

**EFFECTIVENESS
REPORT**

READ 180

Middle-School Study

Des Moines, Iowa
2000–2002





Executive Summary:

This study includes a two-part analysis of students enrolled in special education during the 2000–2001 and 2001–2002 school years in the Des Moines Independent Community School District. The primary objective of this research was to determine to what degree the *READ 180* intervention program has accelerated reading performance for students enrolled in special education in grades 6, 7, and 8 in Des Moines, Iowa. The secondary objective of this research includes an analysis of the benefits of *READ 180* over a two-year period (2000–2002) for a subset of seventh- and eighth-grade students. Performance results are presented for normative and criterion-referenced tests including: 1) the Stanford Diagnostic Reading Test (SDRT); 2) the Scholastic Reading Inventory (SRI); and 3) the Des Moines District Fluency Probes.

Results reveal significant gains in reading fluency and comprehension during the 2000–2001 school year, with 18% of these students placing out of special education services for reading. During the second year of *READ 180* implementation (2001–2002), first-time *READ 180* students achieved even greater gains in reading comprehension, with 25% of the students achieving growth of one or more Grade Equivalents on the Stanford Diagnostic Reading Test. This continued success during the 2001–2002 school year was attributed to the assignment of a *READ 180* Literacy Specialist whose responsibilities included: implementing staff development, modeling effective teaching strategies, and assisting teachers in using the data generated by *READ 180* software. The performance results for students enrolled in *READ 180* for two consecutive years reveal impressive and consistent growth in fluency and comprehension through grades 6 and 7. Interestingly, students who were in eighth grade reveal a plateau in their performance for reading comprehension and fluency, while their average Lexile level continues to reveal growth during the second year.

An Evaluation of *READ 180* With Special Education Students

By Nancy Palmer, Assessment Specialist

*DES MOINES INDEPENDENT
COMMUNITY SCHOOL DISTRICT
2000-2002*

A two-year study reveals significant performance gains in reading fluency and comprehension for middle-school students in special education after using Scholastic's READ 180 program.



Implementation

READ 180 is a reading intervention program developed by Scholastic for struggling readers. The primary features of this program include 90 minutes of literacy instruction and class sizes of approximately 15 students. The 90 minutes are broken into one 30-minute period of whole-group instruction and three 20-minute rotations consisting of independent work on computers using *READ 180* software, reading and listening to books on tape, and small-group instructional time with the teacher.

All schools adhered to the 90-minute model of whole-group instruction and small-group rotations, and class size was kept at a maximum of 15 students.

The Des Moines Independent Community School District implemented this program with special education students¹ in grades 6, 7, and 8 in ten middle schools. All schools adhered to the 90-minute model of whole-group instruction and small-group rotations, and class size was kept at a maximum of 15 students. At most schools, both a teacher and an associate were present throughout the 90-minute instructional period. In addition, two support people were assigned to the *READ 180* program: a computer support person and a literacy support teacher. The computer support person was assigned to the program to assist with both software and hardware difficulties, and was available to teachers on a daily basis. During the second year of implementation, a literacy support teacher was assigned to the *READ 180* program. The literacy support teacher was trained in the program and had used it successfully the previous year. This individual provided support to *READ 180* teachers by implementing staff development, modeling effective teaching strategies, assisting teachers in using the data generated by the *READ 180* software to inform and guide instruction, and by ordering and updating materials and equipment.

¹In Iowa, students are identified for special education services by means of a problem-solving model. Students are classified as "entitled individuals" rather than assigned disability labels.

Data Collection

Pre- and post-test data were collected by school psychologists on all of the *READ 180* students. 322 students participated in the program during the first year of implementation (2000–2001). During the second year of implementation (2001–2002), 108 students received a second year of *READ 180* and 173 new students started in the program.

Three reading measures were administered by school psychologists to all students participating in *READ 180*. These measures were administered to all students during the first month of school (all students new to *READ 180*) and again during the last month.

Measures

STANFORD DIAGNOSTIC READING TEST

The SDRT4 is a norm-referenced assessment that provides relevant information about students' reading processes and strategies. The SDRT4 has six levels. For the purpose of this study, the purple level was administered, including subtests in vocabulary, comprehension, and scanning.

SCHOLASTIC READING INVENTORY (SRI)

The SRI is a computer-adaptive assessment designed to measure how well students read literature and expository text of varying difficulties. Performance is reported in terms of a student's Lexile level. Lexile measures describe the readability (or difficulty) of text and the reading ability (level of reading comprehension) of readers.

Mean Gains Made from Fall 2001 to Spring 2002

TABLE 2:	N	Mean Gain	Standard Dev	Expected Gain	Difference
SDRT TOTAL GAIN (SS)	153	21.18	21.73	15.0	6.18
SDRT COMP GAIN (SS)	173	23.65	29.02	15.0	8.65
LEXILE GAIN (Lexile level)	148	179.80	196.71	116.0	63.80
FLUENCY GAIN (words/minute)	163	13.60	12.82	8.4	5.2

FLUENCY PROBES

Fluency probes are short reading passages taken from curriculum-based materials that the students are asked to read orally for one minute. The number of words read correctly is computed. For the purposes of this study, the passages were taken from the *Jamestown Readers* (seventh and eighth graders) and the *Grade 5 Literacy Place SourceBook* (sixth graders). Passages selected were one grade-level below the students' grade-level placement.

READING IMPROVEMENTS AFTER ONE YEAR OF INTERVENTION WITH READ 180

The students in *READ 180* are special education students with goals in the area of reading. Up to this point, they have made an average of two to three months progress in reading per year, based on their current early- to mid-second-grade reading levels. About a quarter of the students in *READ 180* made gains significantly greater than this, and about 18% of the students (n=78) made enough progress so that they no longer needed special education support in the area of reading. In addition, students in *READ 180* made higher gains in reading than would have been expected, based on a *READ 180* validation study and on fluency norms. (See Table 1.)

The following tables show the mean gains made on each of the measures, with gains computed only for students who were present for each measure in the fall and spring.

Mean Gains Made from Fall 2000 to Spring 2001

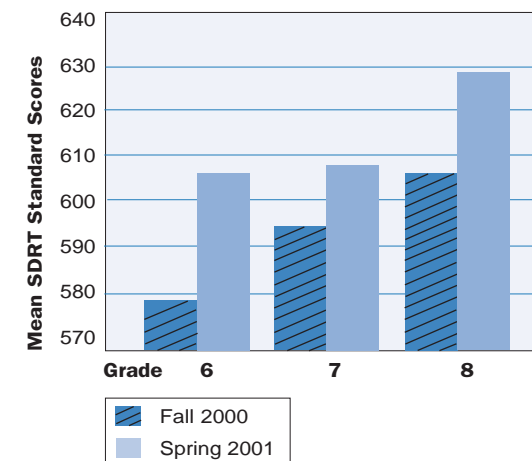
TABLE 1:	N	Mean Gain	Standard Dev	Expected Gain ²	Difference
SDRT TOTAL GAIN (SS)	291	21.47	29.96	15.0	6.47
SDRT COMP GAIN (SS)	303	17.86	29.55	15.0	2.86
LEXILE GAIN (Lexile level)	322	139.40	187.66	116.0	23.4
FLUENCY GAIN (words/minute)	312	15.13	12.17	8.4	6.73

²Expected gains are based on results of the *READ 180 Validation Study*, Scholastic/Council of Great City Schools, March 2001 for Lexile and SDRT scores, and on realistic CBM expected growth rates developed by L.Fuchs (1993), supplied by American Education Agency 11.

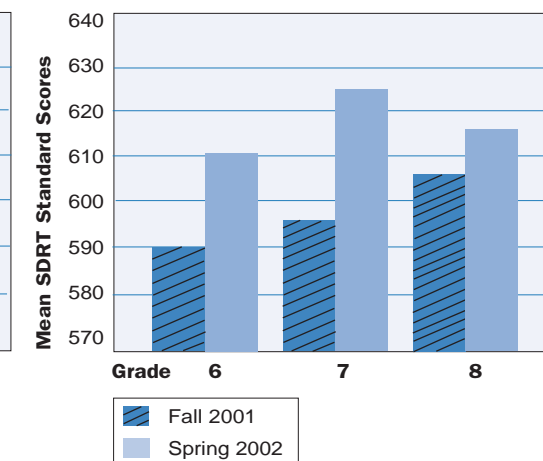
About 18% of the students (n=78) made enough progress so that they no longer needed special education support...

GRAPH'S 1 and 2: Mean Stanford Diagnostic Reading Test Totals During the Fall and Spring of Each Year

Stanford Diagnostic Reading Total 2000–2001

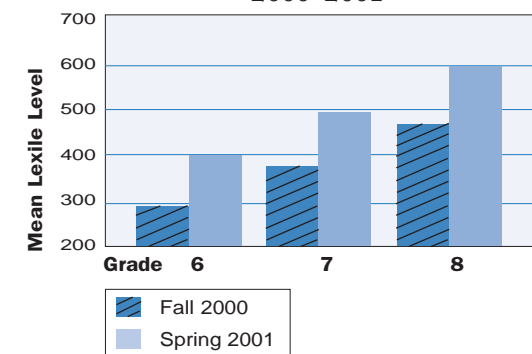


Stanford Diagnostic Reading Total 2001–2002

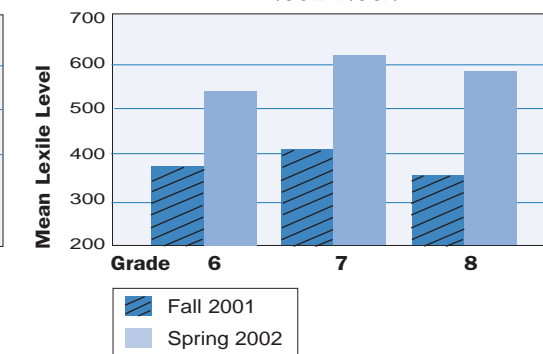


GRAPH'S 3 and 4: Mean Lexile Levels During the Fall and Spring of Each Year

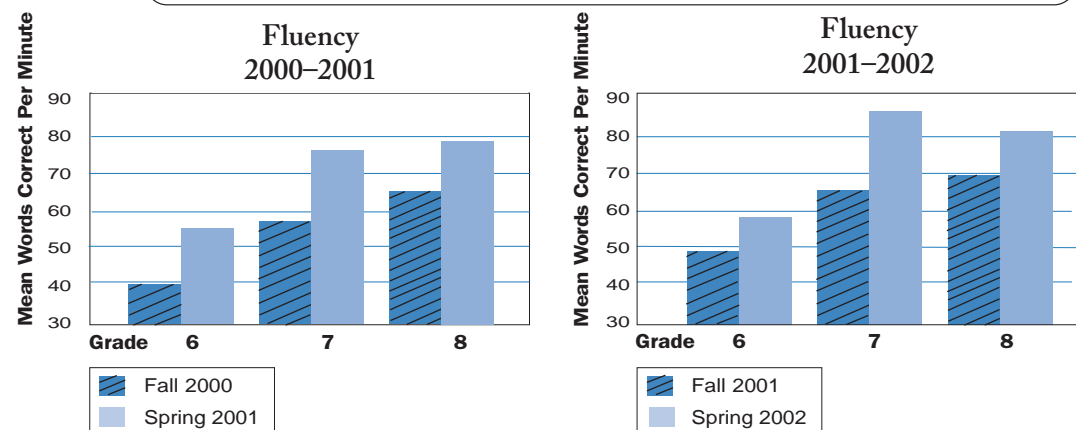
Lexile Level 2000–2001



Lexile Level 2001–2002



GRAPH'S 5 and 6: Mean Fluency Probe Levels During the Fall and Spring of Each Year



The following tables show the number of students who made at least one year or at least two years of progress in reading comprehension, based on the Stanford Diagnostic Reading Test – Comprehension Subtest.

Stanford Diagnostic Grade Equivalent Growth For Students in First Year of *READ 180* 2000-2001 School Year

TABLE 3: Reading Level In Fall:	1 N=75		2 N=142		3 N=60		4 N=4		5 N=15		6+ N=7		TOT N=303	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Less Than Half a Year's Gain	42	56%	79	56%	28	47%	0	0%	8	53%	7	100%	164	54%
One Half to One Year's Gain	17	23%	36	25%	16	27%	3	75%	4	27%	0	0%	76	25%
At Least One Year's Gain	9	12%	25	18%	14	23%	0	0%	2	13%	0	0%	50	17%
At Least Two Year's Gain	7	9%	2	1%	2	3%	1	25%	1	7%	0	0%	13	4%

Stanford Diagnostic Grade Equivalent Growth For Students in First Year of *READ 180* 2001-2002 School Year

TABLE 4: Reading Level In Fall:	1 N=34		2 N=97		3 N=28		4 N=2		5 N=8		6+ N=4		TOT N=173	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Less Than Half a Year's Gain	13	38%	37	38%	13	46%	2	100%	6	75%	3	75%	74	43%
One Half to One Year's Gain	14	41%	32	33%	8	29%	0	0%	1	13%	0	0%	55	32%
At Least One Year's Gain	6	18%	21	22%	4	14%	0	0%	1	13%	0	0%	32	19%
At Least Two Year's Gain	1	3%	7	7%	3	11%	0	0%	0	0%	1	25%	12	6%

READING IMPROVEMENTS AFTER TWO YEARS OF INTERVENTION WITH READ 180

108 students participated in *READ 180* for two consecutive years. Over the course of two years, these students increased their Stanford Diagnostic Reading Total score, on average, by 45 standard score points. They increased their Lexile levels by 294 points and their fluency by 31 words per minute. As the following tables show, these students made more gains during the first year of the program than during the second.

Mean Gains Made from Fall 2000 to Spring 2001

TABLE 5:	N	Mean Gain	Expected Gain ³	Difference
SDRT TOTAL GAIN (SS)	101	37.14	15.0	22.14
SDRT COMP GAIN (SS)	106	33.67	15.0	18.67
LEXILE GAIN (Lexile level)	108	142.37	116.0	26.37
FLUENCY GAIN (words/minute)	108	18.7	8.4	10.3

Mean Gains Made from Fall 2001 to Spring 2002

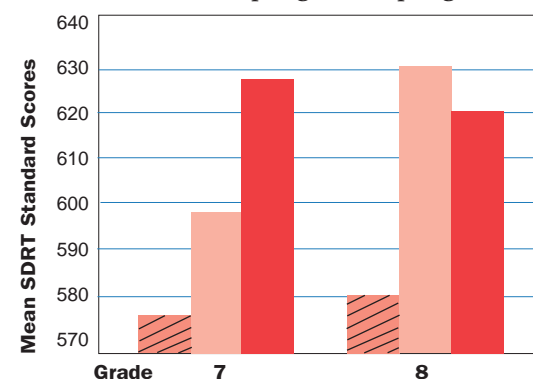
TABLE 6:	N	Mean Gain	Expected Gain	Difference
SDRT TOTAL GAIN (SS)	99	9.75	15.0	-5.25
SDRT COMP GAIN (SS)	106	11.05	15.0	-3.95
LEXILE GAIN (Lexile level)	102	143.20	116.0	27.00
FLUENCY GAIN (words/minute)	108	12.25	8.4	3.85

³Expected gains are based on results of the *READ 180* Validation Study, Scholastic/Council of Great City Schools, March 2001 for Lexile and SDRT scores, and on realistic CBM expected growth rates developed by L.Fuchs (1993), supplied by American Education Agency 11.

GRAPH'S 7, 8 and 9:

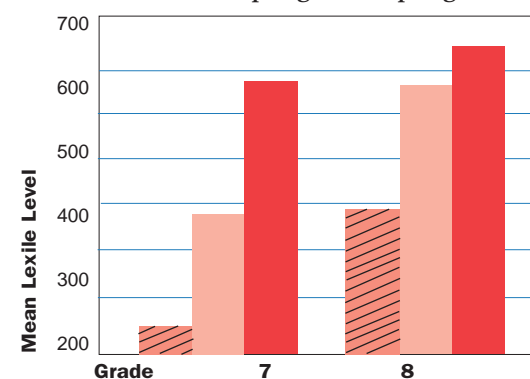
Mean Stanford Diagnostic Reading Test Total Results, Mean Lexile Levels and Mean Fluency Levels During the Fall of the First Year and the Spring of Subsequent Years for all Two-year READ 180 Students.

Stanford Diagnostic Reading Total
Fall 2000, Spring 2001, Spring 2002



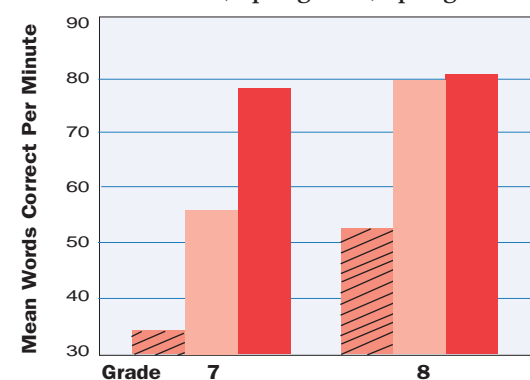
Fall 2000
 Spring 2001
 Spring 2002

Lexile Level
Fall 2000, Spring 2001, Spring 2002



Fall 2000
 Spring 2001
 Spring 2002

Fluency
Fall 2000, Spring 2001, Spring 2002



Fall 2000
 Spring 2001
 Spring 2002

Over the course of two years, these students increased their Stanford Diagnostic Reading Total score, on average, by 45 standard score points

Summary

The Des Moines Independent Community School District is currently in the third year of *READ 180* implementation with special education students in grades 6, 7, and 8. Students entering the *READ 180* program are reading, on average, at a second-grade level. This would indicate that these students have made limited growth in reading before starting in the *READ 180* program. After participating in *READ 180* for one year, students made more reading growth than would have been predicted based on past achievement. Student growth was consistent across both grade placement and entering reading level. About one quarter of the students made one or more years growth in reading, and nearly 20% of the students were staffed out of special education for reading. Gains were somewhat higher during the second year of implementation, possibly due to teacher experience with the program and the addition of a literacy support teacher for *READ 180*.

Students who remained at their middle schools and who still needed special education support in reading continued in the *READ 180* program a second year. Students who were in grade 7 for the second year of the program continued to make reading progress, but interestingly students who were in eighth grade the second year did not reveal the same growth. It is likely that this leveling off on reading performance for the eighth-grade students represents a natural plateau in their reading achievement, reading approximately 80 words per minute.

Although reading improved at all ten middle schools, schools that made the most gains had the following characteristics:

- Enthusiastic teachers who enjoyed teaching the *READ 180* program
- Associate assistance for the entire 90-minute block
- High student expectations
- Good use of program data to guide instruction

About one quarter of the students made one or more years growth in reading, and nearly 20% of the students were staffed out of special education for reading.



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