The *Edmark Reading Program* and the No Child Left Behind Act of 2001

Today more than ever, our country is focused on the teaching of reading. One effect of this focus was Congress passing the No Child Left Behind Act of 2001 (NCLB). This act encourages school personnel to teach phonemic awareness, phonics, vocabulary, comprehension, and fluency and to use methods that have a sound theoretical and research base. This paper describes the *Edmark Reading Program*, demonstrates the programmatic aspects, and shows how the program conforms to the recommendations made in NCLB.

The *Edmark Reading Program*

Overview

For many children who have never mastered beginning reading and language, a carefully sequenced, highly repetitive sight-word approach offers the highest probability of success. The *Edmark Reading Program* is such an approach.

The *Edmark Reading Program* was developed through careful research conducted in the 1960s. Originally called the *Rainer Reading Program,* the *Edmark Reading Program* became commercially available in 1972 and has proved effective with preschool students (ages 3 through 5 years), elementary students having difficulty with traditional classroom reading materials, English as a Second Language students, and most special education students. The *Edmark Reading Program* should be considered for use with any student who has not learned to read.

The *Edmark Reading Program* provides motivation by breaking learning into steps that ensure even the poorest readers achieve over 90 percent correct answers. This approach eliminates incorrect responses and leads students to see themselves as "readers" rather than "nonreaders."

Four instructional formats are used throughout the program: Word Recognition, Direction Cards, Picture/Phrase Cards, and Story Book. Level 1 teaches the student 150 basic sight words plus endings (-s, -ed, -ing) and takes a nonreader to approximately a 1.0 reading grade level. Level 2 extends the learning by teaching an additional 200 words, plus compound words and students can attain a reading grade level of 2.0 to 3.0. Complete software versions of both levels are available. They may be used separately or in conjunction with the printed versions. A Signing Manual is included for those who wish to use the program with students who are nonverbal.

Meeting the Requirements of NCLB

NCLB states that reading programs should teach phonemic awareness, phonics, vocabulary, comprehension, and fluency. The *Edmark Reading Program* focuses on vocabulary, comprehension, and fluency, using techniques that are supported by scientifically based reading research. The *Edmark Reading Program* is ideal for use with students who have failed at learning phonemic awareness and phonics or who cannot master these skills (e.g., children who have intellectual disabilities, English as a Second Language learners, and many children with learning disabilities).

The *Edmark Reading Program* teaches frequently used words using a highly structured word recognition method. Vocabulary, comprehension, and fluency skills are developed through this approach.

Vocabulary. The *Edmark Reading Program* first introduces vocabulary in isolation to the student. Words are presented and the student is asked to choose the same word from a row of similar-looking words. The student begins by choosing the word from a row that has no confounding words and, after repeated practice, moves to choosing the correct word from a row that has very similar-looking words. Soon the student is able to competently read the target word.

Comprehension. Following word recognition and vocabulary activities, the teacher switches the student to very different activities in order to teach comprehension. In the Picture Phrase Card activity, a large card with a group of pictures is presented to the student. The student is then given smaller cards with phrases—and later, sentences—written on them. The student reads the phrase cards and matches them to the pictures.

In the Direction Card activity, the teacher gives a large card to the student with various phrases or sentences containing directions written on it. The student also receives a group of toy cards. The student follows the directions by matching the toy cards with the correct phrase and also by positioning the cards

to demonstrate comprehension of the directions. For instance, the phrase card might say *red ball in a box*. The student should slip the card with the red ball into the slot in the card with the box and place both cards together on the large phrase card.

The Short Stories help students make the transition from manipulative materials to more typical reading materials. The stories have themes and provide a systematic review of learned words.

Fluency. Fluency is practiced during these activities through guided oral reading. The teacher directs the student to read the sentences, phrases, and stories aloud and gives corrections and guidance as needed. The *Edmark Reading Program* reinforces previously learned vocabulary by including words from earlier lessons in the subsequent lessons. Therefore, students have multiple opportunities to read familiar words, thus improving the speed and accuracy of their reading.

The *Edmark Reading Program* may serve as the primary reading program or may supplement a basal reading program that teaches phonics and phonemic awareness. The program helps jump-start the reading abilities of students with reading difficulties who have fallen behind on academic content due to their poor reading skills. Because the *Edmark Reading Program* focuses on frequently used vocabulary, once students with reading difficulties learn the 350 Edmark words they are able to focus on content vocabulary in their academic classes. This also alleviates their struggle with the "little" words, the words we see in almost everything we read. Most importantly, the *Edmark Reading Program*, which is based on scientific reading research, teaches reading to students who have never been able to read before.

Theory and Research-Based Support for the *Edmark Reading Program*

Theoretical Support

The *Edmark Reading Program* applies the principles of behavioral psychology to the education of children with mild and moderate levels of mental retardation (Bijou, 1965; Birnbrauer, Bijou, Wolf, & Kidder, 1965; Skinner, 1961). These principles relate to errorless discrimination (Sidman & Cresson, 1973), response shaping (Birnbrauer, Wolf, Kidder, & Tague, 1965), selective reinforcement (Birnbrauer & Lawler, 1964) and direct instruction (Becker, 1992). Content validity was ensured by using a systematic review of grade placement lists developed from studies of basal readers by experts in the field. The vocabulary included in the *Edmark Reading Program* was found to reflect the inclusion of the words most often used by beginning readers.

Research Support

Specific studies validated the effectiveness of components used in the *Edmark Reading Program* (Bijou, Birnbrauer, Kidder, & Tague, 1966; Birnbrauer, Kidder & Tague, 1964; Greene, 1966). Bijou et al. (1966) developed a motivational system to strengthen academic and classroom conduct, a set of systematic procedures to strengthen cooperative behavior, and programmed instructional materials. Twenty-seven students with mental retardation served as subjects. The authors noted that programmed instruction is so sequential and individualized that children can proceed at their own rate.

In their study "Programming Reading from the Teacher's Point of View," Birnbrauer, Kidder, and Tague (1964) identified four common errors within existing reading programs: unrealistic prerequisites, unessential prerequisites, unmentioned prerequisites, and dead-end content. The *Edmark Reading Program* systematically builds upon fully learned prerequisites to ensure success and provides content that is used in future lessons.

The first replication study of the *Edmark Reading Program* was conducted at the University of Kansas (Lent, 1968). The Mimosa Cottage Demonstration Project was designed to modify the behaviors of girls with mental retardation between the ages of 8 and 21. Operant conditioning was used in four training categories, including academics. The researchers broke instruction into small, clearly defined behavioral units that increased in difficulty from component to component.

The effectiveness of the *Edmark Reading Program* was assessed in a study comparing three reading programs: Edmark, Sullivan, and Merrill. Fifteen classes of primary age children with mental retardation (N = 107) were assigned randomly to the three programs (Vandever, Maggart, & Nasser, 1976). End of the year posttests showed significantly greater achievement for the children in the *Edmark Reading Program* group. Although no group scored well (mean of 3.5) when also tested on common words not included in instruction, students receiving the *Edmark Reading Program* instruction scored highest (mean of 9.2) on the posttest.

Walsh and Lamberts (1979) later compared the *Edmark Reading Program* to a Dorry and Zeaman's (1973) picture-fading technique and found that the Edmark approach was superior in producing academic gains. The comparison study included 30 students with moderate mental retardation. In the

picture-fading technique, words are taught in association with pictures that gradually fade out over a series of trials. Students recognized more words after learning the Edmark approach, and they were also more successful on picture–word matching. The picture-fading method teaches sight vocabulary in the strictest sense, whereas the *Edmark Reading Program* method "is intended to impart a general, analytic 'reading skill' in addition to a sight vocabulary" (Walsh & Lamberts, p. 479).

In another comparison study, Vandever and Stubbs (1977) showed that students who successfully completed the *Edmark Reading Program* generalized their reading ability to previously untaught words. These researchers found that students with mental retardation acquired the 150 Edmark words from Level 1 of the program and retained them over the summer break. The students transferred their reading skills to the learning of new, unknown words. This study found that students also developed prereading skills such as left-to-right progression and understanding of the function of the spaces between words. The researchers emphasized that precise instructional procedures are most effective when teaching reading to students with mental retardation.

Van Etten and Van Etten (1976) studied the types of assessment included in reading programs. The *Edmark Reading Program* was the only program they studied that included both continuous and direct assessment.

The study "Paraprofessional Reading Tutors: Assessment of the *Edmark Reading Program* and Flexible Teaching" (Andersen, Licht, Ullmann, Buck, & Redd, 1979) compared two groups of tutors. Each group used different tutoring methods. The first group used programmed instruction with the *Edmark Reading Program* as their materials. They taught a list of 150 words. The second group taught the same list of words but they were allowed flexibility in instruction and pacing. The *Edmark Reading Program* group showed significant improvement. The researchers concluded that the superior results were due to the structure of the *Edmark Reading Program*, which reduced the chance for inaccurate instruction.

Barrier (1981) reported that students with mild mental retardation learned 84% of the words taught. In his study, both volunteers and peer tutors used the *Edmark Reading Program* to teach students. He concluded that the high percentage of words learned through this program establish the *Edmark Reading Program* as an effective reading program.

Sulzbacher and Kidder (1975, 1979) conducted a 10-year follow-up study of the efficacy of the *Edmark Reading Program*. Students taught with this program maintained and built upon the reading skills they had learned.

In a study using the *Edmark Reading Program* with a group of first grade students who were at risk for reading failure, Mayfield (2000) found that one-on-one tutoring resulted in improved sight-word reading and comprehension skills. The students attended schools receiving Title I funds. America Reads volunteers tutored the students, who were randomly assigned to either a control or an experimental group. The experimental group received 15 minutes per day of one-on-one tutoring using the *Edmark Reading Program* for one semester. Volunteers read aloud to students in the control group for 15 minutes per day. The results of the Mayfield study show a significant improvement in the word reading and comprehension scores of the experimental group. The researchers concluded that the structured format enabled the tutors to teach the *Edmark Reading Program* successfully. The study noted that the errorless discrimination method was effective and concluded that schools that teach reading using a purely phonetic approach should consider teaching sight words as a supplementary intervention for students with low phonemic awareness and phonological decoding skills.

Browder and Xin (1998) conducted a meta-analysis of sight word research published after 1980. The studies included subjects ranging in age from elementary to adult, many with moderate mental retardation. The average IQ for the participants was 55. Other disability groups and levels were also represented. Browder and Xin concluded that ". . . sight word instruction has been highly effective across individuals for people with mild to moderate disabilities." They also noted that ". . . these data do provide evidence that the interventions used to teach sight words to students with disabilities, especially students with moderate mental retardation have produced rapid skill acquisition."

In a 1992 study, Conners observed that among programs designed to teach sight words, those that use techniques of picture integration, constant delay, and errorless discrimination methods are the most effective.

The research that has accumulated over the years has consistently proven that the *Edmark Reading Program* is effective when used with preschool students, elementary students who experience difficulty with traditional classroom reading materials, adults, English as a Second Language students, and most special education students. Research has also shown that the *Edmark Reading Program* is an effective way of teaching essential aspects of reading programs—vocabulary, fluency, and comprehension—as recommended by the National Reading Panel (2000). The *Edmark Reading Program* should be considered for use by any student who has not learned to read.

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