



EXECUTIVE SUMMARY

DoDEA/Scholastic *READ 180* Project: An Evaluation of the *READ 180* Intervention Program for Struggling Readers

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Abstract

Scholastic, Inc. was awarded a contract to evaluate their READ 180 literacy intervention program under the auspices of The Department of Defense Presidential Technology Initiative. The broad objective of the project was to evaluate the effectiveness of the READ 180 program on the reading and language arts skills of older struggling readers. The READ 180 program was implemented in 9 schools in the U.S. and Germany. Ten teachers and 211 students participated in the project. Findings from the project indicated that the READ 180 program had an overall positive effect on the reading and language arts standardized test scores of the participating students. However, more importantly, the findings showed that to get the maximum benefit from the program, the prescribed READ 180 instructional delivery model should be followed. Suggestions for the optimal use of the READ 180 program are discussed.

Acknowledgements

This report is the culmination of the efforts of many individuals who worked countless hours in the implementation of the *READ 180* intervention program. The authors wish to acknowledge and thank everyone who took part in this project. Specifically, the Department of Defense Education Activity (DoDEA) administration should be recognized for their vision and willingness to implement this project. The DoDEA educators need special recognition for their hard work and dedication to making this project a success. Finally, the DoDEA students must be applauded for the many hours and hard work that they put into the task of becoming successful readers.

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Project Overview

This report presents findings and results from Department of Defense Education Activity (DoDEA) /Scholastic *READ 180* Project. The project began in November, 1998, and was funded through the Department of Defense Presidential Technology Initiative whose broad objectives were to identify and evaluate promising instructional courseware that:

- used technology as an integral part of the curriculum
- could have a significant impact on the educational infrastructure
- could improve student performance
- was aligned with DoDEA educational standards

Scholastic Inc. was awarded a contract to participate in this project to evaluate the instructional effectiveness of the *READ 180* literacy intervention program in selected DoDEA sites in the U.S. and Germany.

The *READ 180* program was developed by Scholastic to support school districts in their efforts to improve reading achievement for students reading below grade level in the upper-elementary, middle and high school grades. The philosophy behind *READ 180* is that to be effective, a reading intervention program must help students break out of what has been called the Reading Failure Cycle (Stanovich, 1986). An effective reading intervention program must not only help students to develop the skills of reading, but it must also address the well documented problems these students demonstrate with low motivation, lack of self-esteem, and lack of connection to reading materials. Additionally, an effective reading intervention program should be able to stand the test of scalability and provide an implementation model that can be delivered across a range of educational environments while producing positive results.

To determine if *READ 180* met these goals for effectiveness the following three research questions were examined during this project:

- Does *READ 180* have a positive effect on standardized reading and language arts test scores when implemented with struggling readers?
- Does the instructional model used during the *READ 180* implementation have an effect on standardized reading and language arts test scores?
- Does the *READ 180* program have an impact on struggling readers' affective behavior including their attitude toward reading and their self-esteem?

The *READ 180* Intervention Program

The *READ 180* reading intervention program is the result of more than ten years of research by experts at Vanderbilt University who created and developed the *READ 180* prototype. Through a collaborative research effort between Vanderbilt and the Orange County Public School System in Florida, the *READ 180* prototype was used with more than 10,000 students between 1994 and 1999. Students participating in the Orange County research project experienced dramatic and quantifiable improvement in the areas of reading achievement, overall school achievement, and student attitudes and behaviors. In 1999, Scholastic Inc. licensed the prototype from Vanderbilt University and created the existing *READ 180* product.

The *READ 180* program contains two stages of materials that address the interest levels of students at different grade levels while at the same time provides a comprehensive range of reading levels within each stage. Stage A materials were designed for the interest levels of struggling readers in grades 4-6 and with a grade level reading range of 1.5 to 6. The Stage B materials were designed for grades 6 and above with reading levels ranging from 1.5 to 8.

Instructional Reading: The program provides 9 Topic CDs for use with the *READ 180* instructional software. Each Topic CD consists of four video segments that support a central idea or theme in People and Cultures, Science and Math, or History and Geography. Students read passages about the video and then engage in instructional activities to develop comprehension strategies, vocabulary, word study skills, spelling skills, and reading fluency.

Modeled Reading: The program provides 12 Audiobook titles with cassettes. The Audiobooks present grade-level literature with two kinds of support. A Narrator reads the text aloud, providing student access to age-appropriate literature and modeling fluent reading. A Reading Coach models comprehension, vocabulary, and self-monitoring strategies used by good readers.

Independent Reading: There are 30 leveled Paperbacks for Stage A and 40 for Stage B. These *READ 180* paperbacks provide students with opportunities for high-interest independent reading practice at their reading level. The books have varying page lengths to address varying student needs and includes a wide variety of genres at each level.

Teacher Components: The *READ 180* program provides materials to support the teacher during whole-group, small-group, and one-on-one instruction. The Teacher's Guide provides teaching plans and implementation information. The Resource Book includes graphic organizers for comprehension support, Quick-Write assignments that correlate with the Topic CDs and books, and support forms to help teachers with classroom management. The Reading Strategies book provides skill lessons for teacher-directed instruction of comprehension, word study, and vocabulary.

Scholastic Management Suite: The Scholastic Management Suite is a comprehensive management and assessment system that provides continuous monitoring and assessment of student progress, freeing the teacher to work with student. This software component provides detailed progress reports, allowing teachers to identify skills mastered and areas for improvement.

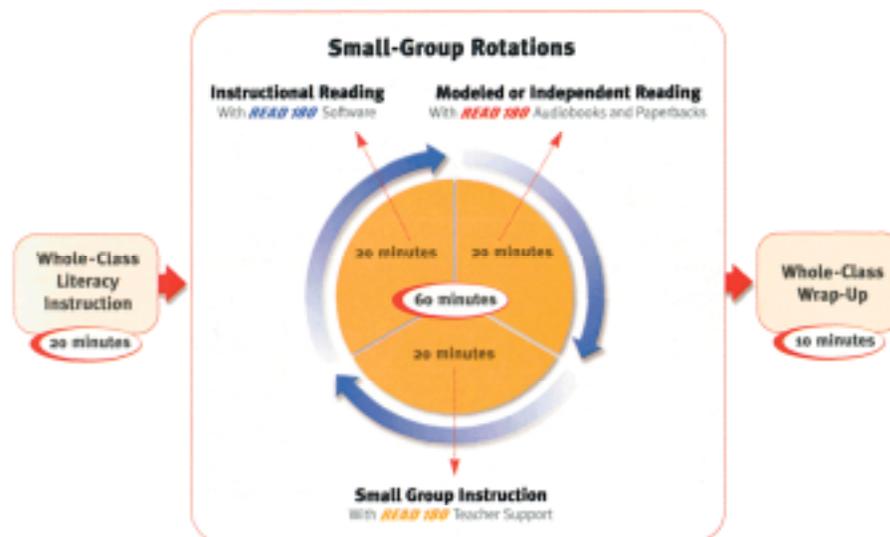
The *READ 180* Instructional Model

Teachers use the *READ 180* materials using a prescribed instructional model. This model specifies the ideal number of students in the class, the order and frequency in which to conduct instructional activities, the amount of time allocated for each activity, and the type of instructional activities to conduct. The *READ 180* instructional model combines the following elements:

- 90-minute daily class periods
- reduced class size of 15 students per class
- students engaging in daily instructional reading through the *READ 180* software
- students engaging in daily modeled or independent reading practice
- students receiving daily individual or small-group instruction

The *READ 180* Day. The *READ 180* instructional “day” begins with 20 minutes of Whole-Class literacy instruction where the teacher and students engage in shared reading, read alouds, or mini skill lessons. Next, the students are split into three groups and each group participates in three 20-minute rotations. During each of the three rotations the teacher works directly with one small group of students while the other two groups work independently at the computer or reading stations. After the three rotations the class ends with a 10-minute wrap up that allows students to reflect on their daily performance. Figure 1 illustrates the model *READ 180* 90 minute period.

FIGURE 1: *The READ 180 instructional model*



Implementation Plan

Project Schools and Teachers

The participating schools and classes came from two DoDEA school districts in the United States and three districts in Germany. A total of 10 schools, 11 teachers, and 229 students participated in the project. Classes selected for participation in the study represented elementary, middle, and high schools ranging from the 4th through the 9th grade. The classrooms also represented a variety of programs including regular education, compensatory education, and special education programs. The participating teachers came from the fields of reading, language arts, compensatory education, or special education. All teachers were experienced and had an average of 18 years in the classroom.

Students

Students participating in the *READ 180* project were selected based on their Terra Nova scores, teacher recommendations, and other reading assessments. Students who scored below the 25th percentile on the Terra Nova or were one or more grade levels behind in reading were selected for participation in the project. A total of 229 students participated in Phase IV of the project. Of these students, 82 were in elementary classes, 134 in middle school classes, and 13 special education classes.

Assessment Measures

Two standardized tests were selected for measuring student growth in reading and language arts. These measures were the Terra Nova (CTB/McGraw-Hill, 1997) and the Scholastic Reading Inventory (Scholastic, Inc.). A brief description of each measure is provided below. Additionally, two survey instruments were developed and administered to the project teachers and students.

Terra Nova. The *Terra Nova* is an assessment instrument designed to measure concepts, processes, and skills taught throughout the nation. The Reading /Language Arts test assesses reading comprehension, language expression, vocabulary, and reference skills within a meaningful context.

Scholastic Reading Inventory. The *Scholastic Reading Inventory* (SRI) is a diagnostic tool that measures a student's reading level by assessing their comprehension of authentic text passages. Test scores are determined by an absolute, invariant standard based on the Lexile Framework and are converted into Lexile measures. Lexiles are scaled scores that range from Beginning Reader (less than 100) to 1500.

Teacher Survey. The teacher survey collected information about the READ 180 classroom environments as well as subjective indicators of student progress and the teaching experience. The teacher surveys used a rating scale to assess the teachers' subjective perceptions of their students' reading progress, attitudes toward reading, and confidence and self-esteem as a reader. The survey also assessed the teachers' subjective perceptions of their experience as READ 180 teachers.

Student Survey. The student surveys provided an informal assessment of the students' reading interests. Short answer questions assessed students' attitudes toward reading, self-perception as a reader, and self-assessment of reading progress.

Implementation of READ 180

The *READ 180* program was implemented in 10 schools with 11 teachers in the U.S. and Germany. Teachers implemented the program throughout the 1999-2000 school year. During the school year the schools received program support from Scholastic consultants including multiple school visits to each site. The evaluation was conducted with a wide range of students using several different *READ 180* intervention models.

The prescribed *READ 180* instructional model requires a 90 minute time block in order to implement the program as designed. However, due to scheduling constraints in several of the project schools, variations of the *READ 180* model were implemented. Classes that implemented the prescribed *READ 180* instructional model using the 90 minute time block on a daily basis were considered to be “On-Model.” Classes that were unable to implement the prescribed model were considered to be “Off-Model.” Following is a description of the implementation.

Teacher Professional Development

All teachers selected for the implementation began with a two-day *READ 180* professional development training workshop. The workshop was conducted by Scholastic staff and was attended by the project teachers and many of the technology support personnel and district Reading and Language Arts liaisons.

During the workshop teachers learned about the history of the *READ 180* program and the instructional principles of the program. The *READ 180* instructional model was explained and sessions were held on each of the components of the model so that teachers could learn specific classroom techniques for implementation of the model and resources for lesson plans for each of the components. Teachers learned strategies for classroom management as well as tips for getting the program up and running during the first few weeks of implementation. Additionally, teachers were given hands-on instruction on how to use the *READ 180* software and teacher management program. The workshop concluded with a planning session designed to help the teachers determine how best to implement the *READ 180* model under the conditions present at their school.

The workshop was followed by a school visit to each of the sites by the Scholastic staff. The purpose of the visits was to refine the implementation model selected, answer questions that may have come up since the training, and as needed assist the technology support personnel with the installation of the *READ 180* software.

READ 180 Model Variations

Following the Teacher Professional Development workshop the project teachers collaborated with their local school administration and fellow teachers, the district reading and language arts liaisons and the Scholastic Staff to determine the instructional model they would use. The goal was to implement the program as closely to the prescribed *READ 180* instructional model as possible.

All project schools were able to reduce class size to about 15 students per READ 180 class period. Each READ 180 classroom (with one exception as noted below) was equipped with at least 5 student computers in the room. The school's Educational Technologist (ET) and/or Administrative Technologist (AT) provided technical support as needed during the implementation.

All of the READ 180 classes were arranged with distinctive areas of the room for each part of the rotation cycle. The READ 180 books were displayed in an inviting reading center with comfortable seating, and the classroom computers were grouped in a computer center. A work table area was designated for teacher-directed small group work.

Variations of the prescribed model differed by length of class period, how often the class met (daily or every other day due to block scheduling), the components of the *READ 180* model that were implemented, and when the program was implemented. Four variations of the prescribed *READ 180* were implemented.

READ 180 Prescribed Model. Classes that implemented this model were considered to be "On-Model". These classes had a 90 minute instructional period that met daily. The instructional schedule for the class period followed the READ 180 model. It began with 20-minutes of Whole Group Literacy instruction and was followed by three 20-minute rotations for the READ 180 software, modeled or independent reading and small group instruction.

Variation 1: 90 Minutes Alternate Days. This model was used in project schools that had block scheduling and were unable to make schedule changes that allowed students to meet on a daily basis. These classes met for a 90 minute period and followed the READ 180 prescribed schedule. Classes that implemented this model were considered to be "Off-Model" because classes did not meet on a daily basis.

Variation 2: Partial Implementation. This model was used in classes that did not begin the implementation until later in the school year due to personnel changes and delays in the arrival of computer equipment. Because the class schedule was already established when the READ 180 implementation began the READ 180 components were incorporated as time permitted and as materials arrived. Use of the READ 180 books and audiotapes began mid-year and use of the computers began late in the year. This model was considered to be "Off-Model".

Variation 3: Daily Alternate. This model was used in classes that were unable to make schedule changes so that class periods could meet for 90 minutes. In the Daily Alternate model, classes met for 50 minutes rather than 90 minutes on a daily basis. The class schedule incorporated the instructional activities of the prescribed model, but the activities were scheduled on alternating days due to time constraints. This model was considered to be "Off-Model".

Variation 4: Literacy Place Inclusion. READ 180 classes are generally formed by grouping 15 students who need intervention together for the 90 minute period. The

Literacy Place Inclusion model was used by a class that was unable to make these scheduling changes. Less than half of the students in the class were identified as needing reading intervention. These students were designated as READ 180 students and received READ 180 instruction that was integrated into the class's regular Literacy Place instructional period.

These students completed daily sessions on the READ 180 software in the computer lab. During the computer time they were supported by the school's computer teacher who had participated in the initial READ 180 Teacher Professional Development workshop. The READ 180 students completed their modeled and independent reading rotation while other classmates did Literacy Place reading. Instructional activities that would normally occur during the whole group segment and small group time were incorporated into the Literacy Place class schedule.

During the implementation, 5 teachers implemented the prescribed *READ 180* model. The remaining 6 teachers implemented a variation of the *READ 180* model as described above. A total of 78 students received the on-model program and 151 received an off-model variation of the program.

Results

Both reading and language arts pretest and posttest data were gathered on students using the Terra Nova and SRI. In addition, teacher and student surveys on the *READ 180* experience were given at the end of the project. Only students with matching pre and posttest Terra Nova Reading scores were included in the statistical analysis. Students in Special Education were analyzed separately. In addition, 10 teachers and 124 students completed end of the year surveys.

General Effect on Standardized Scores

One goal of this study was to determine if the READ 180 intervention program had a positive effect on the reading and language arts test scores of struggling readers. To answer this question, dependent t-tests were conducted on the scores from the Terra Nova across all students in the study. Normal Curve Equivalent (NCE) scores were used for the analysis.

The results of the analysis on the Terra Nova Reading test showed that pretest versus posttest comparisons were significantly different at the .001 level with the posttest scores being greater ($p < .001$, $t = 3.44$). A similar analysis was conducted on the Terra Nova Language Arts test; however, no statistically significant differences from pretest to posttest were evident ($p > .05$, $t = .73$). A summary of these analyses is shown in Table 1.

TABLE 1: *Pretest Posttest Comparisons for Terra Nova Reading and Language Arts NCEs*

<u>Source</u>	<u>Pretest</u>		<u>Posttest</u>		<u>df</u>	<u>t</u>
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>		
Reading	38.47	10.56	41.95	11.90	128	3.44***
Language Arts	40.30	10.72	40.98	10.71	124	.73

*** $p < .001$

Differential Effect of Instructional Models

The *READ 180* intervention program prescribes an “ideal” instructional delivery model. However, in some instances, as in this project, it is not possible for schools to implement the model as designed and modifications must be made. To determine if there are differential effects on student achievement as a result of the instructional model, a comparison was made between the “On-Model” and “Off-Model” classes.

Terra Nova Reading

For both the “On-Model” and “Off-Model” classes the Terra Nova Reading scores from Spring 1999 were used as pretest measures and were compared with the Terra Nova

scores from Spring 2000. Normal Curve Equivalent (NCE) scores were used for the analysis.¹

An initial analysis of variance comparing pretest scores across models showed significant differences ($p < .035$, $F = 4.57$). To statistically correct for these differences, analyses of covariance were run on the Terra Nova Reading posttest scores with the pretest as the covariate. The “On-Model” versus “Off- Model” and Grade Level Range (Elementary versus Middle) were used as independent factors. The results of the analyses indicated that the main effect of the “On-Model” versus “Off-Model” comparison was statistically significant at the .024 level, with the “On-Model” scores showing greater gains. The results of the analyses are shown in Tables 2 and 3.

TABLE 2: *NCE Means and Standard Deviations for Terra Nova Reading Pretest and Posttest*

<u>Source</u>	<u>Pretest</u>		<u>Posttest</u>	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
On-Model	39.86	11.93	47.31	11.97
Off-Model	37.72	9.74	39.09	10.89

TABLE 3: *On-Model vs. Off-Model Analysis of Covariance for Terra Nova Reading*

<u>Source</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>
Corrected Model	4	6032.54	1508.15	15.47***
Intercept	1	5103.87	5103.87	52.36***
Pretest	1	3303.55	3303.55	33.89***
Models	1	511.43	511.43	5.25*
Grade	1	49.87	49.87	.51
Models x Grade	1	240.17	240.17	2.46
Error	124	12085.78	97.47	
Total	129	245178.99		
Corrected Total	128	18118.32		

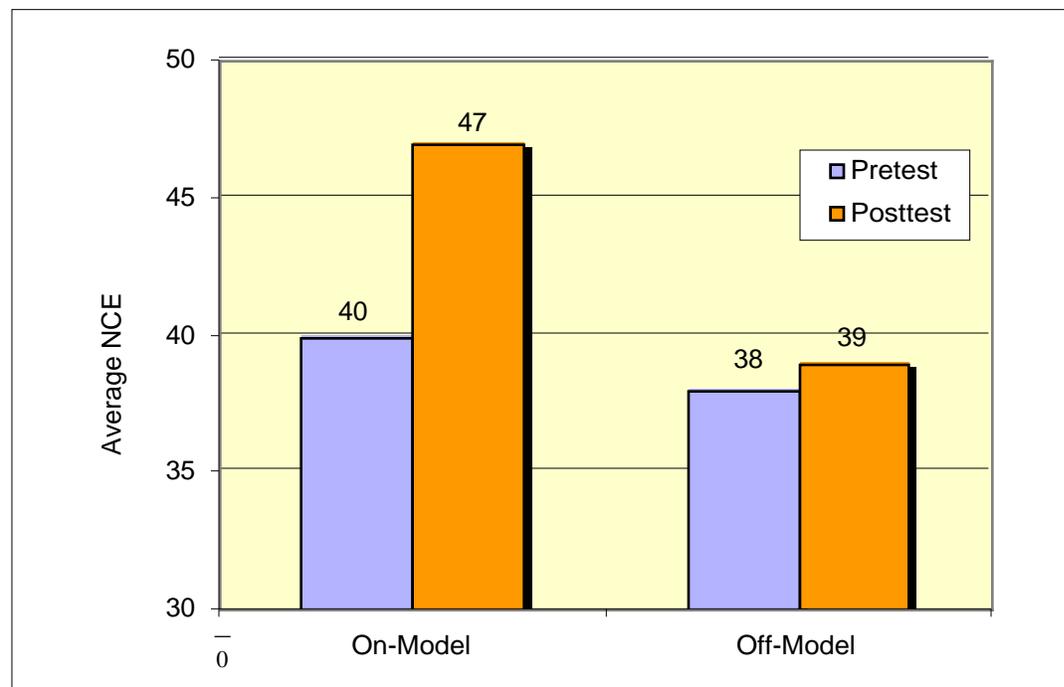
*** $p < .001$

* $p < .05$

¹ The NCE is the typical score type used to gauge the progress of students in Title I programs. A ‘0 NCE gain’ indicates that a student has maintained the pace of growth for the current grade level. In other words, his or her percentile rank would stay the same across years. As a benchmark, Title I programs use NCEs as a measures of student annual growth. A gain of 2 NCEs in a year’s time is the expected gain while a 7 NCE gain is considered exemplary.

Figure 2 shows the change in Terra Nova Reading NCEs over the one-year implementation period. For students who participated fully in the *READ 180* program (“On-Model”), a gain of 7 NCEs in Total Reading resulted. Students in the “Off-Model” condition showed an average gain of 1 NCE in Total Reading. Thus for students in the “On-Model” condition, the average gain was in the **exemplary** category according to Federal Title I standards. Although the overall “Off-Model” effect was positive for Total Reading, the impact was significantly less than that for the “On-Model” condition.

FIGURE 2. *On-Model vs. Off-Model NCE gain on Terra Nova Total Reading*



The results were also examined by converting the average Terra Nova Reading NCE to a percentile. The “On-Model” average NCE at pretest converted to a percentile of 31. The average posttest NCE converted to a percentile of 45. In comparison, the “Off-Model” pretest NCE average converted to a percentile of 28. The posttest percentile was 30.

Terra Nova Language Arts

For both the “On-Model” and “Off-Model” classes the Terra Nova Language Arts scores from Spring 1999 were used as pretest measures and were compared with the Terra Nova

scores from Spring 2000. Normal Curve Equivalent (NCE) scores were used for the comparisons.

Analyses of Covariance were run on the Terra Nova Language Arts posttest scores with the pretest as the covariate and the “On-Model” versus “Off- Model” and Grade Level Range (Elementary versus Middle) as the independent factors. The results of the analyses indicated that the main effect of the “On-Model” versus “Off-Model” comparisons were significantly different at the .023 level, with the “On-Model” scores showing significantly higher gains. The results of the analyses are shown in Tables 4 and 5.

TABLE 4: *NCE Means and Standard Deviations for Terra Nova Language Arts Pretest and Posttest*

<u>Source</u>	<u>Pretest</u>		<u>Posttest</u>	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
On-Model	41.19	10.68	45.91	10.21
Off-Model	39.80	10.78	38.21	10.02

TABLE 5: *On-Model vs. Off-Model Analysis of Covariance for Terra Nova Language Arts*

<u>Source</u>	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>
Corrected Model	4	5428.50	1357.13	18.51***
Intercept	1	3418.47	3418.47	46.61***
Pretest	1	3190.68	3190.68	43.51***
Models	1	386.14	386.14	5.27 *
Grade	1	116.16	116.16	1.58
Models x Grade	1	8.29	8.29	.11
Error	120	8800.41	73.34	
Total	125	224181.75		
Corrected Total	124	14228.92		

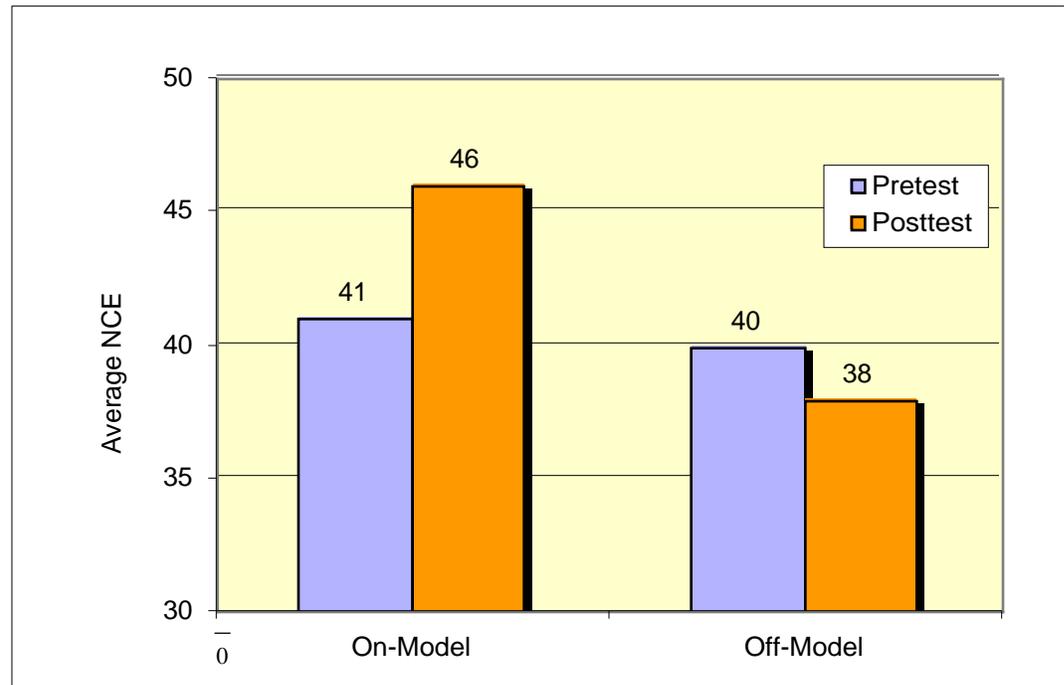
*** $p < .001$

* $p < .05$

Figure 3 shows the change in Terra Nova NCEs over the one-year implementation period. For students who participated fully in the *READ 180* program (“On-Model”), a gain of 5 NCEs in Language Arts resulted. Students in the “Off-Model” condition showed a drop of 2 NCEs in Language Arts. Thus for students in the “On-Model” condition, the average gain was **greater than expected** for the language arts subtest. The overall “On-Model”

effect was positive for Total Language Arts while the “Off-Model” condition showed a negative trend.

FIGURE 3: *On-Model vs. Off-Model NCE gain on Terra Nova Language Arts*



The results were also examined by converting the average Terra Nova Language Arts NCE to a percentile. The “On-Model” average NCE at pretest converted to a percentile of 34. The average posttest NCE converted to a percentile of 42. In comparison, the “Off-Model” pretest NCE average converted to a percentile of 31. The posttest percentile was 29.

Scholastic Reading Inventory

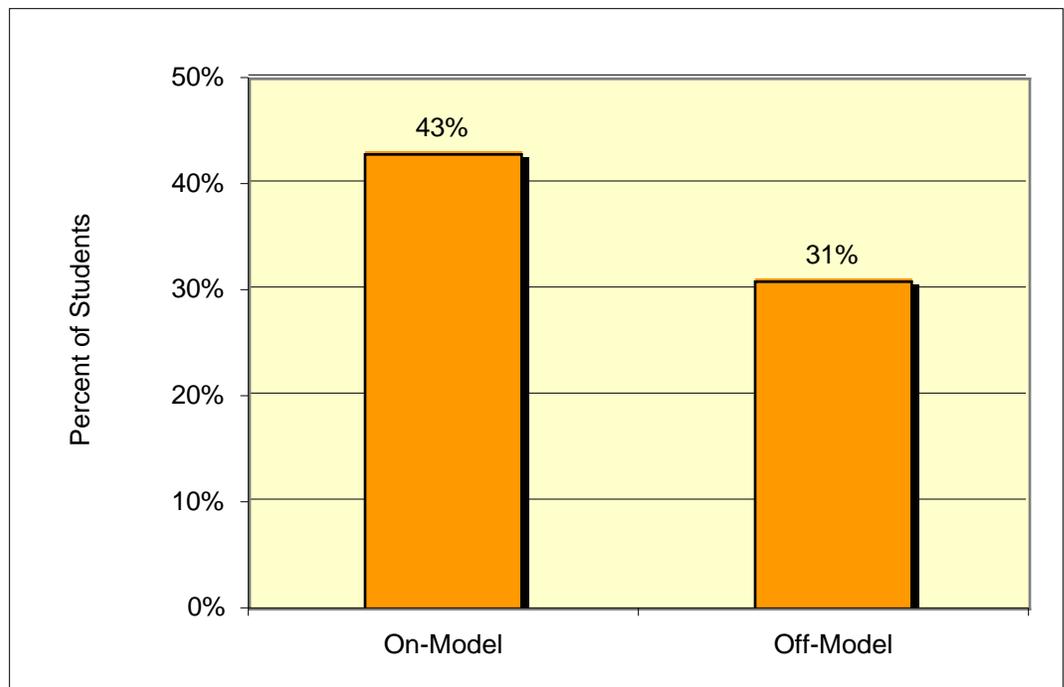
A criterion-referenced interpretation of the SRI Lexile scores provides an indicator of reading proficiency. Four standards have been identified to describe student performance on the SRI for each grade level—At-Risk, Basic, Proficient, and Advanced.

- **At-Risk:** Students scoring in this range do not exhibit minimally competent performance when reading grade-level appropriate text and can be considered as reading significantly “Below grade level.”
- **Basic:** Students scoring in this range exhibit minimally competent performance when reading grade-level appropriate text and can be considered as reading “Below grade level.”

- **Proficient:** Students scoring in this range exhibit competent academic performance when reading grade-level appropriate text and can be considered as reading “On grade level.”
- **Advanced:** Students scoring in this range exhibit superior performance when reading grade-level appropriate text and can be considered as reading “Above grade level.”

In this study the gains made in Lexile scores for both “On-Model” and “Off-Model” students represent significant shifts from reading performance in the At-Risk and Basic range to reading in the Proficient and Advanced ranges, on grade level and above. For example, 43% of the students in the “On-Model” who were reading in the At-Risk or Basic range in the beginning of the year moved to reading at grade level or above by the end of the school year. Figure 4 shows the percentage of students in each condition that moved from the At-Risk or Basic range to the Proficient or Advanced levels.

FIGURE 4: *Percent of Students Reaching Grade Level Proficiency or Above by Model*



Special Education Students

Nationally, many schools struggle with improving the reading skills of students with special needs. Thus, a separate analysis was conducted to determine the effect of the READ 180 intervention on special education students included in the study. Thirteen students participating in the study were identified as requiring special education services. Of the thirteen, seven had pretest and posttest scores on the Terra Nova, and all thirteen had pretest and posttest scores on the SRI. The group showed a gain from pretest to posttest on the Terra Nova in both Reading and Language Arts using NCE scores. In addition, the students showed a gain on the SRI from pretest to posttest using the Lexile scores. A summary of the gains is shown in Table 6.

TABLE 6: *NCE Means and Standard Deviations for Terra Nova Pretest and Posttest*

Source	N	<u>Pretest</u>		<u>Posttest</u>	
		<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Reading	7	31.81	5.12	37.60	10.98
Language Arts	7	32.64	6.91	37.50	7.34

Dependent t-tests were run on the Terra Nova Reading and Language Arts tests. Although a positive trend occurred in the data, no statistically significant differences were found.

With respect to reading proficiency, on the SRI at pretest, all thirteen students scored at the At-Risk or Basic proficiency level. On the posttest, 8 of the 13 students (62%) moved up at least one proficiency level and five of the students (38%) scored at the proficient level.

Teacher Surveys and Interviews

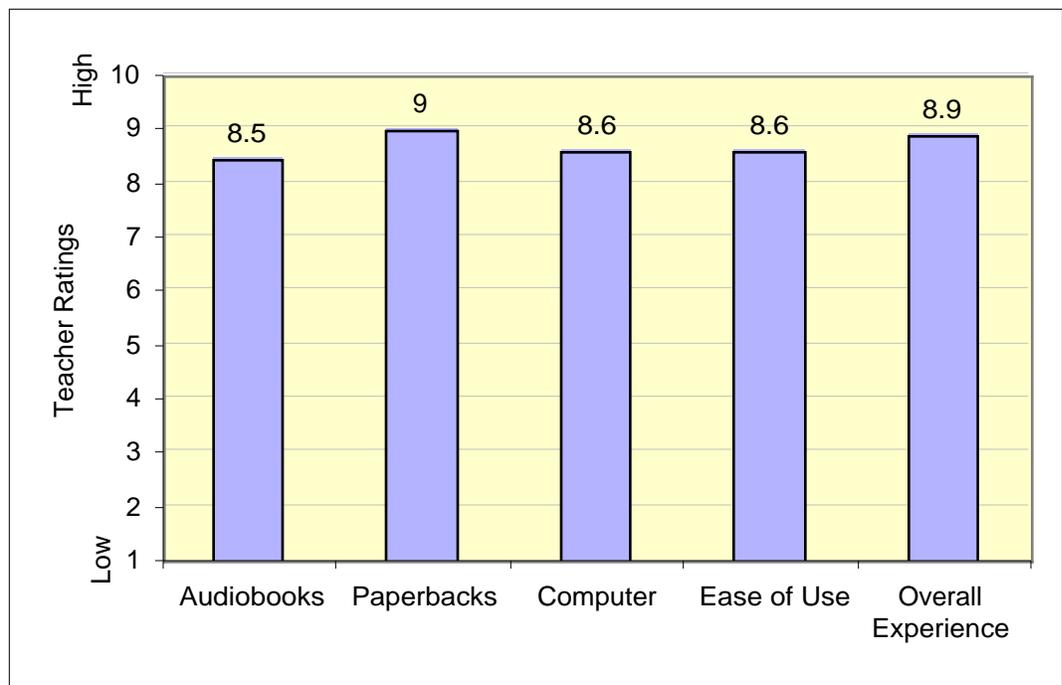
The final research question that guided this research asked if the READ 180 program had an impact on struggling readers’ affective behavior which included their attitude toward reading as well as their self-esteem. To address this question both teachers and students were surveyed at the end of the project. The following findings emerged from these surveys.

Teachers completed surveys about how the *READ 180* program was used in their classroom, their experience with the program, and their perceptions of the impact the *READ 180* program had on student progress and attitudes toward reading. They also participated in an interview to discuss their experience with the *READ 180* program.

Program Components and Ease of Use. Teachers were asked to rate various aspects of using the *READ 180* program using a 10 point scale. Aspects included rating some of the *READ 180* materials as well as the ease of implementing the program and their overall teaching experience with it. A rating of 1 was the lowest rating and 10 was the highest.

The average teacher ratings are shown in Figure 5 below. Teachers rated the *READ 180* components of the Audiobooks, Paperbacks, and Computer software as 8.5, 9, and 8.6 respectively. They rated the ease of use of the *READ 180* program as 8.6 and their overall experience with the *READ 180* program as 8.9

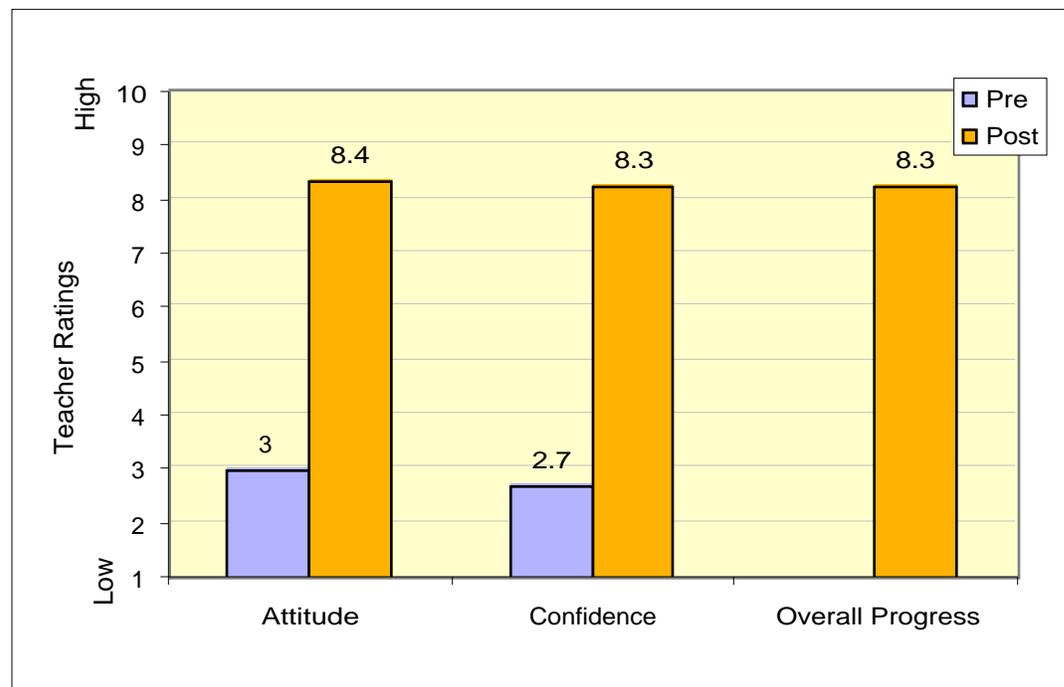
FIGURE 5: *Teacher survey ratings of READ 180 components, ease of use of the program, and overall experience with READ 180*



Student Attitude, Confidence, and Progress. Teachers used a 10 point scale to rate their perception of various student behaviors at the beginning of the school year and at the end of the school year. The behaviors rated were student attitude toward reading, student confidence and self-esteem as a reader, and overall reading progress made while in the *READ 180* program. A rating of 1 was the lowest rating and 10 was the highest.

The average teacher ratings for each of these behaviors is shown in Figure 6 below. Teachers rated their students’ attitude toward reading at the beginning of the year as 3 (low), while at the end of the year their rating was 8.4 (high) on the scale of 1 to 10. Teachers rated their students’ confidence and self-esteem as a reader as 2.7 (low) at the beginning of the year and 8.3 (high) at the end of the year. Additionally, teachers rated their students’ overall reading progress as a result of participating in the *READ 180* class as 8.3 (high).

FIGURE 6: *Pre and Post READ 180 Teacher Ratings on Student Progress*



Teacher Interviews. During the interviews the teachers noted that they had observed increases in vocabulary, reading fluency, and reading comprehension. Teachers also noted changes in attitude and behavior and stated that as a result of participating in the *READ 180* project, students showed more self confidence and developed a true love of reading. Additionally, students developed reading preferences for particular genres and authors. The teachers also remarked that parents and other teachers also noticed these changes. Some sample responses follow:

- I have seen an increase in vocabulary, fluency in reading, and comprehension. In the beginning they would read, but they weren't really getting it as they read and now as they're reading, they're really understanding what they are reading too.
- In the beginning they were almost reading word by word and now you see them reading in short phrases and longer sentences. I think the Reading Zone (software) support has helped improve their fluency.
- I see that my students really are reading now in their independent reading groups. They are legitimately reading now; they're not trying to fake their way through it. When I say it's time to stop reading they want to continue reading to see what happens in their book as a general rule.
- Their self esteem has improved. For example one of my students presented a book report and proudly smiled from ear to ear! She would not have done that at the beginning of the school year.
- The structure of the program, the setup of the small group and the whole group instruction gives you the opportunity to work with your students on different reading strategies and improving their writing skills. That's a program strength that helps them improve academically.
- There has been a positive attitude change in probably 100% of my students.
- I've heard comments from other teachers who have noticed changes in students from my *READ 180* class. They haven't attributed it to *READ 180* yet, but in my mind I said "I know why!"

Student Surveys

Students participating in the *READ 180* project were asked to complete an end of the school year survey. The surveys posed short answer questions to probe their attitudes toward reading before and after being in the *READ 180* class. In addition, their opinions on their self-perceived progress in reading as well as other classes was probed.

Attitudes Toward Reading and Self-esteem as a Reader. Students were asked to write about their feelings toward reading at the beginning of the year. Statements that indicated a dislike of reading, a negative feeling such as embarrassment about their reading skills or feeling stupid because of a lack of reading skills were scored as a negative response.

Eighty-eight percent of the students surveyed indicated a negative response toward reading or self at the beginning of the school year. At the end of the year the number of negative responses dropped to 8% as shown in Figure 7. Statements that indicated a love of reading, a desire to read more, a positive change in feelings as a result of becoming a successful reader were scored as positive responses. Ninety-two percent of the students indicated a positive attitude toward reading or positive self-esteem as a reader after participating in the READ180 class. A sample of the student responses appears in Table 7.

FIGURE 7: *Percent of Students with Negative Attitude Toward Reading or Self Before and After READ 180.*

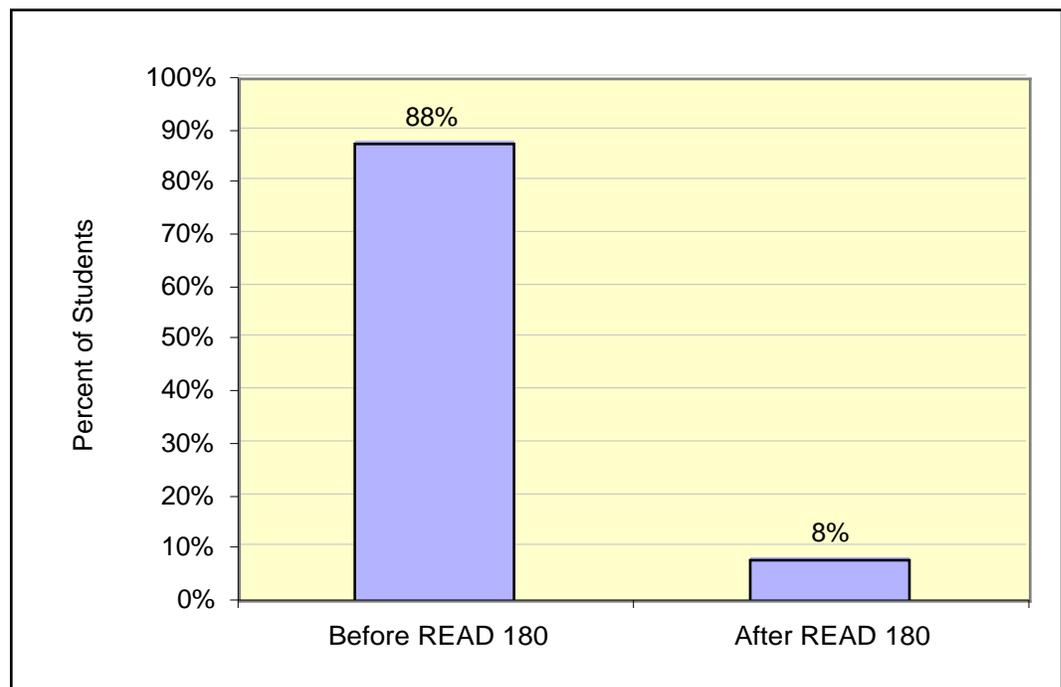


TABLE 7: *Student attitude responses regarding reading and self-esteem*

Student	Attitude Response Before <i>READ 180</i>	Attitude Response After <i>READ 180</i>
A	"I didn't really care for reading and I was reading at a third grade level. I did not even want to touch a book."	"Well now it is easier for me to pick up a book and read. I used to not pick up a book unless I needed to. I even have a favorite author (Walter Dean Myers)."
B	"I was nervous, it was hard and I did not like to read."	"I like to read now. I can spell better and now I read better. ... now I can read better or as well as everyone."
C	"I did not want to read at all."	"I feel like I can read more on my own time and have fun."
D	"I did not like to read at the beginning of the school year because it was hard."	"I love to read now because I know I can do it. I am confident that I can do it."
E	"I did not like reading at the beginning of the year. I only read when my parents told me to or my teacher told me to."	"I feel much more confident about reading. I am reading books I would have never read at the beginning of the year."

Self-Perception of Reading and Academic Progress. Students were asked to reflect on their reading progress from the beginning of the school year to the end of the school year. Ninety-five percent of the students made general statements indicating they thought their overall reading had improved. These responses included statements such as "I read much better," "I read more difficult books," as well as statements that noted specific skill improvement.

Fifty-three percent of the students indicated improvement in a specific skill area with responses such as "I went from slow reading to fast reading" or "My reading has changed because I understand what I read." The most frequently noted categories were improvements in reading fluency, comprehension, decoding, and spelling.

Forty-five percent of the students provided specific comments that indicated that they thought their participation in the *READ 180* program helped them in their other classes or with their grades.

Figure 8 shows the results of the reading progress survey and Table 8 provides a sample of the student responses.

FIGURE 8: Student survey results that show the percent of students who indicated improvements in their grades or other classes, increases in fluency, comprehension or spelling, and overall reading skill improvement.

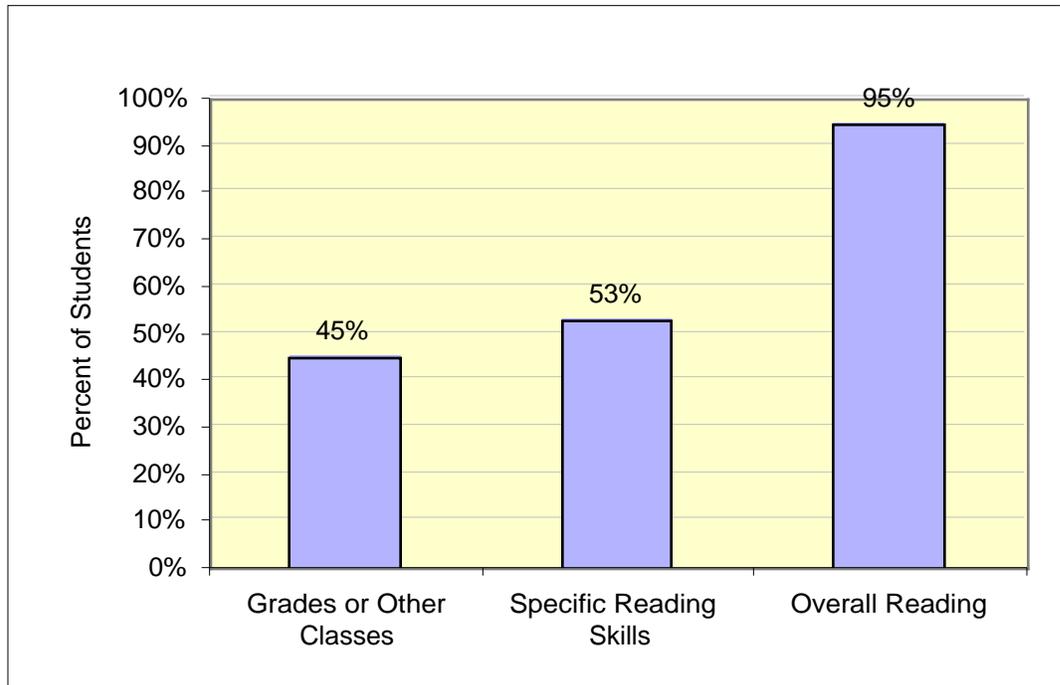
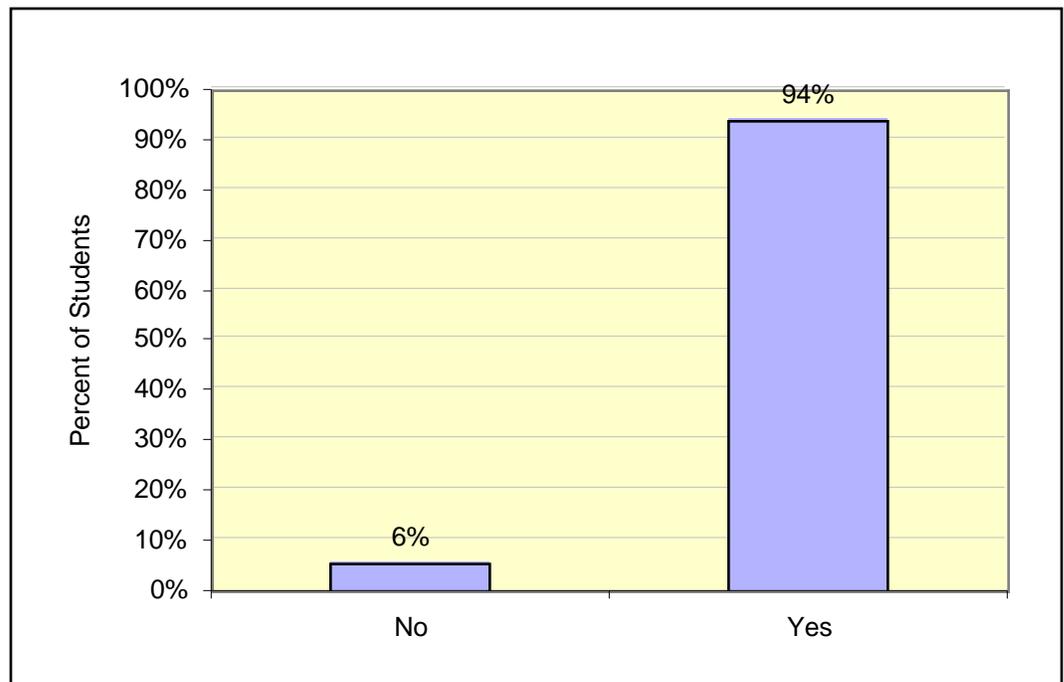


TABLE 8: *Sample student responses indicating reading progress*

Progress Indicator	Sample Responses
Improved Reading Skills	<ul style="list-style-type: none"> • My reading has changed because I'm starting to read bigger words and I have started to read Biographies. • It's changed a lot because during the summer I didn't read and now I read a whole lot more. • Yes, I could not read hard words now I can read and I can understand.
Specific Skill: Fluency	<ul style="list-style-type: none"> • I went from slow reading to fast reading • <i>READ 180</i> class has helped because I can read faster and better. • I read a lot faster now. • I can read faster without reading word by word all the time, so I feel great.
Specific Skill: Comprehension	<ul style="list-style-type: none"> • It helped me understand the words and I can read better. • I understand things better when I read. • Now I read better and now I remember stuff I read. • I can read with understanding and with hope. • It helped me understand I was reading instead of just looking at words.
Specific Skill: Decoding	<ul style="list-style-type: none"> • I couldn't pronounce most words in a book, now I can. • I can read big words. • I learn new words and now I can sound words out. • I can recognize words without help. • I can sound words out and spell them [easier].
Specific Skill: Spelling	<ul style="list-style-type: none"> • It helped me learn how to spell more words. • I learned how to spell new words. • It helped me love reading and helped me with my spelling. • I can read and spell a lot better. • I like to read better now because my spelling is better and my reading is better.

Student Recommendations of READ 180. Students were asked if they would recommend the *READ 180* class to other students who wanted to improve their reading. As shown in Figure 9, 94% of the students answered that they would recommend the *READ 180* class to other students. Many students noted that they would recommend the class to students who wanted to improve their reading because it helped them.

FIGURE 9: *Students who would recommend READ 180 to other students who need help in reading*



Discussion

The purpose of this Project was to determine the instructional effectiveness of the *READ 180* intervention program in selected DoDEA classrooms in the U.S. and Germany. Three research questions were posed to guide the evaluation of the program.

- Does *READ 180* have a positive effect on standardized reading and language arts test scores when implemented with struggling readers?
- Does the instructional model used during the *READ 180* implementation have an effect on standardized reading and language arts test scores?
- Does the *READ 180* program have an impact on struggling readers' affective behavior including their attitude toward reading and their self-esteem?

The results from the study suggests that READ 180 does have a positive effect on both reading and language arts test scores when measured using the Terra Nova and Scholastic Reading Inventory. The overall pretest to posttest gains on both the Terra Nova and the SRI showed a positive trend. Additionally, the findings show that when the prescribed READ 180 instructional model is followed, the gains are statistically significantly higher than when variations of the model are used.

The *READ 180* reading intervention program is designed around a specific instructional model and accompanying materials. During this project, scheduling constraints in some schools required that modifications be made to the instructional model. Three of the project teachers implemented READ 180 using the prescribed instructional model. These were considered as “On-Model” classrooms. Seven of the teachers implemented the program using some modification of the model and were considered “Off-Model” classes.

When the instructional model used to deliver the READ 180 program was taken into account, the outcomes were quite clear. The gains made in reading and language arts were greater for the “On-Model” classes than for the “Off-Model” classes. The On-Model classes averaged a 7 point NCE gain on the Terra Nova Reading and a 5 point NCE gain on Language Arts. In contrast, the Off-Model classes averaged a 1 point NCE gain on the Terra Nova Reading and a 2 point NCE loss on Language Arts.

Likewise on the Scholastic Reading Inventory, the On-Model classes averaged a 158 point Lexile gain while the Off-Model classes averaged a 77 point gain. Perhaps what was most striking about the SRI results was that a much higher percentage of On-Model students reached grade level proficiency (43%) as compared to students receiving READ 180 instruction using an Off-Model approach (31%). Again, the findings suggest that the On-Model delivery of READ 180 results in greater student gains.

Although the findings showed significant differences in achievement for the On-Model versus the Off-Model conditions it is important to recognize that in all cases students made gains on the Terra Nova Reading and the SRI. However, it is clear from the data that to realize maximum gains the prescribed Read 180 instructional model should be followed.

Students and teachers in both models provided very positive comments about their experience with *Read 180*. Students were very positive about the impact that the program had on their reading ability and about their desire to read. Likewise, teacher comments were very positive regarding the reading progress their students made, the impact of the program on the attitudes of their students, and the overall love of reading that the students attained.

Given these findings, one can conclude that the *READ 180* Intervention program was very effective in this project, especially for those classes where the prescribed instructional model was followed fully and accurately. These findings would suggest that the use of *READ 180* will produce improved reading performance in those students scoring below the 25th percentile on the Terra Nova and reading below grade level using several different instructional models. Nevertheless, the significant difference in student achievement when using the prescribed READ 180 instructional model appears to justify making scheduling changes for all students receiving READ 180 instruction in order to gain the maximum benefit for the students. Although scheduling changes can appear disruptive the changes may be far less disruptive to a school than students who are struggling with the reading process.