

Florida Center for Reading Research

REWARDS Intermediate and REWARDS Secondary

What are REWARDS Intermediate and REWARDS Secondary?

REWARDS Secondary, (originally called *REWARDS*) and *REWARDS Intermediate*, are intense, short-term intervention programs for older students who have mastered the basic reading skills associated with 1st and 2nd grade, but experience difficulty reading multisyllabic words in grade level materials, and/or who read slowly (i.e., 60-120 correct words per minute). *REWARDS* is an acronym for Reading Excellence: Word Attack and Rate Development Strategies. The parallel programs are designed to teach flexible strategies for fluently reading long words consisting of 2-8 syllables in content area texts. A further expectation is increased comprehension as a result of an increase in vocabulary and fluency. *Rewards Intermediate* is for students in grades 4-6 and consists of 25 lessons, while *Rewards Secondary* is for students in grades 6-12 and consists of 20 lessons. Lessons from both programs are approximately 50 minutes in length and may be taught by teachers or paraprofessionals in small group, whole group, or one-on-one as part of general education classes, remedial reading classes, or intensive summer school or after school classes. *REWARDS Intermediate* differs from the original *REWARDS* in the following ways: (a) the number of lessons was increased; (b) words, sentences, and passages are written at grade appropriate reading levels for students in 4th-6th grade; (c) explicit instruction in vocabulary was added to all lessons; (d) vowels and affixes are introduced at a slower rate; (e) sentence reading is introduced before passage reading.



REWARDS
Intermediate

The overarching structure of both *REWARDS* programs consists of a series of preskill lessons followed by several strategy lessons which are intended to lead the student in a step-by-step fashion from assisted to independent decoding of multisyllabic words in sentences and content passages. Preskill lesson activities focus on learning the component skills necessary for applying the flexible decoding strategy. This includes listening to words pronounced in parts and blending the parts back to form the word, becoming automatic with the identification of vowel combinations, prefixes and suffixes, correcting mispronounced words, and learning the meanings of prefixes and suffixes. During the strategy lessons, students learn, practice, and apply the flexible decoding strategy, which is the essence of the *REWARDS* programs. Students also receive vocabulary instruction and practice with word families and spelling.



REWARDS
Secondary

For both *REWARDS* programs, the Teacher's Guide is well-organized, teacher-friendly, and in three parts. A detailed introduction to the lessons provides teachers with information for successful lesson implementation. This is followed by the preskill and strategy lessons. The appendix contains blackline masters for overhead transparencies, strategies for reading long words, student reference charts for prefixes, suffixes, and vowel combinations, a pretest, posttest and generalization test, fluency passages, fluency graphs, research on *REWARDS*, word lists, and an incentive program for either motivational purposes or to determine grades for the students. The student workbook contains all the student materials necessary for the program.

How are REWARDS Intermediate and REWARDS Secondary aligned with Current Research?

The focus of *REWARDS Intermediate and REWARDS Secondary* is on fluency-building through the development of flexible decoding skills. The programs incorporate instruction in advanced phonics or word analysis, fluency and vocabulary. The instructional design features of both *REWARDS* programs include instruction that is explicit and systematic, with a high level of teacher/student interaction. The detailed lesson plans suggest wording that a teacher might use when teaching a lesson, and ensure fidelity of implementation according to the research conducted with these programs. Instructional routines include teacher modeling of instructional expectations, and guided student practice and application with feedback. Lesson content builds cumulatively and is frequently reviewed.

In preparation for decoding longer words, the preskill lessons focus on component skills that assist students in identifying the distinctive, visual features or patterns of words. An element of phonological awareness involves the teacher orally segmenting long words, part by part, with students blending them together again. This is followed by fluency practice with vowel combinations, long and short vowel sounds, and word parts. Then, students practice overt behaviors, such as circling and underlining prefixes, suffixes and vowel sounds. The overt behaviors are gradually faded, and the lessons move students to more covert behaviors where the goal is for students to look at a word, recognize affixes and their meanings, break the word into smaller decodable chunks, and then use that information to read the word independently. Students can be flexible in dividing the word into parts, rather than adhering to rigid rules of syllabication, as long as they can ultimately make the word into a real word. Additionally, students are taught to recognize that the English language requires flexibility in pronunciation which is accomplished by helping them determine accurate pronunciation of vowels or vowel combinations using oral language in conjunction with context clues. The intent of both *REWARDS* programs is to provide a useful and flexible decoding strategy that enables older struggling readers to read multisyllabic words.

Explicit vocabulary instruction exists for both *REWARDS* programs. Students learn how prefixes and suffixes can alter the meaning of a word. Also, select words are chosen for specific instruction before reading a passage to scaffold understanding. Teachers provide a student-friendly definition and check understanding with examples and non-examples. Practice with word families assists vocabulary expansion by demonstrating how the base of one word can develop into several different words. In *REWARDS Secondary*, activities with vocabulary definitions and word families are optional. While comprehension strategies are not explicitly taught, understanding is approached through vocabulary in the previously described activities, and throughout passage reading, teachers ask questions meant to purposefully direct students' attention to the most important ideas of the passage.

Students develop fluency by applying their multisyllabic decoding strategy while reading sentences and expository passages. Fluency building is part of each lesson and teachers can choose activities from research based fluency practices including choral reading, partner reading, and timed oral reading. Students are taught to whisper-read to see how many words they can read in one minute. They may also choose to graph the number of correctly read words on their fluency graph.

Training for the implementation of *REWARDS* is generally accomplished in a one-day format. Trainers work as independent contractors, and a list of these trainers is provided at www.rewardsreading.com. In addition, the authors facilitate a Training of Trainers each summer. Information about these trainings is available on the *REWARDS* website. The Teacher's Guide provides detailed instructions for use of the program.

Research Support for *REWARDS* Intermediate and *REWARDS* Secondary



REWARDS Intermediate and *REWARDS Secondary* are based on the original *REWARDS* program first published in 2000. The flexible decoding strategy in both programs is based on the understanding of the relationship between word recognition and reading comprehension, the fact that beginning in fifth grade the average student encounters approximately 10,000 new words, and the knowledge that while multisyllabic words don't make up all the words read they do carry most of the meaning in passages (Nagy and Anderson, 1984). To support the value of teaching older students flexible decoding skills for reading multisyllabic words, research has been conducted by the authors, Anita Archer, Mary Gleason, and Vicky Vachon in various pilot studies. A detailed description of a study with various versions of *REWARDS* in which 4th and 5th grade students were randomly assigned to three treatment conditions and a control group may be found at <http://www.fcrr.org/FCRRReports/PDF/RewardsPlus.pdf>. All three *REWARDS* groups read significantly better than students in the control group. The version of the strategy that achieved the highest scores is used in the *REWARDS* program.

The present report summarizes two studies with middle school students. A middle school in a large, urban, Southeastern school district was the site of a study that compared the effects of two direct instruction reading programs, Corrective Reading (Engelmann, Johnson, Carnine, Meyer Becker, & Eisele, 1999; Engelmann, Meyer, Johnson, & Carnine, 1999) and *REWARDS* (Archer, Gleason, & Vachon, 2000), on the reading achievement of struggling seventh grade students (Shippen, Houchins, Steventon, & Sartor, 2005). Using a quasi-experimental pre-posttest design, 55 students, who were two to four years behind in reading achievement as measured by the Test of Word Reading Efficiency (TOWRE, Torgeson, Wagner, & Rashotte, 1999) and the Gray Oral Reading Test, 4th Edition (GORT-4, Wiederholt & Brant, 2001) were randomly assigned to Corrective Reading Decoding B2, Corrective Reading Decoding C, or *REWARDS*. Students were assigned to either the B or C level depending on pretest outcome measures. That is, the B2 group was randomly assigned to Corrective Reading Decoding B2 or *REWARDS*; and the C2 group was randomly assigned to Corrective Reading Decoding C or *REWARDS*. Treatments were implemented daily for 30 instructional sessions of 55 minutes. After the 6-week intervention, students showed significant gains ($p < .01$) in word reading efficiency, reading rate, reading accuracy, and reading fluency regardless of the direct instruction program used. While the results were significant, the effect sizes were small for time, $d = .40$, level, $d = .45$, and treatment group, $d = .24$ indicating that although students made gains, they were still performing poorly in important areas of reading. Another limiting factor in this study pertains to the variation in fidelity of implementation across teachers.

Another quasi-experimental study examined the effectiveness of the *REWARDS* strategies with an earlier version of *REWARDS Secondary* (Vachon & Gleason, 2006). Specifically, the study evaluated the effects of mastery learning on multisyllabic word reading component skills and the effects of either high mastery or low mastery practice context on word and text reading skills of 6th, 7th, and 8th grade students

struggling with reading, including students with learning disabilities. Students (n = 65) were matched according to oral reading fluency and randomly assigned to one of four treatment groups: high mastery/passage, high mastery/sentence, low mastery/passage and low mastery/sentence. Pretests included the Word Identification and Word Attack subtests of the Woodcock Reading Mastery Tests (Woodcock, 1973) and indicated that the students were reading in a grade equivalent range of 3.0-5.0. The treatments were implemented daily for 40 minutes a day over a 7-week period. Maintenance tests were given after another eight weeks. Students practiced reading either passages from social studies texts, or those same passages as randomly numbered sentences. Oral reading fluency was measured as words correct per minute in the social studies text and later in the science text. Posttests indicated that after treatment and maintenance, students in both high and low mastery groups made significant gains in word and text reading skills and in oral reading fluency as long as mastery level criteria were maintained at 80% and regardless of whether they practiced with passages or sentences.

These studies indicate that there is more than a beginning level of research support for the use of *REWARDS* as an intervention to teach intermediate and secondary students necessary decoding and fluency building skills. Because there was no measure of reading comprehension in the research design, it is unknown whether these decoding and fluency skills transfer to reading comprehension. Additional experimental research is needed over a longer time period with larger sample sizes and random assignment to both treatment and control groups with both *REWARDS Intermediate* and *REWARDS Secondary* to see the long-term and maintenance effects of the programs. Reading comprehension outcomes should be included.

Strengths & Weaknesses

Strengths of *REWARDS Intermediate* and *REWARDS Secondary*:

- The programs are explicit, systematic, and offer repeated practice opportunities for decoding and fluency.
- The flexible decoding strategy teaches students to examine letters and patterns in words, rather than guessing from context.
- The flexible decoding strategy is intended to assist students in recognizing the nuances in pronunciation of the English language.
- Both programs are easy to implement, teacher-friendly and can be used by a wide variety of professionals, paraprofessionals, and volunteers.
- Student progress is easily monitored, charted, and rewarded, thus increasing motivation.

Weaknesses of *REWARDS Intermediate* and *REWARDS Secondary*:

- None were noted.

Which Florida districts have schools that implement *REWARDS Intermediate* and *REWARDS Secondary*?

REWARDS Intermediate: R.I. *REWARDS Secondary*: R.S.

Alachua	R.I., R.S	352-955-7527	Lake	R.I., R.S	352-253-6510
Bay	R.I., R.S	850-872-4329	Lee	R.I.	239-337-8301
Bradford	R.I.	904-966-6018	Leon	R.I., R.S	850-487-7147
Brevard	R.I.	321-631-1911	Levy	R.S	352-486-5231

Broward	<i>R.I., R.S</i>	954-765-6271	Marion	<i>R.I.</i>	352-671-7702
Calhoun	<i>R.I.</i>	850-674-5927	Monroe	<i>R.I.</i>	305-293-1400
Citrus	<i>R.I.</i>	352-726-1931	Orange	<i>R.I., R.S</i>	407-317-3202
Columbia	<i>R.S</i>	386-755-8000	Osceola	<i>R.I.</i>	407-870-4008
Dade	<i>R.I., R.S</i>	305-995-1430	Palm Beach	<i>R.S</i>	561-434-8200
Duval	<i>R.I., R.S</i>	904-390-2115	St. Johns	<i>R.I.</i>	904-819-7502
Escambia	<i>R.I., R.S</i>	850-469-6130	Santa Rosa	<i>R.I., R.S</i>	850-983-5010
Franklin	<i>R.I.</i>	850-653-8831	Seminole	<i>R.I.</i>	407-320-0006
Gadsden	<i>R.I.</i>	850-627-9651	Suwannee	<i>R.S</i>	386-364-2604
Hamilton	<i>R.S</i>	386-792-1228	Taylor	<i>R.I., R.S</i>	850-838-2501
Hillsborough	<i>R.I., R.S</i>	813-272-4050	Union	<i>R.I.</i>	386-496-2045
Holmes	<i>R.I.</i>	850-547-9341	Wakulla	<i>R.I.</i>	850-926-0065
Indian River	<i>R.I.</i>	772-564-3150	Walton	<i>R.I.</i>	850-892-1100
Jackson	<i>R.I., R.S</i>	850/482-1200	Washington	<i>R.S</i>	850-638-6222
Lafayette	<i>R.S</i>	386-294-1351			

For More Information

www.rewardsreading.com

References



- Archer, A.L., Gleason, M.M., & Vachon, V. (2000). *REWARDS: Reading excellence: Word attack and rate development strategies*. Langmont, CO: Sopris West.
- Engelmann, S., Johnson, G., Carnine, L., Meyer, L., Becker, W., & Eisele, J. (1999). *Corrective reading decoding strategies C*. Columbus, OH: SRA.
- Englemann, S., Meyer, L., Johnson, G., & Carnine, L. (1999). *Corrective reading decoding skill applications C*. Columbus, OH: SRA.
- Nagy, W. & Anderson, R.C. (1984). How many words are there in printed school English? *Reading Research Quarterly*, 19, 304-330.
- Shippen, M.E., Houchins, D.E., Steventon, C., & Sartor, D., (2005). A comparison of two direct instruction reading programs for urban middle school students. *Remedial and Special Education*, 26, (3), 175-182).
- Torgesen, J.K., Wagner, R.K., & Rashotte, C.A. (1999). *Test of word reading efficiency*. Austin, TX: PRO-ED.
- Vachon, V., & Gleason, M. M. (2006). The effects of mastery teaching and varying practice contexts on middle school students' acquisition of multisyllabic word reading strategies. Manuscript in preparation.
- Wiederholt, J.L., & Bryant, B.R. (2001). *Gray oral reading tests* (4th ed.). Austin, TX: PRO-ED.
- Woodcock, R.W. (1973). *Woodcock reading mastery tests*. Circle Pines, MN: American Guidance Service.

Lead Reviewer: Michelle Wahl, M.S.

Date Posted: September, 2007

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.

For more information about FCRR go to: www.fcrr.org