

Florida Center for Reading Research

REWARDS Plus

What is REWARDS Plus?

REWARDS Plus is a supplemental reading program designed for middle and high school struggling readers who have completed the original REWARDS program (http://www.fcrr.org/FCRRReports/PDF/rewards_report.pdf) and would benefit from continued decoding and fluency practice with greater focus on vocabulary and comprehension. *REWARDS Plus* could be used in various settings including special reading classes, remedial or special educational settings, intensive intervention classes, and in tutoring programs. This program can be taught by a classroom teacher one-on-one, small group, or whole class.

The goals of the program are that students will accurately and fluently read multisyllabic words found in science and social studies textbooks as well as in other classroom materials. A further expectation is that as accuracy and fluency increase, comprehension will also increase. Other goals include accurately completing multiple-choice items, short-answer questions, and writing extended responses and summaries of reading passages.

There are two versions of *REWARDS Plus*: Reading Strategies Applied to Social Studies Passages and Reading Strategies Applied to Science Passages. If students have recently completed the REWARDS program with success, they will begin either version of *REWARDS Plus* with the Application Lessons. Those students who completed the REWARDS program during the previous year or who did not achieve mastery of the decoding



strategies will begin by completing six Review Lessons (approximately 45-50 minutes per lesson). These lessons include the skills and strategies for decoding multisyllabic words previously learned in REWARDS consisting of: learning common sounds for high frequency vowel combinations, practicing vowel conversions, recognizing word parts at the beginning and end of words, learning and applying the REWARDS strategy steps used to decode multisyllabic words, practicing these steps, and practicing reading sentences containing multisyllabic words.

The 15 *REWARDS Plus* Application Lessons are based on social studies or science passages (varied in length from 567-696 words) that were written



specifically to be interesting and representative of text commonly found in science or social studies books. These passages require little specialized background knowledge, contain many multisyllabic words, and have a readability range from 8th to 9th grade. Application Lessons require two to three instructional periods (approximately 45-50 minutes) for Social Studies and three to four for Science.

Before reading the passage in each lesson, students use the REWARDS strategies to circle word parts at the beginning and end of each word, underline each vowel sound, read the words aloud part by part, and then say the whole word. These strategies help students determine the pronunciation of difficult words. The teacher introduces the meanings of critical vocabulary and provides background knowledge required for passage comprehension. During reading, the teacher asks literal and inferential comprehension questions, and after reading, students practice repeated readings to build fluency. Strategies for answering multiple-choice and short-answer items and for writing summaries and extended responses to writing prompts are taught and modeled, and students practice these strategies in each lesson.

The Teacher's Guide consists of four sections: the introduction, six review lessons, 15 application lessons, and an appendix of blackline masters, additional practice activities, a fluency graph, motivational materials, a pronunciation guide, and a word list. *REWARDS Plus'* student books contain all the materials students need for teacher-directed and practice activities.

How is the REWARDS Plus aligned with Current Reading Research?

This supplemental program follows a routine which includes REWARDS decoding strategies, fluency practice, comprehension questions, and writing prompts within science and social studies content to improve word attack, vocabulary, fluency and comprehension. The instruction is explicit and systematic and detailed lesson plans include wording that a teacher might use when teaching a lesson. Instructional routines include direct instruction, modeling, guided practice, student practice and application with feedback.

Skills that were introduced in the original REWARDS are reviewed and built upon in *REWARDS Plus*. Word attack skills including syllable blending and segmenting are extended through the Strategy Practice in each lesson. Previously learned affixes (57) are reviewed and 19 new word parts are introduced. Students are given ample opportunities to read and interpret familiar decodable connected text.

Fluency building is part of each lesson and teachers can choose activities from appropriately differentiated research based fluency practices including choral reading, partner reading, and oral reading. In the second-half of each lesson, fluency practice is provided using the lesson's passage. Students are directed to whisper-read the same passage four times to see how many words they can read in one minute. The first reading is recorded as a Cold Timing. After two more practice timings, a Hot Timing is done and recorded on a fluency graph in the back of the student book. Students provide feedback to one another, and fluency building routines include goal setting.

Vocabulary instruction in *REWARDS Plus* is systematic and explicit and follows the guidelines of the National Reading Panel's (2000) recommendation that repetition and multiple exposure to vocabulary items are important, especially those that are likely to appear in many contexts. Words presented in three word-lists were selected for two purposes: decoding practice and vocabulary pre-teaching. To begin the lesson approximately ten difficult words are introduced by the teacher who pronounces the words and has the student repeat the words and the definitions. Next, ten multisyllabic words are presented along with their definitions and students practice applying previously learned strategies for decoding these words. In the next activity the teacher uses student-friendly definitions as students check their understanding of the meanings of words from both lists. Five word families are then introduced along with up to 20 word relatives, after which the teacher chooses six words from the word relatives list for spelling dictation. Students are repeatedly exposed to these words as they proceed with passage reading and connected fluency and comprehension activities.

Three strategies found to improve comprehension in normal readers- comprehension monitoring, question answering and summarization- are the focus of *REWARDS Plus'* comprehension instruction. Comprehension monitoring strategies are modeled by the teacher during passage reading, and students are prompted to answer literal and inferential questions during and after the reading of each passage. Multiple-choice comprehension questions follow each passage and students work together to create a written summary of each lesson.

REWARDS Plus professional development is a ½ to full day training that offers a review of the program and its research base, an overview of the materials, and opportunities to practice the strategies.

Research Support for REWARDS Plus

The strategies taught in *REWARDS Plus* are based on research for vocabulary instruction which shows that (a)vocabulary words should be those that the learner will find useful in many contexts, (b)when vocabulary items are derived from content learning materials, the learner will be better equipped to deal with specific reading matter in content areas (National Reading Panel, 2000), and (c)when combined with the use of context clues, using word parts seems to be especially fruitful, particularly in the content areas, because so many of the words encountered in content area texts contain recognizable parts (Stahl & Nagy, 2006). Further, morphological awareness has been found to contribute to reading comprehension; that is, all other things being equal, students who are more aware of words parts are better readers (Nagy et al., 2003). Research to support the strategies of the program has been conducted by the authors, Anita Archer, Mary Gleason, and Vicky Vachon in various pilot studies which have employed the strategies used in *REWARDS Plus*.

After conducting four pilot studies, a study using a pretest-posttest control group design with random assignment to treatment condition was carried out by Archer et al (2006). The purpose of the study was to examine the effectiveness of three teaching procedures designed to improve 4th and 5th graders' abilities to decode multisyllabic words. All 48 students who received the treatment were at least one year below grade level in word recognition as measured by the Word Identification and Word Attack subtests of the *Woodcock Reading Mastery Tests* (Woodcock, 1973), and achieved scores above a 2.5 grade equivalent, but below 4.0, on these same subtests. Students were also deficient in decoding multisyllabic words as measured by reading 13 or fewer three-syllable and four-syllable words correctly on two criterion-referenced tests designed for this study. Students were randomly assigned to four treatment conditions within each of six elementary schools.

Students were instructed in groups of 2, thus each treatment condition was carried out in 6 small groups for a total of 12 students per condition. The instructional groups within each school were randomly assigned to one of four treatment conditions: (a) Component-only, (b) Component plus Strategy, (c) Component plus Teacher-facilitated Decoding, or (d) Monosyllabic.



During the first 9 days all three active treatment groups received identical instruction in component skills; students practiced the component skills for multisyllabic word reading and then took a criterion test. Subjects in the Monosyllabic group were not trained in component skills, but received 30 minutes of reading instruction on general decoding skills each day for 18 days. The instructional design for all groups began with modeling, then guided practice, and finally checking independent use of the strategy.

The three active treatment groups then received nine additional days of treatment. The Component-only group spent 30 minutes a day on: (a) pronouncing vowel combinations, (b) saying the letter sound or name for single letter graphemes, and (c) pronouncing prefixes and suffixes.

The Component plus Strategy group spent 30 minutes per day (a) segmenting a multisyllabic word into decodable parts by locating and circling prefixes and suffixes, b) orally reading the affixes, c) locating and underlining vowel graphemes in the middle parts of the word, d) reading the vowel sounds, e) segmenting by reading words part-by-part, f) blending by saying the whole word,

and g) correcting the pronunciation of the word if necessary to ensure that it was a 'real word.'

In the Component plus Teacher-facilitated Decoding group, the students watched as the teacher segmented words and visually guided them in moving their eyes from part to part to part as they said the parts. After the parts were pronounced, the whole word was read and then altered by the teacher to match aural/oral language.

Preliminary analyses indicated that all groups were equal on pretest measures. Planned analyses compared the three active treatments with the Monosyllabic group and the Component plus Strategy and Component plus Teacher-Facilitated Decoding Group to the Component only group. Results for both indicated significant posttest differences on Word Attack, Word Identification, Multisyllabic Word Reading, Syllables Correct on Multisyllabic Word Reading and Multisyllabic Word Reading Context Test. A third planned comparison of Component Plus Strategy versus Component Plus Teacher-Facilitated Decoding Group indicated no significant difference on any measure except multisyllabic word reading in context.

The tasks of the Component Skills plus Strategy treatment group described in this study match the components of the program, *REWARDS Plus*. There are two notable distinctions between the context of this study and the actual *REWARDS Plus* program. First, the students in the study were fourth and fifth graders and the program is designed for struggling students in middle and/or high school. Secondly, the study was conducted for a total of 9 hours; the two versions of *REWARDS Plus* (Reading Strategies Applied to Social Studies Passages and Reading Strategies Applied to Science Passages) would require approximately 72 hours of classroom time to complete.

The results of this study show that instruction in skills for reading multisyllabic words improved students' reading of multisyllabic words in lists and in sentences, and we can conclude that there is research support for these methods of instruction. Further empirical studies using the *REWARDS Plus* program as it is currently designed, and for the full period of instruction, is needed to determine what kind of effects can be obtained from using the program described in this review.

Strengths & Weaknesses

Strengths of *Rewards Plus*:

- Instruction is explicit and systematic.
- Teacher friendly instructional routines are included.
- Fluency building is part of each lesson.

Weaknesses of *Rewards Plus*:

- None were noted.

Which Florida districts have schools that implement Rewards Plus?

Alachua	352-955-7880	Jefferson	850-342-0100
Baker	904-259-0401	Lake	352-253-6510
Bay	850-872-7700	Leon	850-487-7147
Bradford	904-966-6018	Liberty	850-643-2275
Broward	754-321-2600	Okaloosa	850-833-3109
Calhoun	850-674-5927	Orange	407-317-3202
Citrus	352-726-1931	Osceola	407-870-4008
Clay	904-284-6510	Palm Beach	561-434-8200
Desoto	863-494-4222	Pinellas	727-588-6011

Duval	904-390-2115	Polk	863-534-0521
Escambia	850-469-6130	St. Johns	904-819-7502
Franklin	850-653-8831	St. Lucie	772-429-3925
Gadsden	850-627-9651	Santa Rosa	850-983-5010
Gulf	850-229-8256	Taylor	850-838-2500
Hamilton	386-792-6501	Wakulla	850-926-0065
Holmes	850-547-9341	Walton	850-892-1100
Indian River	772-564-3150	Washington	850-638-6222
Jackson	850-482-1200		

For More Information

<http://www.rewardsreading.com/>

FCRR Report on the original REWARDS program:
http://www.fcr.org/FCRRReports/PDF/rewards_report.pdf

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Important Note: FCRR Reports are prepared in response to requests from Florida school districts for review of specific reading programs. The reports are intended to be a source of information about programs that will help teachers, principals, and district personnel in their choice of materials that can be used by skilled teachers to

provide effective instruction. Whether or not a program has been reviewed does **not** constitute endorsement or lack of endorsement by the FCRR.

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