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An examination of spelling development in one third grade class

Debra Lee Hitter

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AN EXAMINATION OF SPELLING DEVELOPMENT

IN ONE THIRD GRADE CLASS

A Project

Presented to the

Faculty of

California State University,

San Bernardino

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

in

Education: Elementary Option

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by

Debra Lee Hitter

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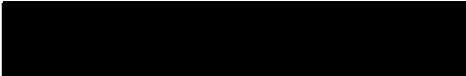
California State University,

San Bernardino

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by

Debra Lee Hitter

June 1998

Approved by:

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Ellen L. Kronowitz, Second Reader

ABSTRACT

Spelling research was conducted on one classroom of third grade students to determine if developmentally appropriate word study activities would help them to improve their spelling skills. Three preinventory tests were administered to all students; these tests were used to determine students' developmental spelling levels. During the research period specially designed developmentally appropriate spelling programs were implemented with all students.

Six months following the preinventory tests the same three assessments were administered as a post inventory measure to determine the spelling growth that had occurred. Comparisons between pre and post tests indicated that all students improved on all three of the post assessments. Percentages of students within each of the developmental spelling stages shifted towards conventional spelling with the greatest shift seen in students who were in Group 2 or the lowest group. A discussion of the results and recommendations for classroom practices are provided.

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CHAPTER 1

Problem Overview

Writing has been part of the educated world for centuries, but spelling has only become an issue in the United States for the last one hundred years (Hanna, Hodges, Hanna, 1971). The work of Noah Webster and the publishing of his Blue Backed Spelling Book placed an emphasis on good grammar and spelling in the late 1870's. Prior to his work, adult word lists were used for study by adults and children in the schools. These word lists led researchers to compile lists of common children's words by observing their writings (Hanna, et al.). In the 1930's educators and researchers wanted to place a greater emphasis on good spelling by devoting more classroom time to the study of words. A large list of basic root words was developed at this time that was supposed to insure a greater proficiency in spelling for all students (Hanna, et al.).

During the 1940's, educators examined the sequence of study patterns that students used on a daily basis. The concept of a pretest was introduced at this time as a means of allowing students to examine and learn the words they were having a difficult time with. These methods did not solve the problem of poor spellers and in the 1950's linguists introduced the concept of using a sound to letter approach for the study of words (Hanna, et al., 1971). This theory was questioned in view of the fact that many words in English did not have a strong sound to letter correspondence.

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Studies which examined this theory developed over the succeeding years (Hanna, P., et al.).

In the 1960's the work of developmental psychologist Jean Piaget began to influence how researchers and educators observed children and their writing/spelling development. Influenced by Piaget's theories of learning development, researchers formulated a theory of writing/spelling development. Gentry (1987) described five developmental stages and their common characteristics.

The delineation of these stages corresponded with the development of the concept of "whole language" teaching in language arts. This philosophy of learning was developed in New Zealand and Australia and was introduced in this country in the early 1980's. Changing language arts instruction from a skills based approach that began with small units of language (letters) and proceeding to larger chunks was being questioned by some. Educators from New Zealand and Australia had begun teaching language arts as a meaning based curriculum that was driven by the needs of the children. This philosophy was built on the principle that literacy is an extension of natural whole language learning: it is functional, real, and relevant. Literacy develops from whole to part, from vague to precise, from gross to fine, from highly concrete to contextualized to more abstract, from familiar contexts to unfamiliar (Goodman, 1986, 39). The whole language approach to teaching met with initial resistance which resulted in a division in the educational community. Commonly, whole language teachers alone, and in

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small numbers tried to build whole language programs amidst unsupportive or even hostile administrators and curricular policies (Goodman, 1986, 59)

In 1987 the California Department of Education supported a whole language approach to teaching language arts. A language arts framework was developed that specifically stated that reading and writing should not be taught in isolated parts, but rather as a complete curriculum that integrated listening, speaking, writing and reading (California Framework, 1987).

This framework caused many educators, administrators and parents to choose between a whole language approach to language arts or a phonics based approach. This controversy came to the forefront of the news media in 1994 when the results of a national reading assessment was released and California students did very poorly.

California teachers are again caught in the middle of a political battlefield over phonics versus whole language. Politicians from the governor down are calling for an improvement in the reading level of all students in the State and laws are being passed that are dictating how educators must teach reading, writing and spelling to the State's students. For the last ten to fifteen years teachers have been educated, encouraged and mandated by the State to teach language arts in a holistic approach that emphasized meaning over isolated skills. Now these same professional teachers are being told to teach skills in isolation and to prepare

students for State testing that will assess their command over the material. This rapid change in philosophy from the State has caused a great deal of confusion for educators over how to teach language arts in the primary grades.

A recent article in The Reading Teacher, by Heald-Taylor (February, 1998), supported the debate that teachers are continuing to have little guidance on how to teach spelling effectively. She proposed that there are three main spelling perspectives that are currently being used in classrooms and indicated that these practices originate from diverse philosophical and research foundations that appear to parallel particular spelling practices: (a) traditional, (b) transitional, and (c) student-oriented (Heald-Taylor, 1998, 404).

Traditional Paradigm

In the traditional paradigm, spelling is generally taught formally as a separate subject with word lists from commercially graded spelling texts that emphasize instruction in phonetics and spelling rules in preparation for weekly tests (Heald-Taylor, 1998, 405). In this type of program the teacher gives all the information to the students. Teachers determine what is taught and learning is typically done by memorization, imitation and rote learning. Accurate spelling is rewarded and misspelled words are circled, students are graded down and expected to correct all errors (Heald-Taylor, 1998).

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Challengers to this paradigm have questioned the simplicity of the learning model in view of the fact that they believe learning to spell is a complex, intricate cognitive and linguistic process rather than one of rote memorization (Herald-Taylor, 1998, 405). Other criticisms of formal spelling programs include: (a) they call for a great deal of tedious practice involving low-level exercises that require very little thinking and take up too much instructional time for the results they produce; (b) they actually cause regression in children's spelling ability because they call too much attention to word parts, grammar, and dictionary skills (Heald-Taylor, 1998 as cited from Cohen, in Graves, 1994); (c) not all children require formal spelling lessons because many words (up to 65%) are known by students before studying them (Heald-Taylor, 1998 as cited from Stetson & Boutin, 1980); (d) the scope and sequence of skills found in spelling programs often fail to accommodate the wide range of student abilities and needs (Heald-Taylor, 1998 as cited from Moats, 1995); (e) commercial programs frequently do not provide enough appropriate instructional strategies for teachers (Heald-Taylor, 1988 as cited from Schlagal & Schlagal, 1992).

<u>Transitional Paradigm</u>

The above criticisms, along with declining test scores, have promoted the development of the transitional paradigm for spelling instruction. This theory is distinguished by

two main features: (a) the integration of numerous spelling strategies (phonetic, graphic/visual, syntactic/word patterns, semantic/meaning; and (b) the significance of reading in learning to spell (Heald-Taylor, 1998, 405).

This theory evolved partly due to the fact that about half of the spellings in the English language could not be explained by phonetics alone. With older students the correlation between reading competency and spelling efficiency has been well documented. High correlations between performance in spelling and word recognition and oral reading have been found with third and fifth grade students (Heald-Taylor, 1998 as cited from Zutell, 1992; Zutell & Rasinski, 1989) and between spelling and comprehension (Heald-Taylor, 1998 as cited from Bear, 1991). Studies involving both primary and older students have reported that good readers who read fluently were also able to spell the majority of the weekly spelling words while weak readers were not (Heald-Taylor, 1998 as cited from Stanovich, 1986, Scott, 1991).

Teachers using this paradigm of instruction integrate both direct and indirect instruction. Direct teaching is used for introducing word lists, word patterns, and spelling rules, while active participation strategies are employed when students use word sorts and play spelling games. Evaluation is both formal and informal (Heald-Taylor, 1998).

The roles of reading, writing and spelling was one of the main concerns in this paradigm. Most researchers

advocated increased reading of literature as a way to support spelling development yet many of the spelling practices such as word sorts and spelling games are conducted separately from contextual reading (Heald-Taylor, 1998). Another issue is that word study is often conducted without regard for student's developmental stages or their requirement for further study. A final concern is the lack of specific instructional strategies to show teachers how they could assist students in improving their spelling abilities through writing (Heald-Taylor, 1998, 408).

<u>Student-Oriented Paradigm</u>

The third and final, student-oriented paradigm, builds on the theory and research of previous paradigms that value phonetic, visual, and semantic functions, and that spelling and reading development are mutually supportive (Heald-Taylor, 1998, 408). There are three main differences that distinguishes this perspective from the previous two: (a) learning to spell is seen as a developmental process, (b) reading provides a context for learning to spell, and (c) spelling is a functional component of writing (Heald-Taylor, 1998, 408). This theory arose from the works of the cognitive (Heald-Taylor, 1998, as cited from Piaget, 1926) and social-constructivist theories (Heald-Taylor, 1998, as cited from Magoon, 1977) rooted in the work of Bruner (1985) and Vygotsky (1978). According to these theories much language learning is a self-determined process as students

read and write in a discovery-oriented systematic program of word study (Heald-Taylor, 1998, 408).

Theorists that believed in this principle saw spelling as a developmental process through which children progress. Extensive research done by Chomsky (1971), Read (1986), Gentry (1978) and Beers and Henderson (1980) described the developmental levels that children proceed through in their writing which support this theory. The student-oriented paradigm has a strong foundation in the notion that spelling develops effectively when students have many opportunities to read and write in order to generalize and internalize the functions of spelling (Heald-Taylor, 1998). Support for this view of spelling development was rendered by research. An investigation of five elementary programs by Callaway, McDaniel, and Mason (1972) and research conducted by Wilde (1987, cited in Heald-Taylor 1998), with third and fourth graders reported that classrooms emphasizing reading and writing (but without formal spelling programs) produced better spellers than those where formal spelling instruction was taught in isolation, unrelated to reading and writing (Heald-Taylor, 1998, 409).

Some research in the area of writing and spelling development has suggested that spelling through writing develops more effectively under the following conditions: 1). when student's approximate spellings (invented spellings) are initially accepted; 2). when students are informed about their positive spelling efforts; 3). when spellings errors

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are used to inform teachers about the need for instruction (phonetic, visual, semantic); 4). when students work on a few misspelled words at a time; 5). and when students learn to edit their writing for spelling errors prior to publication (Heald-Taylor, 1998, 409).

Students in this type of program are expected to engage actively in their own learning as they figure out much of their spelling for themselves. Students generate their own rules and principles of spelling, examine vocabulary from reading material to discover patterns, respond to conference suggestions, find spelling words for spelling instruction in their writing, edit spellings in their written pieces, and monitor their own development (Heald-Taylor, 1998, 409). Spelling is not evaluated by test scores or tracking errors in writing, but rather it is reviewed and studied over time as students integrate various spelling strategies into their everyday use (Heald-Taylor, 1998).

Heald-Taylor states that the one main difficulty with this paradigm is that insufficient research has been done to support its use by teachers. It has yet to be proven if it is superior to the previous two paradigms. Identifying these three perspectives on spelling instruction provides educators with a more concise and understandable description of spelling instruction, but after years of research and study there is still not a single definitive approach to effective spelling instruction.

Question

As shown in the previous section, spelling instruction generally falls into three paradigms. All three perspectives are supported by at least a limited amount of research and some are steeped heavily in traditional practices. Most teachers utilize one or more of the styles for their spelling instruction, but may not know what instructional practices would benefit each child the best. The purpose of this paper is to follow the individual spelling progress of students in one third grade classroom in order to examine the growth in spelling that students demonstrate with intensive instruction in word analysis and structure. The researcher seeks to see if this increased awareness of words and their structure will lead students to become more adept at recognizing misspelled words in their own writing.

CHAPTER 2

This review of the literature examines several aspects
of spelling instruction in the United States and, in
particular, in the State of California. It will begin with
an overview of early spelling lists and the inception of
formal spelling lessons. This will be followed by an
inspection of the spelling practices of each decade and
controversies associated with each of them. The influence of
Jean Piaget on research of the 1960's and 1970's will be
examined, as will the resulting spelling developmental levels
that were found to exist in children's writing. The whole
language approach to language arts instruction that was
introduced in the 1980's will be defined and explained.
Finally, the controversy that currently exists in California
and the nation over the teaching of skills (phonics) versus a
more meaning based, child centered approach (whole language)
will be explored in terms of its effect on spelling
instruction.

Review of the Literature

Traditionally in regard to spelling, educators have been
concerned with 'what' words to teach rather than 'how' to
teach spelling. This philosophy of spelling instruction led
to many word lists being developed for teachers to use. One,
dated 1882, but found in a primary school cupboard in the

1950's, included in one lesson the words, 'bissextile', 'decennial', 'chimerical', and 'chalybeate' (Peters, 1985). These words were not common vocabulary in usage by school children of that day, but obviously some adults felt that children needed to be able to spell them.

Practice of Using Word Lists

With the advent of the printing press and as more people received formal educations, good spelling became more important. Many spelling books were published that typically presented word lists to be memorized followed by short paragraphs to give the students practice in reading (Hanna, P., Hodges, Hanna, J., 1971). Noah Webster wrote the most popular speller while he was teaching in Goshen, New York (1782-1785). It was entitled, A Grammatical Institute of the English Language. This book was divided into three parts: speller; grammar; and a reader. Later the speller came to be known as Webster's Bluebacked Spelling Book. The speller played a powerful role in making people consider correct spelling as important as good manners and therefore as a criterion for social acceptance (Hanna, P. et al.).

Beginning in 1911, words were selected based on frequency for use in spelling lessons (Peters, 1985). That year the 6,000 most common English words from the newspapers were compiled into a list by Eldridge (Peters, 1985). By 1913, researchers had begun analyzing the spelling vocabulary of personal and business letters to see the most common

errors made by adults (Peters, 1985 cited from Ayres, 1913).

In 1914 the first list of words taken from children's writing appeared (Peters, 1985 cited from Cook & O'Shea, 1914). Since that initial 1914 list, numerous lists have been developed from children's writing. One of the most extensive and thorough is that by Rinsland (1945) who examined and assessed more than six million words in 100,000 scripts of children from 416 American cities. The resulting spelling list contained only words appearing more than three times in any one grade. This list was further refined by Hildreth (1953) who noted that words became so highly specialized after the first 2,000 or so, that it was difficult to determine which to include in primary school spelling lists (Peters, 1985, 69).

Peters (1985) states, " Many lists, however, have been prepared often subjectively, from other sources, often remote from children's writing needs, from e.g. adults' correspondence or adults' reading material, as was the famous 30,000 word list of Thorndike and Lorge" (1944). Because the natural language that children use in their writing is not that of an adult's and typically it will be many years before children routinely use the vocabulary from adult-made word lists in their daily writing, it is important for educators to be aware of list origins in order to fully understand the implications of using such lists in instructing children.

In the early 20th century, spelling was designated

as a minor subject that was taught in conjunction with reading. During this period children were given lists of words whose spelling was to be memorized by whatever system they found most productive; visual, repeated writings or oral repetition of the letters. There could be as many as fifty words in one week for the students to learn. The week of studying the words usually culminated with a written test on Friday (Hanna, P., et al., 1971).

It became evident that all good readers were not necessarily good spellers. Students were entering high school, college and beginning jobs with poor spelling skills. In the 1930's educators noticed that spelling required a greater emphasis in classrooms. Efforts to revise and improve spelling programs were made. Two innovative ideas began to appear in spellers. First was the choosing of word lists from frequently used words, and secondly, presenting the words in an attractive and meaningful format (Hanna, P., et al.,1971). These words were typically taken from work done the previous decade by such researchers as Thorndike, Gates and Horn. Educators during this time stressed the importance of learning the 3,000 basic root words which they felt would give students the ability to write 96% of all the words used in common written communication (Hanna, P., et al.).

Educators began criticizing the use of word lists taken from adult writings. It was at this time that Rinsland was contracted by the United States Government to do a massive

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study of children's writings. As a result of his work, one improvement over previous lists was the development of spelling lists that were a balance of children's and adults' vocabularies. Presenting the words in appealing stories followed by written exercises based on the spelling words and the reading passage was a second change that happened in the 1930's (Hanna, et al., 1971).

The major alteration to spelling instruction that the 1940's brought was the idea that the weekly sequence of study would follow a study-study-test-study-test sequence in the classroom. Previously teachers had followed a study-test-study-study-test plan that presented the new words to the students on Monday followed by a pretest on Tuesday. The next two days were spent studying the words that were missed on the pretest and a final test was given on Friday. The new progression of study introduced during this time had the new lesson presented on day one followed by a day of study and then a pretest. Two days later the students would be retested after having one day to study the words they had missed on the pretest (Hanna, et al., 1971). It was felt that having two days of study before the pretest was given allowed the students to study the words more and less guess work would occur (Hanna, P., et al.).

Spelling workbooks with a weekly word list became very prevalent in the 1950's. The introductory story for each lesson was used in most books to acquaint students to the new words being introduced that week. Spelling researchers began

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to question the effectiveness of the introductory paragraph and the accompanying word lists as an effective method of spelling instruction because spelling tests revealed a lack of significant improvement in orthographic literacy and teachers found that learning to spell was often sacrificed to lengthy discussions of the subject matter of the stories. Additionally, if the stories were eliminated, the lessons were basically teaching lists of words that did not emphasize word structure (Hanna, et al., 1971). Linguists were consulted about their knowledge of words in order to gain a deeper understanding of how children learn to spell (Hanna, et al.). Linguist, Leonard Bloomfield, provided educators with this explanation, "It was learned that a most important fact was being overlooked; namely, that the American-English language, like most languages, employs an alphabetical system of writing in which phonemes (sounds) are represented by graphemes (letters), and that a spelling program ought to begin by teaching phoneme-grapheme correspondences and guide pupils to use them in spelling written words" (Hanna, et al., 75).

This concept of studying words with a sound to letter approach appeared on the surface to make sense, but many questioned how feasible it would be when it was believed that the orthography of the English language was so inconsistent and irregular. Paul and Jean Hanna conducted a research study in which a 3,000-word vocabulary was analyzed in terms of phoneme-grapheme correspondences. This 1951 research

study indicated that the American-English language had a surprising amount of consistence in its graphemic representation of speech sounds. Some of their findings were:

1. Roughly four-fifths of the phonemes contained in the words comprising the traditional spelling vocabulary of the elementary school child approximate the alphabetic principle in their letter representations.

2. Approximately one-fifth of the phonemes contained in the words comprising that spelling vocabulary deviate substantially from the alphabetic principle in their letter representations.

3. Nearly three-fourths of the vowel phonemes do not represent significant spelling problems, since they have a consistent letter representation from about 57 percent to about 99 percent of the times they occur.

4. About 82 percent of the consonant clusters have only one spelling.

5. Single-consonant phonemes are represented by consistent spellings about nine-tenths of the time they occur (Hanna, P., et a., 1971, 76).

The results of this study began to confirm that the basis of the English language had an alphabetic base and developing a sound to letter concept was important. This led to spelling programs being developed that systematically applied the alphabetic principle to word study. Typically programs followed a sequence of introducing consonant sounds

followed by short vowel sounds and concluding with long vowel sounds (Hanna, et al., 1971).

Critics questioned the findings of the Hanna-Moore team because of the small number of words that were analyzed by the team. Many felt that their findings would not be the same if they had used a larger corpus of words. With the financial help of the United States Government, _Project 1991_ analyzed 17,000-plus words (Hanna, et al., 1971). The results of this project confirmed the earlier research findings and demonstrated that the deeper one goes into the language, the greater the consistency of phoneme-grapheme correspondence. Thus, it became apparent that an effective spelling program could be based on the alphabetic principle that underlies the writing system, and that such a program ought to begin with a study of sounds in words and the letters that represent those sounds (Hanna, P., et al., 77).

Influence of Jean Piaget on Spelling Research

Jean Piaget, the Swiss scholar, was accepted as a legitimate scholar of developmental psychology in the United States during the 1960's. His observations and research on the developmental stages of children began to influence researchers who studied children's writings. Following his work with presenting problems to children and observing how they responded to them, Piaget concluded that older children didn't simply know more than younger ones; they actually thought differently about problems. Older children were able

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to adapt their thought processes to improve their understanding of the questions being asked. Younger children focused on more concrete, observable aspects of objects and situations; they were oriented primarily in the present and assumed that events related to themselves directly (Harris, 1986). His studies of the development of children's intellectual abilities indicated the significant role that multisensory learning plays in conceptual development (Hodges, 1965 as cited from Hunt, 1961). These investigations indicated that frequent and early multisensory experiences were necessary if subsequent intellectual abilities were to be developed. Complex, abstract understandings require a great deal of previous concrete multisensory learning. Similarly, in the development of children's spelling abilities, experiences should precede from the concrete to the abstract, from initial multisensory experiences with the sounds, sights, and feelings of words as they are spoken and written, toward the development of conceptual strategies for the study and the writing of words (Hodges, 1965, 40).

Despite the research done by Piaget and its influence on understandings about how children learn, spelling instruction in the United States was driven by publishers of spelling textbooks. Teachers began to rely more heavily on commercial materials that provided weekly lists of words that were to be learned, with a weekly test on Friday. These books' lessons stressed the alphabetic principle in their weekly lessons.

This format was easy for teachers to implement, grading was simple, and homework for students and parents was provided.

According to Richard Hodges (1965), "The American-English spelling system, the orthography, traditionally has been assumed to be so inconsistent that each spelling word to be learned requires, in the main, a separate learning act. Given a twenty word list for a spelling lesson based upon this assumption, the child is required to perform twenty separate acts of memorization." In an effort to make the spelling less difficult, various attempts have been made to organize weekly spelling lessons around some pattern which would help the child remember the spelling words more easily. Typical spelling programs of the recent past have been predicated upon several rationales, including:

1. Grouping words according to their utility in children's writing.

2. Grouping words around some central theme (e.g. Colonial Life).

3. Grouping words by their visual similarities (e.g. nation, function, station).

4. Grouping words around some spelling rule.

5. Simply grouping words largely at random.

Despite such efforts to make spelling instruction more effective, these schemes still required children to study each word in spelling lists largely as individual acts of learning. Any structural properties that words might have in

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common have not been widely utilized, thus the child must acquire as many visual memories as there are words in the spelling list and then practice writing these words to reinforce the memory of them (Hodges, 1965, 37).

Early Research of Developmental Spelling Stages

In the late 1960's and early 1970's researchers began applying some of Piaget's theories of developmental stages to the examination of children's writing. The linguist and scholar Charles Read, determined that specific errors of substitution and omission were consistent in children's writings and did not happen by chance. Read observed thirty-two children in preschools and kindergartens, who created 2,517 spellings for 1,201 words. Altogether the corpus included over 11,000 spellings of individual phonemes, which were tallied by phoneme and by the age of the speller (Read, 1986, 2). He noticed that while attempting to spell, young children's choice of letters to represent sounds reflected how they organized their own speech sounds. His collection of large numbers of "invented spellings" showed that children used logic in determining spelling patterns and that this logic changed over time as their experience with modern English expanded (Henderson, 1990).

The research done by Read (1975) has been corroborated by others (Beers and Henderson, 1977; Gentry, 1978; Henderson and Beers, 1980; Read, 1975; Temple et al., 1981) who examined samples of children's writing. Researchers found

that three things occurred in a high percentage of cases:

    1. The spellings were almost all systematic,
resulting more from deliberate choices of letters to
represent sounds than from guessing what a half
remembered spelling might have looked like.

    2. From child to child, the spellings were quite
similar even though they looked very little like the
adult spellings for the same words.

    3. There were developmental stages through which
the children's spellings passed, ranging from highly
primitive productions to those that looked much like
standard spellings.(Gillet, Temple, 1982, 163-164).

Other evidence of a developmental perspective of
spelling was reported by Schwartz and Doehring (1977), who
investigated children's ability to identify and use
morphological patterns related to inflectional suffixes
(e.g.,ed, ing). Subjects included good and poor spellers
from grades two through five. Their results indicated that
even beginning spellers had begun to abstract essential
morphological patterns and that an orderly developmental
trend was apparent for both good and poor spellers (Bailet,
1990). After examining hundreds of thousands of invented
spellings Read (1971), Beers and Henderson (1977), Bissex
(1980), Henderson (1990) and others concluded that children's
developmental knowledge of spelling consists of three levels
based on English orthography: sound, pattern and meaning
(Invernizzi, Abouzeid, Gill, 1994). As children develop

deeper understandings of the English language through their writing and improved competence in literacy, they progress from one level to the next.

Research during the past decade has shown that most children are capable of inventing their own approach to spelling, even before they begin to read. According to Gillet and Temple (1982), this early invented spelling ability depends on their being able to do the following three things:

> 1. They must be familiar with many letters of the alphabet and recognize that letters are related to the sounds of words.

> 2. They must have an ability to "hold words still in their minds" while they decide how to spell them. This entails having a stable concept of word.

> 3. They must be able to recognize and mentally manipulate the component sounds of spoken words (phonemic segmentation) (Gillet,Temple, 1982).

Developmental Spelling Levels

Studies by Gentry (1993), Henderson (1990), Gillet (1993), Temple (1982) and others have determined that children pass through four stages in writing development and conclude with the fifth stage of conventional spelling. The stages are most commonly labeled as Prephonemic or Precommunicative, Early Phonemic or Semiphonetic, Letter Name or Phonetic, Transitional and Correct spelling.

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<u>Prephonemic or Precommunicative Stage</u>

The Prephonemic or Precommunicative stage is characterized by writing that is unintelligible to the adult reader. It typically is written in horizontal lines and may be characterized by the use of letter-like scribbles and/or random letters. Often the letters are part of the picture the learner has drawn and it may be difficult to distinguish between the letters and the picture. Some children use letters that occur in their first name when trying to write words. These letters do not have any sound-symbol correspondence to the words they are writing, but the child includes them because of their familiarity. They are drawing the letters as if they were composed of shapes and lines and not symbols that represent sounds (Tarasoff, 1992). The learner may have a message they are representing with their symbols, but, to be understood they must orally tell it due to the lack of any sound symbol correspondence in their writing. These writers understand that writing communicates messages, but they lack the knowledge that letters represent sounds.

Precommunicative spellers are described in the following way:

1. They demonstrate some knowledge of the alphabet through production of forms to represent a message.

2. They demonstrate no knowledge of letter-sound correspondence.

3. They may or may not know the principle of left-to-

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right directionality for English spelling.

4. They may include number symbols as part of the spelling of a word.

5. Their level of alphabet knowledge may range from repetition of a few known alphabetic symbols to substantial production of many different letters of the alphabet.

6. They frequently mix uppercase and lowercase letters indiscriminately.

7. They generally show a preference for uppercase letter forms (Gentry and Gillet 1993, 27).

Lavine (1977) studied preschoolers' concepts of writing. In a pilot experiment, she showed twenty-three varied graphic displays to children aged three to six years old. The displays included line drawings, geometric figures, letters, words, script, artificial letters, numbers, scribbles that resembled signatures, non Roman letters and various lines. All of the three year olds distinguished pictures from writing, but not various types of writing from each other. Some four years olds further distinguished between writing-like scribbles and writing. Some five year olds distinguished numbers from letters. All of the children always included in "writing" all Roman letters and script. By age five the children could recognize writing quite well, even though none of them could read (Read, 1986, 101 cited from Lavine, 1977). She followed up this pilot study with

her main study that controlled for sex and socioeconomic status, and used students from Ithaca, New York. Her results supported the findings of her pilot study by showing that by age three all students could differentiate writing from pictures (Read, 1986).

Early Phonetic or Semiphonetic Stage

As children became more aware of the alphabetic nature of the English language, their writing evidences this awareness. The most distinguishing feature of this writing is the beginning use of correct letter-sound representations. They understand that letters represent sounds and they put down on paper some correct letter-sound symbols. Their store of alphabetic knowledge is limited and far from complete. They have a beginning understanding of phonemes, but cannot represent all phonemes within a word. These children are beginning to attend to print. Through observations of others reading and writing they begin to understand that print carries meaning. They begin to pay more attention to sounding out words. By asking questions, practicing writing, and having lots of modeling done, these learners begin to have a rudimentary understanding of the written language.

The following are characteristics of semiphonetic spellers (Gentry, Gillet 1993, 28-29).

1. They begin to conceptualize that letters have sounds that are used to represent sounds in words.

2. They use letters to represent words, but these

letters provide a partial, not total, mapping of sounds. Semiphonetic spelling is abbreviated; one, two, or three letters may be used to represent a larger word.

3. Semiphonetic spellers very often begin their words with initial consonants, which seem to be the easiest to segment. It is not uncommon for semiphonetic writers to represent entire words or syllables by their initial consonants.

4. They very often use letter name strategies. Where possible, they represent words, sounds, or syllables with letters that match their letter names instead of representing the vowel and consonant sounds separately (examples: R for are; U for you; LEFT for elephant).

5. They have begun to grasp the left-to-right sequential arrangement of letters in English orthography.

6. Their knowledge of the alphabet and mastery of letter formation are becoming more complete.

7. They may or may not be aware of word segmentation.

Letter Name or Phonetic Stage

Next, children appear to move from representing one or two sounds in a word to representing most of the sounds they hear. They analyze the words they want to spell into their component sounds and then find a "letter name" to represent each sound. To spell each sound, they choose the letter name that most closely resembles the sound they want to represent

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(Gillet, Temple, 1982, 171). Early spellers expect a strong correspondence between sounds and letters. This belief leads to limited success with spelling. They spell single syllable words with one vowel fairly accurately, but words with long vowels, silent vowels, endings or blends and diphthongs cause them difficulty.

According to Henderson (1990) at the earliest period of this stage children will omit many short vowels and ambiguous consonants. A second characteristic is the omission of the consonants "m" and "n" when they fall in front of a final consonant. They are used when they begin a word, but are "swallowed" into the vowel when in front of a final consonant (stamp=STAP, mint=MET). Children's short vowel substitutions and the omission of "m" and "n" before a consonant make their invented spellings look quite strange, but once the reason behind them is understood, teachers can at least "decode" the children's writing.

The remaining characteristics of children's letter name spelling behavior are easy to read and entirely consistent with phonetic spelling strategy. Long vowels are spelled by the name of the vowel letter alone. Thus cake will be spelled KAK. Silent letters are always omitted. The same letter name principle applies to the unaccented syllables in table, spoken, and winter. In these words, the vowel is so reduced that the remaining consonants really stand alone, and children spell such syllables with a single consonant letter (table= TABL, spoken= SPOKN, winter=WENTR) (Henderson 1990,

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54). At this point children can be prolific writers gaining in confidence in their writing ability. They write using many different forms and enjoy sharing their finished products with others.

Phonetic spellers exhibit the following characteristics (Gentry 1993, 30).

1. For the first time they are able to provide a total mapping of letter-sound correspondence; all of the surface sound features of the words being spelled are represented in the spelling.

2. They systematically develop particular spellings for certain details of phonetic form.

3. They assign letters strictly on the basis of sound, without regard for acceptable English letter sequence or other conventions of English orthography.

4. They generally (but not always) show awareness of word segmentation and spatial orientation.

Transitional Stage

The fourth phase of spelling development that children typically enter is the transitional stage. This level can look dramatically different than the previous stage because the children begin following conventional spelling rules for some of their words. The learner has cognitively become aware that simply spelling a word by how it sounds is not always correct. They now also spell by how words look. The speller shifts from a strong dependence on how a word sounds to more how it looks. At this stage children progress in

reading more quickly than they do in spelling. Up to this point reading was a strong tool to help children learn to spell. Now reading will keep improving and spelling will be slowed down due to the conventions of spelling that a child must learn. They begin to apply spelling rules to their own writings even though sometimes they are incorrect. Students enter this stage as early as first or second grade and some high school students will continue to be spelling at this level.

These spellers will use consonants correctly along with short vowels. They begin to recognize and utilize long vowel patterns and use silent letters for markers.

1. Some letters used are often correct, but the way vowels are used are incorrect (METT=meet, PIKE=pick, BOT=bought).

2. When writing plurals and past tense words, they are spelled as pronounced (PICKT=picked, SLODE=slowed, HUGZ=hugs).

3. Longer and multi-syllabic words are spelled as they sound rather than by predictable rules that govern their spelling (VACASHUN=vacation, SPESHLE=special, GROSHRY=grocery).

4. Vowels in unstressed vowels are confused with short vowels (BUSHLE=bushel, FORCHUN=fortune, LITTUL or LITTEL=little).

5. Words with Latin derivatives are written phonetically, (LUV=love, SUM=some, BRUTHER=brother).

6. The rules for marking short and long vowels in
syllables before consonants (consonant doubling rules)
are often confused (BETER=better, GETING=getting,
FINNISH=finish (Gillet, Temple 1982, 185).

During this stage, instruction in reading and spelling
facilitates the move toward spelling competence, but the
changes affecting the speller's conceptualization of
orthography may be too complex to be explained by a simple
visual memorization of spelling patterns (Gentry, Gillet
1993). Due to their attention to all the letters in a word
these spellers include all the appropriate letters in a word,
just get them out of order (TAOD for toad, HUOSE for house).
Transitional spellers differentiate alternate spellings for
the same sound. A long "a" sound, for example, may be
spelled the following ways: EIGHTE for eighty, ABUL for able,
LASEE for lazy, RANE for rain. Their developing
understanding of the multiple ways of representing a single
sound is not fully developed yet. Finally, they generally
use words that they have learned to spell correctly more
often in their own writing. They begin to rely more heavily
on this store of known words when they write (Gentry, Gillet
1993).

Conventional Stage

Children that have progressed into the transitional
stage are ready for a more formalized spelling instruction
that will allow them to become conventional spellers. These

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children have a strong foundation of how to spell by sound and a growing base of knowledge regarding the semantic, etymological and visual demands of the system. They are able to integrate these systems into a cohesive network of rules, patterns and auditory discriminations that help them to make sense out of the conventions of the English language. Conventional spellers develop over years of word study, reading and writing.

Characteristics of conventional spellers (Gentry, Gillet 1993, 35).

1.   Their knowledge of the English orthographic system and its basic rules is firmly established.

2.   They extend their phonetic knowledge, including knowledge of spelling for word environmental constraints (i.e., graphemic environment in the word, position in word, and stress).

3.   They show an extended knowledge of semantic demands and word structure, including accurate spelling of prefixes, suffixes, contractions, and compound words, and an ability to distinguish homonyms.

4.   They demonstrate growing accuracy in using silent consonants and in doubling consonants appropriately.

5.   They are able to think of alternative spellings and employ visual identification of misspelled words as a correction strategy (in other words, they know when words don't look right).

6.   They continue to master uncommon alternative

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patterns (e.g., ie and ei) and words with irregular
spellings.

7.   They have mastered etymological demands such as
Latinate forms and other etymological structures that
reflect the words' sources.

8.   They have accumulated a large corpus of learned
words.

It is believed that children progress through these
five stages of writing development at different speeds. Some
learners proceed very quickly through the first four stages
before concluding at stage five, while others proceed at a
more deliberate pace that may take years to pass to the
fourth. There are still others that never advance to the
final stage, but remain at the transitional stage of spelling
development. These are the adults that always have a
difficult time spelling new words and must depend on others,
dictionaries, and computers to help them with the task of
spelling "difficult" words. Children that are exposed to a
wealth of print, read and are read to frequently, and are
allowed to write seem to proceed naturally through stages
one, two and three with minimal formal instruction.
Beginning with stage four a more formalized study of words
needs to occur so that children begin to understand the
etymology and thus orthography of words. Children that have
not received instruction in word study may remain at stage
four and not proceed to conventional spelling. Spelling
proficiency is a lifelong discipline that requires continual

improvement. This improvement occurs when learners accept and understand that the English vocabulary is a complex, but systematic language that requires a lifetime of study.

Phonics Versus Whole Language Controversy

California is currently experiencing a major shift in how reading and writing will be taught in primary classrooms. In the 1960's and early 1970's phonics based programs were the predominant style of teaching reading and writing. In the late 1970's these programs began to be criticized for their dull, uninteresting text and worksheets that drilled students with lists of words (Levine, 1994).

The philosophy about teaching language arts as a whole became known as the whole language approach. The research done by Cambourne (1988), Turbill (1984), Butler (1987) and others from New Zealand and Australia on the success of a holistic approach to teaching reading and writing caught the attention of educators in the United States. A grass roots movement to begin teaching using whole language techniques began to appear across the United States. Unlike other countries that had implemented a whole language approach, in the United States, this movement began overwhelmingly as a teachers' movement. Only a limited number of curriculum workers, administrators, and teacher educators actively supported it in the early stages (Goodman, 1986).

By 1987 the state of California formally adopted a whole language approach to teaching reading and writing. The 1987

English-Language Arts Framework, from the state of California took a bold stand on how to teach reading and writing. This framework stated that, "Spelling, handwriting, grammar and punctuation are sub skills to writing and should not be taught as ends in themselves, but rather as means to helping students become competent, fluent users of language," (California Framework, 1987). Spelling was seen to be part of a complete language arts curriculum that integrated reading, writing, listening and speaking.

Framework Guidelines for Spelling Instruction

- Developmental levels of understanding from letter sound regularly to patterns, to meaning-based units

- Self-corrected pretests and instruction on words selected from students' compositions

- In Kindergarten through grade three, instruction designed to parallel student development from invented spellings, to experimentation with rules and patterns, to more sophisticated knowledge of spelling

- In grades three through six, emphasis on comparing words, discovering spelling patterns and relationships between spelling and meaning, and the use of semantic and structural analogy strategies

- Elimination of practices that are found to be ineffective, such as teaching an extensive list of rules and exceptions, assigning work sheets of

unknown words, or assigning isolated dictionary
exercises (California Framework, 1987).

Goodman (1986), was a strong proponent of the whole
language movement and wrote in his book, What's Whole in
Whole language? "There is simply no doubt that as long as
they keep on writing meaningfully, young writers will move
toward conventional spelling and punctuation, and control
over the forms of stories, letters, and other writing
genres," (Goodman, 1986, 51).

A more natural approach to spelling for each child was
believed by whole language teachers to be the conference
approach in which learning to write was emphasized over
learning to spell. When conferencing with a child, their
initial rough draft was not the time to correct spelling, but
rather the stage of editing or publishing was when spelling
was addressed and corrected.

Following a year-long Australian trial of the
"conference" approach to the teaching of writing, Turbill
(1984) indicated that, "The key principle of the conference
approach is : leave the control (or responsibility or
ownership) of the writing in the child's hands. It also
requires that we do not insist on a 'right way' or
'correctness', especially in the matter of spelling. They
should not be compelled to get their writing 'right' or
'correct' from the start. Given scope, they will continually
strive towards correctness, but they should not be expected

to achieve it all at once" (Turbill, 1984, 51).

A variety of scaffolds were used by whole language teachers to assist children with spelling. Word banks with lists of similar words, individual and class made dictionaries, word play activities, making and breaking words into their respective parts and interactive writing were some of the ways children were helped to understand how words were spelled.

Attention was focused on writing practices and instruction when the results of a 1994 national reading assessment of fourth grade students placed California students last among the states that participated (Goodale, 1997, 10). Additionally, spelling scores for the second through tenth grades were markedly lower than scores for reading, writing and math according to a review of 1995-1996 standardized test results from 1.7 million students (Woo, 1997, A 18). These test results and other indicators have caused a political battle in California over how to teach reading and writing to primary children. A strong phonics program that highlights explicit phonics skills is what opponents of whole language insist on.

In 1996, the California State Legislature passed a law requiring schools to use phonics and teach spelling (Woo, 1997, A 19). That same year the Reading Program Advisory published a document entitled "Teaching Reading". The purpose of this program advisory was to provide guidance in the development and implementation of a balanced

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comprehensive reading program in prekindergarten through grade three (Advisory, 1996, 1). As stated in this document, "This document is meant as a policy statement that reflects the recommendations outlined in Every Child a Reader (September, 1995) and two assembly bills that require in part that the State Board of Education adopt materials, in grades one through eight that include systematic, explicit phonics, spelling and basic computational skills," (Advisory, 1996, 1).

The State supported this legislation by allocating $195 million statewide to train teachers in phonics-based methods and underwrite the purchase of compatible textbooks (Colvin, 1997, B3). Along with this money, the State Board of Education told school districts that it planned to audit the spending of those to ensure that they are complying with the rules requiring that it be spent to further phonics-based instruction (Colvin, 1997, B3).

One hundred years of research has been unsuccessful in determining the best way to teach children how to learn to spell. A corpus of research has helped to strengthen the position that there are developmental stages that children progress through when learning to write and spell. Despite this research, educators, politicians, and researchers continue to disagree on how to teach spelling. This controversy has led many teachers to develop their own method of spelling instruction (Heald-Taylor, 1998).

CHAPTER 3

Methodology

Overview of Research

The research was conducted to evaluate the growth in spelling that students make when they have participated in developmentally appropriate spelling activities. A preinventory Features List (Gillet, Temple, 1982) assessment was administered and a writing sample was collected from all participants during the first two weeks of the study period. Following the collecting of work, the students were involved in various spelling and writing activities at their developmental spelling levels. The research period concluded with a post inventory Features List (Gillet, Temple, 1982) given to all the students and the collection of a final writing sample six months later.

Definition of Terms

Developmental Spelling Stages

1. Prephonemic Stage- Writing that is unintelligible to the adult reader.

2. Early Phonetic Stage- Beginning use of some correct letter-sound representations.

3. Letter Name Stage- Most sounds heard are represented.

4. Transitional Stage- Beginning use of conventional spelling rules.

5. Conventional Stage- Integrates meaning, visual and spelling rules on a consistent basis and spelling is correct (Gillet ,Temple, 1982).

Interactive Writing

Interactive writing, a part of shared writing, was developed by educators at Ohio State University (Button, Johnson, Furgerson, 1996 as cited from Pinnell & McCarrier, 1994) and used with students. Interactive writing had its foundations in the language experience activity that was developed in 1963 by Ashton-Warner. This shared writing strategy was one in which children dictated a text and the teacher acted as a scribe; the text was later used as reading material by the students (Button, et al., 1996). Interactive writing, while similar to shared writing in construction of a message, differs from shared writing in two ways. First, children take an active role in the writing process by actually sharing the pen and doing some of the writing. Second, the teacher's role changes as he/she scaffolds and explicates the children's emerging knowledge about print and provides opportunities for teachers to engage in instruction precisely at the point of student need, scaffolding students as they learn to write their message (Button, et al., 1996, 447 as cited from Button, 1992).

Features List (Gillet, Temple, 1982)

A list of thirty words that were selected by Gillet and Temple to test spellings of certain word features that invoke

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characteristic invented spelling strategies. The features include; long and short vowels, n's and m's before other consonants, unstressed final syllables with l, r, m or n. The list consists of two levels, a beginner's list (grades K-2) and an advanced list (grades 3 and up). Both lists can be used at whatever grade level the teacher feels is appropriate (see Appendix A).

Participants

This research was conducted in a public elementary school located in a rural area of Southern California. The school district had a K-12 1997-98 enrollment of 8,523 students. The ethnic makeup of the district was 20% Hispanic, 77% White and 3% Asian, Black and other ethnic groups. The elementary school the participants attended was a K-5 school with 648 students. It was comprised of 22% Hispanics, 75% Whites and 3% Asian, Blacks and other ethnic groups.

The particular students in this study included fourteen male and fourteen female students in one third grade classroom. One child was a Hispanic who was classified as a Limited English Proficient (LEP) student and another was an Eastern European LEP student that spoke his native language, Rumanian, at home. The remainder were all proficient in English. To protect the identity of the students, each student was assigned a letter of "m" for male and "f" for female along with a number.

Procedures

Administering the Features List (Gillet, Temple, 1982)

This research was completed over a six month period of time from the beginning of October, 1997 to the end of March, 1998. During the first two weeks of the data collecting period a Beginning Features List (Gillet, Temple, 1982) of spelling words was given to all the students on one day and the Advanced Features List (Gillet, Temple, 1982) was given the following day (see Appendices A and B). Both lists were administered to all the students because the students were third grade students and the researcher felt there were enough students at each spelling level to justify giving both tests. Before administering each list, the researcher assured the children that this was not a spelling test and they needed to just do their best. All students were encouraged to attempt to spell all the words as well as they could. Each word was read clearly and illustrated with a sentence (see Appendices A and B). Each word was repeated several times by the researcher.

Scoring for the Features List (Gillet, Temple, 1982, 189-190)

Scoring on the features list was done holistically; that is, for each word, the researcher made an overall determination as to whether the spelling was prephonemic, early phonemic, letter name, transitional, or correct. Below is a summary of the categories:

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1. Prephonemic Spelling- None of the letters written
for a particular word has any apparent relation to
any sound in the word. Example: LDLL for wind. Give
each word spelled prephonetically a 1.

2. Early Phonemic Spelling- Sounds are represented by
letters, according to the letter name strategy, but
fewer than half of the sounds are represented, and the
missing letters are those that the more advanced letter
name speller would have included, Example: YN, YE,
WN or YBBAR for wind. (The y can represent the sound /w/
in letter name spelling; the w represents the same sound
by conventional spelling.) Each early phonemic spelling
is given a 2.

3. Letter Name Spelling- Half or more of the sounds in
the word are represented by letters. The relation
between the letters and sounds rests on the similarity
between the sound of the name of the letter and the
sound to be represented. Examples: YUTS for once, FEHG
for fishing. Each letter name spelling is given a 3.

4. Transitional Spelling- More than half of the sounds
in the word are represented, but here the relation
between the letters and the sounds is not based on
letter names but on conventions. Short vowels,
consonants, and digraphs are spelled correctly. Marker
letters appear, but they may be used incorrectly.
Examples: GETT or GETE for get; THAY or THAE for they .
Each word classified as transitional is given a 4.

5. Correct Spelling- The entire word must be spelled
correctly to qualify. If only a minor part of it is
incorrect, the spelling is coded as transitional.
Correct spellings are given a 5 (Gillet, Temple, 1982).

To score a particular child's paper, the researcher first classified each spelling into one of the above categories. The category in which a majority of the spellings fell represented the strategy or stage of spelling that best described that child (Gillet, Temple, 1982). (see Appendices C and D).

The two features lists for each student were scored according to the protocol suggested by Gillet and Temple. The writing sample was also holistically scored using the definitions outlined above by Gillet and Temple. All spelling errors were circled and then examined by the researcher. Numbers from one to five were assigned to each error and then the stage or stages with the most number of errors was where the students' writings were categorized. Both spelling lists and the writing sample were examined by the researcher and based on all the information, each student was placed into one of five developmental spelling levels: Prephonemic, Group 1; Early Phonemic, Group 2; Letter Name, Group 3; Transitional, Group 4; Correct, Group 5.

The following descriptions delineate the spelling activities designed for each group.

Classroom Spelling Interventions, Activities and Lessons

After it was determined what level each child would be placed in, then it was necessary for the researcher to formulate a succession of interventions, activities and lessons that would support each student at their own

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developmental spelling level. This particular class did not have any students who spelled at the prephonemic level so all activities began no lower than the early phonemic stage.

Early Phonemic Spelling Stage (Group 2)

The students that were functioning at this level began with multiple activities involving beginning and ending consonants. The students often used individual chalkboards and were given short words that they would write the beginning and ending letters for, from Spelling Through Phonics, (McCracken,J.,McCracken, R., 1982). They were given a limited amount of worksheets that also dealt with beginning and ending sounds to help reinforce the learning. Small group activities with magnetic letters, chalkboards and flash cards were used allowing the students to experience words through multiple senses.

Following these lessons, medial vowels were explored by the students. The McCracken's Spelling Through Phonics book was used in short lessons three to four times a week to help this group of students become more familiar with vowels. These students were also able to use computer reading programs, Reader Rabbit 1 and Reader Rabbit's Interactive Reading Journey 2, by The Learning Company, to assist them with beginning and ending consonants, and medial vowels. Interactive writing was introduced to this small group of students and used to help them become more confident and adept at writing.

The researcher also tried to match some of the phonemic lessons and word study activities with similar words in Patricia Cunningham's <u>Making Words</u> book. A making words lesson was done on a weekly or semi-weekly basis in a small group format with these students. To begin with, each child was given the letters needed for that particular lesson (example a, c, c, h, r, s, and t). Next the researcher gave the following instructions to the class, using each word in a sentence as it was given. As the children were making the words the researcher would write each word on a flash card and place it in a pocket chart or on the chalkboard ledge.

1. Take two letters and make *at*.
2. Add a letter to make the three-letter word *art*.
3. Change the letters around and turn art into *tar*.
4. Now change just one first letter and tar can become *car*.
5. Now we are going to make some four-letter words. Add one letter to car and you have *cart*.
6. Change the last letter and you can change cart into *cars*.
7. Don't take any letters out, change the letters around, and you can make cars into *scar*.
8. Change one letter and you can change scar into *star*.
9. Now take all the letters out and make another four-letter word, *scat*.
10. Let's make another word, *cash*.
11. Change just the first letter and you can change cash into *rash*.

12. Now let's make a five-letter word. Add a letter to rash and you can make *trash*.
13. Change the first letter and you can change your trash to *crash*.
14. Let's make another five-letter word. Use five letters to make *chart*.
15. Finally, what is the mystery word that uses all the letters? *(scratch)*

After the children made the final word, "scratch", they were instructed to begin sorting the words for a variety of patterns that were in the pocket chart or on the chalkboard ledge (Cunningham, Hall 1994, 9).

Flash cards with pictures of words that began with blends and digraphs were shown to the whole class and the students would write the two letter blend or digraph, followed by the vowel on their chalkboards. This group also did this task in a small group numerous times with an instructional aide or the researcher to get additional reinforcement. Students played board games that emphasized blends and digraphs in pairs to involve them with these sounds in an entertaining format.

A list of ten second grade spelling words were provided to these students weekly. The words began with short words that emphasized a different short vowel each week and progressed to long vowel patterns, blends and digraphs. A component of their homework was studying and doing activities

with these words. They were also given time in class to use magnetic letters, write the words on their chalkboards and use a spelling computer program that had the words typed in.

Finally recognizing word families, rhyming words and syllables was incorporated into many lessons by the use of word walls, making words, computer programs, reading lessons and oral reading by the teacher. These students were involved with word study activities that used short words along with longer words that they could read and were expected to master.

Letter Name Spelling Stage (Group 3)

Because students classified into the letter name stage already were able to write most beginning and ending consonants, these students began with a review of short vowel sounds. The Spelling Through Phonics book list of words was used two to three times a week. Each lesson involved students writing on individual chalkboards a word that the researcher dictated. Students were encouraged to verbally say each word out loud and spell the best they could. After writing four words on their boards, the researcher would slowly spell each word out loud as the students would erase them off their boards. This technique was extended to include short vowel words that ended with y, er, ing and ed, to introduce students to suffixes, but continue the mastering of short vowels. Many of these students also spent time on the class computer using interactive programs that helped to

reinforce short vowels, beginning, ending sounds and rhyming words.

The next area that was targeted as an area of study was long vowel patterns. A word wall that was divided by vowel patterns (eg. ite, ight, ea, ee, ay, ai) was begun with student participation. Vowel patterns were highlighted and words were added to the lists as the students found them. Students participated in "Making Words" lessons that sorted for particular long vowel patterns. Their weekly spelling lessons introduced one long vowel sound at a time and students did classroom and homework activities that highlighted these. A limited number of worksheets was provided to these students to help reinforce the patterns that were being introduced and studied by them.

Blends and digraphs were other areas of word study in which students were engaged in. Most required being shown the letters that comprised each blend or digraph in a word. Here again Spelling Through Phonics along with Making Words activities were used extensively to help the students make connections between the sounds they heard and the letters that made them. Picture flash cards of words that began with vowel and digraph patterns were shown to the students and they had to write the beginning blend or digraph and the vowel that followed on their chalkboards. Weekly spelling lessons also incorporated words containing blends and digraphs.

Root words, prefixes and suffixes were described and

shown to the students in reading situations and then language lessons. Students were involved with lessons that helped them to learn how root words were altered by prefixes and suffixes and discussions about some of the meanings of prefixes and suffixes took place. Students identified root words in reading and language lessons along with the prefix or suffix that had been attached.

These students began a more complex study of words and spelling rules than the previous group of early phonemic students. They examined a variety of long vowel patterns, blends, digraphs, prefixes and suffixes. Self-editing of their own spelling errors in writing was strongly urged and often required by the researcher.

Transitional Spelling Stage (Group 4)

The students functioning at this level of spelling development did many of the above described activities to begin the year, but quickly were advanced to a more indepth study of words. They examined word patterns, root words, prefixes, suffixes and syllables to find common patterns, meanings and a greater understanding of the language. The students were shown how to use context clues when reading to help with clarification of meaning. Lessons involving predicting the meanings of words and then finding the correct meaning while reading were taught to this group of children. Weekly spelling tests were given with some of these children using the same words the previous level used and some using a different set of words that were a little more difficult,

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depending on their spelling and reading level. They participated in lessons using words from the book, Making Big Words, by Pat Cunningham to help them learn how longer, or more complicated words were spelled. Learning some of the spelling rules that commonly occurred in the English language was taught to these students and then examined routinely when they occurred in their reading and writing.

These students were continually expected to highlight any words they felt they had misspelled in their writing and then try and correct them. Taking more responsibility for their writing before an adult examined it was an integral part of the writing program for these students.

Conventional Spelling Stage (Group 5)

There were a limited number of students who began the year at this level. They did many of the same activities that the previous group of students participated in along with some others. They were often given a separate lesson with Making Big Words and allowed to examine and determine what words that the letters they were given would spell out. Placing the words in common categories and justifying their groupings was also done by these students. Learning spelling rules and their applications was presented to these students and then further study took place as they encountered them in their reading and writing. This group of students was expected to do a lot of self-editing of their work and correct any misspellings. They would peer edit other

students' work and help them to correct their errors before an adult would examine the piece.

These students were at a stage in their spelling development in which they needed to take much of what they had learned over the past few years and incorporate it into effective spelling strategies. Recognizing and correcting their own spelling errors was an important component of their learning. Enlarging their knowledge base of spelling rules, word meanings, and finding patterns in spelling were crucial to their program.

General Overview of Whole Class Spelling Activities

Many of the activities that the students engaged in were done in small groups or a center format. Computer programs were used to help with the wide range of spelling abilities that existed within the classroom. Whole class activities were done that allowed all students to participate at their own ability level. Using individual chalkboards allowed the researcher to have all students actively take part in lessons and at the same time permitted the researcher to monitor the responses of all students. The technique that the McCracken's developed in their Spelling Through Phonics book lent itself well to the philosophy of each child functioning at his/her own spelling level while having a whole class activity. Some of the Making Words lessons were also done by the whole class, and each child participated at the level at which they were capable.

About six weeks into the study "No Excuse" words were introduced to the whole class. These were words that all the students were expected to spell correctly all of the time. The words "they" and "what" were the first two words put on the list. These two words were typed very large and placed on individual sheets of colored paper and then hung up on the chalkboard. In several lessons all the students looked at the words and spelled them out loud. Next they wrote each word in the air with their fingers while pronouncing each letter. Finally they wrote the words with their fingers on their desks with their eyes closed and then opened. These words were then taped to a wall and two new words were introduced. The researcher referred to these words often and especially when students were doing free writing to encourage them to check their spelling.

Recognizing compound words and using that knowledge to spell longer words was a technique that was modeled for all students. Common homophones were studied, focused on and discussed by the class. Whole class activities with the Word Wall, No Excuse words and sight words were done several times each week with all the students. Highlighters were provided for all students to highlight words in their writing that they felt were spelled wrong. This was done in order to encourage students to examine and correct the spellings of words in their own creative writing.

Writing on a daily basis was another whole class activity that all students participated in to help with their

spelling. Each child was expected to write daily and the researcher continually monitored and modified the expectations for each child as they improved. The degree that each child was expected to edit their work was dependent on where the researcher felt the child was functioning at in their reading and writing. Even though there were different expectations for each child on the degree that they were expected to edit their work, all students were required to revise and modify their work to some degree.

Alphabetizing and dictionary skills were other whole class activities that all students participated in. Learning how to use the dictionary for spelling, definitions, and vocabulary was modeled and taught to all the students. Large class dictionaries were placed on all tables making them very accessible to students.

Post Inventory Assessments

Six months after the initial Features Tests (Gillet, Temple, 1982) and writing samples were collected, a post inventory was administered. This assessment consisted of giving each student the same K-2 and Third Grade Features Test (Gillet, Temple, 1982) that was administered in the fall. Additionally, another writing sample was collected by the researcher. The spelling tests and writing samples were scored exactly as the preinventory tests had been done.

CHAPTER 4

Results

Analysis of K-2 Pre and Post Inventory Features List Scores

A spelling inventory was administered to all the
students in the classroom in September, 1997 and six months
later in March, 1998 the same inventory was readministerd as
a way to gather data to determine spelling progress. To
provide a baseline data for this study, a preinventory K-2
Features List (Gillet, Temple 1982), of spelling words (see
Appendix A) was given to twenty seven third grade children in
one classroom. There were sixteen words on this list,
multiplied by twenty seven students equaled 432 total
responses. The researcher classified spellings according to
the following categories: 4% were prephonemic spellings

TABLE 1   K-2 Preinventory Scores

PP 4%
EP 7.9%
LN 24.1%
TR 29%
C 35.0%

Table 1. (n=27)

55
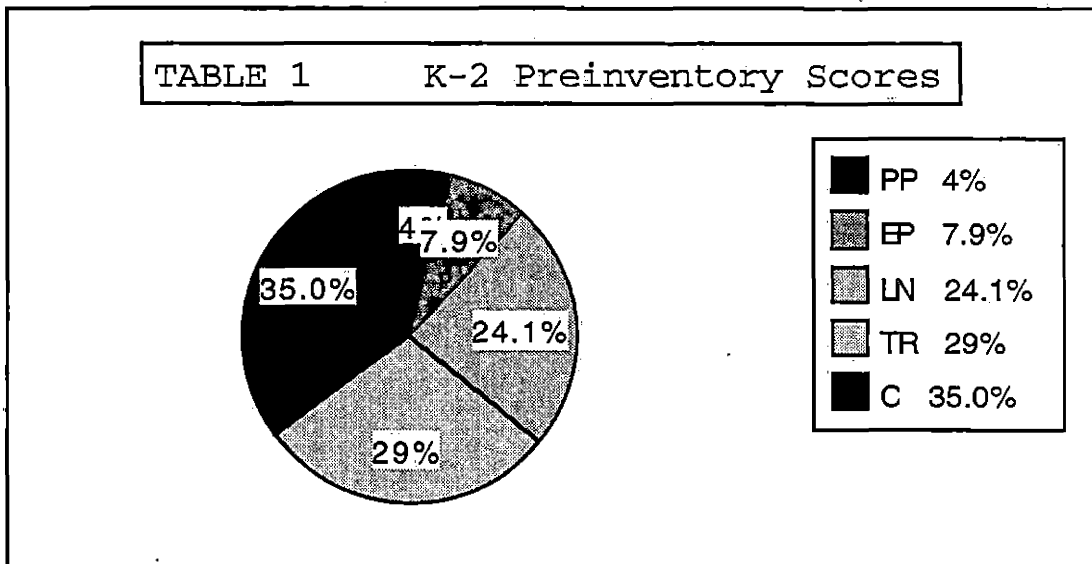
(unintelligible writing), "PP"; 8% early phonemic spelling (beginning use of some letter-sound representations), "EP"; 24% letter name spellings (most sounds heard are represented), "LN"; 29% transitional spellings (beginning use of conventional spelling rules), "TR"; and 35% correct spellings, "C" (see Table 1).

Six months later, March, 1998, the first test was given to the same twenty seven third grade students. Again there was a possible 432 responses from all the students. This test revealed that 0.6% of the words were prephonemic spellings, 5% early phonemic spellings, 10% letter name spellings, 29% transitional spellings, and 55% correct spellings (see Table 2).

TABLE 2   K-2 Post Inventory Scores

Legend:
- PP 0.7%
- EP 5.1%
- LN 10.2%
- TR 28.9%
- C 55.1%
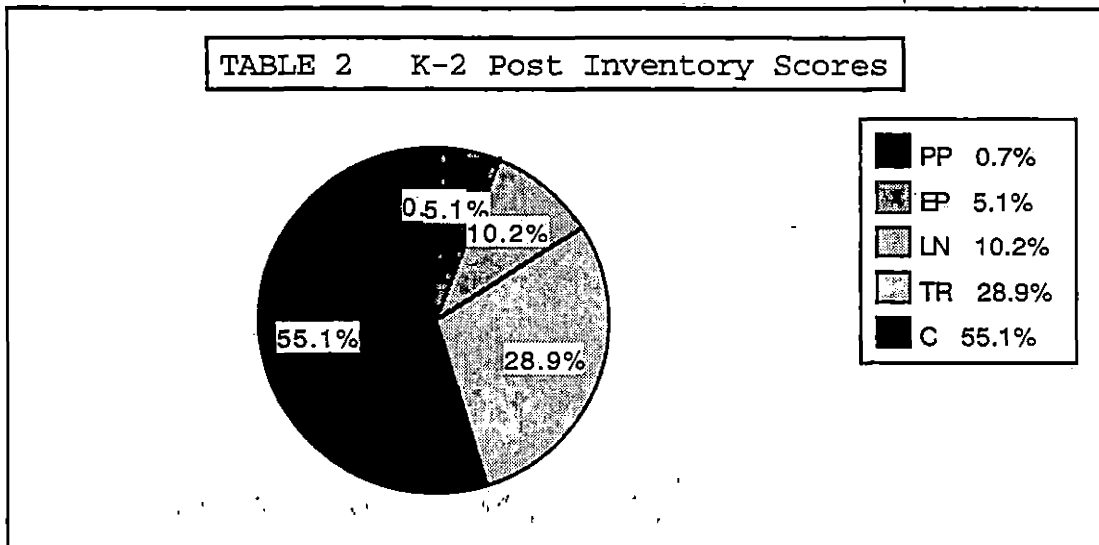
Table 2. (n=27)

Examining the pre and post scores showed that the number of prephonemic and early phonemic spellings decreased from 4%

and 8% to less than 1% and 5% respectively. The percentage
of letter name words decreased from 24% down to 10%. The
number of transitional words remained the same, while the
percentage of correct words increased from 35% to 55% (see
Table 3).

TABLE 3   K-2 Pre and Post Results
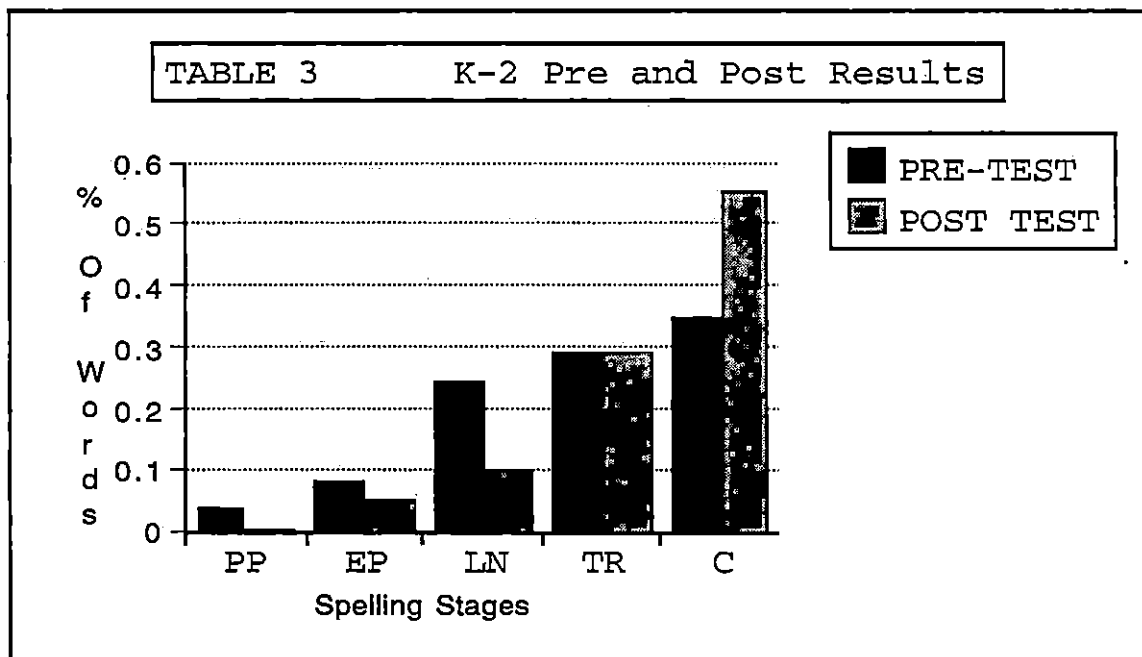
Table 3. (n=27)

Analysis of 3rd and Up Pre and Post Inventory
Features List Scores

The preinventory 3rd and Up Features List (Gillet,
Temple 1982) was administered to twenty six third grade
students in one classroom at the beginning of the research
period, September, 1997. There were thirteen words on the
list which allowed for 338 possible responses. Results showed
that 2% of the total responses were prephonemic spellings,

15% were early phonemic spellings, 27% were letter name spellings, 41% were transitional spellings and 15% were spelled correctly (see Table 4).

TABLE 4	3rd and Up Preinventory Scores

Pie chart with slices labeled: 1.5%, 15.4%, 27.3%, 41.2%, 14.5%

Legend:
- PP 1.5%
- EP 15.4%
- LN 27.3%
- TR 41.2%
- C 14.5%
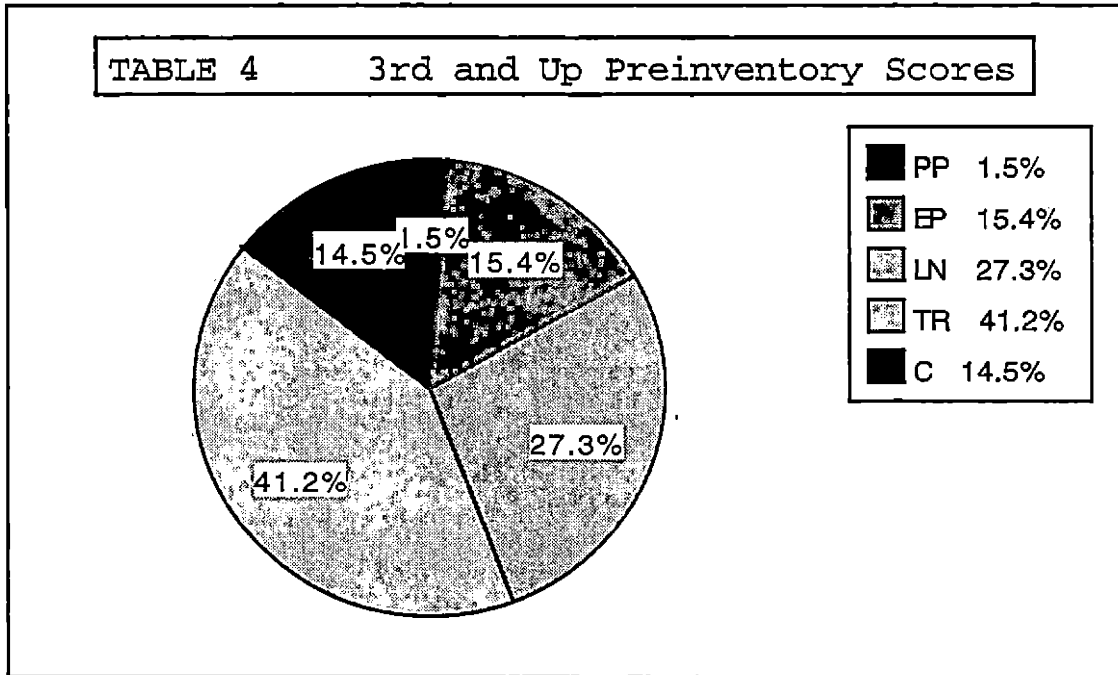
Table 4. (n=26)

The post inventory test was given at the end of the research period, March, 1998, to twenty seven third grade students with a total of 351 words. Of the 351 words, 0 were scored as prephonemic spellings, 4% were early phonemic spellings, 21% were letter name spellings, 46% were transitional spellings and 28% were correct spellings (see Table 5).

TABLE 5   3rd and Up Post Inventory Scores

Legend:
- PP 0%
- EP 4.3%
- LN 21.2%
- TR 45.8%
- C 28.7%

Pie chart values: 28.7%, 4.3%, 21.2%, 45.8%
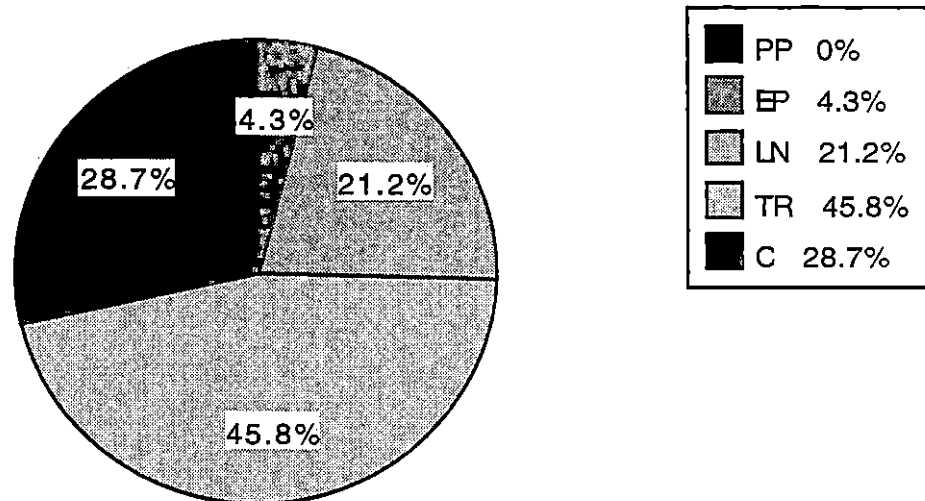
Table 5. (n=27)

Comparing the pre and post tests indicated that the percentage of prephonemic words went from 1% down to 0%. The number of early phonemic words began at 15% and decreased to 4% on the post inventory. Words at the letter name stage began at 25% on the early test and dropped to 21% on the final test. 43% of the words were scored as transitional spelling on the pretest and 46% on the post test. Finally, 15% of the words were spelled correctly on the pretest and 28% on the final assessment (see Table 6).

TABLE 6   3rd and Up Pre and Post Results
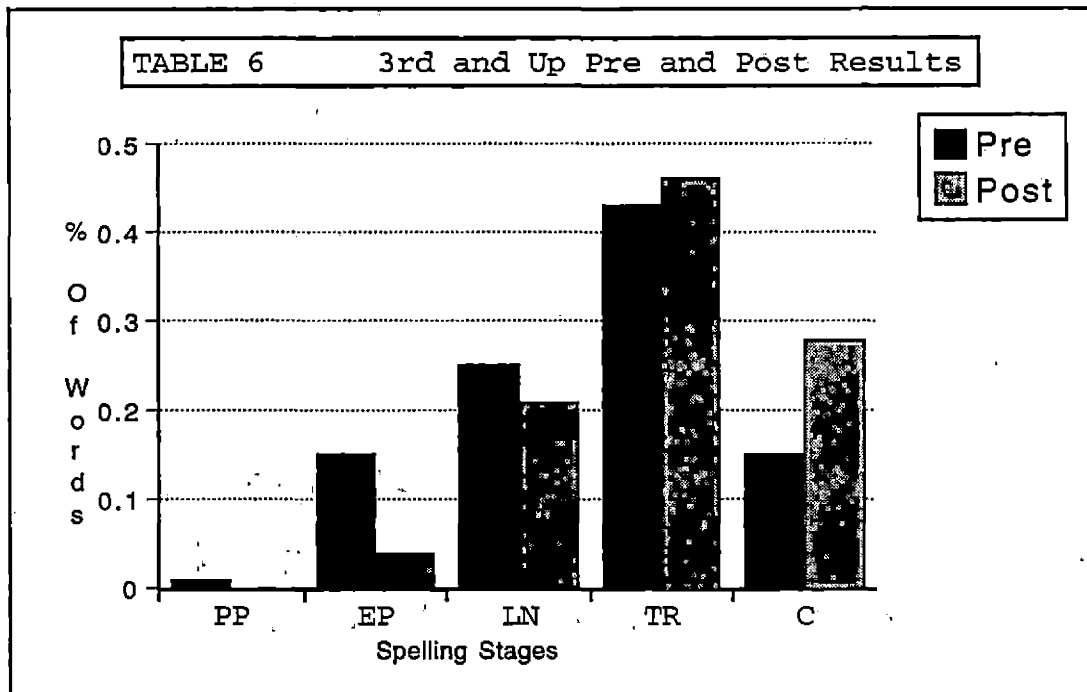
Table 6. Pre test (n=26) and post test (n=27)

Results of Pre and Post Inventory Writing Samples

The preinventory writing sample was done by all twenty eight students. The students wrote a combined total of 870 words for that day. Following an evaluation by the researcher, there were found to be 0% prephonemic spellings, 0.6% early phonemic spellings, 13% letter name spellings, 6% transitional spellings and 81% were spelled correctly.

There was an increase of total words written by the students in the post inventory writing sample from 870 words to 1,295 words even though two fewer students participated in the writing. As in the preinventory samples, there were no prephonemic words in their writing and only 0.09% or one word was observed to be early phonemic. There were 4% letter name

60

and 5% transitional spellings which left 87% spelled correctly (see Table 7).

TABLE 7　　　Pre and Post Writing Scores
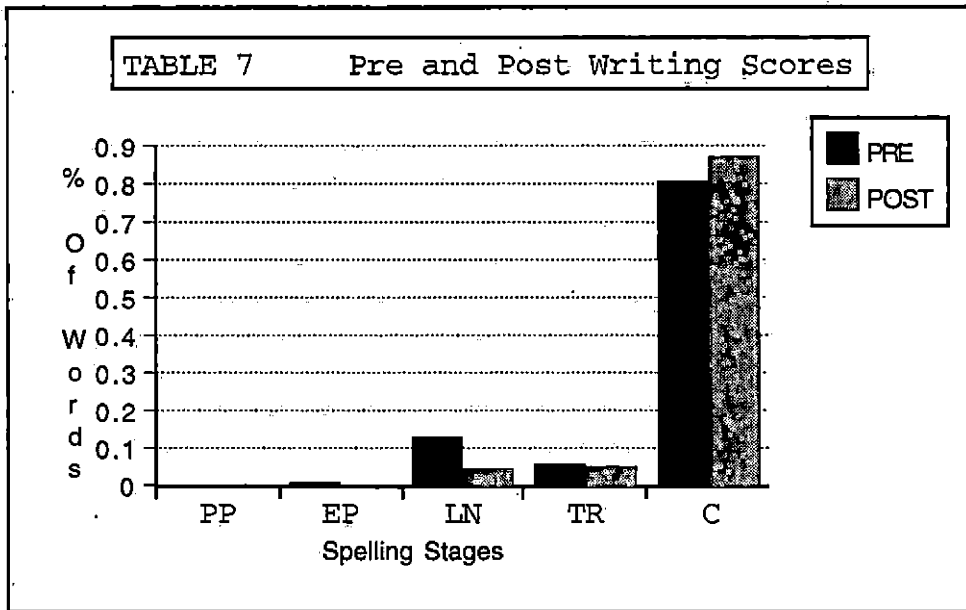
Table 7. Prewriting (n=28), and post writing (n=26).

As in the two spelling assessments, the writing samples continued to demonstrate that all the students were progressing toward using a higher percentage of correctly spelled words as the year went on. The number of words substantially increased and at the same time the percentage of correct spellings rose to 87%. Examining the students writing samples it was shown that they were able to highlight accurately more misspelled words on the last sample compared to the first sample. They demonstrated a heightened awareness of how words looked, vowel patterns, prefixes, suffixes, and general spelling rules as the year progressed.

Discussion

There was an overall increase of words spelled correctly in all three assessments that were done. The early phonemnic, prephonemic and letter name stages showed decreases in percentages from the preassessment to the post assessment while the transitional and correct stages showed increases.

Comparing the bottom three levels (PP, EP, LN) with the top two (TR,C) stages, in the preinventory beginner's test (K-2), there was a shift towards standard spelling. The preinventory scores showed 36% of the words were in the lower three stages and 64% fell into the top two stages. In contrast, on the post inventory test, 16% were in the bottom three stages and 84% were in the upper two. If it can be assumed that the early phonemic, prephonemic and letter name stages are early spelling stages and the transitional and correct levels are advanced spelling stages, then on the beginner's K-2 test, 16% of the words were still at the beginning level, but 84% were in the advanced stages (see Table 8).

TABLE 8   Combining Stages (K-2)
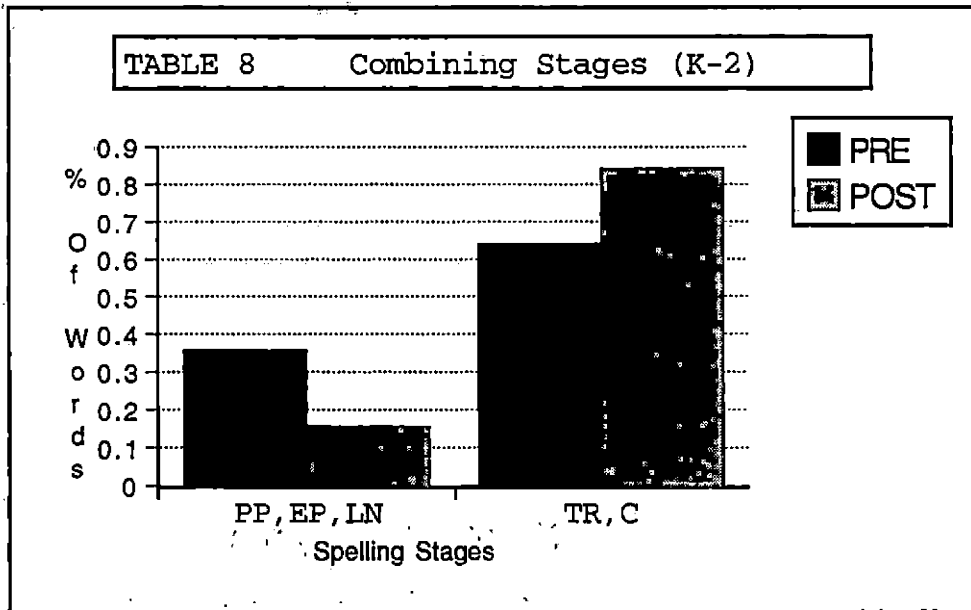
Merging the lower three stages (PP, EP, LN), 41% of the
words on the advanced (3rd and up) pre test fell into these
levels, and 58% were scored in the upper two stages. The
post inventory scores decreased to 25% in the lower three
stages or beginning levels and increased to 74% in the top or
advanced two levels (see Table 9).

TABLE 9   Combining Stages (3rd and Up)
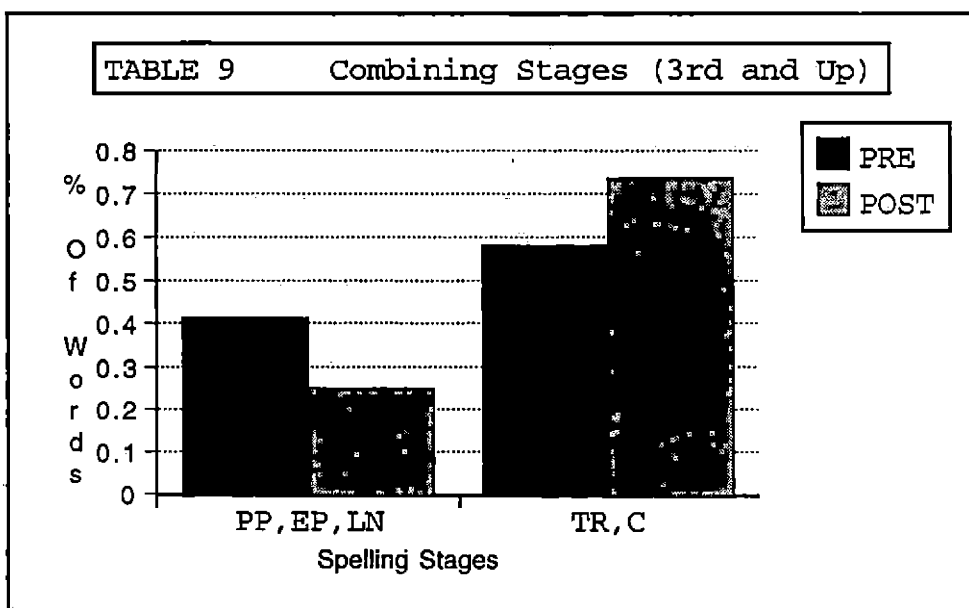
Evaluation of Each Spelling Group

Evaluating separately each of the four stages that these students were placed in revealed the following results:

Group 2

Group 2 consisted of four students and of these, two were in the school bilingual program and designated as LEP students while two had been referred for testing to see if they qualified for the Resource Class. On the K-2 preinventory test they spelled 22% of the words in the prephonemic stage, 30% in the early phonemic stage and letter name stages, 11% were transitional spellings and 3% were conventional. In comparison, this group of students on the Post Inventory K-2 test had only 3% prephonemic words, 25% early phonemic, 28% letter name, 31% transitional and 13% conventional (see Table 10).

TABLE 10   Group 2;   K-2 Pre and Post Results
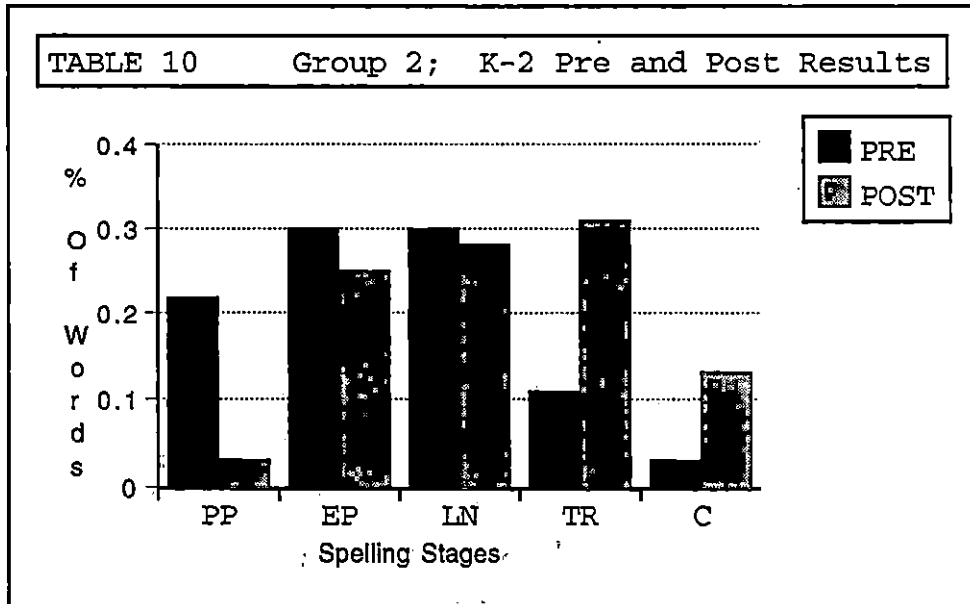
Table 10. (n=4)

This group began the year spelling over 50% of their words at beginning levels and only 14% were considered correct or close to conventional. The post inventory data revealed that the percentage of beginning spelling dropped to 28% while the more sophisticated spelling increased to 44%. Their command of medial vowels, blends and digraphs became more consistent on the post test. This helped them to spell more words correctly or very close to conventional.

The results of the preinventory 3rd and up test showed that 10% of the words were prephonemic, 63% early phonemic, 25% letter name, and 2% transitional and 0 conventional. When they took the same test six months later this group had no prephonemic words, 12% early phonemic, 50% letter name, 37% transitional and 2% conventional. The percentage of correct spelling showed a small change, but all the numbers of the other levels shifted towards correct spelling. There were no prephonemic words in the post assessment and early phonemic spellings dropped from 63% to 12% while letter name spellings increased from 25% to 50%. Transitional level spelling showed a marked increase from 2% to 37%.

Developing a stronger phonemic base for decoding words and beginning to notice how some words looked, helped all four of these students perform much better on the post inventories. They relied much more heavily on phonemic sounds to spell rather than conventional spellings, but their command over spelling showed a marked improvement over the six month research period (see Table 11).

TABLE 11 Group 2;3rd and Up Pre and Post Results
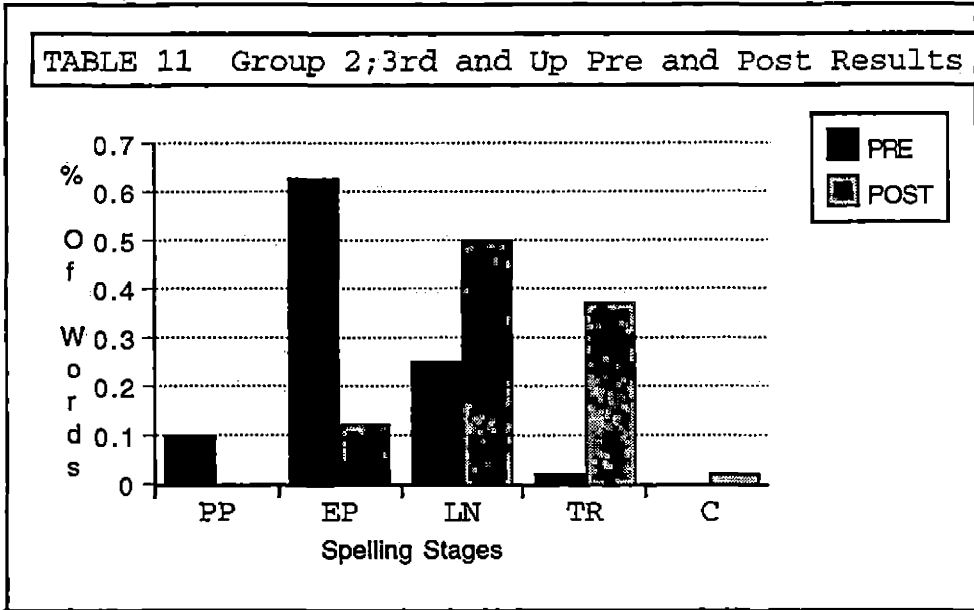
Table II. (n=4)

Group 3

There were nine students who were initially placed in Group 3. For the K-2 preinventory test, 2% of the words were found to be prephonemic, 10% early phonemic, 47% letter name, 28% transitional and 13% were conventional. The post inventory displayed results of less than 1% prephonemic spellings, 4% early phonemic, 17% letter name, 41% transitional, and 38% conventional spellings. This group reduced their prephonemic and early phonemic spellings in half and almost tripled the number of conventional spellings from 13% to 38% (see Table 12).

TABLE 12   Group 3;   K-2 Pre and Post Results
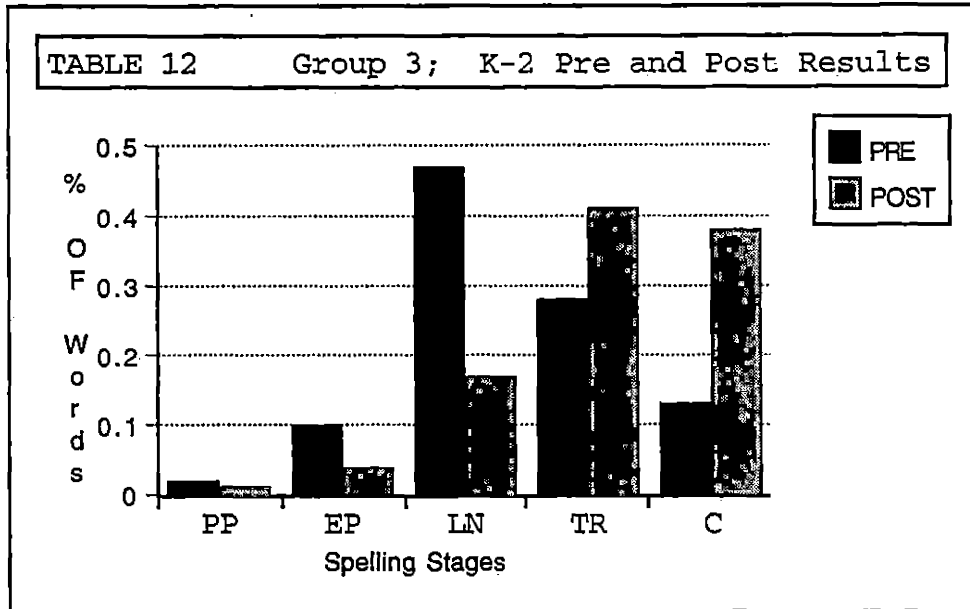
Table 12. (n=9)

For the 3rd and Up Preinventory assessment, the letter
name group had no prephonemic words, 17% were early phonemic,
38% letter name, 45% transitional and 1% conventional. The
post inventory test also had no prephonemic words, but 7% of
the words were early phonemic, 36% were letter name, 51%
transitional and 7% conventional.

This group did not demonstrate the strong shift to
conventional spelling for this test as they did for the K-2
test. There was more than a 10% decrease in the number of
early phonemic words and a 2% decline in the letter name
words. Transitional spellings and correct spellings
increased by 6%. By decreasing the number of spellings at
the lower levels, it resulted in over 50% of the spellings to
be readable and near correct or completely correct (see Table
13).

TABLE 13 Group 3;3rd and Up Pre and Post Results
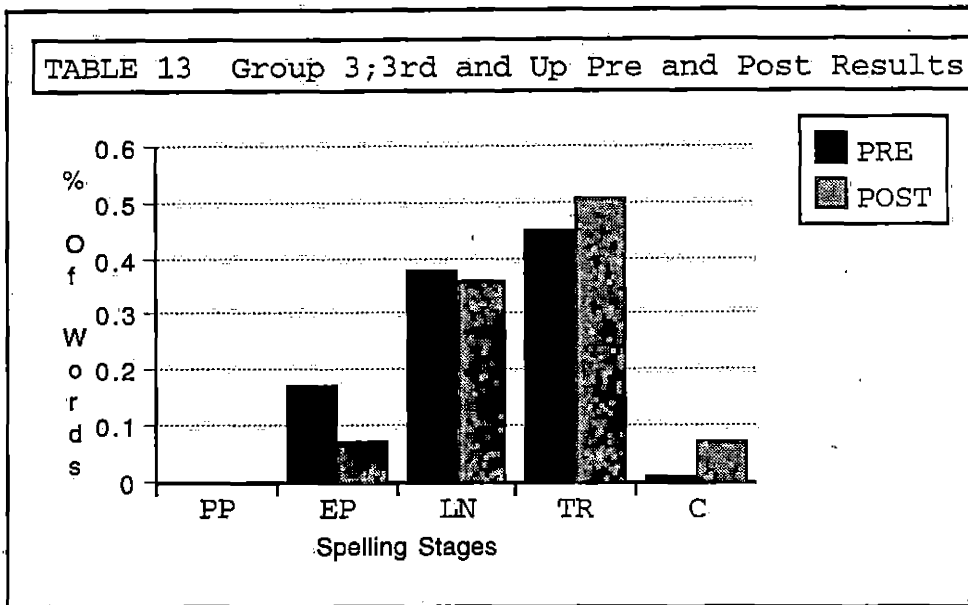
Table 13. (n=9)

Group 4

This stage had the largest number of students, with
eleven. On the preinventory K-2 test, there was a possible
160 responses. There were no prephonemic spellings, and only
one word or .06% at the early phonemic level. 9% of the
total responses were at the letter name stage and 43% of the
spellings were at the transitional level. This group spelled
almost half or 47% of their words correctly.

The K-2 Post Inventory test given six months later had
no words at the prephonemic or early phonemic level and
showed a decrease to 4% at the letter name stage. The
percentage of transitional spellings dropped to 27% while
correct spellings increased to 69%. This group of students

increased conventional spelling by over 20% and decreased the percentages at all the other levels (see Table 14).

TABLE 14   Group 4; K-2 Pre and Post Results
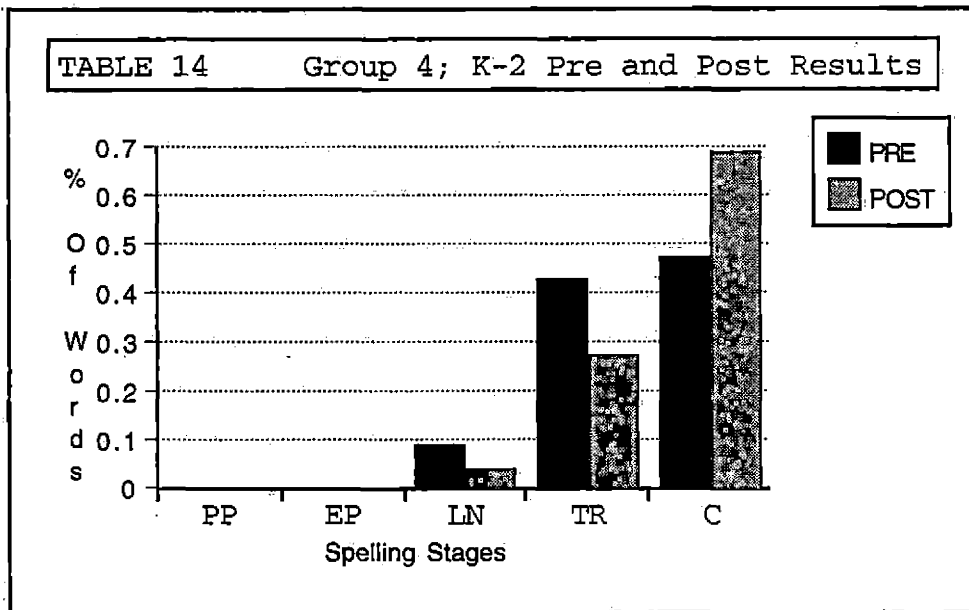
Table 14.(n=11)

The 3rd and Up preinventory test showed a high percentage of transitional spellings, 64%, and no early phonemic words. There were 20% of letter name spellings with 13% conventional spelling. Transitional spelling did not occur as much in the posttest as it did in the pretest, but this could be explained by the percentage of correct spellings increasing from 13% to 36%. The other scores were 0 prephonemic, 1% early phonemic, 8% letter name, 55% transitional and 36% correct (see Table 15).

TABLE 15 Group 4;3rd and Up Pre and Post Results
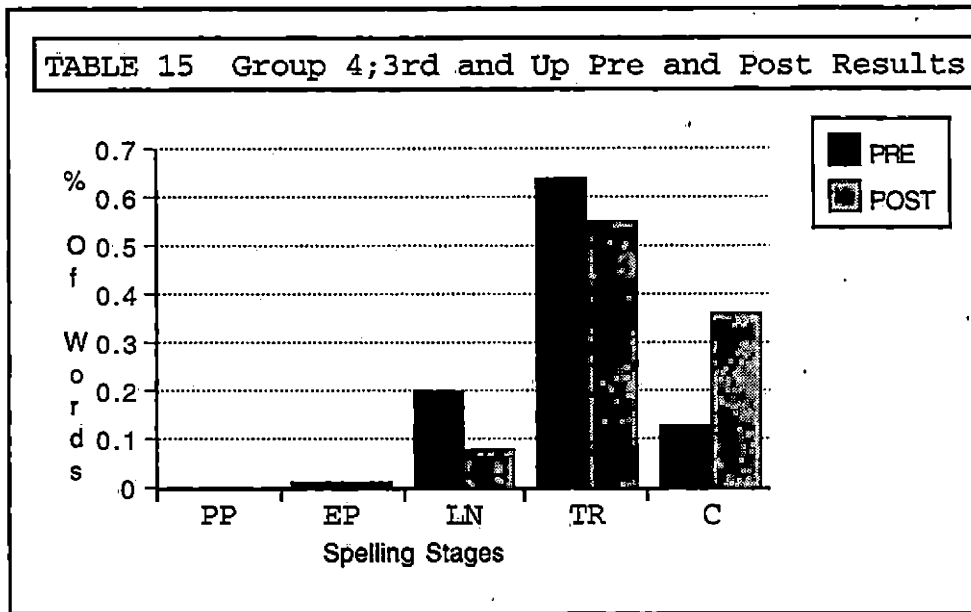
Table 15. (n=11)

Group 5

Like the early phonemic group this group also only began the year with four students. On the K-2 preinventory test, this group had no prephonemic or early phonemic spellings. Only one word or 2% of the words was found to be at the letter name stage while 13% were transitional and 86% were spelled correctly. The K-2 Post Inventory test was found to only have 4% transitional spellings and the remaining 94% were spelled correctly (see Table 16).

TABLE 16   Group 5; K-2 Pre and Post Results
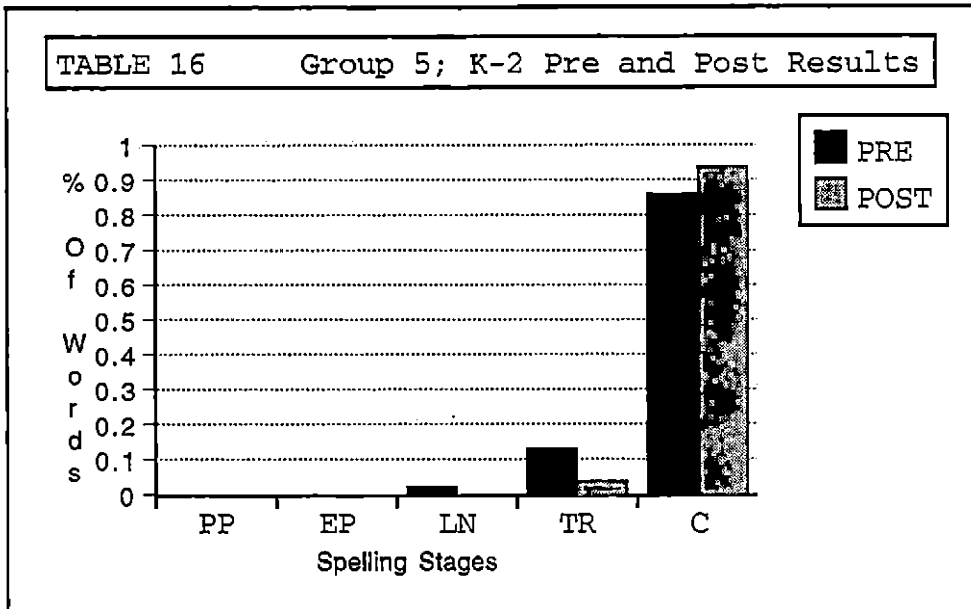
Table 16. (n=4)

On the 3rd and Up preinventory test there were no
prephonemic or early phonemic words. There were 10% letter
name spellings, 18% transitional spellings and 72% correct
spellings. The Post Inventory test for this group showed
that there were again no pre or early phonemic spellings and
2% letter name. The transitional stage comprised 19% of the
words and 79% were spelled correctly.

This group was able to show an increase in the number of
transitional and correct spellings in both the assessments.
They were able to apply common spelling rules and word
configurations to assist them in spelling difficult words.
Their use of vowels and vowel patterns was often accurate or
very close to being correct (see Table 17).

TABLE 17   Group 5;3rd and Up Pre and Post Results
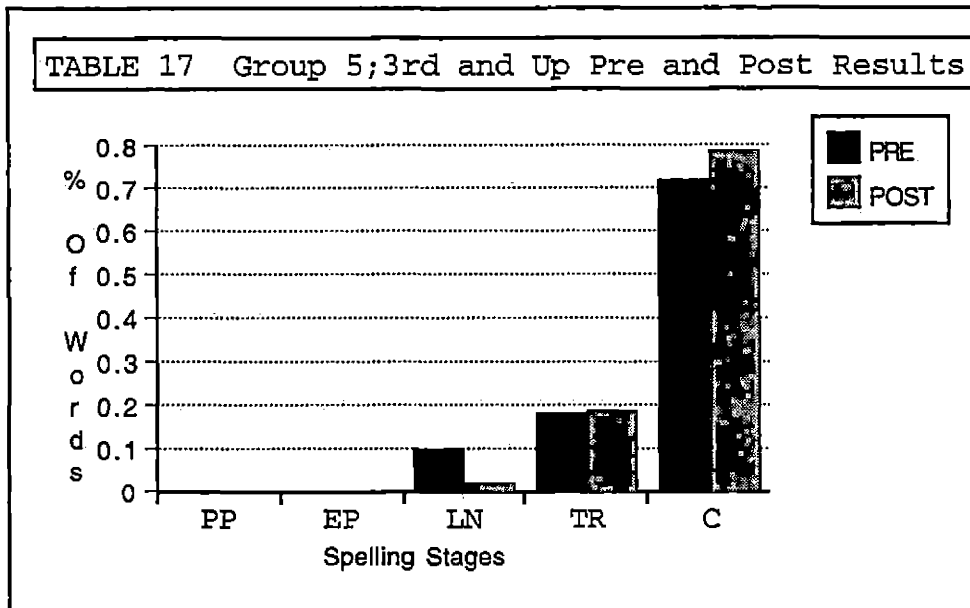
Table 17. (n=4)

Examination of Final Stages of the Groups

During this research period all students showed an increase in the number of conventional spellings that they used on both the K-2 and 3rd & Up post tests. Corresponding with this increase toward conventional spelling, each group was able to shift up at least one level as shown below on the post tests:

Group 2 (Early Phonemic)

K-2 Post Test- 28% Letter Name and 31% Transitional

3rd and Up Post Test- 50% Letter Name

Group 3 (Letter Name)

K-2 Post Test- 41% Transitional and 38% Correct

3rd and Up Post Test- 51% Transitional

Group 4 (Transitional)

K-2 Post Test- 69% Correct

3rd and Up Post Test- 55% Transitional

Group 5 (Conventional)

K-2 Post Test- 94% Correct

3rd and Up Post Test- 79% Correct

Recommendations

Helping all children to succeed at spelling was the driving factor behind this study. This researcher has learned some teaching strategies and assessments that have proven to be successful helping students of one class become more accurate spellers. The following suggestions are offered to assist other educators with their spelling programs.

1. Each school year should begin with a spelling assessment to determine the developmental spelling level of each student.

2. Place each student at the appropriate developmental spelling level based on their spelling assessment and writing samples.

3. For students at the prephonemic or early phonemic stage, provide daily activities and lessons that address their developmental spelling levels.

4. Provide activities several times per week for students in the letter name, transitional and correct stage that specifically meet their spelling needs.

5. Utilize whole class activities using individual chalkboards that teach word patterns, prefixes, suffixes and some basic spelling rules (e.g. changing y to i and adding ed, or es).

6. Incorporate into the classroom a small list of high frequency words that all students must learn to spell.

7. Have a word wall in place that is added to throughout the year.

8. Do weekly "Making Words" lessons (Cunningham, 1994).

9. Use only spelling lists that are at the correct developmental level for each student.

10. Use computer programs that allow for students to work at their own level.

11. Include daily writing for all students.

12. Provide highlighters to allow students to highlight words in their writing they think are misspelled.

13. Spend considerable time developing phonemic awareness in early spellers.

CHAPTER 5

Conclusion

All children come to school with a wide variety of strengths and weaknesses. One of the responsibilities of the classroom teacher is to try and address this wide range of abilities. Students have not traditionally been taught spelling at their own developmental level. This researcher attempted to put a strong emphasis on each student's spelling developmental level and develop appropriate lessons and activities that challenged them while meeting their individual needs.

Providing daily activities or lessons for a large class provided a challenge for the researcher. Classroom management and meeting the needs of all students were the two largest challenges that the researcher had to overcome. Using interactive computer programs allowed some students to work at their own level while the rest of the class participated in other activities that were appropriate for them. Individual chalkboards were also utilized, which allowed all children to participate in a lesson to the best of their abilities. Whole class activities with the word wall, McCracken Phonics and high frequency words were done throughout the year.

Spelling instruction was a high priority in this classroom, but lessons were woven into the curriculum throughout the day. All students became more conscious of

word patterns, misspellings, and spelling rules as the year progressed and their spelling became more efficient.

No one spelling program or activity will meet the needs of all students in one classroom. A teacher must be willing to use a variety of methods, activities and lessons to insure that all students' needs are being addressed. These needs may range from a student who still requires a lot of time with phonemic awareness to the student who is ready to learn word structures and derivatives. By administering an assessment early in the school year a teacher can determine the needs of the class and thus develop an appropriate spelling program.

APPENDIX A

Beginners' Features List (K-2)

Test Word

---

1. late   Kathy was <u>late</u> to school again today.

2. wind   The wind blew down our <u>shed</u>.

4. geese   The <u>geese</u> fly over Texas every Fall.

5. jumped   The frog <u>jumped</u> into the river.

6. yell   We can <u>yell</u> all we want on the playground.

7. chirped   The bird <u>chirped</u> when she saw a worm.

8. once   Jim rode his bike into a creek <u>once.</u>

9. learned   I <u>learned</u> to count in school.

10. shove   Don't <u>shove</u> your neighbor when you line up.

11. trained I <u>trained</u> my dog to lie down and roll over.

12. year   Next <u>year</u> you'll have a new teacher.

13. shock   Electricity can <u>shock</u> you if you aren't careful.

14. stained The ice cream spilled and <u>stained</u> my shirt.

15. chick   The egg cracked open and a baby <u>chick</u> climbed out.

16. drive   Jim's sister is learning how to <u>drive.</u>

(Gillet, Temple, 1982, 188)

APPENDIX B

Advanced Features List (3rd and Up)

Test Word

_____

1. setter   My dog is an Irish <u>setter.</u>

2. shove   Don't <u>shove</u> your neighbor in the lunch line.

3. grocery   I'm going to the <u>grocery</u> store.

4. button   A <u>button</u> popped off his jacket.

5. sailor   A person who sails the seas is a <u>sailor.</u>

6. prison   If you break the law, you may go to <u>prison.</u>

7. nature   The park just put in a <u>nature</u> trail.

8. peeked   The spy <u>peeked</u> out from his hiding place.

9. special   The store had a <u>special</u> sale on blue jeans.

10. preacher   The <u>preacher</u> talked for an hour.

11. slowed   The truck <u>slowed</u> down for the curve.

12. sail   The boat had a torn <u>sail.</u>

13. feature   The theater showed a double <u>feature.</u>

14. batter   The first <u>batter</u> struck out.

(Gillet, Temple, 1982, 189)

APPENDIX C

Sample Analysis of Beginners' Features List: Second Grade

	Response	Test Word	Scoring
1.	LAT	late	3
2.	WND	wind	3
3.	SEAD	shed	4
4.	GEES	geese	4
5.	GOMT	jumped	3
6.	UL	yell	3
7.	CUTP	chirped	3
8.	UOS	once	3
9.	LUD	learned	3
10.	SUF	shove	3
11.	TRAD	trained	3
12.	YER	year	3
13.	SOCK	shock	4
14.	SAD	stained	3
15.	CEK	chick	3
16.	DRIF	drive	3

STAGE	NUMBER OF EXAMPLES
Prephonemic	0
Early Phonemic	0
Letter Name	13
Transitional	3
Correct	0

Key: 1= Prehonemic, 2= Early Phonemic, 3= Letter Name,

4= Transitional, 5= Correct

(Gillet, Temple, 1982, 190)

APPENDIX   D

Sample Analysis of Advance Features List: Fourth Grade

	Response	Test Word	Scoring
1.	SETTER	setter	5
2.	SHUVE	shove	4
3.	GROSHERY	grocery	4
4.	BUTTON	button	5
5.	SAILER	sailor	4
6.	PRIZIN	prison	4
7.	NATCHER	nature	4
8.	PEKED	peeked	4
9.	SPEICLE	special	4
10.	PRECHER	preacher	4
11.	SLOWED	slowed	5
12.	SAIL	sail	5
13.	FETCHER	feature	4
14.	BATTER	batter	5

STAGE	NUMBER OF EXAMPLES
Prephonemic	0
Early Phonemic	0
Letter Name	0
Transitional	9
Correct	5

Key: 1= Prephonemic, 2= Early Phonemic, 3= Letter Name,
       4= Transitional, 5= Correct

(Gillet, Temple, 1982, 191)

APPENDIX E

K-2 Features List Scores (Preinventory)

Student	PP	EP	LN	TR	C
F-1	0	0	0	7	9
F-2	0	0	4	6	6
F-3	0	2	8	2	4
F-4	0	1	1	5	9
F-5	0	1	7	7	0
F-6	0	0	0	5	11
F-7	0	0	5	9	2
F-8	0	0	5	7	4
F-9	0	0	1	3	12
F-10	1	1	8	4	2
F-11	0	0	0	8	8
F-12	0	0	0	0	0
F-13	0	1	9	5	1
F-14	0	0	0	1	15
M-1	0	0	1	11	4
M-2	0	7	6	2	1
M-3	0	0	0	3	13
M-4	0	0	2	11	3
M-5	0	0	0	0	16
M-6	1	0	8	3	4
M-7	0	1	11	4	0
M-8	6	5	5	0	0
M-9	0	8	4	3	1
M-10	8	1	2	2	0
M-11	0	6	6	3	1
M-12	0	0	1	4	11
M-13	0	0	1	4	11
M-14	1	0	8	5	2
TOTAL	17	34	103	124	150

PP= Prephonemic, EP= Early Phonemic, LN= Letter Name,
TR= Transitional, C= Correct

APPENDIX F

K-2 Features List Scores (Post Inventory)

Student	PP	EP	LN	TR	C
F-1	0	0	0	1	15
F-2	0	0	0	5	11
F-3	0	0	2	8	6
F-4	0	0	0	3	13
F-5	0	0	2	5	9
F-6	0	0	1	1	14
F-7	0	0	0	5	11
F-8	0	0	1	5	10
F-9	0	0	0	2	14
F-10	0	1	2	7	6
F-11	0	0	1	5	10
F-12	0	0	0	7	9
F-13	1	3	5	4	3
F-14	0	0	0	0	16
M-1	0	0	0	7	9
M-2	0	7	3	5	1
M-3	0	0	0	0	16
M-4	0	0	0	6	10
M-5	0	0	0	0	16
M-6	0	0	4	6	6
M-7	0	0	3	6	7
M-8	1	2	6	5	2
M-9	0	1	4	8	3
M-10	1	6	4	3	2
M-11	0	1	5	7	3
M-12	0	0	0	0	0
M-13	0	0	0	4	12
M-14	0	1	1	10	4
TOTAL	3	22	44	125	238

PP= Prephonemic, EP= Early Phonemic, LN= Letter Name,
TR= Transitional, C= Correct

APPENDIX G

3rd and Up Features List Scores (Preinventory)

Student	PP	EP	LN	TR	C
F-1	0	0	1	9	3
F-2	0	0	10	3	0
F-3	0	1	2	10	0
F-4	0	0	1	10	2
F-5	0	0	4	9	0
F-6	0	0	0	11	2
F-7	0	0	5	8	0
F-8	0	1	6	5	1
F-9	0	0	2	7	4
F-10	0	0	2	10	0
F-11	0	0	3	10	0
F-12	0	1	3	8	1
F-13	0	0	0	0	0
F-14	0	0	0	3	10
M-1	0	0	7	5	1
M-2	2	8	3	0	0
M-3	0	0	2	2	9
M-4	0	1	4	8	0
M-5	0	0	2	2	9
M-6	0	2	8	3	0
M-7	0	6	7	0	0
M-8	1	6	6	0	0
M-9	0	3	6	4	0
M-10	1	11	1	0	0
M-11	1	8	3	1	0
M-12	0	0	0	6	7
M-13	0	0	0	0	0
M-14	0	4	4	5	0
TOTAL	5	52	92	139	49

PP= Prephonemic, EP= Early Phonemic, LN= Letter Name,
TR= Transitional, C= Correct

APPENDIX H

3rd and Up Features List Scores (Post Inventory)

Student	PP	EP	LN	TR	C
F-1	0	0	0	6	7
F-2	0	0	0	8	5
F-3	0	0	5	8	0
F-4	0	0	1	9	3
F-5	0	0	0	0	0
F-6	0	0	0	6	7
F-7	0	2	2	7	2
F-8	0	0	3	8	2
F-9	0	0	3	3	7
F-10	0	1	3	8	1
F-11	0	0	0	8	5
F-12	0	0	0	9	4
F-13	0	4	8	1	0
F-14	0	0	0	2	11
M-1	0	0	2	10	1
M-2	0	3	5	5	0
M-3	0	0	0	2	11
M-4	0	0	3	9	1
M-5	0	0	0	3	10
M-6	0	2	4	5	2
M-7	0	0	3	8	2
M-8	0	1	7	5	0
M-9	0	0	6	7	0
M-10	0	2	9	1	1
M-11	0	0	5	8	0
M-12	0	0	1	3	9
M-13	0	0	1	3	9
M-14	0	0	5	8	0
TOTAL	0	15	76	160	100

PP= Prephonemic, EP= Early Phonemic, LN= Letter Name,
TR= Transitional, C= Correct

APPENDIX I

Preinventory Writing Scores

Student	PP	EP	LN	TR	C
F-1	0	0	0	2	29
F-2	0	0	5	0	23
F-3	0	1	5	0	20
F-4	0	0	6	1	49
F-5	0	0	9	0	14
F-6	0	0	0	7	47
F-7	0	0	5	1	16
F-8	0	0	4	0	27
F-9	0	0	0	2	23
F-10	0	0	3	0	12
F-11	0	0	0	13	72
F-12	0	0	12	5	60
F-13	0	0	3	0	7
F-14	0	0	0	0	36
M-1	0	0	5	3	25
M-2	0	1	3	0	17
M-3	0	0	0	2	20
M-4	0	0	4	1	10
M-5	0	0	0	1	43
M-6	0	0	8	1	0
M-7	0	0	11	0	17
M-8	0	0	2	0	15
M-9	0	0	8	0	18
M-10	0	1	4	0	6
M-11	0	0	2	2	5
M-12	0	0	0	11	43
M-13	0	0	0	1	37
M-14	0	3	10	0	11
TOTAL	0	6	109	53	702

PP= Prephonemic, EP= Early Phonemic, LN= Letter Name,
TR= Transitional, C= Correct

APPENDIX J

Post Inventory Writing Scores

Student	PP	EP	LN	TR	C
F-1	0	0	0	1	43
F-2	0	0	0	4	48
F-3	0	0	8	1	53
F-4	0	0	0	0	65
F-5	0	0	0	0	0
F-6	0	0	0	2	58
F-7	0	0	0	5	53
F-8	0	0	1	4	25
F-9	0	0	0	0	54
F-10	0	0	1	7	22
F-11	0	0	0	5	110
F-12	0	0	2	3	44
F-13	0	0	5	3	76
F-14	0	0	0	3	49
M-1	0	0	0	4	41
M-2	0	0	2	2	41
M-3	0	0	0	0	45
M-4	0	0	0	4	29
M-5	0	0	0	1	51
M-6	0	1	3	0	26
M-7	0	0	1	1	20
M-8	0	0	3	2	17
M-9	0	0	1	1	32
M-10	0	0	5	7	26
M-11	0	0	5	7	11
M-12	0	0	0	0	0
M-13	0	0	0	3	32
M-14	0	0	11	1	51
TOTAL	0	1	48	71	1,122

PP= Prephonemic, EP= Early Phonemic, LN= Letter Name,
TR= Transitional, C= Correct

REFERENCES

Bailet, L.L., (1990). Spelling rule usage among students with learning disabilities and normally achieving students. _Journal of Learning_, 23 (2), 121-128.

Button, K., Johnson, M., & Furgerson, P., (1996). Interactive writing in a primary classroom. _The Reading Teacher 49_(6), 446-454.

Cambourne, B., Turbill, J., (1989). _Coping with chaos._ Australia:Australian Print Group.

Colvin, Richard L., Board members fear lag in phonics instruction. (1997, May 20). _The Los Angeles Times,_ p. B3.

Cunningham, P., & Hall, D., (1994). _Making words_. New Jersey: Good Apple Inc..

Cunningham, P., & Hall, D., (1994). _Making big words._ New Jersey: Good Apple Inc..

English Language Arts Curriculum Framework and Criteria Committee, (1987). _English Language Arts Framework._ Sacramento: California State Department of Education.

Gentry, J., (1987). _Spel...is a four letter word._ NH: Heinemann Educational Books.

Gentry, J., & Gillet, J. W., (1993). _Teaching kids to spell._ NH:Heinemann Educational Books.

Gillet, J.W., & Temple, C., (1982). _Understanding reading problems assessment and instruction._ Boston: Little Brown & Co.

Goodale, G., (1997, January 7). Word wars. _Christian Science Monitor,_ 10-11.

Goodman, K., (1986). _What's whole in whole language?_ NH: Heinemann Educational Books.

Hanna P., Hodges, R.& Hanna J., (1971). _Spelling: structures and strategies._ Boston: Houghton Mifflin Co.

Harris, C., (1986). _Child development._ MN:West Publishing Co.

Heald-Taylor, G., (1998). Three paradigms of spelling
    instruction   in grades three to six. The reading
    teacher, 51, (5), 404-413.

Henderson. R.H., (1990). Teaching spelling (2nd ed.) Boston:
    Houghton Mifflin.

Henderson, E.H., Templeton, S., (1986). A developmental
    perspective of formal instruction through alphabet,
    pattern, and meaning. The Elementary School Journal, 86
    (3), 305-316.

Hodges, R., (1965). The psychological bases of spelling.
    Elementary English, 42, 36-42.

Invernizzi, M., Abouzeid, M., & Gill, J.T., (1994). Using
    student's invented spellings as a guide for spelling
    instruction that emphasizes word study. The Elementary
    School Journal, 95 (2), 155-166.

Peters, M., (1985). Spelling: caught or taught? London:
    Routledge & Kegan Paul.

Read, C., (1986). Children's creative spelling. London:
    Routledge & Kegan Paul.

Reading Program Advisory, (1996). Teaching Reading.
    Sacramento: California Department of Education.

Tarasoff, M., (1992). A guide to children's spelling
    development for parents and teachers. Victoria, B.C.:
    Active Learning Institute.

Turbill, J., (1984). No better way to teach writing!
    Australia: Primary English Teaching Association.

Turbill, J., (1989). Now we want to write! Australia:
    Australian Print Group.