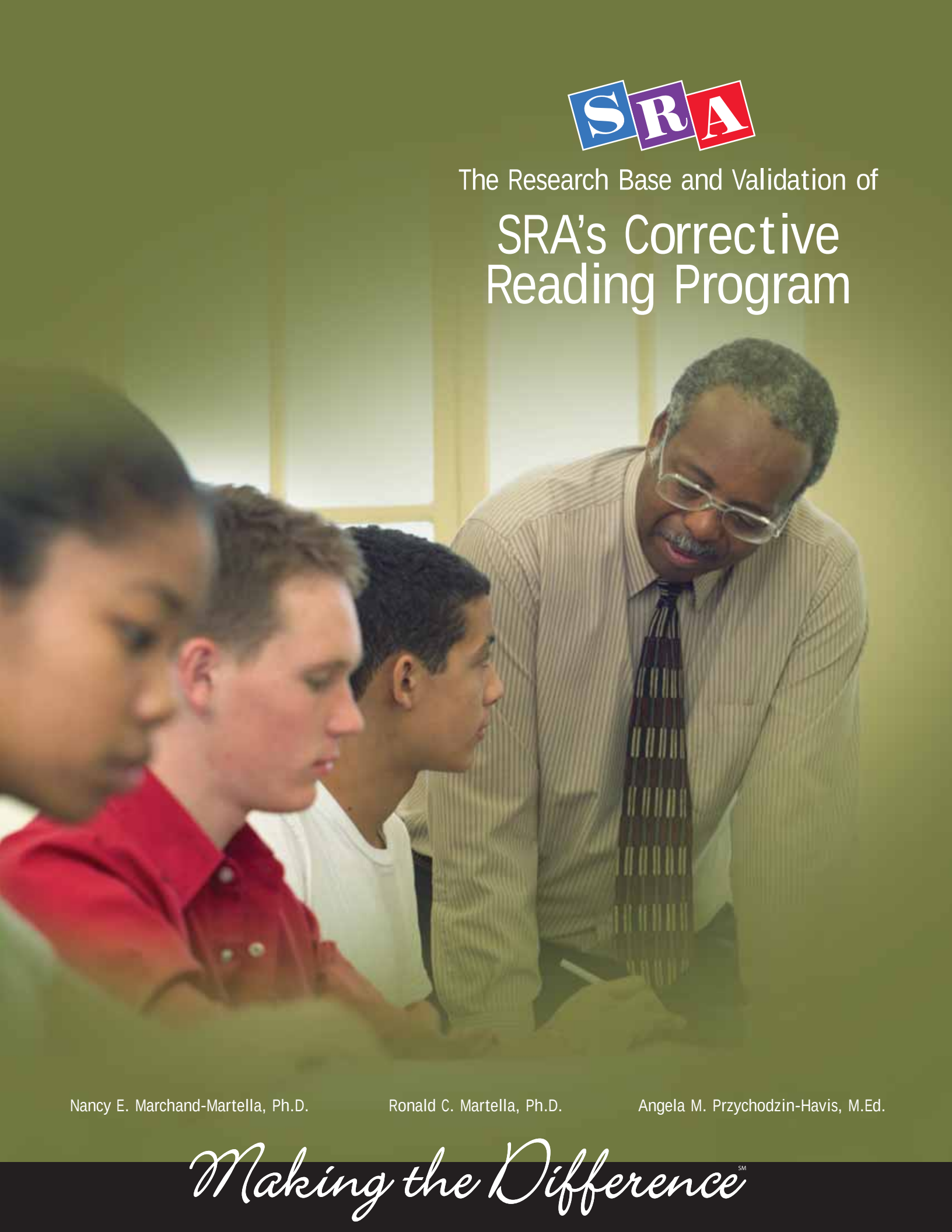

SRA

The Research Base and Validation of

SRA's Corrective Reading Program

Nancy E. Marchand-Martella, Ph.D. Ronald C. Martella, Ph.D. Angela M. Przychodzin-Havis, M.Ed.

Making the Difference℠

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Executive Summary

The Research Base and Validation of SRA's Corrective Reading Program

Research has long documented the difficulty educators face when challenged to accelerate the development of reading skills in struggling readers in late elementary, middle school, and high school, such as:

- Only one child in eight who is a poor reader at the end of the first grade ever learns to read at "grade level."
- It is extremely rare for children still struggling in reading by Grade 3 to ever attain grade level reading skills.

The following review of research examines the effect of ***Corrective Reading***, a highly intensive intervention curriculum, across multiple school contexts and with diverse samples of students. The research proves that evidence-based practices in the program make a meaningful difference with struggling readers that is sufficient to close the gap in reading skills.

- **Section I** highlights the importance of reading and documents the high percentage of students who struggle with reading in Grade 3 and beyond.
- **Section II** provides an overview of ***Corrective Reading*** and describes who benefits from the program.
- **Section III** shows how ***Corrective Reading*** is aligned with recommendations of the National Reading Panel (NICHD, 2000).
- **Section IV** provides information on how ***Corrective Reading*** aligns with guidelines for successful remedial programs.
- **Section V** summarizes 28 peer-reviewed investigations on the effectiveness of ***Corrective Reading***.

Twenty-eight studies examining the effects of ***Corrective Reading*** have been published in peer-reviewed journals. Twenty-six of the 28 studies found positive, often statistically significant, results for students who were taught using ***Corrective Reading***. For studies using standardized measures, results indicated that most vocabulary and comprehension scores increased from pre- to posttest with similar increases in oral reading fluency.

Overall, the results of these studies suggest that the ***Corrective Reading*** program closes the achievement gap for a wide range of students who are performing below grade level.

"***Corrective Reading*** is the answer for us. It clearly levels the playing field. Students understand the structure and know what to do day to day. After just a few days, they know they can excel, which is a huge boost to middle school kids who have struggled throughout their entire school careers. They can do the work because they are at the appropriate level, which means they don't get frustrated. All of these components raise their comfort level and their confidence."

– Dawn Newell
Abraham Lincoln Middle School
Gainsville, Florida

Section I

Reading is the cornerstone of an effective education. Without this skill we are limited in so many important life activities: we cannot understand a newspaper, read directions of a new recipe, enjoy a favorite novel, or read a prescription bottle of medication. Reading is also closely aligned with activities in Mathematics, Writing, Spelling, and the content areas (e.g., Science, Social Studies). For poor readers, college is out of the question and many jobs are simply out of reach because they require some basic level of reading or other skill that hinges on reading. Lack of reading places these individuals at a serious disadvantage in our society (Biancarosa & Snow, 2004).

Unfortunately, "approximately eight million young people between fourth and twelfth grade struggle to read at grade level. Some 70% of older readers require some form of remediation" (Biancarosa & Snow, 2004, pg. 3). Failure to learn to read is the major reason for retention, long-term remediation, and qualification for special education services (Meese, 2001). Further, 74 percent of children who were poor readers in Grade 3 were poor readers in Grade 9 (Francis, Shaywitz, Stuebing, Shaywitz, & Fletcher, 1996). Thus, a vast majority of children who do not learn to read early may never become skilled readers unless focused and intensive reading intervention is provided. Note the following statistics cited by the U.S. Department of Education (2002) in *No Child Left Behind: A Desktop Reference:*

Reading has always been a key ingredient for students to be successful in school, yet the National Assessment of Educational Progress (NAEP) shows serious deficiencies in children's ability to read, particularly in high-poverty schools. Even in wealthier schools, more than a fifth of fourth-graders were unable to reach NAEP's basic level in 2000 and about two-thirds of fourth-graders in high-poverty schools were unable to reach the basic level in that year's survey (pg. 11).

More than 75 percent of students who drop out of school (approximately 10–15% of the total school population) ascribe major significance to the difficulties experienced in learning to read (Lyon, 2001). A high school junior remarked in one investigation on reading, "I would rather have a root canal than read" (Lyon). The dropout statistics translate to more than three thousand students every school day (Alliance for Excellent Education, 2003, as cited by Biancarosa & Snow, 2004). Statistics and statements like these show that reading affects the futures of all individuals, both young and old.

Given the importance of reading and the overwhelming number of students who struggle with reading beyond Grade 3, we are left with the conclusion that with strong literacy skills, doors open for individuals; with poor literacy skills, doors close for them. Focused and intensive reading intervention is the key to unlock these doors and allow individuals to access the working world more successfully.

Corrective Reading is a reading intervention program designed to help struggling readers unlock the door to success!

Section II

What is Corrective Reading?

Corrective Reading is a comprehensive reading intervention program. It offers three distinct elements to ensure student success:

1. Thoroughly developed and tested program design structured so students learn how to learn as they master increasingly complex skills and strategies
2. Scripted presentation approach that uses a brisk pace, carefully chosen exercises and examples, and other special presentation techniques to engage even reluctant learners
3. Complete learning materials including student books, workbooks, teacher presentation books and guides, and supplemental materials that provide everything from placement tests to a management system that reinforces hard work, helping to *change student attitudes about reading*

There are two strands of ***Corrective Reading***: *Decoding* and *Comprehension*. Each includes four levels: *A, B1, B2,* and *C*. The program can be taught in a single-strand (*Decoding* or *Comprehension*) or double-strand sequence depending on the needs of the students.

The objectives of the *Level A* programs, which deal with very basic skills, are relatively modest in number, while the objectives of the *Level C* programs are manifold. Each program is based on cumulative skill development; thus the difficulty of the material increases gradually but steadily, always building on student success.

Who Benefits from Corrective Reading?

SRA's ***Corrective Reading*** programs are designed to help a wide range of students in Grades 3–12 who are performing below grade-level expectations in Reading, and perhaps other subjects too. ***Corrective Reading*** is appropriate for students who would traditionally be identified as learning or educationally disabled.

Some students will require a great deal of intensive remediation; other students will have far fewer skill deficits. Scores on the ***Corrective Reading*** *Decoding* placement test or *Comprehension* placement test indicate if students have the skill level necessary to enter each level of the program. Thus, students who have mastered the basics and are ready to learn a wider range of complex reading, writing, and reasoning skills will be placed in *Level C*.

Decoding

The *Decoding* programs are designed to change the behavior of poor decoders. These programs are developed for those students who:

- Make frequent word-identification errors
- Make word omissions, additions, or confuse high-frequency words (e.g., what/that, of/for)
- Don't understand the relationship between the arrangement of letters in a word and the pronunciation of the word
- Don't read a passage with the degree of accuracy needed to understand what the passage actually says
- Have inadequate reading rates, making it difficult for them to remember the various details of the passage, even if they were decoded accurately
- Are not highly motivated
- Have ineffective reading strategies and negative attitudes about reading

The *Decoding* programs focus on word attack skills and include isolated sound/word practice, group reading activities to develop accuracy and oral reading fluency, workbook exercises, and opportunities to enrich reading with chapter books aligned with program levels.

Comprehension

The *Comprehension* programs are designed to change the behavior of students who do not understand what they read. Thus, these programs are developed for those students who:

- Struggle to understand what they read
- Do not follow instructions precisely
- Have poor memory of information
- Display poor statement repetition skills
- Lack the analytical skills required to process arguments
- Exhibit deficiencies in vocabulary and common information
- Are not highly motivated

The *Comprehension* programs build academic language competence in order to prepare students for success in content courses. The programs address the vocabulary, reasoning skills, and forms of language students need to discern precise meaning and information from text, relate ideas and information, and interpret and infer information from oral and written language.

Section III

The National Reading Panel (NICHD, 2000) recommends effective instruction in *phonemic awareness, phonics, fluency building, vocabulary,* and *text comprehension* for beginning readers and intervention programs for struggling readers.

Decoding: Learning to Read: Phonemic Awareness, Phonics, and Fluency Building

Phonemic awareness, phonics, and fluency building are often called *learning to read* or *decoding* skills. These skills are emphasized in ***Corrective Reading's*** *Decoding* programs.

Phonemic awareness. Phonemic awareness is defined as "the ability to notice, think about, and work with the individual sounds in spoken words" (Armbruster et al., 2003, pg. 2). Before children learn to read printed words, they need a working knowledge of speech sounds (called phonemes). Phonemic awareness can be taught and learned; it helps students learn to read and to spell at higher levels compared to students who have few or none of these skills (Armbruster et al., 2003; NICHD, 2000).

Corrective Reading includes phonemic awareness activities in the early levels of the program (*Decoding, Levels A* and *B1*). It incorporates two primary types of phonemic awareness activities: blending and segmenting words. These two types of phoneme manipulation activities are "likely to produce greater benefits to your students' reading than teaching several types of manipulations" (Armbruster et al., 2003, pg. 8).

Phonemic blending has students listen to a sequence of phonemes and then combine the phonemes to form a word. Figure 1 illustrates an example of phonemic blending in Lesson 1 of *Decoding A*.

Task F If

1. Listen: **iiifff.** (Hold up a finger for each sound.)
2. Everybody, say that with me. Get ready. (Hold up a finger for each sound. Say *iiifff* with the students.)
3. All by yourselves. Get ready. (Hold up a finger for each sound.) *iiifff.*
4. Say it fast. (Signal.) *If.*
5. What word? (Signal.) *If.* Yes, **if.**

Figure 1: Example of phonemic blending in ***Corrective Reading***

Phonemic segmentation involves having students break a word into its separate sounds. Figure 2 illustrates an example of phonemic segmentation in Lesson 1 of *Decoding B1*.

Task B Lap, rat, pat, pit

1. Listen: **lap.** Say it. (Signal.) *Lap.*
2. You're going to say the sounds in (pause) **lap.** First sound. (Signal.) *lll.* Next sound. (Signal.) *ăăă.* Last sound. (Signal.) *p.*

Figure 2: Example of phonemic segmentation in ***Corrective Reading***

Corrective Reading also includes phoneme isolation activities. Phonemic isolation involves having students recognize individual sounds in words. Figure 3 shows an example of how phonemic isolation is used in Lesson 15 of *Decoding A*.

Task D Ship, sheep

1. Listen: **ship.** Say it. (Signal.) *Ship.*
2. Get ready to tell me the middle sound. Listen: **shshshiiip.** What's the middle sound? (Signal.) *iii.* Yes, **iii.**

Figure 3: Example of phonemic isolation in ***Corrective Reading***

Systematic, Explicit Phonics. "Phonics instruction teaches children the relationship between the letters (graphemes) of written language and individual sounds (phonemes) of spoken language. It teaches children to use these relationships to read and write words" (Armbruster et al., 2003, pg. 12). According to the NICHD (2000), *systematic and explicit phonics instruction* is more effective than non-systematic or no phonics instruction.

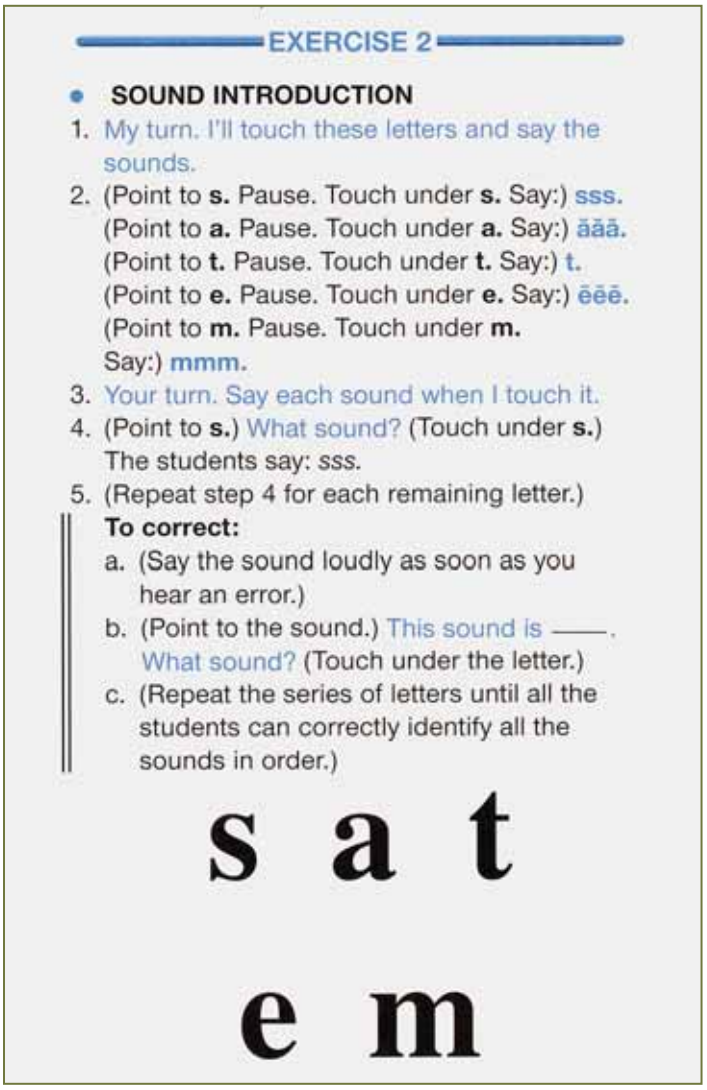
Systematic and explicit phonics instruction has been found to significantly improve word recognition and spelling skills as well as reading comprehension. It is effective for children across social and economic levels and is particularly beneficial for those students who have difficulty learning to read and for those who are at risk for developing future reading problems (Armbruster et al., 2003). *Systematic phonics programs* teach a set of letter-sound relationships in a clearly defined sequence. Figure 4 shows the sequence of sounds taught in the *Decoding* program.

m		k		ch	as in chip
a	as in fat	ck		j	
s		w	"woo" as in well	v	
t		wh	"woo" as in why	z	
ee	as in need	o-e	as in pole	qu	quick
r		u-e	as in mule	oo	
d		i-e	as in pile	ea	as in beat
i	as in if	a-e	as in late	oa	boat
f		l		ai	maid
h		ol	as in cold	ou	as in out
c		or	for	ar	car
th	thank	er	fern	ir	first
sh	shop	oy	toy	igh	high
n		p		al	all
o	as in ox	u	as in up	au	haul
ing	as in sing	x		oi	boil
g	as in go	b	bag	aw	awn
e	as in end	y	"yee" as in yuk	tial/cial	partial
		ge/gi	"j" as in gem		

Figure 4: Sequence of sounds taught in ***Corrective Reading***

These sounds are taught in a prescribed sequence to ensure student success. Letters/sounds that are similar in how they look/sound are separated from other highly similar letters/sounds. Sounds that are frequently used in words are demonstrated before less frequently used sounds. ***Corrective Reading*** is engineered to produce correct responding the first time rather than to have students experience failure.

Explicit phonics instruction means "the programs provide teachers with precise directions for the teaching of these [letter/sound] relationships" (Armbruster et al., 2003, pg. 19). ***Corrective Reading*** includes a carefully developed and scripted presentation that engages even the most reluctant learners. Figure 5 provides an example of how explicit instruction is used in teaching letter-sound relationships in Lesson 1 of *Decoding A*.



EXERCISE 2

- **SOUND INTRODUCTION**

1. My turn. I'll touch these letters and say the sounds.
2. (Point to **s.** Pause. Touch under **s.** Say:) sss. (Point to **a.** Pause. Touch under **a.** Say:) ăăă. (Point to **t.** Pause. Touch under **t.** Say:) t. (Point to **e.** Pause. Touch under **e.** Say:) ĕĕĕ. (Point to **m.** Pause. Touch under **m.** Say:) mmm.
3. Your turn. Say each sound when I touch it.
4. (Point to **s.**) What sound? (Touch under **s.**) The students say: *sss.*
5. (Repeat step 4 for each remaining letter.)

To correct:

a. (Say the sound loudly as soon as you hear an error.)
b. (Point to the sound.) This sound is ——. What sound? (Touch under the letter.)
c. (Repeat the series of letters until all the students can correctly identify all the sounds in order.)

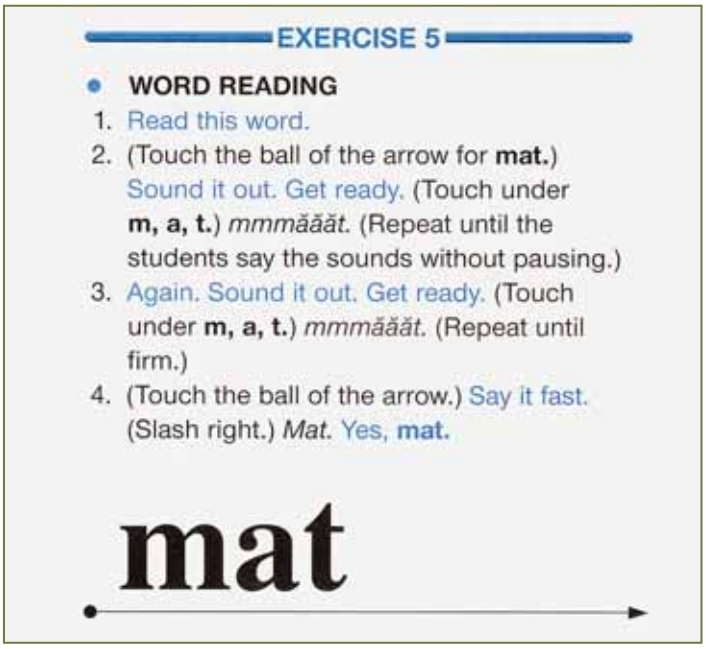
s a t

e m

Figure 5: Explicit phonics instruction in ***Corrective Reading***

Synthetic phonics means that children learn relationships between letters and all 44 sounds or phonemes of language. These letter-sound correspondences are taught in a systematic fashion; children learn to say the sounds in words and to blend them together to form recognizable words (see NICHD, 2000 for further details). This instruction is most often practiced in isolation (outside of text).

The NICHD (2000) analyzed various types of phonics programs including synthetic phonics and found the largest effects for synthetic phonics instruction (moderate effect size = .45), particularly with at-risk readers. Figure 6 includes an example of how systematic synthetic phonics instruction is used in Lesson 10 of *Decoding A*.



EXERCISE 5

- **WORD READING**

1. Read this word.
2. (Touch the ball of the arrow for **mat.**) Sound it out. Get ready. (Touch under **m, a, t.**) *mmmăăăt.* (Repeat until the students say the sounds without pausing.)
3. Again. Sound it out. Get ready. (Touch under **m, a, t.**) *mmmăăăt.* (Repeat until firm.)
4. (Touch the ball of the arrow.) Say it fast. (Slash right.) *Mat.* Yes, **mat.**

mat

Figure 6: Systematic synthetic phonics instruction in ***Corrective Reading***

Decodable text is composed of the letter-sound relationships the students have been taught up to that point in the program. Armbruster et al. (2003) asked the question, "What kinds of reading practice materials should I look for?" when analyzing phonics programs. The answer relates to short stories that provide students with practice in using the specific letter-sound relationships they are learning as well as activity sheets that require students to practice writing the letters, letter combinations, and words they learned in their lessons. ***Corrective Reading*** includes highly decodable text.

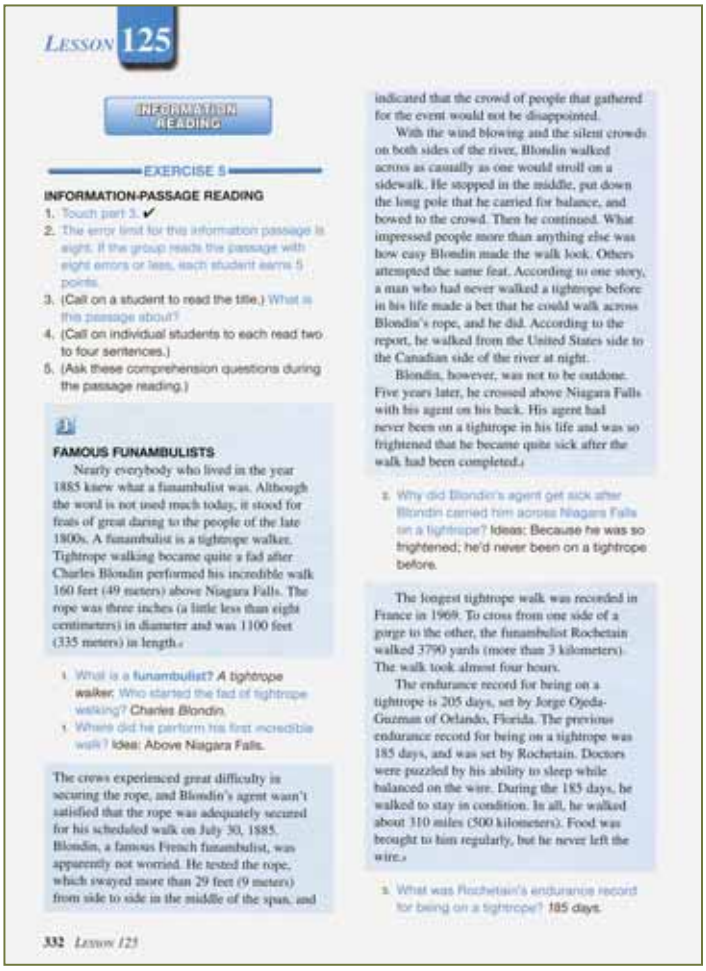
In fact, the text used in this program is 95 percent decodable or higher, which means that at least 95 words out of 100 are composed of letter-sound relationships the students are learning (or have learned). When the decodable text level is high, students experience success rather than failure. They practice reading materials in which they have *already* received instruction. Sentences that appear early in the program are relatively easy to read. For example, the first sentence read by students appearing in Lesson 18 of *Decoding A* is:

"She had rats and cats."

As students progress through the program, they encounter more complex text such as that shown in the last lesson (Lesson 65) of *Decoding A*:

A green frog was in a bathtub. A red bug said, "Can I get in the tub with you?" "No," the frog said. "This tub is for me." The bug said, "But I need a bath." The frog said, "Go hop in the sink." That is what the bug did. It went for a swim in the sink.

Decodable text is based on the instruction students have received up to that point. Only when students have mastered the prerequisite skills of accurate decoding do stories become more like the text students will encounter in everyday reading (e.g., newspapers, textbooks, novels). For example, the last lesson (Lesson 125) of *Decoding C* includes the informational passage appearing in Figure 6B.



LESSON 125

INFORMATION READING

EXERCISE 5

INFORMATION-PASSAGE READING

1. Touch part 3. ✔
2. The error limit for this information passage is eight. If the group reads the passage with eight errors or less, each student earns 5 points.
3. (Call on a student to read the title.) What is this passage about?
4. (Call on individual students to each read two to four sentences.)
5. (Ask these comprehension questions during the passage reading.)

2

FAMOUS FUNAMBULISTS

Nearly everybody who lived in the year 1885 knew what a funambulist was. Although the word is not used much today, it stood for feats of great daring to the people of the late 1800s. A funambulist is a tightrope walker. Tightrope walking became quite a fad after Charles Blondin performed his incredible walk 160 feet (49 meters) above Niagara Falls. The rope was three inches (a little less than eight centimeters) in diameter and was 1100 feet (335 meters) in length.

1. What is a funambulist? *A tightrope walker.* Who started the fad of tightrope walking? Charles Blondin.
2. Where did he perform his first incredible walk? Idea: Above Niagara Falls.

The crews experienced great difficulty in securing the rope, and Blondin's agent wasn't satisfied that the rope was adequately secured for his scheduled walk on July 30, 1885. Blondin, a famous French funambulist, was apparently not worried. He tested the rope, which swayed more than 29 feet (9 meters) from side to side in the middle of the span, and indicated that the crowd of people that gathered for the event would not be disappointed.

With the wind blowing and the silent crowds on both sides of the river, Blondin walked across as casually as one would stroll on a sidewalk. He stopped in the middle, put down the long pole that he carried for balance, and bowed to the crowd. Then he continued. What impressed people more than anything else was how easy Blondin made the walk look. Others attempted the same feat. According to one story, a man who had never walked a tightrope before in his life made a bet that he could walk across Blondin's rope, and he did. According to the report, he walked from the United States side to the Canadian side of the river at night.

Blondin, however, was not to be outdone. Five years later, he crossed above Niagara Falls with his agent on his back. His agent had never been on a tightrope in his life and was so frightened that he became quite sick after the walk had been completed.

3. Why did Blondin's agent get sick after Blondin carried him across Niagara Falls on a tightrope? Ideas: Because he was so frightened; he'd never been on a tightrope before.

The longest tightrope walk was recorded in France in 1969. To cross from one side of a gorge to the other, the funambulist Rochetain walked 3790 yards (more than 3 kilometers). The walk took almost four hours.

The endurance record for being on a tightrope is 205 days, set by Jorge Ojeda-Guzman of Orlando, Florida. The previous endurance record for being on a tightrope was 185 days, and was set by Rochetain. Doctors were puzzled by his ability to sleep while balanced on the wire. During the 185 days, he walked to stay in condition. In all, he walked about 310 miles (500 kilometers). Food was brought to him regularly, but he never left the wire.

4. What was Rochetain's endurance record for being on a tightrope? 185 days.

332 *Lesson 125*

LESSON 125

3. What puzzled doctors while Rochetain was setting this record? Idea: That he could sleep on the wire.

One of the strangest tightrope exhibitions occurred in New York City in 1974. A French funambulist walked a wire between the twin towers of the World Trade Center. When he crossed between the towers, he set the record for the highest crossing—1350 feet (405 meters) above the street (110 stories). He was charged with trespassing.

6. (If the group reads the passage with no more than eight errors, say:) Everybody earns 10 points for this reading. Write 10 in Box A of the Point Chart. ✔
(If the group makes more than eight errors, tell the students to record 0 points in Box A.)

INDIVIDUAL READING CHECKOUTS

EXERCISE 6

BIG TIMED READING CHECKOUTS

1. (Assigned pairs of students work together during the checkouts.)
2. For the big checkout, each of you will read all of story ____. (Designate one of the last four stories.)
3. (Each student does a five-minute timed reading, starting with the first sentence of the story. Students earn 10 points by reading the whole story and making no more than ten errors. Students record points in Box B of their Point Chart and plot their errors and reading rate on the Individual Reading Progress Chart.)

END OF LESSON 125

Lesson 125 333

Figure 6B: *Corrective Reading* *Decoding C*, Teacher Presentation Book

Fluency building. Fluency involves reading text accurately, quickly, and with proper expression (NICHD, 2000). "Fluency is important because it provides a bridge between word recognition and comprehension. Because fluent readers do not have to concentrate on decoding the words, they can focus their attention on what the text means … less fluent readers, however, must focus their attention on figuring out the words, leaving them little attention for understanding the text" (Armbruster et al., 2003, pg. 22).

Repeated and monitored oral reading has been found to improve reading fluency and overall reading achievement (Armbruster et al., 2003; NICHD, 2000). The ***Corrective Reading*** *Decoding* program includes repeated and monitored oral reading. In particular, partner reading (where paired students take turns reading aloud to each other) is utilized. Words read correctly per minute increase gradually but steadily across levels of the *Decoding* program:

- *Decoding A* = 60 wpm with 98% accuracy
- *Decoding B1* = 90 wpm with 98% accuracy
- *Decoding B2* = 120 wpm with 98% accuracy
- *Decoding C* = 130 wpm with 98% accuracy

Figure 7 illustrates the use of fluency-building activities (called *Individual Reading Checkouts*) found in Lesson 43 of *Decoding B1*. These checkouts occur on a daily basis to reinforce the importance of reading quickly, accurately, and with proper expression.

Comprehension: Reading to Learn: Vocabulary and Text Comprehension

Vocabulary and text comprehension are often called *reading to learn* or *comprehension* skills. These skills are evident in ***Corrective Reading*** *Decoding* and *Comprehension* programs.

Vocabulary. "Children learn the meanings of most words indirectly, through everyday experiences with oral and written language" (Armbruster et al., 2003, pg. 35). These experiences include engaging daily in oral language, listening to adults read to them, and reading extensively on their own. However, some vocabulary words should be taught directly. Armbruster et al. (2003) noted that, "direct instruction helps students learn difficult words such as words that represent complex concepts that are not part of the students' everyday experiences. Direct instruction of vocabulary relevant to a given text leads to better reading comprehension" (pg. 36).

EXERCISE 7

READING CHECKOUTS

1. (For this part of the lesson, assigned pairs of students work together during the checkouts.)
2. (Each student does two checkouts.
   a. First checkout: Students can earn 3 points by making no more than 2 errors on the first part of story 43. Students record points in Box C-1 of their Point Chart.
   b. Second checkout: One-minute timed reading. Students can earn 3 points by reading at least 85 words and making no more than 3 errors on the first part of story 42. Students record points in Box C-2 of their Point Chart.)
3. (Direct students to plot their reading rate [words per minute] and number of errors on the Individual Reading Progress Chart.)

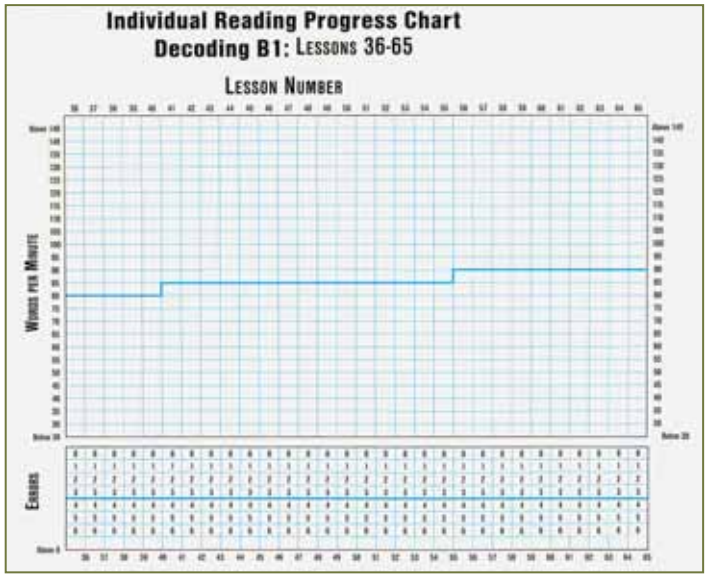


Figure 7: Oral reading checkouts in ***Corrective Reading***

Corrective Reading includes direct (explicit) instruction in vocabulary development. Figure 8 shows an example of how vocabulary words are explicitly taught and practiced in Lesson 67 of *Decoding C*.

LESSON 67

WORD-ATTACK SKILLS

Student Book

EXERCISE 2

WORD PRACTICE

1. Open your Student Book to Lesson 67. ✔

basically excited adventure
uneven disappeared trained

Touch the first word in part 1. ✔ What's the underlined part? (Signal.) *ly*. What word? (Signal.) *Basically.*

2. Touch the next word. ✔ What's the underlined part? (Signal.) *sss*. What word? (Signal.) *Excited.*
3. (Repeat step 2 for each remaining word.)
4. (Repeat the words until firm.)

EXERCISE 3

VOCABULARY

1. Touch part 2. ✔

2.
1. adventurous
2. reliable
3. cascading
4. shimmering
5. grade
6. calculator
7. estimate

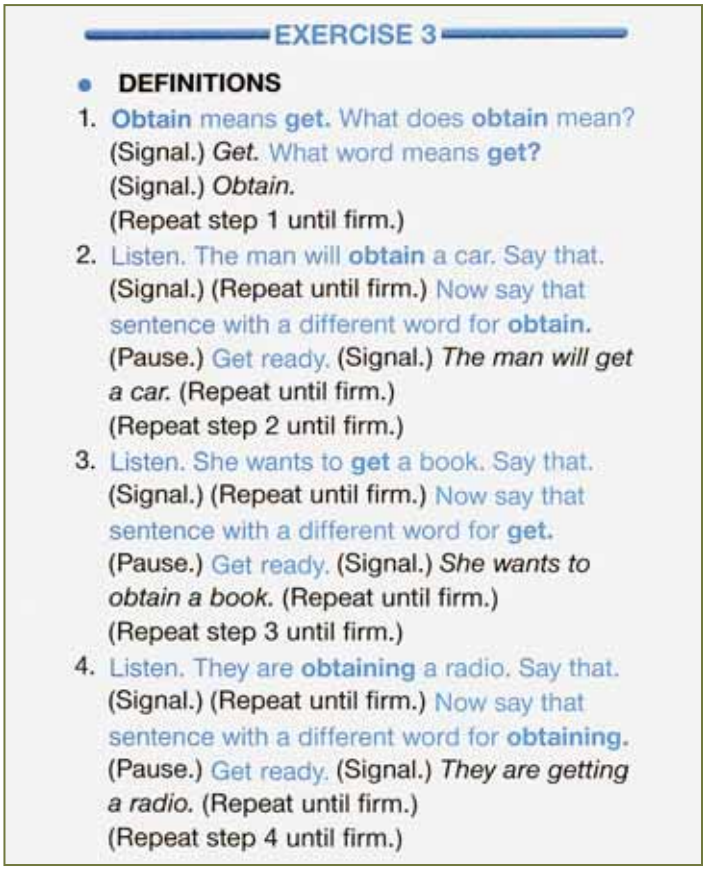
We're going to talk about what those words mean.

2. Touch word 1. ✔ What word? (Signal.) *Adventurous.* Someone who likes to take risks and do new things is **adventurous.** Everybody, what's another way of saying "She is someone who likes to take risks and do new things"? (Signal.) *She is adventurous.*
3. Touch word 2. ✔ What word? (Signal.) *Reliable.* If something **can be counted on,** it is **reliable.** Everybody, what's another way of saying "This car **can be counted on**"? (Signal.) *This car is reliable.* What's another way of saying "Their teacher **can be counted on**"? (Signal.) *Their teacher is reliable.*
4. Touch word 3. ✔ What word? (Signal.) *Cascading.* When water is **falling** or **tumbling,** it is **cascading.** Everybody, what's another way of saying "The water is **falling** down the cliff"? (Signal.) *The water is cascading down the cliff.*
5. Touch word 4. ✔ What word? (Signal.) *Shimmering.* Something that **seems to be covered with shiny, moving lights** is **shimmering.** Everybody, what's another way of saying "The pond **seems to be covered with shiny, moving lights**"? (Signal.) *The pond is shimmering.*
6. Touch word 5. ✔ What word? (Signal.) *Grade.* One meaning for the word **grade** is **slope.** Everybody, what's one meaning for the word **grade**? (Signal.) *Slope.*
7. Touch word 6. ✔ What word? (Signal.) *Calculator.* Who knows what a **calculator** is? (Call on a student.) Idea: A small device that is used for mathematical calculations.
8. Everybody, touch word 7. ✔ What word? (Signal.) *Estimate.* One meaning of **an estimate** is **a smart guess.** Everybody, what's one meaning of **an estimate**? (Signal.) *A smart guess.*

Figure 8: Direct vocabulary instruction in ***Corrective Reading***

Focused vocabulary instruction also occurs in ***Corrective Reading's*** *Comprehension* program. Figure 9 highlights an example of how explicit vocabulary instruction is provided in Lesson 1 of *Comprehension B1*.

Writing activities are a key part of vocabulary instruction. These activities extend learning to reinforce what is taught during the lesson, solidifying knowledge to promote retention and generalization. Figure 10 shows an example of how writing activities are integrated into vocabulary development exercises in Lesson 19 of *Comprehension C*.

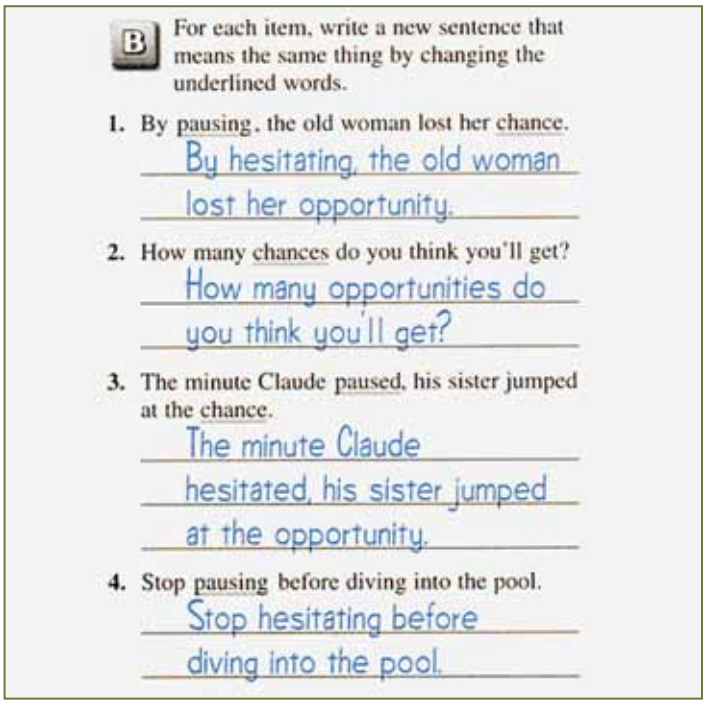


EXERCISE 3

- **DEFINITIONS**

1. **Obtain** means **get.** What does **obtain** mean?
(Signal.) *Get.* What word means **get?**
(Signal.) *Obtain.*
(Repeat step 1 until firm.)
2. Listen. The man will **obtain** a car. Say that.
(Signal.) (Repeat until firm.) Now say that sentence with a different word for **obtain.**
(Pause.) Get ready. (Signal.) *The man will get a car.* (Repeat until firm.)
(Repeat step 2 until firm.)
3. Listen. She wants to **get** a book. Say that.
(Signal.) (Repeat until firm.) Now say that sentence with a different word for **get.**
(Pause.) Get ready. (Signal.) *She wants to obtain a book.* (Repeat until firm.)
(Repeat step 3 until firm.)
4. Listen. They are **obtaining** a radio. Say that.
(Signal.) (Repeat until firm.) Now say that sentence with a different word for **obtaining.**
(Pause.) Get ready. (Signal.) *They are getting a radio.* (Repeat until firm.)
(Repeat step 4 until firm.)

Figure 9: Direct vocabulary instruction in ***Corrective Reading***



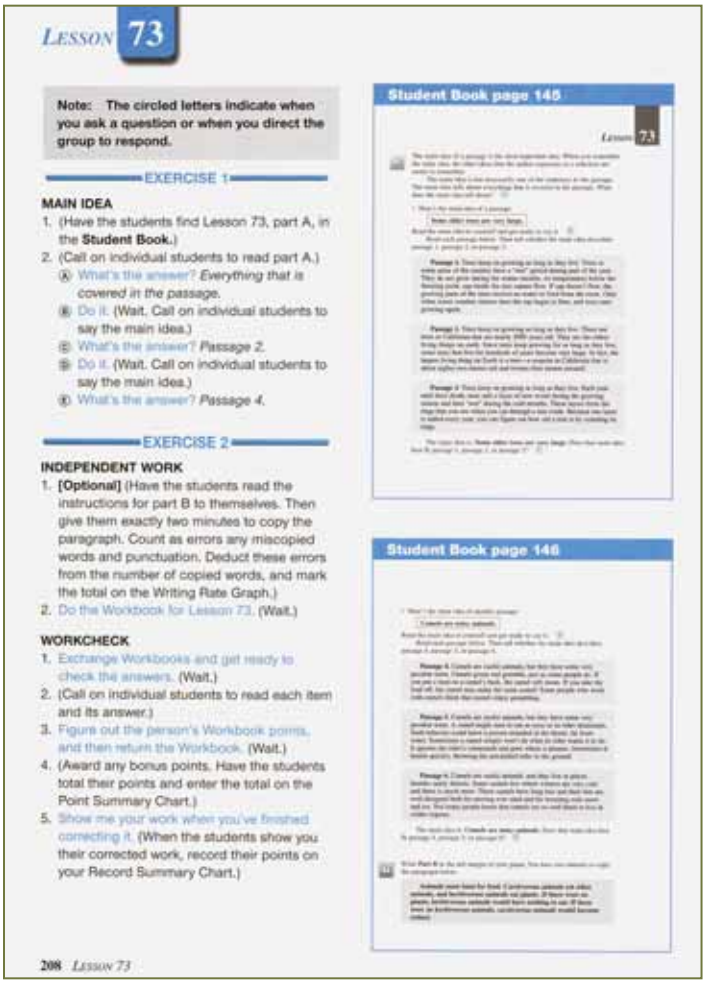
B For each item, write a new sentence that means the same thing by changing the underlined words.

1. By pausing, the old woman lost her chance.
By hesitating, the old woman lost her opportunity.
2. How many chances do you think you'll get?
How many opportunities do you think you'll get?
3. The minute Claude paused, his sister jumped at the chance.
The minute Claude hesitated, his sister jumped at the opportunity.
4. Stop pausing before diving into the pool.
Stop hesitating before diving into the pool.

Figure 10: Writing activities in vocabulary instruction in ***Corrective Reading***

Text comprehension. "Comprehension is the reason for reading. If readers can read the words but do not understand what they are reading, they are not really reading" (Armbruster et al., 2003, pg. 48). Understanding what is read can be improved when readers use specific comprehension strategies.

One comprehension strategy requires students to synthesize important ideas in a text (e.g., main ideas, conclusions). Figure 11 provides an example of how main idea is taught and practiced in Lesson 73 of *Comprehension C*.



LESSON 73

Note: The circled letters indicate when you ask a question or when you direct the group to respond.

EXERCISE 1

MAIN IDEA

1. (Have the students find Lesson 73, part A, in the **Student Book.**)
2. (Call on individual students to read part A.)
   - Ⓐ What's the answer? *Everything that is covered in the passage.*
   - Ⓑ Do it. (Wait. Call on individual students to say the main idea.)
   - Ⓒ What's the answer? *Passage 2.*
   - Ⓓ Do it. (Wait. Call on individual students to say the main idea.)
   - Ⓔ What's the answer? *Passage 4.*

EXERCISE 2

INDEPENDENT WORK

1. **[Optional]** (Have the students read the instructions for part B to themselves. Then give them exactly two minutes to copy the paragraph. Count as errors any miscopied words and punctuation. Deduct these errors from the number of copied words, and mark the total on the Writing Rate Graph.)
2. Do the Workbook for Lesson 73. (Wait.)

WORKCHECK

1. Exchange Workbooks and get ready to check the answers. (Wait.)
2. (Call on individual students to read each item and its answer.)
3. Figure out the person's Workbook points, and then return the Workbook. (Wait.)
4. (Award any bonus points. Have the students total their points and enter the total on the Point Summary Chart.)
5. Show me your work when you've finished correcting it. (When the students show you their corrected work, record their points on your Record Summary Chart.)

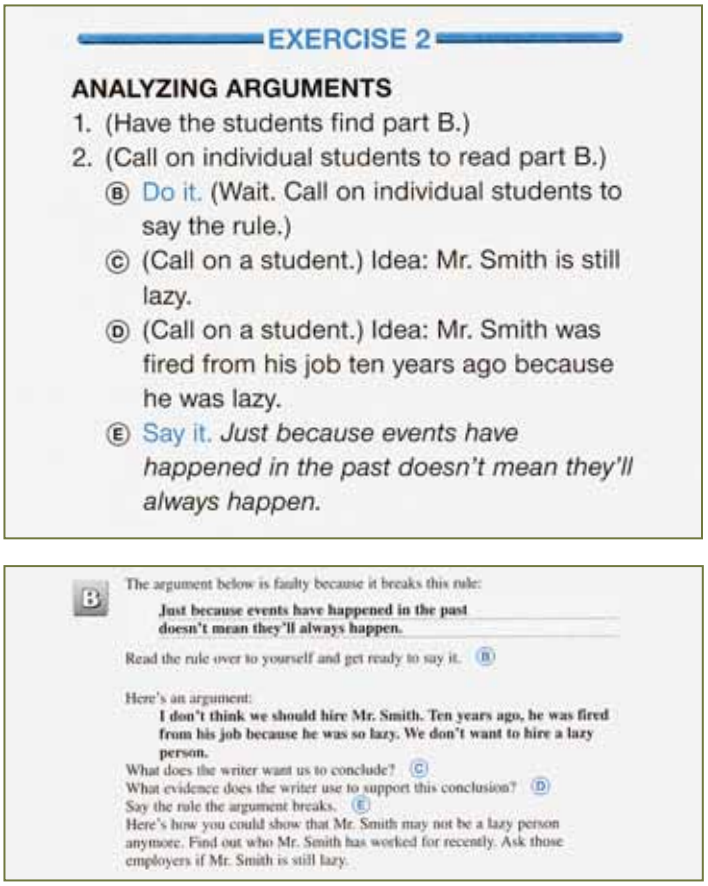
208 *Lesson 73*

Student Book page 145

Student Book page 146

Figure 11: Main idea instruction in ***Corrective Reading***

Synthesizing important ideas from text and drawing logical conclusions is a mainstay of *Comprehension C*. Figure 12 illustrates an example from Lesson 122 where students practice analyzing arguments in text and determine if these arguments are faulty based on stated rules.



EXERCISE 2

ANALYZING ARGUMENTS

1. (Have the students find part B.)
2. (Call on individual students to read part B.)
   - Ⓑ Do it. (Wait. Call on individual students to say the rule.)
   - Ⓒ (Call on a student.) Idea: Mr. Smith is still lazy.
   - Ⓓ (Call on a student.) Idea: Mr. Smith was fired from his job ten years ago because he was lazy.
   - Ⓔ Say it. *Just because events have happened in the past doesn't mean they'll always happen.*

B

The argument below is faulty because it breaks this rule:

Just because events have happened in the past doesn't mean they'll always happen.

Read the rule over to yourself and get ready to say it. Ⓑ

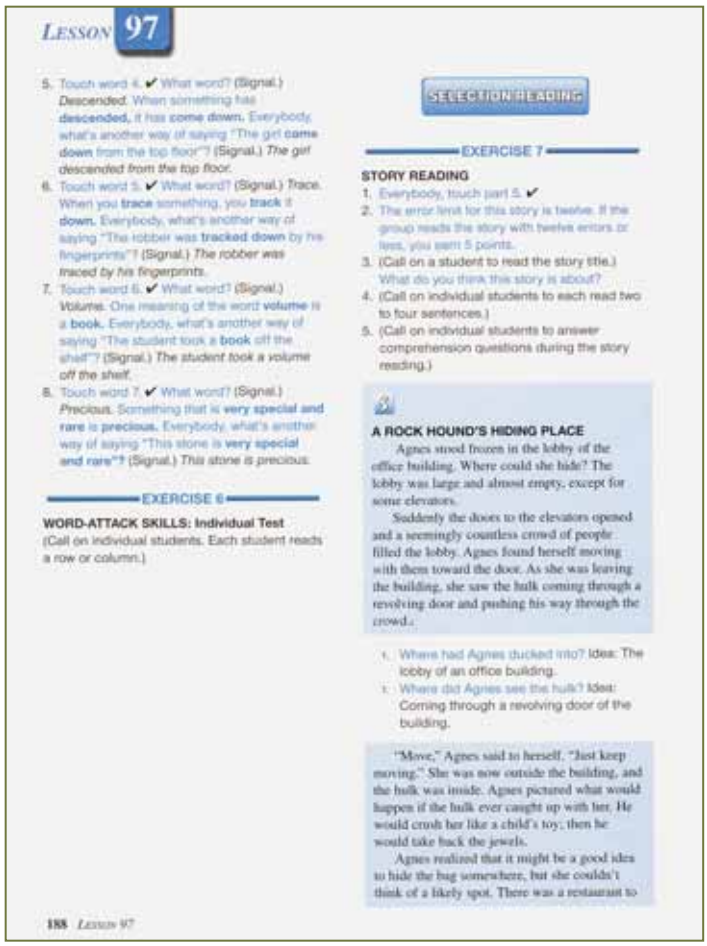
Here's an argument:

I don't think we should hire Mr. Smith. Ten years ago, he was fired from his job because he was so lazy. We don't want to hire a lazy person.

What does the writer want us to conclude? Ⓒ
What evidence does the writer use to support this conclusion? Ⓓ
Say the rule the argument breaks. Ⓔ
Here's how you could show that Mr. Smith may not be a lazy person anymore. Find out who Mr. Smith has worked for recently. Ask those employers if Mr. Smith is still lazy.

Figure 12: Synthesizing information and drawing logical conclusions in ***Corrective Reading***

Answering questions is another important part of comprehension instruction. "Teachers have long used questions to guide and monitor students' learning. Research shows that teacher questioning strongly supports and advances students' learning from reading" (Armbruster et al., 2003, pg. 51). ***Corrective Reading*** includes interspersed questions designed to check students' understanding of what is read. Figure 13 shows an example of how interspersed questions are used in Lesson 97 of *Decoding C*.



LESSON 97

5. Touch word 4. ✔ What word? (Signal.) *Descended.* When something has **descended,** it has **come down.** Everybody, what's another way of saying "The girl **came down** from the top floor"? (Signal.) *The girl descended from the top floor.*
6. Touch word 5. ✔ What word? (Signal.) Trace. When you **trace** something, you **track** it **down.** Everybody, what's another way of saying "The robber was **tracked down** by his fingerprints"? (Signal.) *The robber was traced by his fingerprints.*
7. Touch word 6. ✔ What word? (Signal.) *Volume.* One meaning of the word **volume** is a **book.** Everybody, what's another way of saying "The student took a **book** off the shelf"? (Signal.) *The student took a volume off the shelf.*
8. Touch word 7. ✔ What word? (Signal.) *Precious.* Something that is **very special and rare** is **precious.** Everybody, what's another way of saying "This stone is **very special and rare**"? (Signal.) *This stone is precious.*

EXERCISE 6

WORD-ATTACK SKILLS: Individual Test

(Call on individual students. Each student reads a row or column.)

SELECTION READING

EXERCISE 7

STORY READING

1. Everybody, touch part 5. ✔
2. The error limit for this story is twelve. If the group reads the story with twelve errors or less, you earn 5 points.
3. (Call on a student to read the story title.) What do you think this story is about?
4. (Call on individual students to each read two to four sentences.)
5. (Call on individual students to answer comprehension questions during the story reading.)

A ROCK HOUND'S HIDING PLACE

Agnes stood frozen in the lobby of the office building. Where could she hide? The lobby was large and almost empty, except for some elevators.

Suddenly the doors to the elevators opened and a seemingly countless crowd of people filled the lobby. Agnes found herself moving with them toward the door. As she was leaving the building, she saw the hulk coming through a revolving door and pushing his way through the crowd.

1. Where had Agnes ducked into? Idea: The lobby of an office building.
2. Where did Agnes see the hulk? Idea: Coming through a revolving door of the building.

"Move," Agnes said to herself. "Just keep moving." She was now outside the building, and the hulk was inside. Agnes pictured what would happen if the hulk ever caught up with her. He would crush her like a child's toy; then he would take back the jewels.

Agnes realized that it might be a good idea to hide the bag somewhere, but she couldn't think of a likely spot. There was a restaurant to

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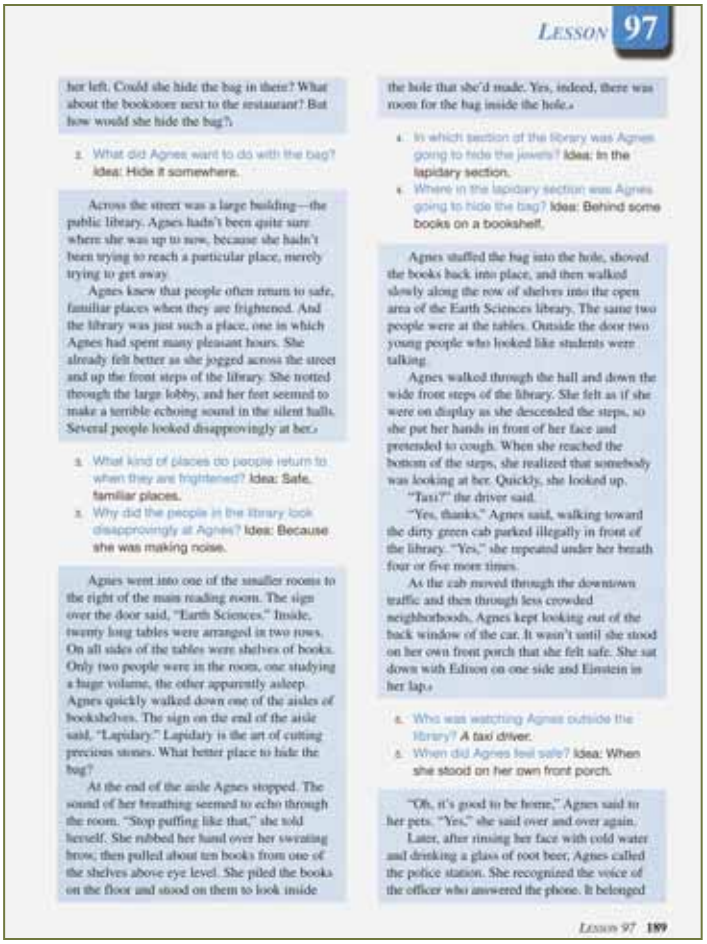

LESSON 97

her left. Could she hide the bag in there? What about the bookstore next to the restaurant? But how would she hide the bag?

2. What did Agnes want to do with the bag? Idea: Hide it somewhere.

Across the street was a large building—the public library. Agnes hadn't been quite sure where she was up to now, because she hadn't been trying to reach a particular place, merely trying to get away.

Agnes knew that people often return to safe, familiar places when they are frightened. And the library was just such a place, one in which Agnes had spent many pleasant hours. She already felt better as she jogged across the street and up the front steps of the library. She trotted through the large lobby, and her feet seemed to make a terrible echoing sound in the silent halls. Several people looked disapprovingly at her.

3. What kind of places do people return to when they are frightened? Idea: Safe, familiar places.
4. Why did the people in the library look disapprovingly at Agnes? Idea: Because she was making noise.

Agnes went into one of the smaller rooms to the right of the main reading room. The sign over the door said, "Earth Sciences." Inside, twenty long tables were arranged in two rows. On all sides of the tables were shelves of books. Only two people were in the room, one studying a huge volume, the other apparently asleep. Agnes quickly walked down one of the aisles of bookshelves. The sign on the end of the aisle said, "Lapidary." Lapidary is the art of cutting precious stones. What better place to hide the bag?

At the end of the aisle Agnes stopped. The sound of her breathing seemed to echo through the room. "Stop puffing like that," she told herself. She rubbed her hand over her sweating brow; then pulled about ten books from one of the shelves above eye level. She piled the books on the floor and stood on them to look inside the hole that she'd made. Yes, indeed, there was room for the bag inside the hole.

4. In which section of the library was Agnes going to hide the jewels? Idea: In the lapidary section.
5. Where in the lapidary section was Agnes going to hide the bag? Idea: Behind some books on a bookshelf.

Agnes stuffed the bag into the hole, shoved the books back into place, and then walked slowly along the row of shelves into the open area of the Earth Sciences library. The same two people were at the tables. Outside the door two young people who looked like students were talking.

Agnes walked through the hall and down the wide front steps of the library. She felt as if she were on display as she descended the steps, so she put her hands in front of her face and pretended to cough. When she reached the bottom of the steps, she realized that somebody was looking at her. Quickly, she looked up.

"Taxi?" the driver said.

"Yes, thanks," Agnes said, walking toward the dirty green cab parked illegally in front of the library. "Yes," she repeated under her breath four or five more times.

As the cab moved through the downtown traffic and then through less crowded neighborhoods, Agnes kept looking out of the back window of the car. It wasn't until she stood on her own front porch that she felt safe. She sat down with Edison on one side and Einstein in her lap.

6. Who was watching Agnes outside the library? A taxi driver.
7. When did Agnes feel safe? Idea: When she stood on her own front porch.

"Oh, it's good to be home," Agnes said to her pets. "Yes," she said over and over again.

Later, after rinsing her face with cold water and drinking a glass of root beer, Agnes called the police station. She recognized the voice of the officer who answered the phone. It belonged

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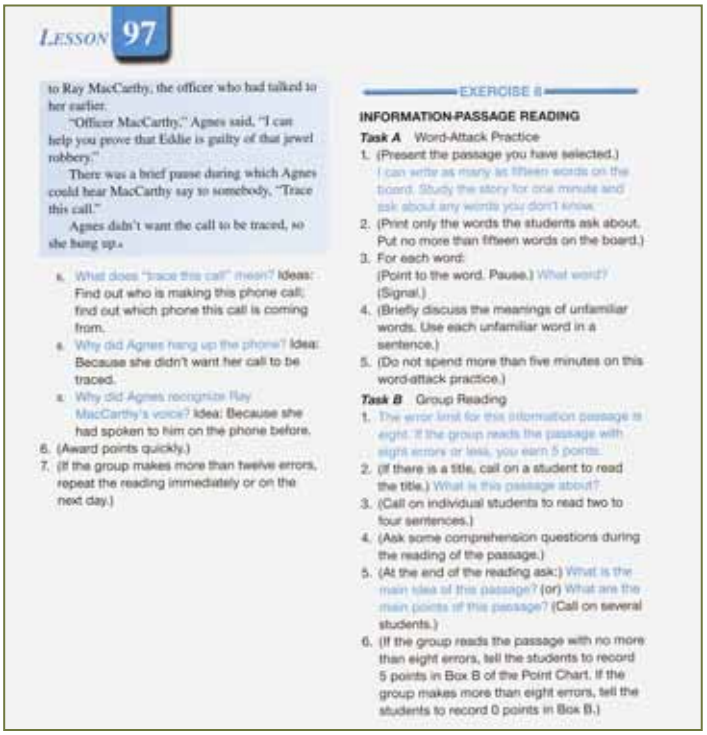

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to Ray MacCarthy, the officer who had talked to her earlier.

"Officer MacCarthy," Agnes said, "I can help you prove that Eddie is guilty of that jewel robbery."

There was a brief pause during which Agnes could hear MacCarthy say to somebody, "Trace this call."

Agnes didn't want the call to be traced, so she hung up.

1. What does "trace this call" mean? Ideas: Find out who is making this phone call; find out which phone this call is coming from.
2. Why did Agnes hang up the phone? Idea: Because she didn't want her call to be traced.
3. Why did Agnes recognize Ray MacCarthy's voice? Idea: Because she had spoken to him on the phone before.

6. (Award points quickly.)
7. (If the group makes more than twelve errors, repeat the reading immediately or on the next day.)

EXERCISE 8

INFORMATION-PASSAGE READING

Task A Word-Attack Practice

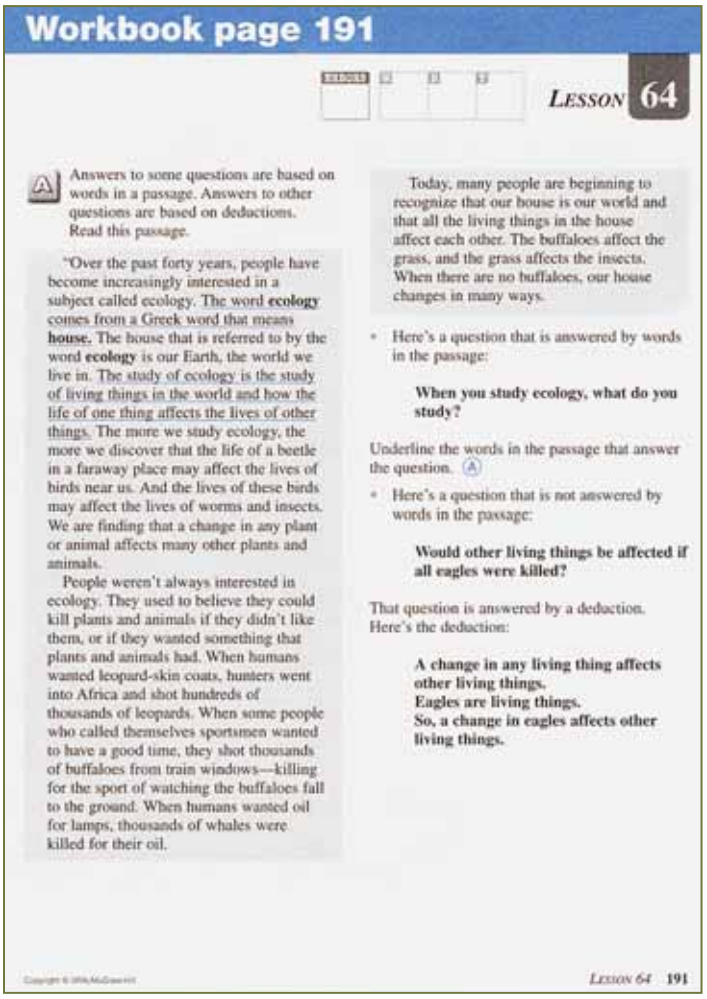
1. (Present the passage you have selected.) I can write as many as fifteen words on the board. Study the story for one minute and ask about any words you don't know.
2. (Print only the words the students ask about. Put no more than fifteen words on the board.)
3. For each word:
   (Point to the word. Pause.) What word? (Signal.)
4. (Briefly discuss the meanings of unfamiliar words. Use each unfamiliar word in a sentence.)
5. (Do not spend more than five minutes on this word-attack practice.)

Task B Group Reading

1. The error limit for this information passage is eight. If the group reads the passage with eight errors or less, you earn 5 points.
2. (If there is a title, call on a student to read the title.) What is this passage about?
3. (Call on individual students to read two to four sentences.)
4. (Ask some comprehension questions during the reading of the passage.)
5. (At the end of the reading ask:) What is the main idea of this passage? (or) What are the main points of this passage? (Call on several students.)
6. (If the group reads the passage with no more than eight errors, tell the students to record 5 points in Box B of the Point Chart. If the group makes more than eight errors, tell the students to record 0 points in Box B.)

Figure 13: Answering questions in ***Corrective Reading***

Figure 14 provides an example of answering questions using text-explicit information (words found in the text) or deductions (words not found in the text) in Lesson 64 of *Comprehension C*.



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LESSON 64

A Answers to some questions are based on words in a passage. Answers to other questions are based on deductions. Read this passage.

"Over the past forty years, people have become increasingly interested in a subject called ecology. The word **ecology** comes from a Greek word that means **house.** The house that is referred to by the word **ecology** is our Earth, the world we live in. The study of ecology is the study of living things in the world and how the life of one thing affects the lives of other things. The more we study ecology, the more we discover that the life of a beetle in a faraway place may affect the lives of birds near us. And the lives of these birds may affect the lives of worms and insects. We are finding that a change in any plant or animal affects many other plants and animals.

People weren't always interested in ecology. They used to believe they could kill plants and animals if they didn't like them, or if they wanted something that plants and animals had. When humans wanted leopard-skin coats, hunters went into Africa and shot hundreds of thousands of leopards. When some people who called themselves sportsmen wanted to have a good time, they shot thousands of buffaloes from train windows—killing for the sport of watching the buffaloes fall to the ground. When humans wanted oil for lamps, thousands of whales were killed for their oil.

Today, many people are beginning to recognize that our house is our world and that all the living things in the house affect each other. The buffaloes affect the grass, and the grass affects the insects. When there are no buffaloes, our house changes in many ways.

- Here's a question that is answered by words in the passage:

  When you study ecology, what do you study?

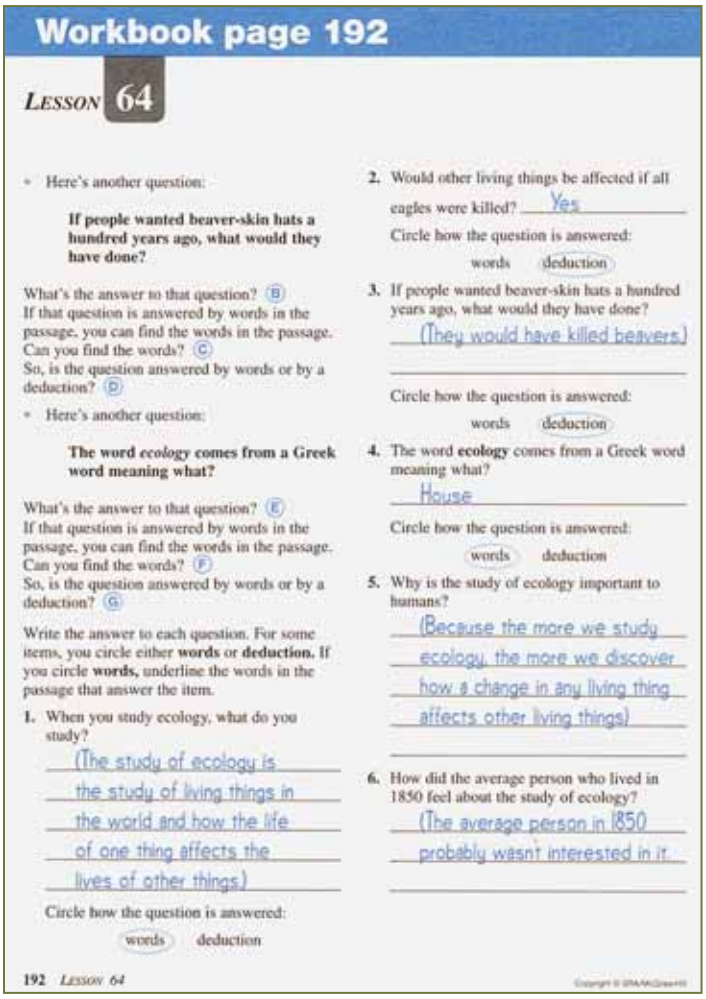
Underline the words in the passage that answer the question. (A)

- Here's a question that is not answered by words in the passage:

  Would other living things be affected if all eagles were killed?

That question is answered by a deduction. Here's the deduction:

A change in any living thing affects other living things.
Eagles are living things.
So, a change in eagles affects other living things.



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LESSON 64

- Here's another question:

  If people wanted beaver-skin hats a hundred years ago, what would they have done?

What's the answer to that question? (B)
If that question is answered by words in the passage, you can find the words in the passage.
Can you find the words? (C)
So, is the question answered by words or by a deduction? (D)

- Here's another question:

  The word ecology comes from a Greek word meaning what?

What's the answer to that question? (E)
If that question is answered by words in the passage, you can find the words in the passage.
Can you find the words? (F)
So, is the question answered by words or by a deduction? (G)

Write the answer to each question. For some items, you circle either **words** or **deduction.** If you circle **words,** underline the words in the passage that answer the item.

1. When you study ecology, what do you study?
   (The study of ecology is the study of living things in the world and how the life of one thing affects the lives of other things.)
   Circle how the question is answered:
   (words) deduction

2. Would other living things be affected if all eagles were killed? Yes
   Circle how the question is answered:
   words (deduction)

3. If people wanted beaver-skin hats a hundred years ago, what would they have done?
   (They would have killed beavers.)
   Circle how the question is answered:
   words (deduction)

4. The word **ecology** comes from a Greek word meaning what?
   House
   Circle how the question is answered:
   (words) deduction

5. Why is the study of ecology important to humans?
   (Because the more we study ecology, the more we discover how a change in any living thing affects other living things.)

6. How did the average person who lived in 1850 feel about the study of ecology?
   (The average person in 1850 probably wasn't interested in it.)

Figure 14: Answering questions in ***Corrective Reading***, pages 191 and 192

Similar strategies are used in *Decoding C* when information passage reading (outside material selected by the students) is incorporated into the lesson (starting at Lesson 55). Passages are to be 300–400 words long. In addition to word attack activities (decoding difficult words), students are asked to tell what the passage is about and what the main idea is, along with answering questions posed by the teacher during the reading of the passage. Reading information passages selected by students are reinforced by Biancarosa and Snow (2004), "One way that motivation and engagement are instilled and maintained is to provide students with opportunities to select for themselves the materials they read and topics they research" (pg. 16).

Graphic organizers are another strategy to help students organize information to better understand what they read. ***Corrective Reading*** uses graphic organizers along with other visual representations such as maps, graphs, and charts to help with text comprehension. Figure 15 shows an example of how graphic organizers are used in Lesson 100 of *Comprehension C*.

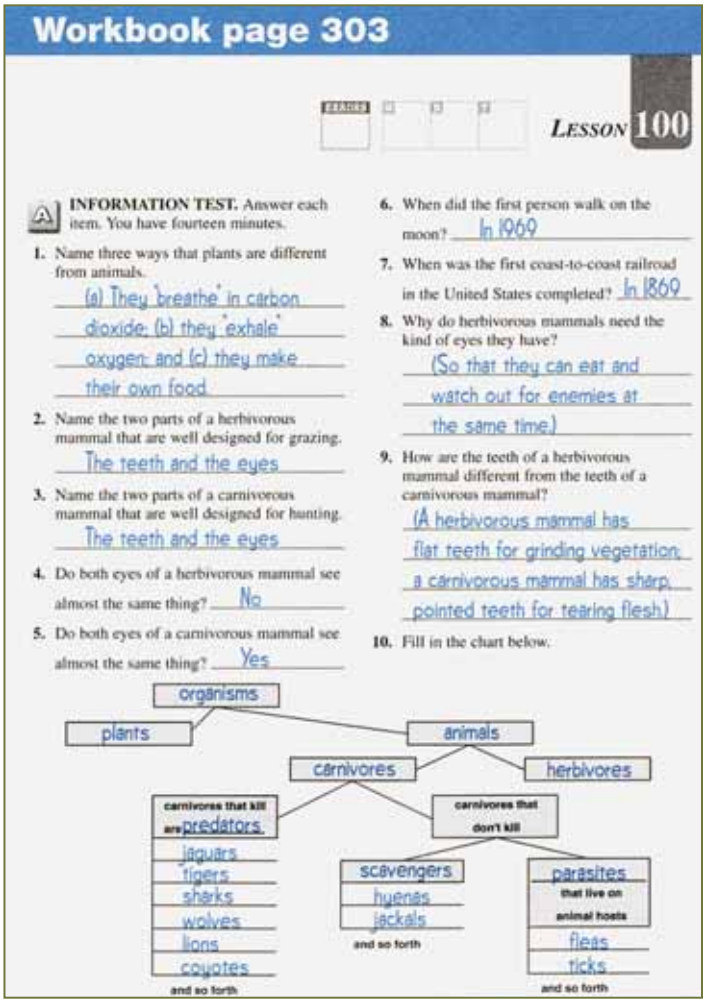

Figure 15: Graphic organizers in ***Corrective Reading***

SECTION IV

Carnine, Silbert, Kame'enui, and Tarver (2004) provide guidelines for establishing a comprehensive program for children who are behind in reading. ***Corrective Reading*** is designed with these guidelines in mind:

- ***Intervene early.***
  Students may be placed in ***Corrective Reading*** starting in Grade 3.

- ***Provide extra instructional time.***
  Lessons for each of the ***Corrective Reading*** programs (*Decoding* and *Comprehension*) can be completed comfortably in a 45 to 50 minute block of time. Carnine et al. (2004) recommend up to 150 minutes of language arts instruction for "corrective readers." This recommendation could be met by completing one lesson of decoding and one lesson of comprehension (called a double strand sequence) plus a writing program such as *Expressive Writing*.

- ***Utilize small-group instruction.***
  Flexible skill grouping is recommended in the ***Corrective Reading*** program. The rule of thumb in direct instruction is "the lower the reading level, the smaller the group." Thus, small group instruction is advocated.

- ***Use effective instructional materials.***
  Corrective Reading meets the definition of an effective instructional program. It is research-validated, incorporating best practices in reading remediation by including explicit instruction in phonemic awareness, phonics, fluency, vocabulary, and comprehension.

- ***Create a comprehensive aligned program.***
  Corrective Reading is comprehensive in that it includes all elements of effective reading instruction, offering a seamless approach to reading remediation (one level leads to the next with carefully designed cumulative skill development).

- ***Administer progress-monitoring assessments frequently.***
  Progress monitoring is a key component of all ***Corrective Reading*** programs. Individual reading checkouts ensure that fluency goals are met. Students graph their own data on individual reading progress charts. Students complete workbook exercises to reinforce what they learn during the lesson. Mastery tests and fact games help ensure confident responses.

- ***Group for maximum efficiency.***
  Students are flexibly grouped based on results from placement tests found in the ***Corrective Reading*** program (for both *Decoding* and *Comprehension*).

- ***Include a motivational component.***
  Corrective Reading builds competency; skills are broken down into small steps that can easily be taught, followed by plenty of opportunities to apply what students have learned in new and changing contexts. Competency promotes motivation. Further, ***Corrective Reading*** offers a built-in management system where students earn points for performance on each part of the daily lesson. Records of this performance may be used for awarding grades and documenting progress in specific skill areas.

- ***Ensure well-trained teaching personnel.***
  When teachers are properly trained to conduct ***Corrective Reading*** programs, student achievement is elevated to even greater levels. The programs specify teacher and student behavior through scripted lessons. The scripted lessons ensure that teachers:
  -Use uniform wording
  -Present examples in a manner that communicates effectively with students
  -Are able to complete a lesson during a class period

Further, Carnine et al. (2004) noted that a program designed for children who read below grade level should:

- ***Prioritize the essential decoding and comprehension skills.***
  Corrective Reading incorporates best practices in decoding (learning to read) by including phonemic awareness, phonics, and fluency-building activities. Further, best practices in comprehension (reading to learn) are evident through focused instruction in vocabulary and comprehension.

- ***Interest older children.***
  Corrective Reading is designed with the older struggling reader in mind. Stories are age appropriate and interesting. They are also highly decodable to provide the amount and type of practice needed to ensure success.

- ***Make sure students are placed at their specific instructional level.***
  The ***Corrective Reading*** placement tests ensure that students are placed at their instructional levels so they experience success rather than failure.

- ***Counter faulty strategies that children reading below grade level are likely to have developed.***
  Research-based strategies are evident throughout the ***Corrective Reading*** programs. For example, teaching students to sound out words using blending and then to say the words the fast way is used compared to sight word or “guess and go” strategies.

SECTION V

"Research evidence is essential for identifying effective educational practice. Research — when it is based on sound scientific observations and analyses — provides reliable information about what works and why and how it works. This information is essential to designing effective instruction and to demonstrating that it is, in fact, effective. Responsible decisions about what is good for students, therefore, require scientific evidence" (Reyna, 2004, pg. 47).

In a climate where accountability has never counted more, ***Corrective Reading*** is carefully structured to ensure success. In fact, 28 studies have been published in peer-reviewed journals using the ***Corrective Reading*** program. Of these 28 studies, 24 group design studies (pre-experimental, quasi-experimental, experimental) examined the effectiveness of ***Corrective Reading*** across a wide variety of settings and populations. Program delivery by teachers, paraprofessionals, or peer instructors was examined. All studies are described in the narrative. Results of investigations using a control or comparison group are shown graphically (N=10). Four additional studies used single-case designs. These studies are described in narrative. Finally, one study was published describing the positive aspects of being a peer instructor in a ***Corrective Reading*** tutorial program (Short, Marchand-Martella, Martella, & Ebey, 1999).

All investigations were selected using the First Search, ERIC, Psych INFO, Education Abs, and ProQuest databases. Descriptors included the following: Direct Instruction, direct instruction, explicit instruction, and ***Corrective Reading***. Ancestral searches of reference lists were used to identify other possible research articles. In addition, manual searches were done of the following peer-reviewed journals: *Effective School Practices* and *Journal of Direct Instruction*.

Corrective Reading as Delivered by Teachers

Twenty-three studies were found that examined the effectiveness of ***Corrective Reading*** delivered by teachers in general education, special education, and alternative education settings such as correctional institutions and alternative schools.

General education settings. Table 1 shows four studies examining the effects of teachers using ***Corrective Reading*** with general education students at risk for academic failure.

Table 1: *Corrective Reading* delivered by teachers in general education settings

Study	DI Program	n	Participants	Research Design	Research Purpose	Intervention Details	Outcome Measures	Findings
Clunies-Ross (1990)	*Corrective Reading Comp. B*	57 (31 in *Corrective Reading* group, 26 in comparison group)	Year 6 general education students	Quasi-experimental — Nonequivalent pretest-posttest control group	Assess the effects of the *Corrective Reading* program with general education students.	*Corrective Reading* program implemented two to three times per week over an 8-month period.	*ACER Tests of Learning Ability for Year 6 Students*	*Corrective Reading* group made greater gains on the Verbal comprehension, General Reasoning, and Syllogistic Reasoning subtests; however, the only difference that reached statistical significance was on the Syllogistic Reasoning subtest. *Corrective Reading* group also had greater gains that reached statistical significance on the Total Test composite.
Kasendorf & McQuaid (1987)	*Corrective Reading Decoding*	32	Poor readers in Grades 4 to 12 who were randomly selected from 14 classrooms	Pre-experimental — One group pretest-posttest	Determine the effects of *Corrective Reading* across 14 classrooms.	*Corrective Reading* provided by general and special education teachers over seven or eight months.	*Woodcock Reading Mastery Test*	Large improvements in word attack and passage comprehension grade equivalents.
Sommers (1995)	*Corrective Reading Decoding B & C; Comp. B & C*	112	At-risk middle school students Grades 6 to 8 Performing approximately 2 to 3 years below grade level	Pre-experimental — One group pretest-posttest	Investigate the effects of using *Corrective Reading* in a basic skills program for at-risk middle school students.	Study took place across a 7-year period. A pull-out model was used to provide intervention throughout the regular school year to at-risk middle school students.	*Gates-MacGinitie Reading Tests*	Students demonstrated gains in reading performance.
Vitale, Medland, Romance, & Weaver (1993)	*Corrective Reading Decoding A & B; Comp. A & B*	26 in *Corrective Reading* (N in other groups not reported)	Chapter 1 students performing approximately 1.5 to 3 years below grade placement Grades 4 to 6	Quasi-experimental — Nonequivalent control group, 4 preexisting groups (*CR*; Chapter 1 same school; Chapter 1, average, and gifted from comparable school; Chapter 1 district students)	Investigate the effects of *Corrective Reading* vs. Chapter 1 reading interventions.	85 days, 1 hr. of instruction, 5 days per week. One group received *Corrective Reading*; comparison groups received the current Chapter 1 reading instruction.	*ITBS* Reading Comprehension and Vocabulary subtests; *Corrective Reading* criterion-referenced tests	*Corrective Reading* group made greater gains than the control group on standardized measures. *Corrective Reading* decreased decoding and thinking errors on criterion-referenced tests; comparison group's error rate remained unchanged.

Clunies-Ross (1990) compared the effects of the ***Corrective Reading*** *Comprehension B* program to an interest-based thematic approach. The study took place in a non-government primary suburban school located in Melbourne, Australia. Thirty-one Year 6 general education students were in the ***Corrective Reading*** group and 26 general education students were in the comparison group. The general education teacher implemented ***Corrective Reading*** two to three times per week for eight months. Results indicated that the ***Corrective Reading*** group made greater gains on the Verbal Comprehension, General Reasoning, and Syllogistic Reasoning subtests of the *ACER Tests of Learning Ability for Year 6 Students* (see Figure 16). The ***Corrective Reading*** group had gains that reached statistical significance on the Syllogistic Reasoning subtest and on the Total Test composite.

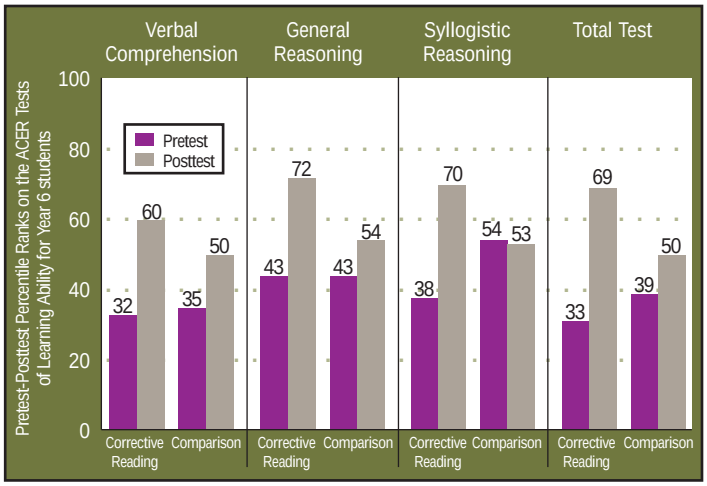

Figure 16: Clunies-Ross (1990) study showing pretest-posttest percentile ranks on the *ACER Tests of Learning Ability for Year 6 Students*

Kasendorf and McQuaid (1987) analyzed the effects of the ***Corrective Reading*** *Decoding* program that was implemented across 14 Grade 4 through Grade 12 classrooms located in San Diego County for seven to eight months. Thirty-six students were randomly selected from the 14 classrooms; 32 students remained for posttesting. The authors reported that students made an average 2.38 grade-equivalent improvement on Word Attack and .75 of a year improvement on Passage Comprehension on the *Woodcock Reading Mastery Test*.

Sommers (1995)* assessed the results of the implementation of Direct Instruction programs, including ***Corrective Reading***, *Corrective Mathematics, Expressive Writing,* and *Corrective Spelling Through Morphographs* with 112 middle school students (Grade 6 through Grade 8) from Big Piney, Wyoming over an eight-month period. These students were considered at-risk, with most of the students reading two to three years behind their grade levels. Results on the *Gates-MacGinitie Reading Tests* were reported as follows:

- Grade 8 students gained 1.77 years or 2.5 months per month of instruction
- Grade 7 students gained .98 years or 1.35 months per month of instruction
- Grade 6 students gained .93 years or 1.1 month per month of instruction

Vitale, Medland, Romance, and Weaver (1993) compared the effects of ***Corrective Reading*** on the reading performance of 26 low-achieving Title 1 students (Grade 4 to Grade 6) from a large urban school district in the Southwest. Three comparison groups were used:

1. Comparable Title 1 students in the same school
2. Title 1, average performing and gifted students in a comparable school
3. All other Title 1 students in the district

Title 1 students performed 1.5 to 3 years below grade placement on the *Iowa Test of Basic Skills* (*ITBS*). Results from January to May (85 days) showed that the ***Corrective Reading*** group had larger gains on the *ITBS* in reading and vocabulary and larger reductions for decoding and thinking errors on the program criterion-referenced test than did the Title 1 comparison groups (see Figure 17).

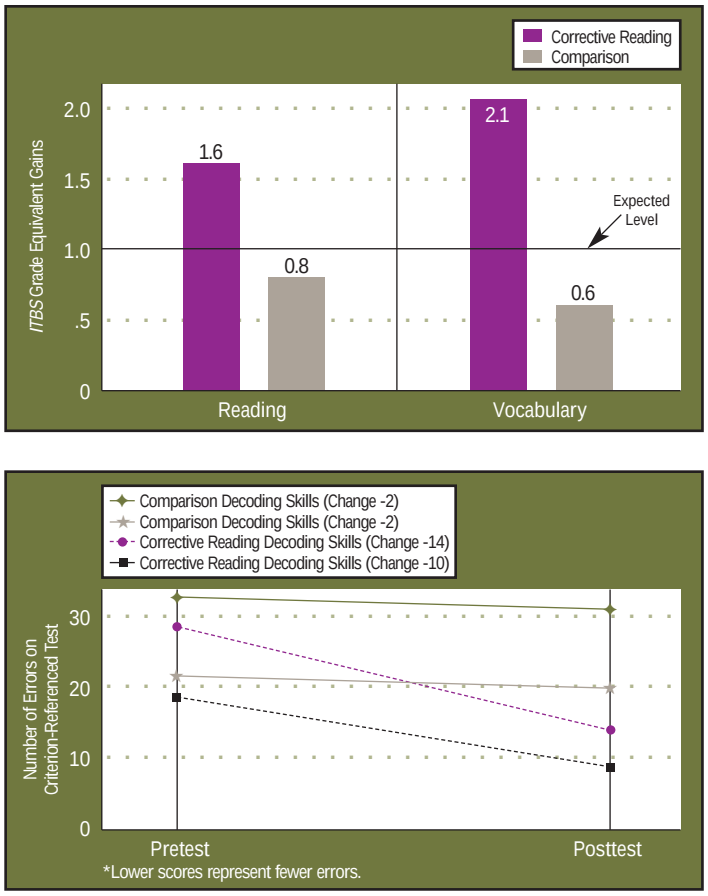

Figure 17: Vitale et al. (1993) study showing *ITBS* grade equivalent gains and number of errors on criterion-referenced test

Overall, the results of these studies suggest that the *Corrective Reading* program can be effective as an intervention program in general education settings.

*Note: this study is a follow-up of the Sommers (1991) study; therefore, only the 1995 study is discussed here.

Special education settings. Table 2 shows 12 studies examining the effects of ***Corrective Reading*** with special education students as delivered by teachers. Participants had a wide range of disabilities, including learning disabilities, behavioral disabilities, moderate intellectual disabilities, and autism.

Table 2: *Corrective Reading* as delivered by teachers in K–12 special education settings

Study	DI Program	n	Participants	Research Design	Research Purpose	Intervention Details	Outcome Measures	Findings
Arthur (1988)	*Corrective Reading*	6	LD Junior-high school students Grades 7 to 8 Age range 12.2 to 14.2	Pre-experimental — One group pretest-posttest	Determine the effectiveness of *Corrective Reading* with junior-high school special education students.	Provided students *Corrective Reading Decoding* and *Comprehension* over a 1-year academic period.	*Test of Language Development, Test of Reading Comprehension, Test of Written Language, Sequential Test of Educational Progress, Woodcock-Johnson Psycho-Educational Battery, Wide Range Achievement Test*	Large gains for standard scores and grade equivalents were seen on all measures.
Benner, Kinder, Beaudoin, Stein, & Hirschmann (in press)	*Corrective Reading Decoding B1*	41 (28 in *Corrective Reading*, 23 in comparison)	LD, BD, Title 1 Elementary school and middle school students Grades 3 to 8	Quasi-experimental — Nonequivalent control group, 2 preexisting groups (*CR*, variety of approaches)	Compare the effects of *Corrective Reading* with another reading intervention.	One group received *Corrective Reading* taught by student and cooperating teachers for 4 months; the other group received current reading program.	*Woodcock-Johnson Achievement Tests-III; DIBELS; Child Behavior Checklist: Teacher Form*	*Corrective Reading* group did significantly better than the comparison group on all measures; there was a significant decrease in the number of treatment nonresponders.
Campbell (1984)	*Corrective Reading*	55 (42 in *Corrective Reading* group, 13 in comparison group)	Poor readers (more than 1 standard deviation below the mean) Grades 7 and 8	Quasi-experimental — Nonequivalent pretest-posttest control group design	Assess the effects of the *Corrective Reading* program vs. regular English classes.	*Corrective Reading* program provided to the experimental group 50 minutes per day for 6 to 9 months.	*Woodcock Reading Mastery Test*	*Corrective Reading* group made greater grade-equivalent and standard score gains than did the comparison group. Further, the students initially at a higher reading level made greater gains than did the students initially at a lower reading level.
Edlund & Ogle (1988)	*Corrective Reading*	6 teachers (2 in 6-week training, 2 in 1-week training, 2 in control) 48 students	Teachers with 6.5 years of special education experience Students with learning disabilities (12- to 19-years-old, IQ range 90 to 100)	True experimental — Pretest-posttest control group design	Compare the differential effects of amount of teacher training on student performance.	Two teachers received 6 weeks of training, 2 teachers received 1 week of training, and 2 teachers received no formal training (studied manual on their own). Students received a variety of instructional materials including *Corrective Reading*.	*Wide Range Achievement Test*	Results indicated that students whose teachers had more training had greater standard score increases in reading and spelling.
Flores, Shippen, Alberto, & Crowe (2004)	*Corrective Reading: Decoding A*	6	Moderate Intellectual Disabilities/ Autism 7 to 13 years IQ range = 38-52	Single-case — Multiple baseline across behaviors with embedded conditions	Investigate the effects of *Corrective Reading* on learning letter-sound correspondences, blending sounds in CVC words, & decoding.	Baseline and intervention conditions using C*orrective Reading Decoding A* over 11 to 27 training sessions. Fidelity checks were conducted.	Percentage of correct letter-sound correspondences identified in isolation, in a discrimination format, & blended together; percentage correct of letter-sound correspondences blended & telescoped into words (instruction, generalization, & maintenance conditions).	Five of 6 students correctly identified all letter-sound correspondences & blended letter sounds; correctly blended & telescoped words composed of targeted letter sounds; high degrees of maintenance shown.
Glang, Singer, Cooley, & Tish (1991)	*Corrective Reading Comp. A*	1	Closed head injury (15 months post) 8 years of age, second grader IQ = 81	Single-case — Multiple-baseline across behaviors	Determine the effects of *Corrective Reading Comp. A* with a student with a closed head injury.	Instruction from relevant deductions strand of program done twice per week for 6 weeks (13 sessions total).	Percentage of deductions completed accurately.	Deductive skill improved from an average of 6.7% in baseline to 80% to 100% during instruction.
Gregory, Hackney, & Gregory (1982)	*Corrective Reading Decoding B*	19 (11 in *Corrective Reading*, 8 in comparison)	Likely LD from description Mean age: *CR* group = 11 years, 9 months; comparison group = 11 years, 10 months	Quasi-experimental – Nonequivalent control group, 2 preexisting groups (*CR*, school's own remedial program)	Compare the effects of *Corrective Reading* with another reading intervention in Britain.	One group received *Corrective Reading*; comparison group received the current remedial reading class; 4 periods per week for 5 months.	*Daniels & Diack Test of Reading*; behavior surveys; attendance records	*Corrective Reading* group did significantly better than the comparison group in reading gains, behavior, and attendance.
Lewis (1982)	*Corrective Reading Decoding B*	41 (7 in *CR*, 6 in control group 1, 7 in control group 2-Study 1; 7 in *CR*, 7 in control group 1, 7 in control group 2-Study 2)	Likely LD 11 to 12 year olds	True experimental — Pretest posttest control group, 3 groups (*Corrective Reading, Colour Code* program, school's own remedial program)	Compare the effects of *Corrective Reading* with two other reading interventions in Britain.	One group received *Corrective Reading*; one group received "novel" program (*The English Colour Code*); another group received traditional remedial program. Fidelity checks for *Corrective Reading* teacher were done. Length of program was 7-16 months (Study 1) and 8 months (Study 2).	*Neale Analysis of Reading*; oral reading miscue analysis (comparison of self-corrections to substitutions)	*Corrective Reading* group made significantly greater gains than traditional remedial group. Novelty program group made gains similar to *Corrective Reading* group.*Corrective Reading* group demonstrated a significant increase in self-corrections on miscue analysis.
Lloyd, Cullinan, Heins, & Epstein (1980)	*Corrective Reading: Decoding A & B; & Comp. A*	23 (15 in *Corrective Reading*, 8 in control)	LD Elementary aged (9 years, 9 months to 10 years, 4 months)	True experimental — Posttest only control group, 2 groups (*Corrective Reading*, individual and small group instruction in a variety of areas)	Compare the effects of *Corrective Reading* with another reading intervention.	Study took place over 1 school year (a period of 8 months). One group received *Corrective Reading*; other group received teacher-developed language instruction based on district guidelines & *Houghton-Mifflin Reading*.	*Slosson Intelligence Test; Gilmore Oral Reading Test*	On both measures, the *Corrective Reading* group scored significantly higher.

CONTINUED

Table 2: *Corrective Reading* as delivered by teachers in K–12 special education settings CONTINUED FROM PAGE 19

Study	DI Program	n	Participants	Research Design	Research Purpose	Intervention Details	Outcome Measures	Findings
Polloway, Epstein, Polloway, Patton, & Ball (1986)	*Corrective Reading: Decoding A, B, & C*	119	Middle & high school LD (n = 78); EMR (n = 41) (LD mean age = 15 years, 7 months; EMR mean age = 16 years, 0 months) (LD mean IQ = 87; EMR mean IQ = 62.5)	Pre-experimental — One group pre-test-posttest	Investigate the effects of *Corrective Reading*; determine if handicapping condition interacted with treatment.	Study took place over 1 school year; daily, small group instruction. Middle and high school students were taught by teachers using *Corrective Reading*.	*Peabody Individual Achievement Test*	Students' gains were significantly greater with *Corrective Reading* than in previous year. Students with LD improved at a greater rate than students with EMR.
Somerville & Leach (1988)	*Corrective Reading*	40 (10 in each of 4 groups CR, psycho-motor, self-esteem, control	LD (mean age = 10 years, 11 months)	True-experimental — Pretest posttest control group design, 4 groups (*CR*, psycho-motor, self-esteem, control)	Compare the effects of *Corrective Reading* with three other programs.	12 weeks, groups received 1 hr. of teacher-directed instruction per week and 15 min. of daily homework; parents monitored or taught. Groups: 1) Psychomotor 2) Self-esteem 3) *Corrective Reading* 4) No intervention	Tests of reading, psychomotor skills, and self-esteem measures	On the reading test, *Corrective Reading* students scored significantly higher than other three groups; no significant differences on psychomotor or self-esteem measures.
Thomson (1992)	*Corrective Reading*	255 (144 in *Corrective Reading*, 61 in traditional basal, 50 in whole language)	LD elementary and middle-school students	Quasi-experimental — Nonequivalent pretest-posttest control group	Compare *Corrective Reading* to a traditional basal approach and a whole language approach.	*Corrective Reading*, traditional basal approach, and whole language approach implemented for 1 academic year.	*Woodcock-Johnson Individual Achievement Tests* and *Dolch Story Reading Test*	*Corrective Reading* students had greater standard score gains and larger increases in words read per minute than the other two reading group students.

Arthur (1988) implemented the ***Corrective Reading*** *Decoding* and *Comprehension* programs in Massachusetts with six middle school Grade 7 and Grade 8 students (age range 12.2 to 14.2 years) who had learning disabilities. Instruction lasted for one academic year. Results included:

- *Test of Language Development* — gain of 19.68 standard score points overall (1.31 of a standard deviation)
- *Test of Reading Comprehension* — gain of 15.3 standard score points (1.02 of a standard deviation) on Comprehension Quotient
- *Test of Written Language* — gain of 13.8 standard score points overall (.92 of a standard deviation)
- *Sequential Test of Educational Progress* — grade-level gains of at least 2.42 years across reading, vocabulary, written language, and math computation areas
- *Woodcock-Johnson Psycho-Educational Battery* — grade equivalent gains of 1.92 (Reading Cluster) to 1.65 (Written Language)
- *Wide Range Achievement Test* — grade equivalent gains of 1.73 (Word Recognition) and 1.52 (Spelling)

Benner, Kinder, Beaudoin, Stein, and Hirschmann (in press) assessed the effects of the ***Corrective Reading*** *Decoding B1* program with 28 elementary and middle school students (Grade 3 through Grade 8) from an urban, northwestern city who were receiving special services for a high-incidence disability. This group of students was matched with 23 students in a comparison group on school attended, gender, and grade. After a period of four months, results showed that the ***Corrective Reading*** group had significantly greater pretest to posttest gains than the comparison group on measures of basic reading skills on the *Woodcock-Johnson III* and oral reading fluency on the *Dynamic Indicators of Basic Early Literacy Skills (DIBELS)* (see Figure 18).

The ***Corrective Reading*** group also had greater pretest to posttest gains on social adjustment as measured by the *Child Behavior Checklist: Teacher Form*. Perhaps most importantly, there was a statistically significant decrease in the number of nonresponders (students who failed to acquire beginning reading skills within the normal range) for the ***Corrective Reading*** group.

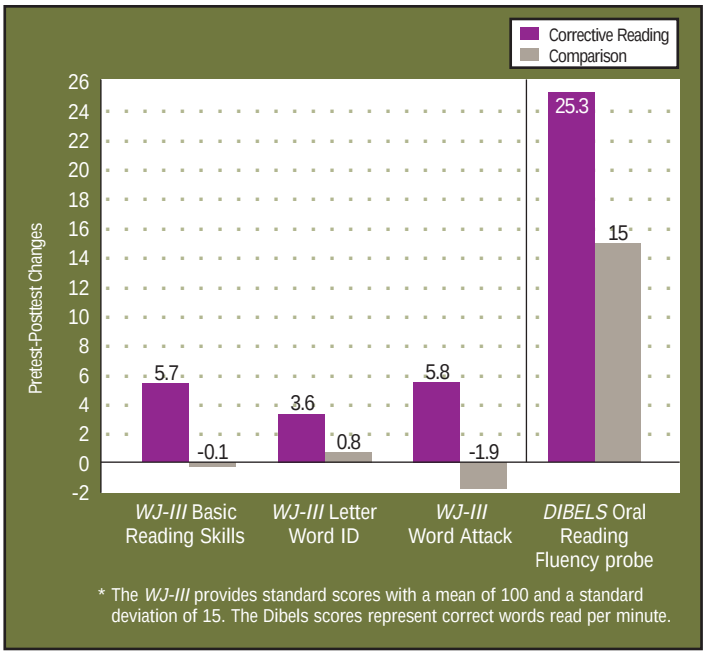

Figure 18: Benner et al. (in press) study showing change in scores on *Woodcock Johnson III (WJ-III)* and *DIBELS*

Campbell (1984) investigated the effects of the ***Corrective Reading*** *Decoding B* program on 42 Grade 7 and Grade 8 students (79 percent non-white) who were reading more than one standard deviation below the mean (19 were reading at the Grade 2 level, 14 at the Grade 3 level, and nine at Grade 4 level). Thirteen students (62 percent non-white) served as a comparison group. These students were reading on at least the Grade 3 level and were considered to be emotionally stable (six at the Grade 3 level and seven at the Grade 4 level).

The ***Corrective Reading*** group received instruction in a pull-out program 50 minutes per day for six to nine months. The comparison group received regular English classes for 10 months. Campbell reported that the ***Corrective Reading*** group made significantly greater gains (2.2 grade levels in nine months) than the comparison group (.4 grade levels) ($p < .001$). Students initially reading at a higher reading level made greater gains than did the students initially reading at a lower level. That is, students initially reading at the Grade 4 level made greater gains than students initially reading at the Grade 3 or Grade 2 levels; students initially reading at the Grade 3 level made greater gains than students initially reading at the Grade 2 level.

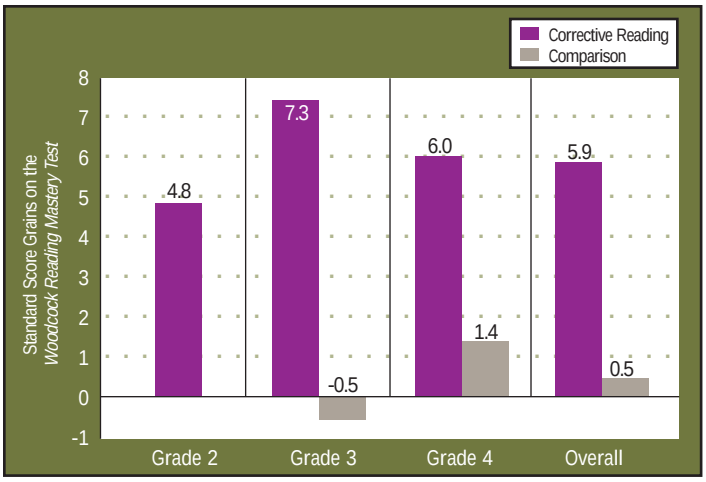

Figure 19: Campbell (1984) study showing standard score gains on the *Woodcock Johnson Reading Mastery Test*

Edlund and Ogle (1988) compared the effects of three levels of training teachers how to implement instructional materials — *Learning to Remember, Spelling for Work*, ***Corrective Reading***, and *Morphographic Spelling*. Six teachers (credentialed in both general and special education with an average teaching experience of 6.5 years in special education classes) were randomly assigned to one of three groups:

1. Six-week training group
2. One-week training group
3. Control (studied manual on their own) group

There were a total of 48 students (aged 12 to 19 years) across six classrooms. These students had learning disabilities with IQ scores ranging from 90 to 100. Students were pretested in March (on average) and posttested in February (on average) on the *Wide Range Achievement Test*. All students received the aforementioned programs. Students were compared based on the training group to which their teacher belonged. Results showed that:

- Students whose teachers had six weeks of training had an 8.37 standard score increase in reading and a 3.53 point increase in spelling.
- Students whose teachers had one week of training had only a .53 increase in reading and a 3.17 point gain in spelling.
- Students whose teachers were in the control group had standard score losses of –.50 and –1.10 for reading and spelling, respectively.

Thus, students whose teachers had more training fared better than those whose teachers had less training.

Flores et al. (2004) examined the efficacy of the ***Corrective Reading*** *Decoding A* program with six students (ages seven to 13 years, IQ range 38 to 52) who were served in a self-contained setting for students with moderate intellectual disabilities from a large Southeastern city. A multiple baseline across behaviors design with embedded conditions was used to assess the effects of the program in teaching the following isolated sounds: *m, a, s,* and *t*; the following sound discriminations and blends: *a/m, s/t,* and *m/a/s/t*; and the following word decoding tasks: mat and sam. The number of training sessions ranged from 11 to 27 sessions. The results of the study indicated that five of the six students mastered all of the instructed items in letter-sound identification, continuous sound blending, sounding out, and the decoding of CVC words. Also, these five students demonstrated generalized performance on sounding out untaught words, although only two students *fully* decoded untaught words.

Glang, Singer, Cooley, and Tish (1991) used a multiple baseline across behaviors design to determine the effects of *Corrective Mathematics* and the "Deductions" strand of ***Corrective Reading*** *Comprehension A* on an eight-year-old male student with a closed head injury. The student sustained a head injury 15 months prior to the program. He was a Grade 2 student who received special education services for math with an IQ score of 81. Instruction was provided twice a week over six weeks for a total of 13 instructional sessions. Results showed that the student's reasoning skills improved from an average of 6.7 percent on verbally presented deductions during baseline to 80 percent to 100 percent throughout the instructional period. Examples of the improvements in deductions include the following:

Before instruction:

- "Some ice cream has nuts. Chocolate ice cream has nuts. Chocolate is one ice cream. So…*lick em*."
- "All mice have tails. A field mouse is a type of mouse. So a field mouse…*has little shark teeth*."

After instruction:

- Mammals are warm-blooded. Kangaroos are mammals. So kangaroos…*are warm-blooded*."
- "Cows don't eat meat. A Guernsey is a cow. So a Guernsey…*doesn't eat meat*."

Gregory, Hackney, and Gregory (1982) compared a ***Corrective Reading*** group (N=11, mean age 11.9 years, 38 percent qualified for free school meals) to a remedial reading group (N=8, mean age 11.1 years, 36 percent qualified for free school meals) in Great Britain. After five months of instruction, the ***Corrective Reading*** group outperformed the comparison group as measured by the *Daniels and Diack Test of Reading* (see Figure 20). Analysis of covariance showed the difference in the mean performance of the two groups was statistically significant ($p < .001$). Additionally, the ***Corrective Reading*** group maintained better school behavior as assessed by the *Rutter Behaviour Questionnaire* ($p < .01$) and better school attendance than the comparison group ($p < .05$).

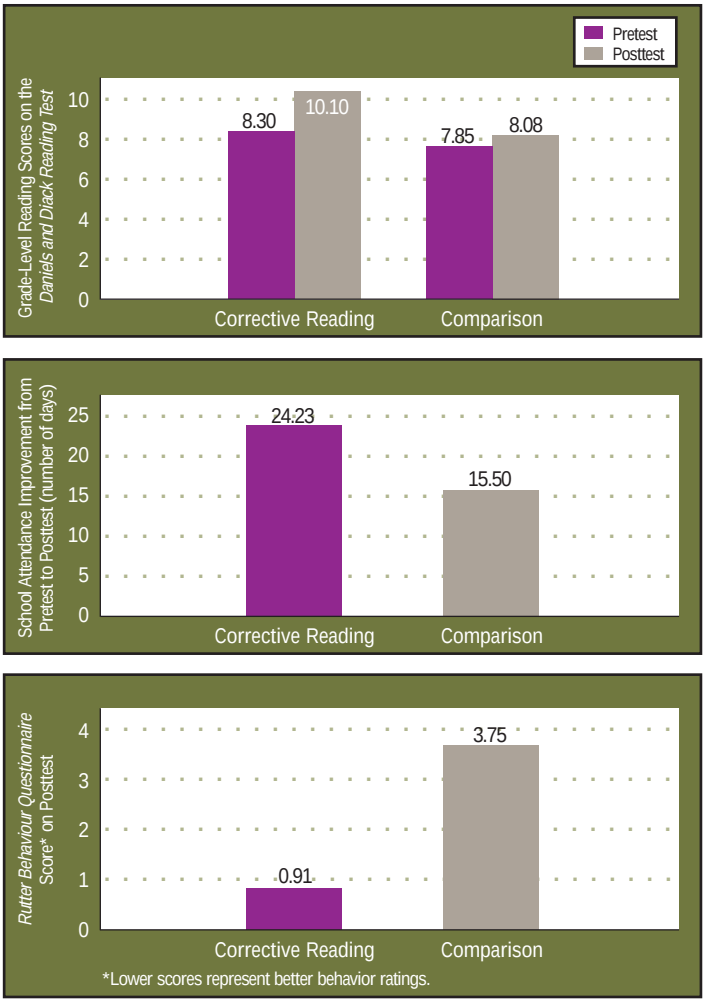

Figure 20: Gregory et al. (1982) study displaying grade-level reading scores on the *Daniels and Diack Test of Reading*, school attendance improvement from pretest to posttest, and *Rutter Behaviour Questionnaire* score on posttest

Lewis (1982) conducted two studies. In Study 1, Lewis randomly assigned 24 remedial readers (Note: data are presented on 20 of these students) from an urban comprehensive school in Great Britain who were between 11 and 12 years of age. The groups were: ***Corrective Reading***, *Colour Code* program supplemented with the teacher's own remedial program (novelty group), or the school's own remedial program using a range of published and teacher-produced materials (control group). The program was implemented between seven (Pretest 2 to Posttest 1) to 16 months (Pretest 2 to Posttest 2). In Study 2, Lewis randomly assigned 27 students (Note: data are presented for 21 of these students) to one of the three groups described above. Instruction lasted for eight months. The results of the first study showed that the ***Corrective Reading*** program group and the *Colour Code* group made significantly greater gains on the *Neale's Analysis of Reading* for accuracy and comprehension than the control group (see Figures 21 and 22). In the second study, gains for all three groups were similar. However, the ***Corrective Reading*** and novelty groups developed better strategies performing oral reading tasks as assessed by miscue analyses than the control group.

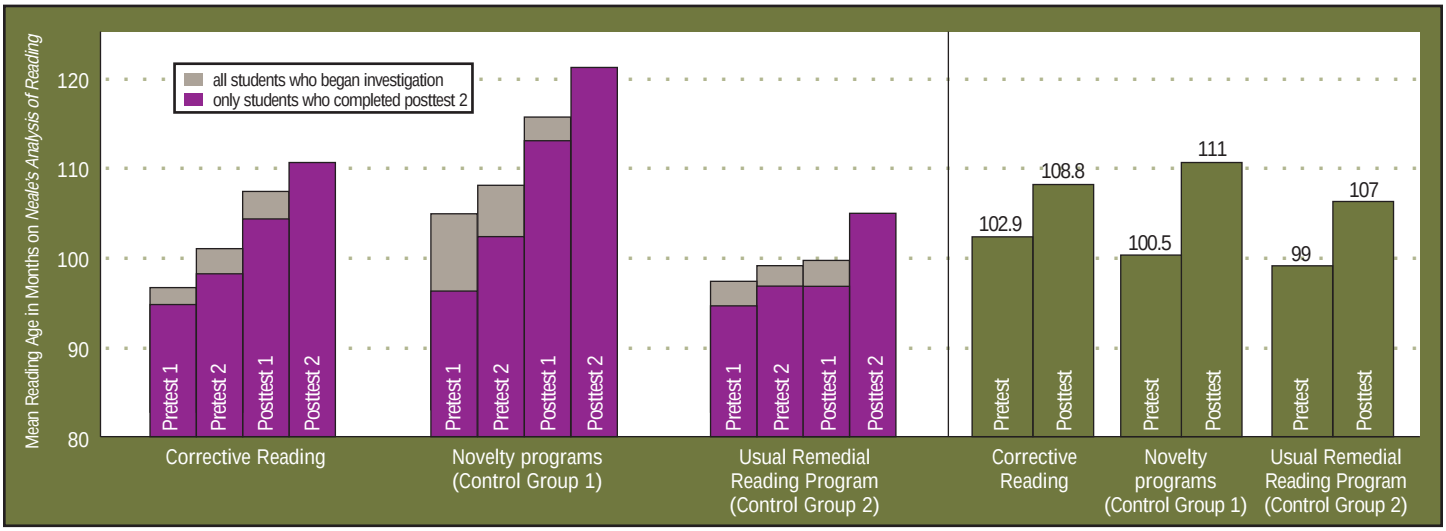

Figure 21: Lewis (1982) study showing mean reading age in months on *Neale's Analysis of Reading* for reading accuracy

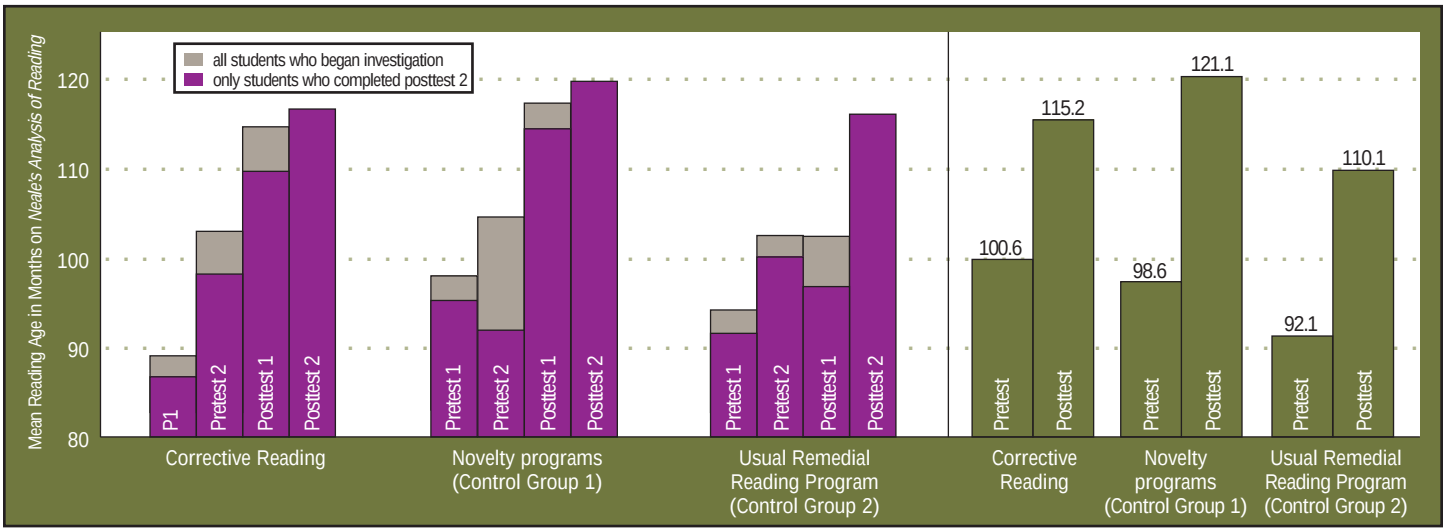

Figure 22: Lewis (1982) study displaying mean reading age in months on *Neale's Analysis of Reading* for reading comprehension

Lloyd, Cullinan, Heins, and Epstein (1980) randomly assigned 23 elementary-aged Rockford, Illinois students with learning disabilities to three different classrooms — two experimental classrooms (N=15, mean age for experimental groups 1 and 2 = 9 years, 9 months and 9 years, 11 months, respectively) received the ***Corrective Reading*** program and Arithmetic training.

A control classroom (N=8, mean age 10 years, 4 months) received individual and small group instruction in Language Arts and Arithmetic as well as some training in perceptual, perceptual-motor, and other psychological processes. After eight months, the results showed that both experimental groups had a statistically significant improvement of .75 of a standard deviation over the control group as measured by the *Slosson Intelligence Test* and *Gilmore Oral Reading* Test (see Figure 23).

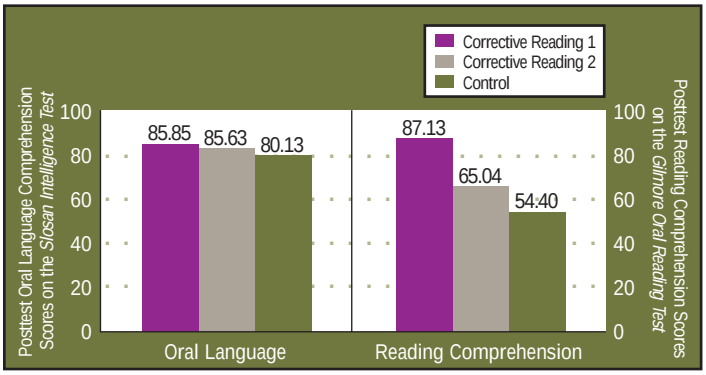

Figure 23: Lloyd et al. (1980) study illustrating posttest oral language comprehension scores on the *Slosson Intelligence Test* and posttest reading comprehension scores on the *Gilmore Oral Reading Test*

Polloway, Epstein, Polloway, Patton, and Ball (1986) assessed the effects of the ***Corrective Reading*** *Decoding A* or *B* program on rural and suburban central Virginia middle and high school students with learning disabilities or mental retardation. Seventy-eight students with learning disabilities (mean age 15.7 years, Grades 6–12, mean IQ 87) and 41 students with mental retardation (mean age 16.0 years, Grades 6–12, mean IQ 62.5) received the program for one academic year.

Results showed that both groups exhibited statistically significant improvements for reading recognition on the *Peabody Individual Achievement Test* of .570 of a year during the ***Corrective Reading*** program compared to .109 of a year before ***Corrective Reading*** was implemented. Additionally, there were statistically significant gains for reading comprehension from .128 before ***Corrective Reading*** to .500 during ***Corrective Reading***. Finally, students with learning disabilities showed greater gains than students with mental retardation in reading recognition and comprehension.

Somerville and Leach (1988) randomly assigned 40 Australian students (mean age 10 years 11 months) who had reading difficulties to one of four groups — psycho-motor, self-esteem, ***Corrective Reading***, and a waiting-list control. After a period of 12 weeks, the ***Corrective Reading*** program resulted in statistically significant gains in reading performance as measured by tests of reading (see Figure 24). Statistically significant differences were not found among the groups on measures of psycho-motor performance or self-esteem.

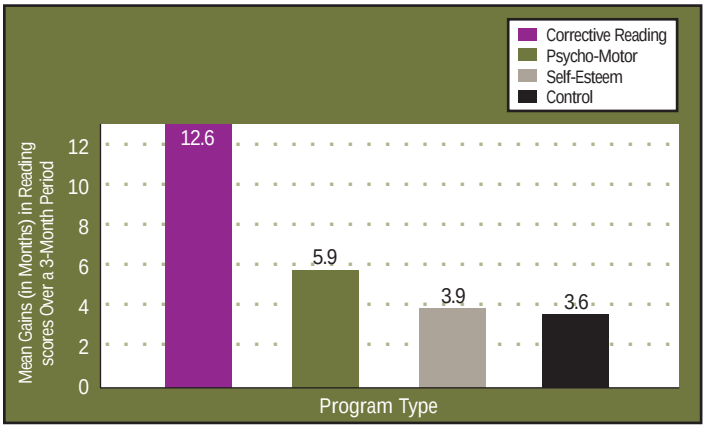

Figure 24: Somerville and Leach (1988) study showing mean gains in months in reading scores over a 3-month period

Thomson (1992) compared 144 students with specific learning disabilities who were taught by teachers using the ***Corrective Reading*** program to students (N=61) who received a traditional/basal approach and those (N=50) instructed using a whole language approach over the 1989–90 school year. Thus, 255 total students participated in the study. Instruction took place in resource rooms and general elementary and middle school classrooms in the Manatee County School District in Florida.

Overall, a larger number of the ***Corrective Reading*** students were lower in intelligence and socio-economic status and were older than the students in the comparison groups. Results indicated that the ***Corrective Reading*** group had larger standard score gains on the *Woodcock-Johnson Individual Achievement Test* (six standard score points or 0.33 standard deviation) and had larger increases in words read per minute (as measured by the timed *Dolch Story Reading Test*) than the other two groups (see Figure 25).

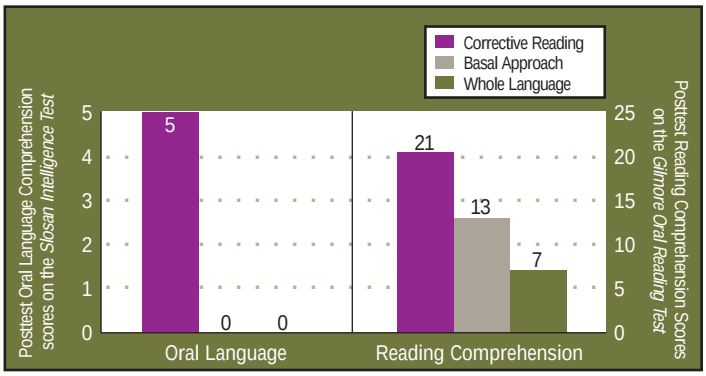

Figure 25: Thomson (1992) study showing mean standard score gains on the *Woodcock-Johnson Individual Achievement Test* and mean increases in words read per minute on the *Dolch Story Reading Test*

Overall, results were positive for students using *Corrective Reading*. In comparison studies, *Corrective Reading* groups often significantly outperformed control groups on a variety of measures including standardized assessments, program-based criterion-referenced tests, and oral reading fluency probes. Results also indicated that many students experienced positive changes in behavior and increased school attendance.

Alternative settings. Table 3 shows seven studies examining the use of ***Corrective Reading*** with students in alternative settings as delivered by teachers.

Table 3: ***Corrective Reading*** as delivered by K–12 teachers in alternative settings

Study	DI Program	n	Participants	Research Design	Research Purpose	Intervention Details	Outcome Measures	Findings
Drakeford (2002)	*Corrective Reading*	6	Incarcerated males Average age = 17 years All participants had a history of educational disabilities and/or had received special education services	Single-case — Multiple baseline across participants	Investigate the effects of *Corrective Reading* with incarcerated males.	8 weeks, 1 hour per day, 3 days per week. Teachers delivered the *Corrective Reading* program to incarcerated youth. Fidelity checks were conducted. Participant 1 completed 24 lessons, Participant 2 completed 19 lessons, Participant 3 completed 18 lessons, Participant 4 completed 22 lessons, Participant 5 completed 19 lessons, and Participant 6 completed 17 lessons.	*Measures of oral reading fluency; Rhody-Secondary Reading Attitude Assessment (RSRA)*	All participants demonstrated positive gains on oral reading fluency measures; positive trends were noted in attitudes toward reading instruction.
Herr (1989)	*Corrective Reading Decoding*	3	College students with poor reading skills	Pre-experimental — One group pretest-posttest	Determine the effects of *Corrective Reading Decoding* with college students with poor reading skills.	Provided reading instruction with *Corrective Reading Decoding* over a multi-year period.	*Wide Range Achievement Test, Nelson Reading Test*	Participants demonstrated improved grade-level reading.
Holdsworth (1984–85)	*Corrective Reading Decoding B* and *C*	15	Students placed in a school for students with special needs in the United Kingdom	Pre-experimental — One group pretest-posttest	Determine the effects of *Corrective Reading* with students with special needs in the United Kingdom	Provided *Corrective Reading, Decoding B* to 9 students over a period of 4 months and *Decoding C* to 6 students over 2.5 months.	*Neale Analysis of Reading Ability*	Large improvements in reading accuracy and reading comprehension grade equivalent scores.
Malmgren, & Leone (2000)	*Corrective Reading*	45	Incarcerated males, 20 receiving special education services Average age = 17.07 years (Range = 13.92 – 18.75) EBD (N=10); LD (N=7); & MR (N=3)	Pre-experimental — One group pretest-posttest	Determine the effects of *Corrective Reading* with incarcerated youth.	6 weeks, 45 min. per day, 5 days per week. Teachers delivered an intensive *Corrective Reading* program to incarcerated youth. Fidelity checks were conducted.	*Gray Oral Reading Test (GORT-3)* subtests (i.e., Rate, Accuracy, Passage, and Comprehension)	Overall, positive results. Statistically significant gains on Rate, Accuracy, and Passage subtests. Gains made on Comprehension subtest did not reach statistical significance.
Scarlato & Asahara (2004)	*Corrective Reading: Decoding B2*	9 (5 in *Corrective Reading*, 4 in comparison)	Adjudicated youth EBD/LD 16 to 17 years	Quasi-experimental — Nonequivalent control group, 2 groups (*CR*, reading specialist group)	Compare the effects of *Corrective Reading* and another intervention.	Nineteen weeks of instruction. 5 students received instruction using *Corrective Reading Decoding Level B2*; the other group received instruction developed by a reading specialist (RS).	*Woodcock Reading Mastery Test – Revised*	Majority of students in the *Corrective Reading* group had large to moderate gains on standardized measures. Majority of students in the comparison group demonstrated moderate to large losses on standardized measures.
Steventon, & Fredrick (2003)	*Corrective Reading: Decoding Level B2* (Lessons 33–52)	3	Alternative middle school Participant 1 was 15 years old; participants 2 and 3 were 13 years old	Single-case — Multiple baseline across participants	Investigate the effects of *Corrective Reading* with repeated readings.	3 students received up to 13 lessons of *Corrective Reading* with repeated readings (RR). Students orally read passages 3 times prior to timed checkout on the 4th reading. Students then read a novel part of the passage that was timed to assess generalization. Fidelity checks & social validity measures were done.	Correct words per minute (CWPM) and errors per minute (EPM) on repeated and novel passages from intervention materials; & program-specific oral reading checkout rates. Additional criterion: 20% rate of improvement across 2 consecutive intervention days	All students showed gains in average CWPM on RR passages. No clear evidence of fluency gains on novel passages. There were increases in the number of sessions meeting program-specific reading checkout rates for all students. Participants 1 and 3 had mean error rate decreases during RR condition. Participant 2 had mean error rate increases during RR condition.
Thorne (1978)	*Corrective Reading*	13	Junior maladjusted boys in England Age range = 8 to 12 years	Pre-experimental — Pretest-posttest, no comparison group	Investigate the effects of *Corrective Reading* with maladjusted boys in England.	35 lessons of the *Corrective Reading* program were taught to two groups of boys by the same teacher. A contract-based system was used.	*Neale Analysis of Reading*	After 35 lessons, Group A made gains in reading accuracy. Group 2 made gains in reading accuracy and reading comprehension.

Drakeford (2002) implemented the ***Corrective Reading*** *Decoding* and *Comprehension* programs to six incarcerated Oak Hill Academy African American students in Maryland with a mean age of 17 years who were at or below the 25th percentile according to the *Wide Range Achievement Test*. Students were separated into two groups of three students. Each group was provided the ***Corrective Reading*** program in a multiple baseline across participants design. The range in completed lessons was 17 to 24 with a mean of 19.8. Results showed that the reading fluency of each participant improved once the ***Corrective Reading*** program was implemented. Increases ranged from 4 to 19 words per minute. There were also improvements in program placement levels measured by the ***Corrective Reading*** placement test from pretest to posttest. Finally, there were noted improvements in attitude toward reading for the participants.

Herr (1989) assessed the effects of the ***Corrective Reading*** *Decoding* program with three adults (two in their mid-20s and one in her early 40s) who were low readers enrolled in Lane Community College in Eugene, Oregon. Instruction took place from fall of 1979 to winter of 1981 for one participant, fall of 1979 to spring of 1982 for one participant, and from fall of 1980 to spring of 1982 for one participant. The author reported that pretest to posttest performance showed grade-level improvements on the Wide Range Achievement Test ranging from 1.9 to 6.0 (Participant 1), 2.4 to 5.9 (Participant 2), and 3.3 to 6.0 (Participant 3). Results with the *Nelson Reading Test* showed pretest to posttest scores ranging from 2.2 to 3.8 (Participant 1), 2.3 to 3.6 (Participant 2), and 2.7 to 4.1 (Participant 3).

Holdsworth (1984–85) investigated the effects of the ***Corrective Reading*** program with students who had mild learning difficulties in the United Kingdom. Students attended a school for those with special education needs. Nine students (ages 9 to 11 years) received instruction in *Decoding B* over a four-month period (November 1 to March 1) and seven students (ages 10 to 12 years) were taught using *Decoding C* over a two and a half-month period in the summer. Holdsworth noted that the nine students who received *Decoding B* made a 10.7-month gain in reading accuracy and 16.0-month gain in reading comprehension as measured by the *Neale Analysis of Reading Ability*. Holdsworth also reported that the six students who received *Decoding C* gained 11.1 months in reading accuracy and 16.0-months in reading comprehension on the same assessment. The results were maintained to a large extent when five of the *Decoding B* students returned to their primary schools.

Malmgren (2000) examined the academic achievement of 45 incarcerated male African American youths (mean age 17.07 years, range 13.92 to 18.75 years). These students were at least two-thirds of a standard deviation below the mean on an overall composite of reading. The results after a six-week implementation of ***Corrective Reading*** showed there was statistically significant improvement on the *Gray Oral Reading Test (GORT-3)* from pretest to posttest assessments in the subtest areas of rate (4.04 vs. 5.04), accuracy (3.87 vs. 5.13), and passage (rate and accuracy combined, 3.80 vs. 4.64). (Standard scores on these subtests have a mean of 10 and a standard deviation of 3.) Although not statistically significant, there was also a pretest to posttest gain for comprehension (3.00 vs. 3.84). Finally, at posttest, three students were no longer at or below the 1st percentile on the *GORT-3* Oral Reading Quotient and four students scored within two-thirds of a standard deviation of the mean.

Scarlato and Asahara (2004) studied the effects of a 19-week ***Corrective Reading*** *Decoding B2* program with five 16- to 17-year-old adjudicated male students who were below grade-level readers. Four other students served as a comparison group. Students in this investigation had either emotional disturbances and/or learning disabilities. The comparison group received the reading program offered in their English class as well as services from the reading specialist. Results revealed that the ***Corrective Reading*** group showed improved performance on the *Woodcock Reading Mastery-Revised* subtests — Word Identification, Work Attack, Word Comprehension, and Passage Comprehension — and clusters — Basic Skills, Reading Comprehension, and Total Reading (see Figure 26). The comparison group had decreased performance on all subtests and clusters.

Steventon and Fredrick (2003) used a multiple baseline across participants design to assess the effects of adding repeated readings to the ***Corrective Reading*** *Decoding B2* program. Three African American middle school male students, who had been placed in an alternative school due to disciplinary infractions, participated. All students made gains in their mean correct words per minute (CWPM) on practiced passages with the repeated reading intervention — the number of words read correctly on practiced passages increased 21.8, 37.3, and 37.4 words. All students showed increases in the percentage of sessions in which they achieved program-specified criteria for CWMP. Two of the three students showed a reduction of mean errors per minute from baseline to the repeated reading phase, thereby maintaining high levels of accuracy as their reading rates increased. However, two of three students showed losses in the number of words read correctly on the unpracticed passage time readings and none of the students showed distinct evidence of transfer of fluency gains to the unpracticed passages. As the students experienced only 3 to 13 days of intervention in the study, more extensive intervention may be necessary to produce generalizable gains.

Thorne (1978) provided the ***Corrective Reading*** *Decoding* program to two groups of maladjusted males ranging in age from 8 to 12 years. Group A included five boys and Group B included eight boys. The author reported that over 35 lessons, Group A exhibited a mean gain of 6.6 months for reading accuracy. Group B made an average gain of 6.8 months for accuracy and 6.2 months for comprehension on the *Neale Analysis of Reading.*

Overall, results were positive for students using *Corrective Reading* on standardized measures and oral reading fluency probes. These results should be of particular significance to correctional educators who often have a limited amount of time to teach students basic reading skills.

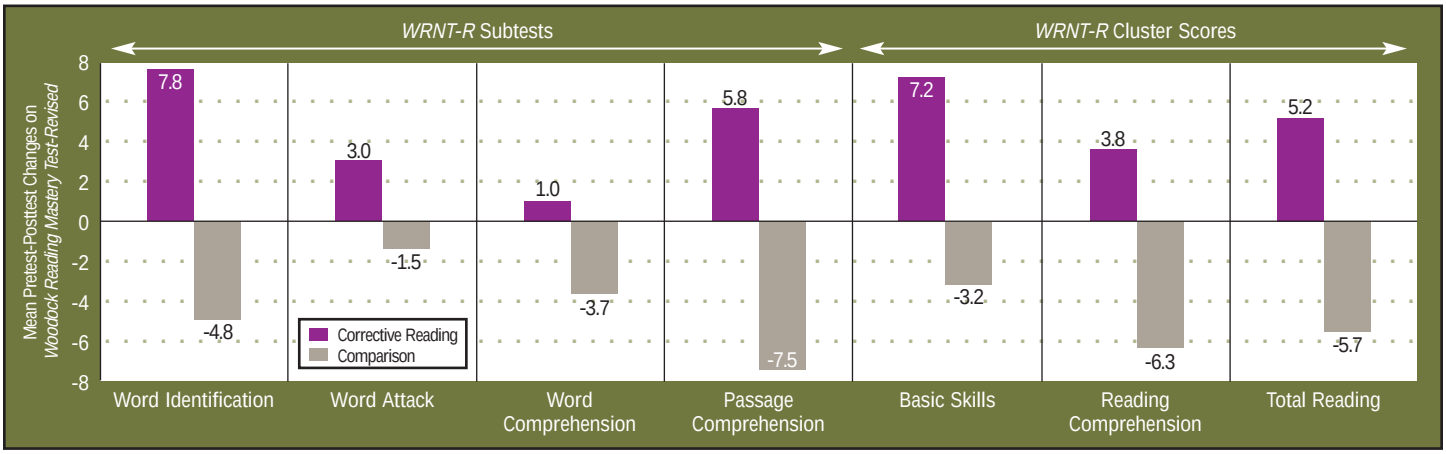

Figure 26: Scarlato and Asahara (2004) displaying mean pretest-posttest changes on the *Woodcock Reading Mastery Test-Revised*

Corrective Reading as Delivered by Paraprofessionals and Peer Instructors

Five studies were found examining the effects of ***Corrective Reading*** as implemented by paraprofessionals or peer instructors in general and special education settings. In addition to these studies, Marchand-Martella and Martella (2002) highlighted the use of peer-delivered ***Corrective Reading*** in a research summary of four of the studies described below. Further, Marchand-Martella, Martella, Bettis, and Riley-Blakely (2004) described aspects of a high school-based tutorial program using ***Corrective Reading*** and peer-delivered instruction.

General education settings. Table 4 shows four studies examining the effects of ***Corrective Reading*** implementations by paraprofessionals or peer instructors in general education high school settings.

Table 4: ***Corrective Reading*** as delivered by paraprofessionals or peer instructors in K–12 general education settings

Study	DI Program	n	Participants	Research Design	Research Purpose	Intervention Details	Outcome Measures	Findings
Gersten, Brockway, & Henares (1983)	*Corrective Reading*, as part of a larger *Direct Instruction for those with Limited English* (*DILE*) program	35 (15 in 1980–81 school year, 20 in 1981–82 school year)	Limited and non-English speaking students, including students from Korea, Vietnam, Japan, the Philippines, and Samoa	Pre-experimental — One group pretest-posttest (for Grades 3 to 6 only)	Determine the effects of *DILE* program (which included *Corrective Reading*) on students with limited English proficiency.	*DILE* program implemented by bilingual instructional aides. Program components include: (a) the Direct Instruction Model of classroom organization and teaching strategies; (b) use of developmental and remedial Direct Instruction programs for ESL students; (c) structured English immersion, (d) non-graded approach; (e) use of bilingual aides as instructors, and (f) cultural activities.	*Comprehensive Test of Basic Skills*	Improvement in reading performance was shown for reading and language.
Harris, Marchand-Martella, & Martella (2000)	*Corrective Reading: Project PALS*	88	High school students at-risk for failure (N=88) 11th and 12th grade peer instructors (N=77)	Pre-experimental — One group pretest-posttest	Investigate the effects of peer-delivered instruction using *Corrective Reading*.	Average of 33 lessons taught across an average of 66 instructional days, 50 min. per day, 5 days per week over an average period of 6 school days. Peer-instructors delivered instruction to at-risk high school students using the *Corrective Reading* program. Fidelity checks were conducted.	*Gates-MacGinitie Reading Tests;* measures of oral reading fluency	Learners demonstrated median grade level gains on standardized measures. Oral reading fluency rates increased greatly while the number of repeated readings to reach criterion decreased.
Keel, Fredrick, Hughes, & Owens (1999)	*Corrective Reading: Decoding A, B1, B2, & C*	75	Elementary students at risk for failure	Pre-experimental — Pretest-posttest with no comparison group; 2 groups	Investigate the effectiveness of using para-professionals to deliver *Corrective Reading*.	Paraprofessionals delivered instruction for approximately 30 min per day across 1 to 2 school years. Fidelity checks were conducted.	*Woodcock Reading Mastery Test-Revised*	4th and 5th graders made statistically significant academic rate gains.
Short, Marchand-Martella, Martella, & Ebey (1999)	*Corrective Reading: Project PALS*	11	11th and 12th grade peer-instructors (N=11)	Pre-experimental — One group pretest-posttest	Determine the advantages of serving as peer-instructors using the *Corrective Reading* program.	Peer-instructors provided one-on-one instruction to learners for 5 days per week for an average of 152 days. Approximately .6 lessons were completed per day, average of 109 lessons were completed overall. Peer-instructors earned college credits for their participation. Peer-instructors kept daily journals. Fidelity checks were conducted.	*Gates-MacGinitie Reading Tests;* direct observations; satisfaction surveys; and journal entries	Peer-instructors demonstrated stable performance from pre- to posttest on vocabulary and comprehension measures. Peer-instructors scoring below grade level on the vocabulary pretest performed at or above grade level on the posttest. Daily journal entries showed overall positive comments about their partners.

Gersten, Brockway, and Henares (1983) evaluated the effects of *Direct Instruction for those with Limited English (DILE)* over a multi-year period in Monterey, California. Twenty-eight students with limited English from Korea, Vietnam, Japan, Phillippines, and Samoa participated. The ***Corrective Reading*** *Decoding* and *Comprehension* programs were part *DILE*, which included Math and Reading instruction for Grade 3–6 students. Native English speakers were scheduled into instructional groups with limited English students. Every six weeks, students were assessed and regrouped as necessary.

Results indicated that the percentile ranks of students in Grades 3–6 during the 1980–81 school year (N=15) increased from the 4th to the 19th percentile for total Reading and from the 5th to the 23rd percentile for total Language. The percentile ranks of students in Grade 3 during the 1981–82 school year (N=10) increased from the 17th to 47th percentile for total Reading and from the 16th to the 41st percentile for total Language. That same year, the percentile ranks of students in Grades 4–6 (N=10) increased from the 4th to the 23rd percentile for total Reading and from the 4th to the 30th percentile for total Language.

Harris, Marchand-Martella, and Martella (2000) assessed the effects of a peer-delivered ***Corrective Reading*** program with repeated readings with 88 at-risk high school students (i.e., two or more grade levels below current placement). The high school was located in the Pacific Northwest; the study took place over an average of 66 school days. The students were tested before and after the program on vocabulary and comprehension on the *Gates-MacGinitie Reading Tests*. Results showed that the instructional groups' median grade equivalents increased as follows: vocabulary 4.3 to 6.7 (*Level B1*), 4.7 to 6.9 (*Level B2*), and 4.9 to 6.9 (*Level C*).

Median grade levels for comprehension also increased from pretest to posttest as follows: 3.4 to 5.5 (*Level B1*), 4.3 to 6.3 (*Level B2*), and 3.4 to 5.5 (*Level C*). Additionally, oral reading fluency rates increased from 155 wpm to 254 wpm, while the number of repeated readings to reach criterion decreased from 7.9 to 4.7.

Keel, Fredrick, Hughes, and Owens (1999) followed a group of students from a small urban school system over a one- to two-year period to assess the effects of the ***Corrective Reading*** program with students who were below the 50th percentile on the *Iowa Test of Basic Skills*. The group included 54 Grade 4 students and 21 Grade 5 students. The results indicated that Grade 4 students exhibited a mean academic rate gain — months of academic gain divided by the number of months in the program — of .79 before the program and 1.19 during the first year of the program on the *Woodcock Reading Mastery Tests-Revised* (WRMT-R). There was a notable loss of students (N=32) from the first year to the second year of the study. The mean academic gain for the remaining students was .60 in year two. The loss of students may have contributed to the lack of statistical significance for academic gain in year two.

Students in Grade 5 made the following gains: .71 prior to the program and 1.46 during the program. None of the Grade 5 students were assessed in year two. A second set of analyses was performed for each group to determine if statistically significant differences occurred for WRMT-R Total Reading normal curve equivalents (NCE) scores. Mean results for Grade 4 showed a gain of 6.07 from pretest to Posttest 1, gain of 2.19 from Posttest 1 to Posttest 2; Grade 5 showed a gain of 7.9 from pretest to Posttest 1. These gains were statistically significant and show evidence of significant growth in students' standing relative to their peers.

Short, Marchand-Martella, Martella, Ebey, and Stookey (1999) assessed the advantages of serving as peer instructors using the ***Corrective Reading*** program. Eleven Grade 11 and Grade 12 peer instructors located in an urban school district in the Pacific Northwest provided the program in a one-on-one format to 11 Grade 9 students over an average of 152 days (range 139–160). Results showed that the peer instructors who initially scored below grade level on the vocabulary pretest (mean grade level 10.5) of the *Gates-MacGinitie Reading Tests* increased to at or above grade level on the posttest. They exhibited stable performance on the comprehension subtest. The peer instructors who initially scored at or above their grade level for vocabulary and comprehension exhibited stable performance.

Overall, these results show that paraprofessionals and peer instructors can implement the *Corrective Reading* program. More importantly, these studies show that implementing the *Corrective Reading* program with these service providers can greatly improve the reading performance of students and also benefit the instructors, particularly peer instructors.

Special education settings. Table 5 shows one study examining the effects of ***Corrective Reading*** as delivered by peer instructors in special education settings.

Table 5: *Corrective Reading* as delivered by paraprofessionals or peer instructors in K–12 special education settings

Study	DI Program	n	Participants	Research Design	Research Purpose	Intervention Details	Outcome Measures	Findings
Marchand-Martella, Martella, Orlob, & Ebey (2000)	*Corrective Reading Decoding*	22	Special education students. 9th graders	Single group — pretest-posttest	Investigate the effects of *Corrective Reading* as delivered by peer instructors.	Honors English students taught one-on-one, 3 days per week, 80 days; students completed 39-53 lessons of *Corrective Reading Decoding* programs	Gates-MacGinitie Reading Tests; measures of reading fluency	Gains in grade equivalent scores improved for *B1* group in vocabulary, *B2* & *C* in vocabulary and comprehension; oral reading fluency for *B1* and *B2* increased.

Marchand-Martella, Martella, Orlob, and Ebey (2000) analyzed the effects of a peer-delivered ***Corrective Reading*** program with repeated readings to 22 rural high school students in the Pacific Northwest. These Grade 9 students were at least two years below grade level. The *Gates-MacGinitie Reading Tests* (vocabulary and comprehension subtests) served as the assessment. For the students in *Level B1*, grade-level performance increased from 2.6 (pretest) to 4.2 (posttest) for vocabulary and decreased from 2.6 (pretest) to 2.4 (posttest) for comprehension. For students in *Level B2*, there were increases for both vocabulary and comprehension from 4.9 (pretest) to 5.0 (posttest) and 3.5 (pretest) to 4.3 (posttest), respectively. For students in *Level C*, there were increases from 5.2 (pretest) to 5.3 (posttest) for vocabulary and from 3.6 (pretest) to 5.1 (posttest) for comprehension.

Overall, results showed that students who received the program over one academic year showed stable grade-level performance in vocabulary (5.2 on pretest and 5.3 on posttest). However, these students demonstrated an increase in grade-level performance on comprehension from 3.6 on the pretest to 5.1 on the posttest.

Summary

Twenty-six of the 28 studies found positive results for students who were taught using ***Corrective Reading*** and one study found positive results for peer instructors who delivered ***Corrective Reading*** programs. For those studies using standardized measures, results indicated that most vocabulary and comprehension scores increased from pretest to posttest with similar increases in oral reading fluency. In fact, many posttest oral reading fluency measures showed learners to be performing above end-of-program expectations.

Clearly, ***Corrective Reading*** has been shown to improve students' reading performance in a variety of different settings. It is also clear that when delivered by peer instructors or paraprofessionals, ***Corrective Reading*** has been shown to be a positive way to deal with a limited amount of instructional resources for secondary students who are at risk for academic failure.

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