Hispanic students than African American. Three years of TAKS Reading data showed that Hispanic and African American students had similar gains. Fluency measures remained the same as Benchmark Two for Hispanic students and slightly higher for African American students at Benchmark Three. In general, students had little growth from Benchmark Two to Three in fluency scores.

Limited English proficient students had lower mean starting scores than English proficient students for all measures. Yet, their growth was significant, particularly for TAKS Reading scale scores, which showed a large gain for the current year. Although their mean scale score was still at the level requiring Reading Improvement, it was well above the score required for passing TAKS (scale score of 2100).

There were fewer differences by economic status. Students that were economically advantaged or disadvantaged both made significant gains on *Passport Reading Journeys* and TAKS Lexiles, Gates, and TAKS Reading scale score. Students that were low economic status had mean scores slightly above their more advantaged peers on some measures.

The TAKS analysis with a control group is particularly important. A repeated measures ANOVA provides a control of its own, in that students become their own control. Additionally, variations among subjects due to individual differences, such as gender, ethnicity, etc., are completely removed from the analysis because every subject is compared only to him- or herself. Having a specified control group also allows for a between-subjects analysis. The change from 2006 to 2007, when students may or may not have been in a grade 8 Reading Improvement course, is contrasted with the change from 2007 to 2008, when students were enrolled in Reading Improvement and either used the *Passport Reading Journeys* program or did not. This analysis revealed that the current year saw significant higher growth for students that used *Passport Reading Journeys*, particularly for those students for whom there is the most concern Hispanic and African American, limited English proficient, and low economic status. These results found that *Passport Reading Journeys* students had higher gains than the control students for each of the analyses.



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