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THE EFFECTIVENESS OF THE "MAKING WORDS"

PROGRAM ON READING DECODING

by
Mandy E. Fisher

A Thesis

Submitted in partial fulfillment of the requirements of the
Masters of Arts Degree
of
The Graduate School
at
Rowan University
2000

Approved by

Date Approved ___5/4/2000___

ABSTRACT

Fisher, Mandy E.   THE EFFECTIVENESS OF THE
                               "MAKING WORDS" PROGRAM
                               ON READING DECODING, 2000.
                               Thesis Advisor: Dr. Kuder
                               Special Education

The purpose of this study was to determine if the Making Words Program when incorporated into the whole language curriculum will help children with special needs improve their reading decoding. Meaningful growth on reliable instruments would indicate a possible correlation between the use of the Making Words Program and reading decoding development.

The study consisted of five second grade students ranging in age from 7 years to 8 years. All students were given instruction through a whole language based approach in addition to the Making Words Program. The treatment program consisted of one session per week for a duration of 20 weeks.

The Gates-MacGinitie Reading Tests Level 1 and Level 2 was administered as a pre and posttest. The Gates-MacGinitie norm tables for Level 1 and Level 2 was used to obtain the percentile rank scores for the students.

Analysis of pre and posttest results seems to indicate that 100% of the students showed growth in their ability to decode words. This would seem to indicate that

alternative programs in addition to whole language instruction are a viable way to increase

special need students decoding ability.

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The writer would like to acknowledge the following persons without whose cooperation and assistance this project would not have been possible. First, I would like to thank Dr. Kuder, Advisor. Second, I would like to thank the principal, the reading specialist, and the second grade teachers at Taunton Forge Elementary School for their time, patience, and help. Last, I would like to thank Matthew Fisher, my husband. Without his encouragement and support this thesis would never have been completed.

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CHAPTER ONE

STATEMENT OF THE PROBLEM

How best to teach children to read has long been debated. Adopting a balanced approach, one that includes indirect, explicit instruction as well as extensive opportunities for authentic reading and writing has been advocated by many reading educators for decades (Adams,1990). Learning to read is based on complex, cognitive, emotional, social, and instructional factors.

To be a proficient reader means you have the ability to recognize and decode words automatically. However, learning disabled students often lack the ability to recognize words, decode words, comprehend any type of writing, spell. Once you have the capability to easily decode and recognize words, more attention can be paid to the comprehension of the passage. If a reader has to spend too much time and effort on decoding then the meaning of the passage is lost. Teachers need a balanced reading program that includes instruction in decoding as well as comprehension and spelling. Using literature and connected spelling and writing activities in conjunction with word study enables children to see a purpose and connection between the strategies they learn and how they apply to reading and writing.

Allington and Cunningham (1996) argue that classroom teachers are important, and effective classroom literacy instruction cannot be produced from a single master plan

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that all teachers are mandated to follow. What we need is a way to teach learning disabled students the ability to decode, recognize, comprehend, and spell words, with the ultimate goal being that every student reads on grade level. The Making Words Program lets children explore words and discover patterns, increase their word knowledge, and become better readers.

Research Question

Since most classrooms have children at different stages of decoding, comprehension, and spelling, will incorporating the Making Words Program into the whole language curriculum help second grade students with special needs improve their reading decoding? Making Words will be introduced into one of the two second grade classrooms for eight-weeks as a whole group activity. Special need students in both inclusion classrooms will then be assessed using the Gates-MacGinitie Test. After eight-weeks, the Making Words Program will be incorporated into the second inclusion classroom. After eight-weeks students will again be retested using the Gates-MacGinitie Test. Growth will then be determined by gains made once the program has been incorporated into the curriculum.

Hypothesis

Using the Making Words Program will help children with special needs improve their scores on reading decoding as measured by the Gates-MacGinitie Test.

Definition of Terms

1. Decoding- In reading, refers to the ability to translate the printed symbol into language. Entails visual perception and discrimination, preceded by auditory perception and discrimination.

2. Inclusion- A supported educational initiative which refers to the opportunities for all students with the full range of disabilities to be educated in age-appropriate regular classes in their home school and to be full participants in all aspects of the school day.

3. Learning Disabled- Specific learning disability corresponds to "perceptually impaired" and means a disorder in one or more of the basic psychological processes involved in understanding or using language, spoken or written, that may manifest in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations.
It is characterized by a severe discrepancy between the student's current achievement and intellectual ability in one or more of the following areas:

(1) Basic reading skills;

(2) Reading comprehension;

(3) Oral comprehension;

(4) Listening comprehension;

(5) Mathematical comprehension;

(6) Mathematical reasoning; and

(7) Written expression.

4. Making Words- An active, hands-on manipulative activity in which children discover sound-letter relationships and learn how to look for patterns in words.

5. Phonemes- The smallest unit of sound in language. Each phoneme is made up of a set of *distinctive features*. Each individual letter sound or blend, such as /p/ or /ch/ are phonemes.

6. Spelling- To name, write, or print in order the letters of a word.

7. Word Recognition- Identification of a word presented in isolation, either through the use of form configuration or skill in phonetic analysis. Indicates accurate decoding ability, but does not tap knowledge of word meaning.

Need for the Study

Two facts about children's phonological skills have been established beyond any doubt in recent research. First there is a definite development in children's phonological skills (Lomax & McGee, 1987). The second significant discovery about phonological development is that there is a striking relation between children's phonological skills and their success in reading (Bryant & Bradley,1985). The better children are at detecting syllables, rhymes, or phonemes, the quicker and more successful will be their progress with reading. This study may provide teachers with a way to help students become skilled readers and spellers.

This chapter provided an overview of the topic being investigated in this study- the effect of Making Words incorporated into a whole language curriculum on decoding,

comprehension, and spelling for learning disabled students. Chapter Two will discuss the

research that has been done in this area.

CHAPTER TWO

REVIEW OF THE LITERATURE

The following chapter will explore three areas in reading. The first part of this
chapter will investigate reading models and the variety of skills included in reading. Part
two will address reading problems and characteristics of efficient readers versus non-
efficient readers. In part three readers will be introduced to different reading interventions
that can be applied in schools to help students with special needs. Finally, chapter two will
conclude with a summary of the research.

Reading Models

In order to attempt to improve reading skills of students, one must first understand
what reading is. Such an understanding is not easily acquired, for there are many
competing conceptions about the nature of reading. The major positions on the nature of
reading can be characterized as "bottom-up" models, "top-down" models, and interactive
models that combine features of both (McPike, 1995).

Models that have been characterized as bottom-up emphasize that reading begins with the smallest written unit - the letter. Instruction often includes letters or sounds in isolation, then moving to corresponding words. In some classrooms, instruction not only begins at this lower point in the spectrum, but ends at the visual level as well, without moving toward the larger end of the meaning continuum. Isolated sounds, letters, or words are often not related to the text, providing little transfer of instruction to real reading (Howard, 1995). Youngsters who do well with the bottom-up method tend to have strong auditory and analytic reading styles. Children who are auditory can hear and remember letter sounds. If they are also analytic, the logic of phonics makes sense to them, for they proceed naturally from bits of information to the whole. Phonics instruction is usually highly sequential, organized, direct, and predictable- all conditions that appeal to analytics (Carbo, 1996). The evidence regarding the benefits of phonics instruction is cumulative, particularly for children at risk. When reading is viewed as a process that develops over time, the ability to identify words and decode those not immediately recognized is an essential early learning that makes possible later, mature reading. When children cannot identify words accurately and automatically, they usually have difficulty reading fluently, which further hinders their ability to read with understanding the great variety of texts of increasing difficulty and to react to them with more advanced cognitive and affective responses (Chall, 1989).

Goodman, Hood & Goodman (1991) state on the other hand, the top-down models emphasize that the act of reading begins not with letter or word recognition, but with the mind of the reader already set to hypothesize, sample, and predict about the

nature of what he or she is about to read. In a top-down approach, meaning remains as the essence of instruction. Students are provided an opportunity to actively participate in the story where the bulk of meaning is contained. After the child is immersed in the story, understanding the message as a whole, the components may then be addressed. It is essential, however, to remember that when instruction moves to the visual level (letter/sound) it should be of limited duration, quickly returning to the higher level of meaning (story). This provides children the opportunity to retain the meaning, even when the components of reading are broken down (Howard, 1995). Children who do well in the top-down programs tend to have visual, tactile, and global reading styles. They can recall words they see and hear repeatedly in high-interest stories. Whole-language programs usually emphasize fun, popular literature, hands-on learning, and peer interactions- all conditions that appeal to global learners (Carbo, 1996).

Interactive models hold that an efficient reader moves back and forth, or simultaneously attends to both what's in his or her mind (predicting and hypothesizing) and what's on the page (attending to specific letters and words). An interactive model is particularly good for the early stages of learning to read. As the learner becomes more proficient in reading, he or she can give increasing attention to comprehension and relatively less attention to scrutinizing individual letters and words (Carbo, 1996).

Reading encompasses a variety of skills including: Prereading, Relating, Predicting, Decoding, Comprehension, Question Generating, Inferencing, Summarizing, Monitoring, and Imaging.

Langer (1981) states that the prereading stage of reading is critical in order to prepare children for reading text, allowing the teacher to assess and activate prior knowledge and build a foundation for learning. By sharing the essence of the story through story introduction, we are giving children a sense of the story while putting the story structure " in their heads" (Langer, 1981). This provides a framework for the reading which follows. Prior to the reading of a story, discuss the illustrations and main idea. Allow children to make predictions about the story and to draw possible conclusions, as well as relate it to their own experiences. The amount of time spent during this stage will depend largely on the needs and sophistication of the students. This will merely set the stage for reading and allow children a framework for understanding the story and vocabulary. Some possible suggestions for this stage are: read and discuss the title and cover including the back cover, make predictions about the text based on the title and cover illustrations, assist children in creating a link between the book and their own real-life experiences, give students any background information about the book that would help them to appreciate it, and provide activities which allow children to build a base of knowledge for working within the story.

Children must be able to relate reading to their background experiences by activating prior knowledge related to specific topics and bringing it to the task of reading. Prior knowledge is critical in understanding. It is the teachers responsibility to assess the background knowledge of students related to the reading task. Concrete experiences are particularly effective as they aid children in bridging the gap between abstract and concrete (Paris et al.; 1991). Teachers need to continue to invite children to relate these personal

experiences to the text before, during, and after reading. This builds a bridge between known and new.

Head and Readence (1986) found that predicting is a strategy which expert readers use as they read, both before and during reading. Good readers predict words and ideas in the process of reading. This becomes an ongoing process which supports children as they use what is known about the text to determine what they expect may follow. When we read, we do not read every word. Rather, we jump ahead and fixate on every three to four words. Good readers predict subsequent words based on the previous reading. Once it makes sense, they read on (Hammond, 1983).

Decoding in reading refers to the ability to read through a word from left to right, generate the sounds that are connected to all the letters or letter patterns in that word and manipulate those sounds until they connect to a word in the student's speaking vocabulary (Honig,1997). There are three components of decoding: phonic analysis which is to figure out letter sound correspondences, structural analysis which is the decoding of multisyllabic words and contextual analysis using the context of a sentence to figure out irregular words (Bryant, Ugel, Thompson & Hanoff, 1999).

Teaching students the relationship between units of letters and their sounds is referred to as phonic analysis. Phonics instruction includes teaching students the most common sounds represented by several consecutive letters (referred to as letter combinations). A letter combination is a group of consecutive letters that represents a particular sound in the majority of words in which it appears. Knowing the most common sounds of letter combinations greatly expands students' abilities to decode new words. It

is also a strategy to decode words which contain a VCe pattern in which the initial vowel represents its long sound and the final e is silent.

Structural analysis involves teaching students to decode words formed by adding prefixes, suffixes, or another word to a base word. Structural analysis is sometimes referred to as morphemic analysis, morphemes being the smallest meaningful units of language.

Contextual analysis is a useful tool to help students in decoding irregular words. It involves teaching students to rely on the syntax (word order) and semantics (word meaning) of the sentence in which a word appears, as well as letter-sound-correspondence knowledge as an aid to decoding the word. The first type of context cue, syntax limits the number of possible words that can come next in a sentence. Thus, syntax cues allow students to make inferences regarding the possible pronunciation of a word. The second type of context cue, semantics further limits the number of possible words that can come next in a sentence (Bryant, Ugel, Thompson & Hanoff, 1999).

Comprehension is a label for a myriad of skills that involve getting meaning from the printed page (Carr & Ogle, 1987). The teaching of comprehension should be approached in the same manner as the teaching of decoding. Instruction should be planned to facilitate a high degree of student success in the learning process. Specific skills are taught and then integrated into passage-reading exercises. Isolated skills have little value if they are not used in comprehending the text (Mastropieri & Scruggs, 1997).

A comprehension program should have the following components: systematic introduction of vocabulary and information appearing in passage-reading exercises. A

program should teach the meaning of words critical to the understanding of a passage prior to the students encountering the word in a passage. Similarly, information the students will need to comprehend a passage and make inferences should be presented prior to the students' reading the passage. A sequence for introducing specific comprehension skills should be carefully designed. Skills should be taught systematically. Passage reading should be the vehicle for integrating the various specific skills into a meaningful whole. The teacher guides the students to see the overall meaning of the story (Carr & Ogle, 1987).

In the primary grades there are three aspects of program design to keep in mind when teaching comprehension skills: literal comprehension (teaching students to retrieve information stated in a passage), sequencing (requiring students to order several events from a passage according to when they happened in a passage), and summarization (teaching students to generate or select a sentence that expresses the main idea) (Dole et al.; 1991).

Helfeldt and Henk (1990) found that as children generate questions about the text, they begin to set a purpose for reading and develop a growing interest and motivation as they seek answers to those questions. Questions can be identified by students at all times during reading: before reading, they set reading goals which provide a focus; during reading, as they search for answers to their questions: And after reading, they use questions to determine if set goals and purposes were met during reading, aiding them in pulling together important pieces of information and evaluating ongoing comprehension (Schmidt, 1989).

Inferencing is the ability of a reader to go beyond the author's words by supplying information not provided in order to draw conclusions (Gordon, 1985). Children make inferences when they predict because they have not seen the information yet. Students must also be assisted in making inferences during reading. This encourages them to use their own background knowledge or experiences in combination with the text in order to reason or conclude what the author is saying. The ability to use inferences is at the heart of constructing meaning because readers must go beyond the text (Gordon, 1985).

Summarizing is the ability to pull together important aspects of the text. It is an effective post-reading technique which fosters understanding as well as recall. The ability to summarize is a key study strategy as children learn to focus on major information in texts as well as the ability to separate essential from non-essential information (Carr and Ogle, 1987).

Monitoring is the ability to know when reading doesn't make sense and to have strategies which can be selected and used in order to correct the problem (Smith and Daver, 1984). Allow children to discuss their own thinking process as they read. The semantics-"what makes sense?", "what does that mean?", "have you heard a word like that before"? , "what would make sense there?", "were you right?", "what is happening in the story"?, "what do you think may happen next?". Syntax-"what sounds right?", "does that make sense?", "can you say it that way?" , "can you think of another word that would sound better?". And graphonics-"what looks right?", "do you know a word that looks like that?", "what do you notice about that word?", "do you notice something familiar about that word?" , "and do you see a part of the word you know?".

Imaging is the ability to create mental images and pictures as we read, an excellent aid to listening and reading comprehension and spelling (Clark et al. 1984). Creating mental images is a metacognitive skill which can be taught and learned. Encourage children to create visual pictures as they read or listen, providing opportunities to describe those visual images. It is important for children to understand that each of us, as readers, create our own personal pictures and images as we read which aids in prediction, comprehension, and recall. There is no right or wrong, only our own unique vision.

Reading Problems

Ideally, students read at a level commensurate with their mental age, not their chronological age or grade placement. Unfortunately, many students for one reason or another do not read at their mental age level. Students with reading problems are often labeled as "developmental," "corrective," "retarded," or "remedial". Sometimes more complicated and threatening labels are attached. Although teachers should be familiar with the terms and the conditions they represent, they should keep in mind that knowledge of terms or the conditions is not particularly helpful in teaching students to read. In particular, as students with reading disabilities progress in school, " the gap between what they can read and what they should read continues to widen, [and] learning and reading problems become more generalized, compromising word attack skill, comprehension, thinking strategies, attention, and sadly, self-esteem" (Cibrowski, 1992).

Reading experiences strongly influence a student's self-image and feeling of competency. Reading failure can lead to misbehavior, anxiety, and lack of motivation.

Problems in reading are manifested in a variety of ways. Selected reading behaviors of children with reading disabilities include losing his/her place frequently, frowning, fidgeting, using a high-pitched voice, and lip biting. Word recognition errors which can include omitting a word, inserting words, substituting one word for another, reversing letters in a word, mispronouncing words, and reading words in the wrong order.

A large number of students identified as having learning disabilities also exhibit language-learning difficulties. Vogel (1975) states that a language disorder is characterized by problems in language comprehension, expression, speech discrimination, and word-finding difficulties. Because language skills and academic functioning are so closely related, it is sometimes difficult to determine the primary disability (reading or language). Language disorders are problems related to development of understanding and/or use of phonologic, morphologic, semantic, syntactic, or pragmatic components of the language system. The problem may be a delay (language seems to be normal but not age-appropriate), or it may be different (deficient). If the problem is a deficiency, the language disorder may be described as receptive (the ability to comprehend spoken or written word) or expressive (the ability to produce language for communication purposes) (Leonard,1990). Reading, by definition, is an active constructive process. At risk-readers tend to be passive, often waiting for the meaning to jump off the page (Honig, 1997). When comprehension fails, frequently they simply move on, satisfied that reading has taken place. Reading, for them, tends to be a process of word calling or letter-by-letter, word-by-word decoding.

In examining characteristics which differentiated efficient readers from non-efficient readers, numerous factors were determined. One factor is that of passive versus active reading behaviors. Poor or non-efficient readers exhibited a large number of passive behaviors such as; defaulting or sitting quietly while waiting for assistance, appealing or requesting help within five seconds, failure to detect miscues even when meaning is strongly affected, failure to predict the author's words, seeking outside help, failure to activate and use background experiences as an aid, limited evidence of repetition of words, phrases, or sentences, and limited evidence of self-corrective behavior (Howard, 1995).

By contrast, proficient readers exhibit a number of active reading behaviors during the process of reading; searching the text for information which would assist them, limited evidence of appeals for aid, marked increase in repetition of words, phrases, or sentences, evidence of prior knowledge in predicting and making inferences, marked increase in self-correcting behavior, and independence evidenced by limited outside interaction (Flippo, 1998).

Paris, Waski, & Turner (1991) found another characteristic which is overwhelmingly evidenced in non-efficient readers is "frequent sounding out behavior." Non-efficient readers tend to quickly sound words out, often leaving words in a letter by letter format without an effort to assure that the word made sense in the context of the paragraph. They seem content when the word matches visually, with little concern for the meaning of the sentence or paragraph as a whole. By contrast, proficient readers sound out words less frequently. When decoding is used, the word is generally reread in order to

make sense within the context of the text. In addition, efficient readers tend to use sounding out behaviors as a secondary strategy. They tended more often to predict words which made sense in the context of the story, checking to see if it matches visually only when the meaning appeared to be affected. The substitutions of non-efficient readers are often nonsense or even non-word substitutions (visually similar to the target word), while efficient readers tended to be less concerned with visual aspects of words than with meaning. It is also observed that efficient readers make a larger number of meaningful omissions and insertions which do not change the meaning of the text, whereas the insertions and omissions of inefficient readers frequently change the meaning of the text.

Efficient readers tend to see reading as a meaningful exchange between the author and the reader. The strategies used enable them to make sense of the author's words, which appears to be their primary concern. The non-efficient readers, however, appearing unconcerned when the meaning is changed, altered or lost, exhibited fewer behaviors which allow them to regain the meaning such as self-correction or repetition. They are clearly satisfied at their first efforts, regardless of the resulting message. A distinction between fluency and phrasing was also observed. Non-efficient readers used a monotone, word-by-word reading and appeared often to be word calling. Efficient readers, by contrast, generally used expression, with more fluent reading behaviors observed. Non-efficient readers have few strategies they can use in approaching text, yet these strategies can be taught and learned (Paris,1985).

Another strongly observed characteristic was that of 'negative talk' regarding reading ability. Poor readers typically apologized for their reading ability prior to

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approaching the text. Some examples include, " 1 don't know that," " My teacher didn't teach me that yet," " I don't think I can read that," " I'm not a very good reader." They can become self fulfilling prophecies in many cases. Efficient readers, on the other hand, do not make such comments. They approach the text quickly and with confidence. They rarely request assistance. They appear to have a metacognitive awareness of their abilities as independent readers (Paris, Wasik, & Turner, 1991).

Most people with reading disability demonstrate a core deficit in phonological processing (Velutino et al.; 1994). Moats and Lyon (1996) report that a key finding in research is the importance of code-emphasis instruction for students who do not automatically learn to read and spell. They emphasize that successful code-based instruction is not the "phonics" of old that was largely workbook oriented. Evidence shows that when direct, systematic code-based instruction is skillfully implemented by a knowledgeable teacher, it is the most effective approach for problem readers (Moats & Lyon, 1996)

Reading Interventions

The following teaching techniques can be used in schools or classes to help students with reading disabilities. The visual, auditory, kinesthetic, and tactile (VAKT) approach can be used if a child has a severe word-learning difficulty and visual-auditory approaches have been unsuccessful. The system is multisensory, involving four modalities simultaneously- visual, auditory, kinesthetic, and tactile. The approach is cognitive, for

the words learned always originate with the reader and have contextual or meaningful

association. Perception of the word as a whole is basic to the VAKT method. The VAKT

approach emphasizes analyzing the problem and by reconditioning the student. Both are

positive approaches to remediation that call the learners attention to what he/she has

already learned and assure the student that one can learn any words that one wants to

learn. The VAKT method has different stages. Stage 1 uses a multisensory approach

where all modalities are being used. Stage 2 discontinues the use of the tactile phase but

continues with visual, auditory, and kinesthetic steps. Stage 3 dispenses with the

kinesthetic mode and emphasizes looking and saying a word to oneself. Stage 4 is

achieved when students have the ability to recognize new words by their similarity to

words or to parts of words that a child has already learned. It should be emphasized that

the Fernald Approach (VAKT) is basically a word-learning technique and the child should

have directed reading instruction in a group, or individually, to develop comprehension

skills. Although this approach has found wide use, research on multisensory reading

methods has been mixed (Thorpe & Borden, 1985). Some writers have contended that

VAKT procedures provide maximum sensory input to the brain (Haring & Bateman,

1977), others say that kinesthetic and tactile sensory input compensates for weak visual or

auditory input (Hallahan & Kauffman, 1976), or that the auditory, kinesthetic and tactile

channels provide support for the visual channel (Gearheart, 1981) and that the active

involvement of all senses results in recognition of the distinctive features of the learning

task (Smith, 1983) (Thorpe & Borden, 1985).

Another method to help with improving reading decoding can be through the Gillingham (Orton) Phonics Approach. The Orton training for students stresses auditory discrimination abilities with supplementary emphasis on kinesthetic and tactile modalities. Although phonetic methods help the child to synthesize what he/she sees with what he/she hears, visual perception is used minimally. The approach of the Gillingham model is essentially a formal skill-building program. The entire program is built on eight basic linkages that form the association of auditory, visual, and kinesthetic stimuli. Once a student has mastered basic sound production, he or she is introduced to phonograms (one letter or a group of letters that represent a phonetic sound). Once the phonograms have been mastered, they are used in drill procedures. Gillingham's program for developing skills combines the use of phonetic study as well as experiences and language stories. Writing thus became an important part of the learning-to-remember-by-association process (Loveless & Blau, 1980). Although, the Gillingham Orton Phonics Approach is being implemented in schools, there has been little research done to support the use of this technique as a reading intervention.

The Wilson Reading System will teach students how to fluently and accurately decode. It is based on the multisensory language techniques and principles first described by Dr. Samuel Orton, Anna Gillingham and Bessis Stillman (Orton, 1937; Gillingham & Stillman, 1977). It has many characteristics in common with other Orton-Gillingham based programs such as Alphabetic Phonics (e.g., sounds are taught to automaticity and then used to decode phonetically controlled text; language structure is taught in a systematic, cumulative way; there is constant review and repetition). It is also based on

successful experience with thousands of dyslexic students. It is unlike traditional phonics programs in that instruction is very interactive and multisensory. It also thoroughly teaches, "total word construction," not just phonics. It is an integrated system for teaching all aspects of decoding and encoding. Through the introduction of English as a system, students are taught to trust the system right from the beginning as they learn to be able to count on what they have been taught. The Wilson Reading System is relatively new but initial research is encouraging. Wilson points out that the current practice of placing special education students into remedial work without specially designed reading programs needs to be examined (Clark & Uhry, 1993).

The Reading Recovery (RR) tutoring program serves first-grade children whose reading skills place them among the lowest 10 percent to 20 percent at their school (Bracey, 1995). The goals of the program are for students to read at a level equal to the school's average reading level and to teach students reading strategies that will encourage further improvement in their reading ability (Bracey, 1995). Through Reading Recovery, students build their basic reading skills, learn to monitor their own reading, develop good reading habits (such as rereading unclear words), and develop an understanding of how to gain meaning from text (Adams,1990). Reading Recovery has been described as a balanced approach that "helps students understand the nature of text and reading" (Adams, 1990). This program focuses on acceleration of children's literacy growth and the development of literacy strategies. The structured lesson format includes daily rereading of familiar books, direct instruction of reading and writing strategies, daily writing experiences, and the continuous introduction of new books. In evaluations of the

affects of the program, researchers (Center, Wheldall, Freeman, Outhred, & McNaught, 1995; Shanahan & Barr, 1995) found evidence that Reading Recovery was effective in bringing the achievement levels of many of the participants up to that of their average peers. While Reading Recovery has been widely recognized as successful, concerns have also been noted. Two concerns worth mentioning are the general policy to remove children from the program if they have poor attendance or do not progress successfully and the cost-effectiveness of the program (Shanahan & Barr, 1995). In spite of these concerns, Reading Recovery has been recognized as providing instruction that leads to gains by most participants. In addition, these gains seem to be maintained. Shanahan and Barr (1995) caution, however, that there may be a continuing need for instructional support in later grades.

There are also a number of spelling strategies that can be used to enhance students' spelling and decoding ability. The following are a few suggestions for spelling and reading development. Temple and Burris (1982) list quite a few strategies for teaching spelling. For example, for the early phonemic speller, one suggestion is the Lap Method. A child and a teacher sit down together to read a short poem or a song. They read each line chorally while the teacher points to each word. Then the child is asked to read one word at a time. This is good practice in matching the verbal form of a word with the print form. A good activity for the phonemic or letter-name speller is to build a word bank or a collection of words that the child knows. These words can be reviewed easily and more can be added as knowledge expands. For the transitional speller, an activity known as Word Sorts "helps children notice and form concepts about spelling patterns"

(Temple and Burris, 1982). The game can be played by placing a card in the middle of a table. The teacher passes out a collection of words that are written on cards to students. Students then look for words in their hand that have either the same beginning or ending sound, same vowel sound, or same grammatical endings.

Wilde (1992) also lists a few strategies. One is called Placeholder Spelling. In this strategy, if the author comes across a word he does not know how to spell, he/she can simply write down a string of letters to "hold" that place. Later when the story has been completed the writer can ask someone for help or look up the correct spelling. Wilde also suggests a strategy called Generation. Here, the writer generates three possible spellings for a particular word and writes them down. The writer can then choose the spelling he/she thinks is correct and use it. Two more strategies Wilde supplies are monitoring and revision, which are closely related. Both should be done continuously during writing to check for spellings that might be incorrect. There have been no published outcomes at the present time to support the use of these strategies.

An excellent strategy given by Crafton (1991) is called Spelling Explorers Circle. It is a group process. When writers have finished rough drafts, they circle words they think maybe spelled incorrectly; these spellings are written in the first column of a blank form. Then the writer brings it to the group, and the speller gets to write one alternative spelling of each word in the second column. The paper continues around the circle giving others a chance to write a different version of the spelling. The group discusses the various spellings and decides on the one they think is the conventional spelling. It is then

confirmed. This strategy gives the students a chance to think through visual, phonetic, and morphemic (word) relationships.

Allington and Cunningham (1994) offer another game called "The Wheel" and is based on the popular game show, "Wheel of Fortune". The teacher gives the students a sentence with a big word missing. Only the slots for the number of letters in the word are shown. Students guess letters and try to figure out the word using the known letters and the context of the sentence. This is a helpful strategy in reading decoding.

Cunningham and Cunningham (1992) introduce the strategy Making Words. This is basically a puzzle activity where the teacher gives each student a set of letters, one letter on each small card. The letters spell one word and are all mixed up. The teacher guides the children into forming different size words from the small cards. Children have a good time trying to figure out how to spell words and are also getting experience working with letters and their patterns in particular words. Cunningham and Cunningham state that this strategy works for spelling as well as for phonics instruction. However, Making Words should be used along with regular writing activities to increase the likelihood that children will develop decoding ability. While Making Words has only been investigated as one component of multimethod, multilevel reading instruction, initial results of this combination are very encouraging (Cunningham, Hall, & Defee, 1991). Those who lack phonemic awareness seem to develop that awareness through participation in the lessons, because the students listen intently for the sounds in words in order to emulate them and then try to remember or select the letters that can represent those sounds. A variety of patterns can be played upon in this activity, such as rhyming words, and words that begin

or end alike. Those children who have phonemic awareness learn letter sound correspondences a few at a time, and they learn other strategies and insights about decoding and spelling phonetically regular words. Making Words is a powerful activity because, within one instructional format, there are endless possibilities for discovering how our alphabetic system works. It is a quick, every-pupil-response, manipulative activity with which children get actively involved. By beginning every Making Words activity with some short easy words and ending with a big word that uses all the letters, the lessons provide practice for the slowest learners and a challenge for all.

The research reviewed in this chapter suggests that within the context of differing needs that educators face the difficult task of choosing among reading programs and materials to help students learn to read. When confronted with the prospects of choosing a reading program, educators must take into consideration what the research says on the competing positions of reading, regarding the "bottom-up", "top-down", and interactive models. Also, it has been clearly stated that there are many components to the reading process. Reading involves more than decoding and comprehension. Many students no longer enter the first grade ready to read. There is an overwhelming number of characteristics that distinguish efficient readers from non efficient readers. As a teacher, your job is to help the students move beyond the label of "non-efficient". A program that may be appropriate for one classroom or school may be inadequate for another. The key is understanding the needs of students. No one program will be sufficient for all reading instruction needs. Exposure to different kinds of reading materials helps children understand the use of print and expands their own understanding

of reading and written language. This research paper will attempt to demonstrate that when the Making Words Program is used in a controlled learning environment children with special needs will be given another strategy to use when confronted with an unknown word. As previously noted the use of the Making Words Program follows the bottom-up model. Students will start with the smallest unit of a word and eventually progress to reading a complete sentence. Once children are capable of moving past the decoding of every word, the understanding of what has been read can then be analyzed.

CHAPTER THREE

DESIGN OF THE STUDY

Design of the Study

Since most classrooms have children at different stages of decoding,

comprehension, and spelling abilities the Making Words Program when incorporated into

the whole language curriculum will help second grade students with special needs improve

their reading decoding.

Hypothesis to be Investigated

Using the Making Words Program will help children with special needs improve

their reading decoding scores as measured by the Gates-MacGinitie Test.

Subjects of the Study

The setting for this study will be two second grade inclusion classrooms. The

students come from an affluent, upper, white, middle, class community. The surrounding

communities have a population that is more racially and financially diverse. There are four

elementary schools in the district which feed into a regional high school system that

includes three high schools. The principals of the schools are very "hands on" in the day

to day operations of the school setting. The teachers are very active participants in the

decision making process concerning students. Many teachers in the school system have a

Master's degree or are working on other advanced degrees.

The subjects for this study will be five special needs students divided among the two second grade classrooms. All of the subjects for this study are boys ranging in ages from 7.0 to 8.0 with an age range of .9. Three of the children are classified as having a "Specific learning disability" and two as having a "Traumatic brain injury" according to the Special Education laws of the State of New Jersey. A brief cognitive description on each of the students will follow:

T.K. is 8.0 years old. He performs best when the information is presented visually and auditorially. Repetition of directions and extra processing time enhance his ability to process information. His restlessness and inattention sometimes interfere with his learning ability.

J.P. learns best when information is presented visually and the concepts are very concrete. Repetition of material, extra processing time, and a multisensory approach enhance J.P.'s ability to process abstract information. Demonstrating knowledge upon demand is still very difficult for J.P.. J.P. is 7.0 years old.

J.R. needs to be reminded to stay on task. He is easily distracted and would rather give up than tackle a difficult task. J.R. does best when information is presented in a multisensory approach with auditory being his strongest. J.R. is 7.0 years old.

J.D. is 7.0 years old. He learns best when skills are introduced with a visual backup. Repetition of material and extra processing time enhances J.D.'s ability to process abstract information. It is also difficult, at times, for J.D. to answer specific questions relating to his thoughts.

M.M. is 7.0 years old. Overall, cognitive functioning falls within the average range with a good deal of variation among specific skills. Strengths appear in fluid reasoning ability, visual memory, and short-term auditory memory. Weaknesses exist in associative memory between visual and auditory data. M.M. is assisted somewhat by context and meaning. He also struggles with identifying abstract symbols with subtle differences. Problem solving tends to be impulsive and M.M. has difficulty following multi-step directions.

Procedure

For eight-weeks starting October 25,1999 the students in one of the two inclusion classrooms will be introduced to the Making Words Program in addition to their daily instruction in the HBJ reading series that fosters a whole language approach. After the eight-weeks special needs students in both classrooms will be evaluated using the Gates-MacGinitie Test Level 2 Form K. A comparison will be made on reading decoding between the students using the Making Words Program versus the students who have not yet been introduced to the program. After the first eight-week period, students in the second inclusion classroom will then have the Making Words Program incorporated into their whole language curriculum as a whole class activity starting the week of December 13, 1999. Students will then be reassessed using the Gates-MacGinitie Test Level 2 Form K. Once again a comparison will be made to determine if the Making Words Program has helped students improve their reading decoding. The program will continue to be implemented into the two inclusion classrooms for another four weeks. After the final

four-week period, students will again be evaluated using the Gates-MacGinitie to determine if reading decoding continued to improve.

Procedure During Instructional Period

First, the teacher decides what the final word in the Making Words lesson will be. In choosing this word, she will consider the number of vowels, curriculum tie-ins that can be made, and what letter sound patterns can draw children's attention through the word sorting at the end of the lesson. Next, the teacher will write the words in the order on index cards so the children will sort for a specific pattern. Large letter cards for the lesson will be placed in a pocket chart with the lower case side facing the children. The students then pass out the letters needed for the lesson. Next, the teacher holds up and names the letters on the large letter cards, and the children hold up and name their matching small letter cards. This allows the teacher to check and make sure all the children have the same amount of letters needed for the lesson. Now the students are ready to begin making words. The teacher will write a numeral on the board for the number of letters that will be in the first word. The teacher, will say the word and use it in a sentence. Then the students will use their small letter cards to make the word. Once the students have made the word on their desks, call on someone who has made the word correctly to come and use the large letter cards to make the word for the class. Encourage anyone who did not make the word correctly to fix his or her word when it has been shown correctly. Next, put the word on the board using a pre-written index card to remain throughout the lesson. Continue having students make words, erasing and changing the number on the board to indicate the number of letters needed. Remember to cue students as to whether they are

just changing one letter, changing letters around, or taking all their letters to make a word from scratch. Make sure capital letters are used when a name has been made. Before telling students the last word, ask if anyone has figured it out. If so, ask them to make it at their seats and choose one who has made it correctly to come and make it with the big letters. Once all the words have been made, have students say and spell all the words in the order they made them. Finally, use these words for sorting, rhyming, and pointing out patterns.

For the first eight-weeks, each of the words chosen are based on tie-ins to the curriculum. For the second eight-week period, the chosen words will again be selected based on tie-ins to the curriculum. The same word will be used in both classroom settings. For the last four weeks, words will be chosen based on letter sound patterns.

Data Gathering Instrument

Gates-MacGinitie reading tests Level 1 and Level 2 administered as pre and post tests. The pre-test was the Level 1 test which was administered in June of First Grade. The Level 2 test will be used as the post-test and will be administered throughout the study. For this study only the vocabulary portion will be used. Since it measures decoding skills.

The Gates-MacGinitie is a group reading test administered to determine the strengths and weaknesses of the readers in the areas of vocabulary and comprehension. The five students from the two second-grade inclusion classrooms will be given a pre and post test in the area of vocabulary only. The areas measured will be beginning letter, middle letter, ending letter, entire syllable, multi-syllable word, initial syllable, medial

syllable, final syllable, prefix, letter reversal or sequence, letter(s) overlooked, final **e** overlooked, and letter(s) added.

The Vocabulary Test is primarily a test of decoding skills. The child's task for each Vocabulary item is to "sound out" (or recognize) the word that corresponds to a picture. Children's answers will be analyzed for clues to decoding skills that the children still need to learn.

Through using the Making Words Program, the students Gates-MacGinitie Level 2 post-test scores will increase from the pre-tests Level 1 administered in June. The Gates-MacGinitie Norms table for Levels 1 and 2 will be used to obtain the percentile rank scores for the students.

CHAPTER FOUR

ANALYSIS OF THE DATA

Introduction

The purpose of this study was to determine if the Making Words Program when incorporated into the whole language curriculum will help children with special needs improve their reading decoding.

Analysis of Data

The subjects of this study were five second-grade students ranging in age from seven years to eight years. All of the students in the study were pretested prior to the initiation of the treatment program in June 1999. The program was first introduced into one of the inclusion classrooms in October 1999 with a word chosen based on tie-ins to the reading stories in the HBJ reading textbook. After the first eight-week period, the students in a second inclusion classroom were introduced to the program in December 1999. Following the two eight-week periods, students were posttested on the vocabulary section of the Gates-MacGinitie Reading Tests Level 2 Form K. A percentile rank was calculated for each student. For the final four-weeks of the study, words were chosen based on letter sound patterns and a final posttest was administered.

Results

An attempt was made to answer the following research question: Will incorporating the Making Words Program into the whole language curriculum help students with special needs improve their reading decoding?

The proposition was set forth that a group of five special needs students who were being instructed with the Making Words Program in inclusion classrooms would make gains on their ability to decode unfamiliar words as measured by the Gates-MacGinitie Reading Tests.

The researcher examined pretest and posttest data for each student. Table 1 indicates the results of the pretesting data. The mean raw score for the pretesting data was seventeen. Percentile rank scores ranged from a low of one to a high of 71. The pretesting data indicates that in the initial testing phase two students had very low scores. These low scores may be at or below chance level. A chance level score is one that, on average would be made by a child who guesses randomly. A score at or below chance level suggests that the test may have been too difficult for the participant.

Table 2 indicates the data gathered during the 1999/2000 school year. It is noted that percentile scores for Fall 1999 ranged from a low of 37 to a high of 94 with a mean of 59. Percentile scores for Winter 1999 ranged from a low of 50 to a high of 95 with a mean of 67.4. Finally, the percentile scores for Spring 2000 had a range from 31 to 96 with a mean of 65.

Table 3 shows the students individual gains on the Gates-MacGinitie Reading Tests from Spring 1999 to Spring 2000. It can be interpreted that all the children who

were exposed to the Making Words Program showed improvement, but there was a difference in the scores with a low of +25 months gain to a high of +77 months gain with a mean gain of +46 months growth. It can also be noted that Subject A had the highest gain while Subject B had the lowest gain. However, even though Subject B had the lowest gain, Subject B started the program with the highest percentile ranking.

Table 1

Pretest Scores for the Students on the Gates MacGinitie Reading Test Level 1

Form K

Subject	Raw Score	Percentile Rank*
A	17	12
B	39	71
C	14	6
D	11	3*
E	7	1*

* Percentile rank indicates where a raw score fits within a range of scores, it describes the position of a raw score obtained by a particular student in a particular grade within the set of scores obtained during the standardization testing by students in the same grade. The PR for a particular raw score tells the percentage of students in that same grade whose raw scores were lower.

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Table 2

Scores for the Students on the Gates-MacGinitie Reading Test Level 2 Form K

during 1999-2000 School Year

Fall 1999

Subject	RS	PR
A	37	85
B	41	94
C	22	37
D	21	35
E	24	44

Winter 2000

Subject	RS	PR
A	43	95
B	42	92
C	31	54
D	29	46
E	30	50

Spring 2000

Subject	RS	PR
A	43	91
B	44	92
C	38	64
D	29	31
E	32	43

Table 3

Individual Gains on the Gates-MacGinitie Reading Test

	Spring 1999	Spring 2000	Gain
Subject	PR	PR	
A	12	91	+ 77 months
B	71	96	+ 25 months
C	6	64	+ 58 months
D	3	31	+ 28 months
E	1	43	+ 42 months
mean	18	65	+ 46 months

CHAPTER FIVE

SUMMARY AND CONCLUSIONS

Summary and Conclusions

The purpose of this study was to determine the effectiveness of the Making Words Program when incorporated into an inclusion classroom with students who are at different stages of decoding, comprehension, and spelling abilities. Meaningful growth on reliable instruments would indicate a possible correlation between the use of the Making Words Program and decoding development.

A review of the literature indicates that all good readers have the ability to look at a word they have never seen before and assign it a probable pronunciation (Cunningham and Cunningham, 1992). When good readers encounter a word they have never before seen in print, they stop momentarily and study the word by looking at every letter in a left to right sequence. As they look at all the letters, they are not thinking of a sound for each letter because efficient readers know that sounds are determined not by individual letters but by letter patterns. Efficient readers look for patterns of letters they have previously seen together before and then search their mental word stores looking for words with similar letter patterns.

Poor readers do not use such skills because they don't have the same strategies as good readers. The strategies are what you do when you come to a word you don't recognize. Strategies are mental processes you use to do something you want to do.

Sometimes, children learn these strategies on their own, while others need direct instruction. A program that may be appropriate for one classroom or school may be inadequate for another. No one program will be sufficient for all reading instruction needs. While Making Words has only been investigated as one component of multimethod, multilevel reading instruction, initial results of this combination are very encouraging (Cunningham, Hall, & Defee, 1991). This theory has given impetus to the present study.

The five students in this study were enrolled in two second-grade inclusion classrooms in Medford, New Jersey. All students were given instruction through a whole language based approach in addition to the Making Words Program. The Making Words Program is an active, hands-on manipulative activity in which children discover sound-letter relationships and learn how to look for patterns in words. The treatment program consisted of one session per week for a duration of twenty weeks.

Analysis of pre- and posttest data as measured on the vocabulary subtest of the Gates-MacGinitie Test seems to indicate that incorporating the Making Words Program into the whole language curriculum does help children improve their decoding ability.

Findings

The results of the study indicate that 100% of the students showed growth in their ability to decode words. However, there was an impressive difference in the scores as indicated in Table 3. Percentile scores for Spring 2000 ranged from a 31 to a 96, while the individual gains ranged from a low of +25 months to a high of +77 months. This

would seem to indicate that alternative programs, in addition to whole language instruction are a viable way to increase special need students' decoding ability.

A limitation of the study is that it was difficult to definitively associate growth or lack of same based solely on this treatment program. Innate potential, developmental growth, background knowledge and experiences, parental involvement, and various methodologies used by the regular classroom teachers all have a significant impact on the outcome of this study.

Another major limitation of the study was the lack of a control group.

Discussion and Implications for Future Research

How best to teach children to read has long been debated. Adopting a balanced approach, one that includes indirect, explicit instruction as well as extensive opportunities for authentic reading and writing has been advocated by many reading educators.

After completing this study, some suggestions for further investigation into this topic have evolved.

First, to increase the level of statistical significance the study could be replicated with a larger sample group. Including a control group which would have added to the statistical accuracy of the study.

Second, the study could be implemented over a longer period of time. The current study was administered over a twenty-week period. Future studies can be conducted for an entire school year because it is easy to incorporate the Making Words Program into

whole language based reading curriculums as an additional learning tool to help improve reading decoding.

Third, a study could be done to compare the Making Words Program to different instructional programs, such as the Wilson Reading System which also teaches children how to fluently and accurately decode. Wilson is a multisensory system like the Making Words Program because both see teaching as a "hands - on" interactive approach to learning. A research study can be set up to compare individual students' progress with one classroom receiving instruction in Making Words, while another classroom would be receiving instruction in the Wilson Reading System. Pre and posttests can be used to measure the gain students achieve on the decoding portion of the Gates-MacGinitie Reading Test.

Also, it would be beneficial to investigate other types of assessment tools which are reliable and valid for measuring decoding ability.

Finally, it would be interesting to follow-up on the students in this study to determine if exposure to the Making Words Program has long-term effects. This could be accomplished by administering the Gates-MacGinitie in third grade. It should be expected from the following research that if the Making Words Program was implemented on a consistent basis, the students would continue to show improvement on their reading decoding, and eventually their reading decoding ability should match the ability of their peers.

Overall, results of the study seem to indicate that incorporating the Making Words Program into the whole language curriculum does help children improve their decoding ability. Coupled with this progress is less frustration with reading and greater confidence in all areas since reading plays such a prominent role in school success.

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