

IMPROVING SPELLING OF HIGH FREQUENCY WORDS FOR TRANSFER IN
WRITTEN WORK

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An Action Research Project Submitted to the Graduate Faculty of the
School of Education in Partial Fulfillment of the
Requirements for the Degree of Master of Arts in Teaching and Leadership

Saint Xavier University
&
Pearson Achievement Solutions

Chicago, Illinois

May 2007

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ABSTRACT

This project describes a 12-week program developed to improve student spelling of high frequency words for transfer in written work across the curriculum. The targeted population consists of kindergarten, first, and third graders in two public elementary schools in a community located in central Illinois. Following an extensive literature review, analysis of probable cause data revealed that several factors have impacted student spelling of high frequency words in written work. Lack of direct spelling instruction, spelling taught in isolation of other content areas, and the reliance of one form of spelling instruction has caused poor performance of student spelling across the curriculum. A review of solution strategies utilized by educational researchers resulted in the selection of the three categories of intervention: direct teaching of spelling strategies, specific instruction utilizing high frequency words in a multisensory manner, and direct instruction of self-correction techniques. Instruments used for data collection include a pre- and post-test of high frequency writing words, the Richard Gentry Developmental Spelling Inventory, pre- and post-intervention “Am I a Good Speller?” student self-assessment checklist, pre- and post-intervention writing samples, and a teacher survey.

Post intervention data indicated an increase in the ability to spell high frequency words conventionally within students’ daily writing and progress in the stages of developmental spelling. Appended are: list of high frequency words for pre-test and post-test, high frequency writing word tests for each grade level, Richard Gentry developmental spelling test and score sheet, “Am I a Good Speller?” student self-reflection checklist, and teacher survey.

CHAPTER 1

PROBLEM STATEMENT AND CONTEXT

General Statement of the Problem

The students of the targeted kindergarten, first grade, and third grade classrooms do not consistently use correct spelling of district writing words and spelling words in their daily work. Evidence for the existence of the problem includes district “I Can Do It” report cards, writing checklists, student self-assessment, and dictated sentence checklists. Within the targeted school district, and among the three researchers, there is an expectation that writing words and spelling words be spelled correctly in all contexts, including daily work, writing samples, spelling tests, and creative writing. The writing words at each grade level are high frequency words that students use daily in reading and writing, therefore it is important that students know the correct spelling of these words. As experienced primary school teachers, it is our opinion that many students are able to spell these words correctly in isolation, such as on a weekly spelling test, but they do not transfer the correct spelling into their daily work and writing.

As cited in Dorn and Soffos (1998), five stages of developmental spelling levels have been identified. The five stages identified are the precommunicative, semiphonetic, phonetic, transitional, and conventional. In the precommunicative stage children are

beginning to use letters in their writing to represent words, but these letters do not represent sounds. Next, in the semphonetic stage, children begin to understand that letters represent sounds in words, but do not include a letter to represent every sound in the word; often, major sounds are omitted. The third stage, phonetic, is characterized by children spelling words exactly as the words sound, though sometimes these spellings are unconventional. Then, in the fourth stage of spelling development, transitional, students begin to think about how words appear visually, students begin to use spelling patterns and spell words conventionally. Finally, in the fifth stage of spelling development, the conventional stage, children are using correct spelling of words commonly used at their instructional level (Gentry, 2004).

Gentry (1987) stated “normally these stages occur over two years, roughly between ages five and seven or eight” (p. 21). The ages that Gentry identified as the ages when children move through the developmental spelling stages occur when students are in kindergarten through third grade, which are the grades that are being used for the research study. Dorn and Soffos (2001) confirmed that “the goal of spelling is that children will be able to spell words with accuracy and ease” (p. 59). Tankersley (2003) identifies correct spelling as “when the child nearly always spells the word in the conventional manner when writing” (p. 29). We believe that both Dorn and Soffos (2001) and Tankersley (2003) have accurate definitions of correct spelling; therefore, we conclude that the definition of correct spelling is when students spell words conventionally with accuracy and ease. We will use this definition of correct spelling.

Immediate Problem Context

Site A

The building complex houses a junior high and the targeted primary school. The targeted primary school consists of two sections each, kindergarten through third grade. The junior high, which included grades six, seven, and eight, was built in 1976, with one wing specifically for the sixth grade students. Later, in 1983, the sixth grade wing of the junior high was converted into a kindergarten through sixth grade magnet school. In 1988, the magnet school became a primary (kindergarten through third grade) school, which is Site A. Due to the multiple uses of the wing that houses Site A, it is different than many other primary schools. Features of the building include carpeting, air-conditioning, open classrooms, and only classroom at Site A has a sink.

The kindergarten classroom at Site A has six tables where students work cooperatively; this kindergarten classroom is composed of 19 students. Four of the kindergarten students have an Individual Education Plans (IEP). Each student with an IEP has a diagnosed learning or speech concern that is addressed through the use of the IEP.

The first grade classroom at Site A has individual student desks that are grouped together in sets of eight; this classroom is composed of 20 students. Five of the first grade students have an IEP.

Technology is a key focus of Site A's district. Each classroom includes five student computers (containing Microsoft programs and networked district learning software), one teacher computer, a large presentation monitor, a television and video cassette recorder, and an overhead projector. Site A also contains a learning center which

houses over twenty five computer stations, two printers, and a SmartBoard, which is an interactive technological tool.

The primary school targeted for this study has a 98.3% Caucasian, 1.1% Native American, and 0.6% Hispanic population of approximately 177 students (Interactive Illinois Report Card, 2005). At Site A, the average class size in kindergarten through third grade is 22 students (Illinois State Board of Education, 2005). Fifty- nine percent of the student population is low-income (Interactive Illinois Report Card, 2005). Student attendance rate is 95.2% and the student mobility rate is 17.4% (Illinois State Board of Education, 2005).

The faculty is made up of a principal, two teachers for each grade level, kindergarten through third grade, a part time music teacher, a part time physical education teacher, a part time speech therapist, a full time resource teacher, a part time lead teacher, a part time school counselor, and one and a half Reading Recovery/Title teachers. Other support staff include a secretary, a learning center aide, and a nurse. The make-up of the staff is 88% female and 12% male. The average age of the staff at Site A is 46 years old; the average number of years of experience is 20 years. Of the staff members at Site A, 38% have their bachelor's degree and 53% have their master's degree. Three of the nineteen staff members have more than one master's degree. The building principal is in her fourth year at Site A.

The kindergarten through third grade programs consists of a non-graded curriculum of reading, writing, and math. A learner rubric has been established to assess students' achievement in the areas of reading, writing, math, and spelling. The school has adopted a school-wide literacy program. All kindergarten, second and third grade

students receive one hour of small group, homogeneous literacy instruction each day, which includes self-selected reading, leveled reading, guided reading, working with words, Comprehensive Assessment of Reading Strategies (CARS), fluency, and writing. The first grade students receive a 90 minute daily literacy block, which includes a mini lesson, guided reading, and literacy stations. The basal series used is Macmillan/McGraw-Hill. The school-wide literacy program was developed by staff members and administrators as part of a Plan-Do-Study-Act goal. Students are assessed in the areas of reading and writing by both their classroom teacher and their literacy group instructor. Science, social studies, art, and health are integrated throughout the curriculum. Students receive one hour each of physical education and music each week, as well as at least one hour each week of learning center (technology) time. The school also has adopted a school-wide discipline program utilizing the “I Care” program. Students are taught the five “I Care” rules/expectations about behavior and are expected to follow these general rules in all areas of the school and playground (Peace Education Foundation, 1997).

Programs available to meet the special needs of students include special education services and speech therapy services for grades K-3, state-funded reading support, after school tutoring for second and third grade students, and a before and school care program. Breakfast and free and reduced lunch programs are also available for students who meet financial requirements.

Site B

This building complex houses the targeted primary school and three self-contained resource classrooms. The primary school consists of three sections each,

kindergarten through third grade. One feature of the building is carpeting. The third grade classroom at Site B has seven tables where students work cooperatively; this classroom is composed of 23 students. Four of the third grade students have an IEP. Each student with an IEP has a diagnosed learning or speech concern that is addressed through the use of the IEP.

As Site A and Site B are within the same school district, Site B also has a strong focus on technology. Each classroom includes at least five student computers (containing Microsoft programs and networked district learning software), one teacher computer, a large presentation monitor, a television and video cassette recorder, and an overhead projector. Site B also contains a learning center which houses over thirty computer stations and two printers.

The primary school targeted for this study has a 95.1% Caucasian, 1.9% Black, 1.0% Hispanic, and 1.9% Asian Pacific Islander population of approximately 309 students (Interactive Illinois Report Card, 2005). The average class size in kindergarten through third grade is 22 students (Illinois State Board of Education, 2005). Fifty-five percent of the student population is low-income (Interactive Illinois Report Card, 2005). Student attendance rate is 94.2% and the student mobility rate is 14.9% (Illinois State Board of Education, 2005).

The faculty is made up of a principal, three teachers for each grade level, kindergarten through third grade, three self-contained teachers, a part time music teacher, a part time physical education teacher, a full time speech therapist, a full time resource teacher, a part time lead teacher, a part time school counselor, and one and a half Reading Recovery/Title teachers. Other support staff include a secretary, a learning center aide, a

part-time English as a Second Language (ESL) teacher, six teaching assistants, and a nurse. The make-up of the staff is 86% female and 14% male. The average age of the staff at Site B is 45 years old; the average number of years experience is 19 years. Of the staff members at Site B, 21% have their bachelor's degree and 78% have their master's degree. The building principal is in her second year at Site B.

All students receive a 90 minute daily literacy block, which includes a mini lesson, guided reading, and literacy stations. The basal series used is Macmillan/McGraw-Hill; in addition, one second grade classroom and one third grade classroom will be using the National Geographic Avenues basals. Because Site B is located within the same school district as Site A, the curriculum, behavior plan, assessments, and programs available to meet the needs of students are consistent with that of Site A.

The Researchers

Researcher one has been an educator for 23 years, all of which have been within the described school district. Researcher one has taught kindergarten at Site A for eight years and also has experience teaching second and fourth grades. Researcher two has two years of teaching experience, both of which have been in first grade at Site A. Researcher three has nine years of teaching experience, all of which have been in third grade at Site B. The researchers agree that in their experience most children have difficulty transferring correct spelling into written work, and this has led to the researchers seeking interventions to implement in order to improve the transfer of student spelling into written work.

The Surrounding Community

Sites A and B are in the same district within the same community located in west central Illinois along the eastern bank of the Illinois River. The regional topography includes river bluffs, rolling hills, wooded areas, and many man-made lakes. The population of the community is 33,857 people. Within this population, 95.8% are Caucasian, 2.5% are Black, 0.4% are American Indian, and 0.4% are Asian. The community serves as an agricultural and industrial area. In 2000, the average household income was \$37,972 and the median home value was \$75,900. Nine percent of the population is considered to be low income (U.S. Census Bureau, 2000).

In the surrounding community of Sites A and B, the major employers are the hospital, federal prison, school district, utility companies, manufacturing plants, insurance agencies, and Wal-Mart. In 2004, the unemployment rate for this community was 4.7 percent (Economic Development Council, 2005). Within this community there are two separate school districts; the high school and elementary schools each compose their own district. Within Site A and B's school district, there are 11 schools (one preschool, six primary schools, two intermediate schools, and two junior high schools). Also located within this community there are three parochial schools and one special needs school.

The local elementary school district employs 243 teachers. All of the teachers are Caucasian; 13% of the employees are male, and 87% of the employees are female. Within the school district, the average number of years experience is 16 years. Over fifty percent of the employees have a bachelor's degree, while 49% of the employees have a master's degree or higher. The average yearly salary for teachers within the district is

\$47,007 and the average yearly salary for administrators within the district is \$85,889. In 2005, the average instructional expenditure per student is \$3,978 (Illinois State Board of Education).

The community offers many programs to meet the needs of local families. Some of the major community programs are the Boys and Girls Club, local park district, Union Mission, and a program called Drug Awareness Resistance Education (DARE).

National Context of the Problem

“Spelling, although a small piece of the writing process, is of great concern to teachers, parents, and the general public” (Laminack, Lester, & Woods, 1996, p. 10). Many educators, both locally and nationally, have noticed a common trend in students’ lack of ability to transfer the correct spelling of high frequency and commonly used words into their daily work and writing. Shah and Thomas (2002) wrote “according to the 1989 Gallop Poll, the United States placed last in spelling behind Australia, Britain, and Canada. In addition, on the Iowa Test of Basic Skills, elementary school scores have dropped steadily since 1990” (p. 31). Shah and Thomas provide evidence that spelling is of national concern and is indeed in need of attention. Johnston (2000) stated “English spelling has traditionally been considered a trial and tribulation to those who teach it and those who must learn it” (p. 372). Gentry (2004) discussed a possible explanation for the difficulty of learning to spell the English language.

But in English, the alphabetic principle is complex, with a plethora of foreign spellings, myriad spelling combinations, a huge vocabulary, and sometimes arbitrary spelling patterns (and) this complex system of English spelling makes it

more difficult to spell than an alphabetic language such as Italian (Gentry, 2004, p. 13).

As educators, we find it difficult and frustrating to teach spelling because the English language has so many inconsistencies and words that do not follow spelling rules.

It is our opinion that many students can correctly spell high frequency and spelling words in isolation, such as on a weekly spelling test, but they cannot correctly spell these words in their daily work and writing. We believe that students may not see a purpose or reason to make correct spelling a priority in their writing. Thus, many students simply spell words phonetically, even when the word was a word that they had been taught and had already been mastered on a weekly spelling test. Yet “correct spelling is not only important on a Friday spelling test, but in all areas of the curriculum” (Murphy, 1997, p. 18).

In addition to teachers teaching spelling simply for mastery on the weekly spelling test, we believe that teachers are not using the current research on spelling in their daily instruction. According to Gentry (1987)

Too much that is known about how to teach spelling isn't being put into practice.

I can think of no subject we teach more poorly or harbor more myths about than spelling. In spite of volumes of research, teachers still use the same unsubstantiated teaching formulas (p. 7).

Teachers must help students understand that spelling is important and is a reflection of the students' reading and writing ability. As sighted in Brecher, Gray, Price & Sayles (1998) “The focus for spelling needs to be shifted from rote memorization to communication between writer and reader” (p.i). The words that we expect our students

to spell correctly are high frequency words that are seen daily in reading and writing, and thus students need to know how to spell these words correctly.

We believe that spelling is an area that needs to be addressed in the primary school years. We believe that with effective spelling strategies, students' ability to transfer spelling into their written work will be enhanced. Phenix and Scott-Dune (1991) wrote that "we need to strike a balance in our teaching so that students understand the place of spelling, and have enough confidence as spellers that they are not inhibited as writers" (p. 17). A review of the literature confirms that student spelling and the inconsistency of spelling instruction is of national concern; teachers need to be aware of more effective ways of teaching spelling so that students transfer correct spelling into daily written work.

CHAPTER 2

PROBLEM DOCUMENTATION

Problem Evidence

The students in the three targeted classrooms have displayed incorrect spelling in their daily written work. Tankersley (2003) identified correct spelling as “when the child nearly always spells the word in the conventional manner when writing” (p.29). We define correct spelling as when students spell words conventionally with accuracy and ease.

In order to show evidence of this problem, the researchers gave a pretest of high frequency words. The pretest for the kindergarten class consisted of 26 words; the pretest for the first grade class consisted of 52 words; the pretest for the third grade class consisted of 78 words. The high frequency words used for the pretests were taken from a grade level list of the Dolch Sight Words. Additionally, each of the students in the targeted classrooms was given the Richard Gentry Developmental Spelling Inventory (Gentry, 2004, p. 107-112). This list consists of ten words and the students’ spelling of each word was analyzed and categorized into a level of developmental spelling as categorized by Gentry (2004). Next, in order to evaluate the students’ personal feelings about their spelling and writing skills, the students completed a self-assessment checklist.

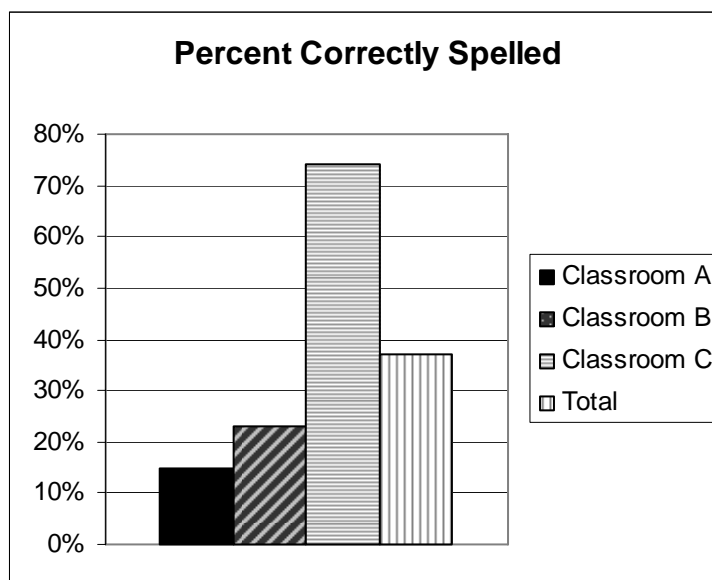
Then, to assess other teachers' opinions about spelling instruction, a teacher survey was administered. Finally, the researchers also collected writing samples from the students and recorded anecdotal notes about the writing.

High Frequency Word Pretest

The high frequency word pretest was administered at both sites (see Appendixes A through D). At Site A, 17 students were administered the kindergarten high frequency word pretest, which contained 26 words. Also at Site A, 20 students were administered the first grade high frequency word pretest, which contained 52 words. At Site B, 23 students were administered the third grade high frequency word pretest, which contained 78 words.

Of the 17 students at Site A who completed the kindergarten high frequency word pretest, the average percent of words spelled correctly was 15%; 17 of the 17 students spelled less than 50% of the words correctly. Of the 20 students at Site A who completed the first grade high frequency word pretest, the average percent of words spelled correctly was 23%; 18 of the 20 students spelled less than 50% of the words correctly. Of the 23 students at Site B who completed the third grade high frequency word pretest, the average percent of words spelled correctly was 74%; 4 of the 23 students spelled less than 50% of the words correctly (see Table 1). After reviewing the high frequency word pretest, we have concluded that there is an obvious need for interventions to assist children in spelling high frequency words correctly.

Table 1

High Frequency Word Pretest, September 2006*Richard Gentry Developmental Spelling Inventory*

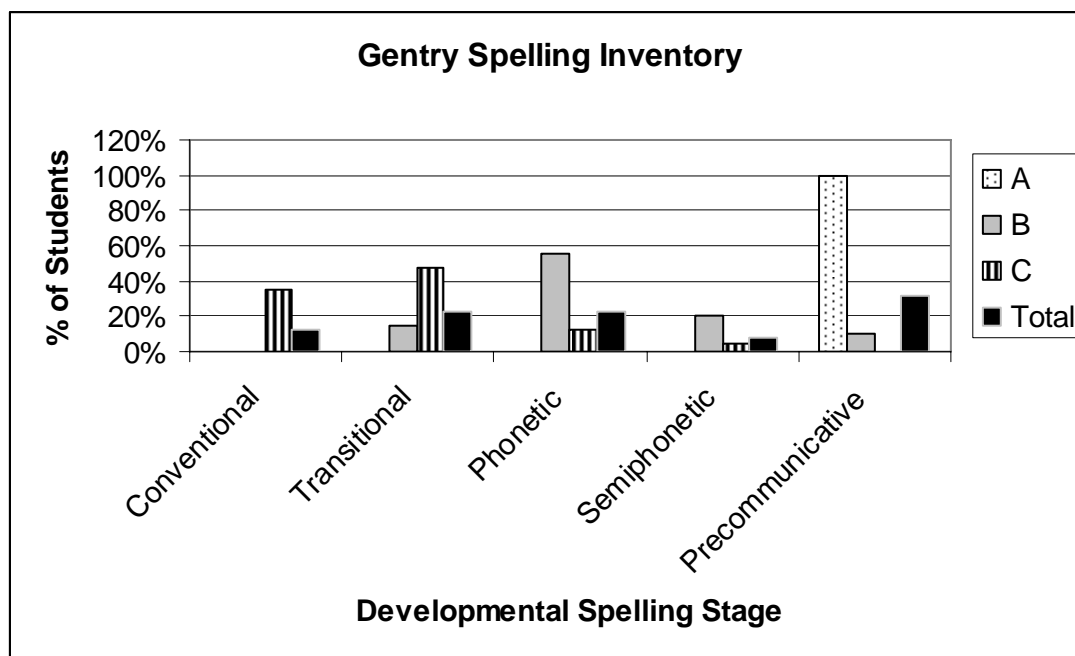
In addition to the high frequency word pretest, developmental spelling tests were administered at both sites. Seventeen kindergarten students and 20 first grade students at Site A completed the Gentry Developmental Spelling Inventory; in addition, 23 third grade students at Site B completed the Gentry Developmental Spelling Inventory (see Appendices E and F).

The five stages of spelling development identified by Gentry are the precommunicative, semiphonetic, phonetic, transitional, and conventional. In the precommunicative stage children are beginning to use letters in their writing to represent words, but these letters do not represent sounds. Next, in the semiphonetic stage, children begin to understand that letters represent sounds in words, but do not include a letter to represent every sound in the word; often, major sounds are omitted. The third stage, phonetic, is characterized by children spelling words exactly as the words sound, though

sometimes these spellings are unconventional. Then, in the fourth stage of spelling development, transitional, students begin to think about how words appear visually, students begin to use spelling patterns and spell words conventionally. Finally, in the fifth stage of spelling development, the conventional stage, children are using correct spelling of words commonly used at their instructional level (Gentry, 2004).

Of the 17 kindergarten students evaluated in Site A, 100% of the students are in the precommunicative letter stage of spelling development. Of the 20 first grade students evaluated in Site A, 10% of the students were in the precommunicative stage, 20% were in the semiphonetic stage, 55% were in the phonetic stage, 15% were in the transitional stage, and no students were in the conventional stage of development. Of the 23 third grade students evaluated in Site B, no students were in the precommunicative stage, 4% were in the semiphonetic stage, 13% were in the phonetic stage, 48% were in the transitional stage, and 35% were in the conventional stage of spelling development (see Table 2).

Table 2

Richard Gentry Developmental Spelling Inventory Pre-Test, September 2006

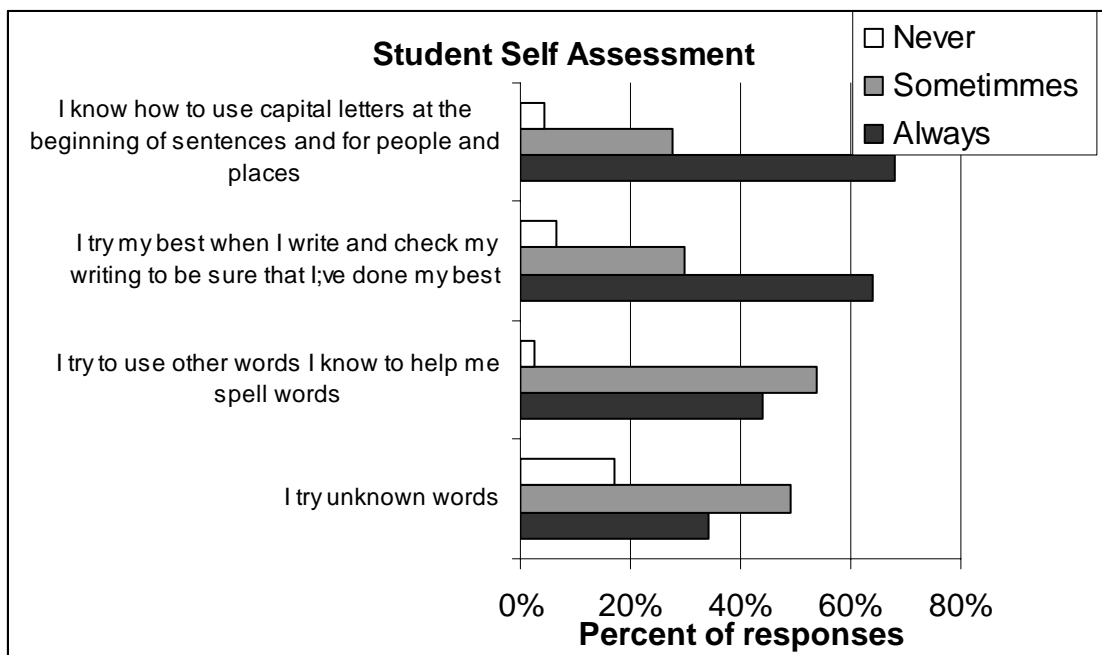
Of all the students evaluated, 32% of the students were in the precommunicative stages of spelling development, 8% of the students were in the semiphonetic stage of spelling development, 23% of the students were in the phonetic stage of spelling development, and 23% of the students were in the transitional stage of spelling development. Reviewing the data, only 13% of students evaluated were in the conventional stage of spelling. This evidence reflected that most of the students evaluated were not in the conventional, or correct, spelling stage of spelling development. We believe that there is a correlation between the stage of spelling development that students were assigned using the Gentry test and the accuracy of student spelling in daily work. Given this, we believe that our students have lots of room for growth in the area of spelling.

Self-Assessment Checklist

In order to evaluate the connection between how accurately students were spelling and how they felt about their spelling, self-assessment checklists were distributed at both sites (see Appendix G). Twenty first grade students at Site A and 23 third grade students at Site B completed the self-assessment checklist, which was adapted from an assessment checklist found in *Instructor* magazine (1996). The kindergarten students at Site A did not complete the self-assessment checklist because we felt the checklist was an inappropriate task for beginning of the year kindergarten students. The self-assessment checklist had 14 statements about spelling, reading, and writing; students were asked to choose either “always,” “sometimes,” or “never” about how they felt about the statement.

Figure 1

Self Assessment Checklist, September 2006



Students' responses to the self-assessment were very diverse. Trends in the data suggest that most students feel that they “sometimes” try unknown words and try to use

other words to help them spell unknown words. A majority of the students felt that they “always” try their best and check their writing when they are finished. Likewise, a majority of students felt that they “always” know how to spell the words that they use a lot (see Figure 1). We believe that the results of the self-assessment show that some students might not be aware that improvement is needed in their daily spelling.

Teacher Survey

We wanted to know how teachers feel their own spelling instruction, so a teacher survey was created by the researchers and distributed to classroom teachers at both Sites A and B (see Appendix H). The teacher survey consisted of 12 questions, both short answer and multiple choice formats. Thirteen classroom teachers responded to the survey questions. After analyzing the responses, we noticed that a majority of teachers are teaching spelling and are giving a spelling test.

There appears to be no standardized spelling curriculum being used at Sites A or B. Instead teachers are creating their own spelling curriculum using Dolch words, reading series, word families, and district writing words. The teachers who responded to the survey felt that spelling is most successful when it is taught in a hands-on, multisensory manner. The teachers also felt that spelling should be taught daily and that students should be taught to self-correct their work. The teachers surveyed felt that spelling is least successful when students are asked to simply write the words multiple times, when worksheets are used, and when teachers try to teach spelling rules.

Only 30% of teachers surveyed felt that students accurately transfer spelling into their written work. We feel that this shows evidence of a need for teachers to modify their spelling instruction. It seems that many teachers are reflective about their spelling

instruction and have identified what is and isn't successful when teaching spelling. We feel, however, that teachers need to continue to reflect upon their spelling instruction and make adaptations so that students do transfer correct spelling into their written work.

Conclusions

After reviewing the high frequency word pretests, the Richard Gentry Developmental Spelling Inventory, student self-assessment checklists, and teacher surveys, we have concluded that there is a definite need for teachers to use more effective ways of teaching spelling so that correct spelling is transferred into written work. We believe that teachers must improve their instructional practices in the area of spelling so that students can be more successful spellers in their daily work.

Probable Causes

Spelling instruction is of concern for both parents and educators. After a review of the literature we determined that there are three primary categories for the causes that relate to the lack of spelling transfer into students' written work. The three categories include possible causes occurring within the students, possible causes occurring as the result of inadequate instruction, and the complexity of the English language.

Students

Many probable causes for students' inability to transfer spelling into written work may be result of the students' home experiences and lack of language skills. It was found that lower income families not only provided fewer print-related activities, but that the activities were more skill based than for enjoyment (Degeneffe, 1998). Bailey et al. (2002) stated, "The first factor affecting the success of student writers was a lack of experience with language" (p.22). They also wrote, "in order for children to be successful

in written language, they must have a strong verbal language developed, which is often based in phonemic awareness” (Bailey et al., 2002, p.22). Medrano and Zych (1998) agreed and concluded that an absence of the print-rich environment may be the cause to the problem of poor spelling skills for students. It is necessary for children to have experiences with verbal and written language, including phonemic awareness, to ensure that children are successful in their own written work.

Clark-Edmands (2000) points out that another probable cause for students’ inability to transfer correct spelling may be found within the child’s own language area. Some children have an inability to understand how to work with the sounds of the language system. Examples of this include reversing beginnings of words, substituting similar letters, leaving off endings, and omitting letters. Students with phonological problems often do not correctly pronounce words. This will hinder spelling as well.

Instruction

Many probable causes for students’ inability to transfer spelling into written work may lay within the spelling instruction that students receive. Gentry (1987, p. 7) wrote:

Too much that is known about spelling isn’t being put into practice. I can think of no subject we teach more poorly or harbor more myths about than spelling. In spite of volumes of research, teachers still use the same unsubstantiated teaching formulas.

Throughout his book, Gentry exposed common myths about teaching spelling, such as “to become good spellers, kids have to do hundreds of spelling book exercises and drills” and “the most important thing about spelling is making 100% on the weekly spelling test” (Gentry, 1987, p. 8). He also addressed a common misconception about spelling when he

stated, “simply writing the words in question a certain number of times is not a good procedure for learning misspelled words” (p 32). A key concept in Gentry’s book is that spelling must be taught explicitly and in relationship with other subject areas. “When spelling is not taught socially in interaction with reading, writing, and other language arts, most kids will see no purpose or use for it” (Gentry, 1987, p. 46).

Teicher (2005) agreed with Gentry by stating “the traditional approach to teaching spelling-memorize this list and take a test at the end of the week- isn’t effective for many students” (p. 2). We believe that a primary cause of children being poor spellers is that teachers focus too much, or only, on a weekly spelling test and do not teach spelling explicitly or in relation to other subject areas, such as writing.

Dorn, French, and Jones (1998) discussed the importance of carefully monitoring children’s writing samples in order to see writing and spelling development over time. Dorn et al. (1998) wrote, “In order to follow children’s progress effectively and instruct them according to their needs, teachers must be able to analyze and interpret children’s writing and spelling development” (p. 74). Spelling is a developmental process that teachers need to be aware of in order to create proficient speller; students’ lack of phonemic awareness is also a factor (Medrano & Zych, 1998). Moats (1995), as cited in Myers et al. (2000), wrote:

The bottom line is that teachers need to be explicitly trained not only in the developmental stages of spelling acquisition but also in phonological analysis in order to increase their own phonemic awareness. With this knowledge, they would be able to assist students in moving from sounding words out to being able to visualize the conventional spellings of words. (p. 38)

Just as teachers must understand and assess students' developmental spelling stages, teachers must also include phonics in their spelling instruction. Bailey, Borczak, & Stankiewicz (2002) wrote "the lack of phonics in the classroom is one of the single biggest problems for elementary school children" (p. 22). Just as some teachers do not include phonics instruction in their classrooms, some teachers also do not teach in ways that address each of the multiple intelligences, which might help some struggling spellers and writers. Bailey et. al. (2002) wrote that "Ensuring that teachers allow children to be in contact with their personal strengths as learners and writers can help tackle this problem" (p. 23). We believe that teachers should modify their instruction to build on students' strengths so that all children can feel successful when they write.

English Language

Many probable causes for students' inability to transfer spelling into written work may simply be the result of the complexity of the English language. Gentry (2004) wrote that "Italy definitely had far fewer people with reading problems than the United States, Great Britain, and France" (p. 9). He went on to explain that a primary cause for the higher number of people with literacy problems in the United States, as compared with Italy, was due to the large number of sounds and spelling combinations for these sounds that the English language uses. While Italian has only 25 sounds and 33 spelling combinations for these sounds, the English language has 44 sounds and 1,120 spelling combinations for these sounds.

Dvorak, Ingersol, Kastle, Mullins, and Rafter (1999) stated that the complexity of English orthography makes it difficult to learn spelling and transfer spelling skills across the curriculum. Johnson and Marlow (1996) also discussed the idea of the complexity of

English orthography (word origins) in an article that they wrote about improving student spelling skills. Teaching spelling in the United States appears to be a far more complicated task than teaching spelling in Italian and other languages.

Conclusion

In conclusion, after collecting and analyzing pre-test data, developmental spelling inventory scores, and teacher survey information, a need for modifications to spelling instruction was indicated.

CHAPTER 3

THE SOLUTION STRATEGY

Literature Review

Following an extensive literature review, we determined that there are five primary categories for the solutions that could improve spelling transfer into students' written work. The five categories include multi-sensory techniques, meaningful writing experiences, self-correcting techniques, explicit spelling instruction, and effective teaching strategies.

Multi-sensory Techniques

The International Dyslexia Association stated that “multisensory techniques that join listening, saying, looking, and writing in various combinations, and that consciously engage the student in feeling how the word is spoken and how it is written, are the most successful” (2000). We believe that multisensory techniques will improve transfer of correct spelling into written work because this approach helps both visual and auditory learners to be successful in spelling. Brecher, Gray, Price, & Sayles (1998) suggested that teachers could use music and songs, games and puzzles, and tactile methods to teach spelling in a multi-sensory manner. By incorporating games and music, a wider range of intelligences are included. Chapman (1993) points out that it is not a matter of how smart

we are, but how we are smart that is important. All learning styles and intelligences should be included in spelling instruction (Brecher et al., 1998).

Gentry (1987) wrote “the ability to visualize words is the hallmark of an expert speller” (p. 49), so those who struggle with visual memory need to be presented with other options for spelling (Shah and Thomas, 2002). Shah and Thomas (2002) “developed and used student centers within the classroom to activate the multiple intelligences thereby increasing the retention of high frequency spelling words by moving beyond verbal/linguistic instruction” (p. 1). Dorn and Soffos (2001) suggest that teachers instruct students to circle words that may be misspelled in their writing. The authors explained that teachers should teach children how to edit their writing by circling “the words that do not look right” (p. 52). This is directly related to the belief that spelling is a very visual process.

Golon (2005) wrote “for those who think in images, not words, it can be very difficult to create pictures that incorporate letters, particularly pictures that will live on as memorable images in the visual learner’s mind” (p.1). The author suggests that teachers encourage students to use colored markers, pens, etc. when writing spelling words. Color is a useful tool for spelling because spelling patterns can be written in different colors. Using colors to represent spelling patterns can help visual-spatial learners to see the spelling patterns within words. This strategy also helps children to find known chunks or blends within words and to color-code the chunks and blends to promote visual memory. Golon stated “this is an effective trick for nearly all spelling words, particularly those with unusual or rule-breaking spelling” (p. 1). This trick, or strategy, is effective because

it aids in helping children form a visual representation of the words and patterns and aids in visual memory.

Mercer and Mercer (as cited in Murphy, 1997) wrote that “a multisensory approach to spelling instruction may have an impact on spelling achievement. The multisensory method, also known as VAKT (visual-auditory-kinesthetic-tactile) implies that students learn best when information is presented in different modalities” (p. 1). In addition, Dorn and Soffos (2001) stated “writing involved the brain in cross-referencing three types of perceptual data-visual, auditory, and motor-all of which are needed to produce an accurate spelling” (p. 59). Gentry (1987) also discusses the importance of using a multi-sensory approach to teaching spelling, “for most children, effective methods for studying unknown words would include visual inspection, auditory inspection, kinesthetic reinforcement, and recall-always with the words treated as wholes” (p. 32). Dorn and Soffos (2001), Murphy (1997), and Gentry (1987) all agree that a multisensory approach to spelling instruction is necessary and effective; we agree that using a multisensory approach in spelling instruction would be beneficial to student achievement.

Meaningful Writing Experiences

Writing experiences should be meaningful to students. Students need frequent and purposeful writing experiences in their classrooms.

Gentry holds that purposeful writing experiences are the key to cognitive growth in spelling. Teachers can encourage purposeful writing, such as the writing of messages, lists, plans, signs, letters, stories, songs, and poems. Teachers can also provide opportunities for frequent writing, which, when integrated with all aspects

of the curriculum, should be a natural part of the daily classroom routine.

Frequent application of spelling knowledge by students while writing encourages spelling competency. (Lutz, 1986, p. 3)

Writing should be integrated across the curriculum and should not be taught in isolation.

In addition, spelling instruction should be embedded in writing instruction and children need many experiences with purposeful writing. “Purposeful writing is an important key to learning to spell...to teach kids to spell, get them to write” (Gentry, 1987, p. 17, p. 27).

Self-Correcting Techniques

Students should be aware of ways in which to edit and correct their own writing.

Gentry (1987) discussed the importance of having children correct their own spelling tests, “one technique frequently cited as being most effective is this: have children correct their own spelling errors immediately after taking a spelling test... having kids correct their own errors immediately seems to aid their visual memory” (p. 29). This statement implies that it is valuable and important for students to correct their own work frequently and in a timely manner.

The importance of spelling should be addressed through proofreading. “Good teachers teach proofreading skills and stress the value of correct spelling as well, but usually only for the final draft of a composition being readied for publication” (Gentry, 1987, p. 9). Teaching students to reread their own writing and make corrections independently is an important part of teaching students the importance of correct spelling.

Explicit Spelling Instruction

“It does not seem important or necessary that one embrace any one particular approach to the teaching of spelling strategies; what is important is that children are

indeed taught spelling directly” (Degeneffe and Ward, 1998, p. 28). This powerful quote stresses the importance of explicitly teaching spelling. Gentry (1987) stated “research indicates that we do need to teach formal spelling lessons to supplement what kids learn about spelling through reading and writing” (1987, p. 9). This statement affirms that spelling must be taught to children; most children can not learn spelling solely from their experiences with reading and writing.

In an examination of ten studies, McNaughton and his colleagues found that fifteen to twenty minutes of spelling instruction per day was found to be effective (Greene, 1995). It is important to keep in mind that this time is dependent upon keeping the spelling period purposeful, lively, and interesting. “Learning to spell is not a matter of memorizing words, but a developmental process that culminates in a much greater understanding of English spelling than simple relationships between speech sounds and their graphic representations” (Lutz, 1986, p. 2). This statement makes it clear that spelling is a subject area that must be taught to students at their own developmental levels; spelling is a cognitive process, much more in depth than simply memorizing letter and sound relationships.

Teachers have a responsibility to develop appropriate spelling expectations and lists. Peha (2003) offers many solution strategies for improving spelling instruction; these include creating spelling lists that are related to students’ writing needs and teaching words based on meaning, spelling patterns or common sounds. Dvorak, Ingersol, Kastle, Mullins, and Rafter (1999) strongly encourage the use of a list of words that are most frequently used in reading and writing. This list of words would be the focus of the spelling program. These authors affirm that the practice of having students

master a basic list of 850 to 1,000 spelling words during the elementary grades provides them with up to 89 percent of the words they commonly use in their writing.

Lutz (1986) explained that “teachers can select spelling words from varied sources. For example, teachers can select words for formal instruction from two sources: their students’ own writing and a list of high frequency words” (p. 4). This implies that spelling word lists should be created from a list of high frequency words and words that children are already using in their writing; the words on spelling lists should be words that students will use in their own writing and reading.

Dorn and Soffos (2001) stated “spelling lessons should focus on a minimum of new things to learn, so as not to overload children’s working memory” (p. 59). Also, in regard to teaching spelling in a way that addresses memory functions, the authors confirmed that “chunking visual information is a more economical and speedy process than sounding out individual letters for solving unknown words” (p. 59). Teachers should purposefully plan spelling lessons while keeping in mind what is known about memory.

Effective Teaching Strategies

Spelling instruction needs to be designed to give students strategies to break down words into smaller, more solvable parts (Degeneffe & Ward, 1998). One very important component of a print-rich environment is the word wall; a word wall is an interactive display of words on the classroom wall which can be used to aid in student spelling. Each teacher can personalize the word wall to meet the needs of his/her students. Peha (2003) encourages the use of simple memory aids and suggests that word walls are an absolute necessity. Brecher, Gray, Price, and Sayles (1998) suggested possible solutions

for improving student spelling include expanding the word bank, addressing students' multiple intelligences, editing, creating a print-rich environment, multi-modality learning procedures, and writing across the curriculum. Creating a print-rich environment, such as through the use of a word wall, is very beneficial for helping students learn to visualize words.

Macmillan (2001) found that phonics activities involving print and letter correspondences and letter formation in the context of letter sound relationship were the most successful activities for teaching spelling to young children. Teaching phonics is important because in order to sound out the spellings of words, students need to know the sounds that individual letters make. Lutz (1986) discussed the importance of using instructional games for spelling instruction, such as games that allow students to practice letter/sound relationships, manipulating letters to make words, and alphabetizing.

Gentry (1987) offers many practical ways for teachers to teach children spelling in a child-friendly way. He discusses the use of copying as a form of spelling instruction, such as copying a word or sentence over and over. "Copying correct spelling does little to enhance spelling ability (and) mechanical copying activities make writing seem difficult" (p. 14). We agree with Gentry that mindless copying of words is not an effective way of teaching spelling. Gentry (1987) makes many statements about teaching strategies that will help create an effective spelling program:

Teach spelling as part of the whole curriculum. Capitalize on opportunities to have children write and spell in situations other than the spelling lesson...

Respond to children's writing in ways that help them discover more about spelling. In your response, build interest in words, make word study fun, answer

questions about spelling, and teach spelling skills. Help young writers develop a positive spelling consciousness. (p. 28)

Gentry (1987) lists six procedures that have received research support and which we plan to implement in our modified spelling instruction:

- Allot sixty to seventy-five minutes per week to formal spelling instruction.
- Present the words to be studied in list or column form.
- Give the children a pre-test to determine which words in the lesson are unknown. Have them study the unknown words, then administer a post-test.
- Have the children correct their own spelling test under your direction.
- Teach a systematic technique for studying unknown words.
- Use spelling games to make spelling lessons more fun. (p. 29)

Dorn and Soffos (2001) identify six common beliefs about spelling; these common beliefs include: “spelling instruction should be grounded in cognitive theories of perception, concentration, and organization of patterns; children should learn problem solving strategies for spelling words; spelling instruction should consider the cognitive aspects of memory functions; children should practice spelling strategies in meaningful ways, so as to promote automaticity, transfer, and internalization; self-reflection and self-correction are important goals of the good speller; and spelling lessons should recognize the social side of language” (p. 55-61). These beliefs provide a solid framework for effective spelling instruction.

Dorn and Soffos (2001) identified key concepts that children need to understand about literacy.

For beginning spellers, here are four important principles that children need to understand: the letters are written to represent spoken sounds, the letters should be written in the same sequence in which the sounds are spoken, some letters are combined to form patterns that represent certain pronunciations in a single syllable, [and] some words occur a lot and need to be remembered as a whole. (p. 58)

This quote implies that students need to be explicitly taught these key concepts; children need to see these concepts being modeled and need guided practice in using these concepts. For example, teachers need to teach children blends (letters combined to form patterns that represent certain pronunciations, for example ‘th’).

Conclusions

We believe that the most important thing about spelling is not making 100% on spelling tests. “Doing well on spelling tests alone will not ensure competency in spelling” (Gentry, 1987, p. 10). We need to teach children to spell correctly in their daily written work. This, not the weekly spelling test, should be the goal of spelling. Teachers should let parents and students know how important writing is. “The evidence is clear that kids who write frequently, even those who receive no spelling corrections, become better writers” (Gentry, 1987, p. 37). Spelling should be made a priority to students, parents, and teachers.

Learning to write, read, and spell is a cognitive process in which students must be thinking participants. “Accurate spelling is the result of a cognitive process that includes attending, monitoring, searching, and self-correcting strategies” (Dorn & Soffos, 2001, p. 64).

Research on beginning reading indicated that letter knowledge is a strong predictor of children's success in reading. However, letter learning is not a memorization task by a systematic process whereby children learn how to analyze the features of letters. (p. 56)

Students must be constantly monitoring and self-correcting their writing to ensure accurate spelling.

The ultimate goal of spelling instruction is to develop skills that will enhance students' abilities and confidence as effective writers and communicators. By teaching spelling in a multisensory manner and teaching students to monitor and self-correct their writing, students will become effective readers and writers in all content areas.

Project Objectives and Process

As a result of direct and daily spelling instruction of high frequency words, during the period of September 2006 to December 2006, the kindergarten, first grade, and third grade students will increase correct spelling in their written daily work, as measured by pre- and post-tests of high frequency words, the Richard Gentry Developmental Spelling Inventory, and writing samples. As a result of providing effective spelling instruction, the kindergarten, first grade, and third grade students will increase transfer of spelling words across the curriculum as measured by students' artifacts.

In order to accomplish the project objective, the following processes are necessary:

1. Materials that foster the learning of spelling strategies will be developed.
2. A series of learning activities will be implemented that encourage the use of spelling strategies.
3. Student writing samples and artifacts will be evaluated for spelling.

4. Student self-assessments will be created and administered pre- and post-intervention.

Project Action Plan

The spelling programs at both sites will consist of formal and informal instruction. There will be 75-100 minutes of formal spelling instruction each week. Spelling instruction will include teaching the spelling of high frequency words, teaching spelling in a multisensory and multiple intelligence approach, using alternative media to write spelling words, teaching children to do word sorts, teaching students to use classroom word walls, and teaching students to self-correct their own writing.

- I. Who (or what groups) we will study:
 - a. All of the students in the three primary classrooms will be given a pre-test of high frequency words, the Richard Gentry Developmental Spelling Inventory, and a self-assessment checklist, which will result in baseline data for our research. All of the students in these classrooms will receive the multisensory and self-correction spelling instruction. All of the students in each of the three primary classes will receive the modified spelling instruction. One of the primary classrooms will be a kindergarten classroom, students will be approximately five years old; one of the primary classrooms will be a first grade classroom, students will be approximately six years old; and one of the classrooms will be a third grade classroom, students will be approximately eight years old. In addition, approximately 20 teachers will be asked to take a survey.

- II. Where study will take place:
- a. The research will be conducted at two different school sites. At Site A, a kindergarten and a first grade classroom will be involved in the study. At Site B, a third grade classroom will be involved in the study.
- III. When it will occur:
- a. Anticipated dates of study: September 4, 2006-December 15, 2006
- IV. What you will use to collect information (data collection instruments and procedures):
- a. Pre- and post-test of high frequency writing words
 - b. Pre- and post-intervention Richard Gentry Developmental Spelling Inventory
 - c. Pre- and post-intervention “Am I a Good Speller?” self-assessment checklist
 - d. Pre- and post-intervention writing samples
 - e. Teacher survey
- V. How you will collect, organize and analyze the information collected (your methods of data analysis):
- a. Teachers will record anecdotal notes about observations when students are writing. Next, the following data collection procedures will occur:

What	When administered	How administered	Who administers
Pretest of high frequency writing words	September 5-8, 2006	Test will be given to all of the students in sections, with chunks of 15-20 words given at a time	Each teacher in her classroom

Pre-intervention Richard Gentry Developmental Spelling Inventory	September 5-8, 2006	Test will be given to all of the students.	Each teacher in her classroom
Pre-intervention “Am I a Good Speller?” self- assessment checklist **	September 5-8, 2006	Teacher will read the statements aloud and students will respond	Each teacher in her classroom
Pre-intervention writing samples	September 5-8, 2006	Teachers will give students a writing prompt and collect the writing sample when students are finished; teacher will make anecdotal notes about the writing samples	Each teacher in her classroom
Teacher survey	September 5-8, 2006	Teachers will pass out surveys to classroom teachers in her building and collect finished surveys	Each teacher in her building
Post-test of high frequency writing words	December 11-15, 2006	Test will be given to all of the students in sections, with chunks of 15- 20 words given at a time	Each teacher in her classroom
Post- intervention Richard Gentry Developmental Spelling Inventory	December 11-15, 2006	Test will be given to all of the students.	Each teacher in her classroom
Post- intervention “Am I a Good Speller?” self- assessment checklist	December 11-15, 2006	Teacher will read the statements aloud and students will respond	Each teacher in her classroom

Post-intervention writing samples	December 11-15, 2006	Teachers will give students a writing prompt and collect the writing sample when students are finished	Each teacher in her classroom
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Methods of Assessment

In order to assess the effectiveness of the interventions after a sixteen week period, the high frequency word test, the Richard Gentry Developmental Spelling Inventory, and the student self-assessment checklist given in September will be re-administered in December. The scores and results from these post-tests will be compared with scores from the pre-tests. In addition, student writing samples will be collected in December and compared to writing samples that were collected in September.

CHAPTER 4

PROJECT RESULTS

Historical Description of the Intervention

The students of the targeted kindergarten, first grade, and third grade classrooms did not consistently use correct spelling of district writing words and spelling words in their daily work. The research took place September 4 through December 15, 2006 at two different schools within the same school district. The objective of this research project was to improve students spelling of high frequency words in daily work.

Prior to modifying instruction, a pretest of high frequency words was given to students in the kindergarten, first grade, and third grade classrooms. In addition, the Richard Gentry Developmental Spelling Inventory was administered to students in each of the three classrooms. A self-assessment checklist was completed by students in the first and third grade classrooms. Finally, we collected student work samples and a teacher survey was administered at this time. In collecting our baseline data, the only deviation that we made from our original action plan was that we did not have the kindergarten students complete the self-assessment checklist. We concluded that the self-reflection necessary to complete this checklist was not developmentally appropriate for kindergarten students.

Prior to beginning our project, we compiled grade level appropriate lists of high frequency words to be taught from the Dolch Sight Word List. We decided that kindergarten students would be taught two words per week, first grade students would be taught four words per week, and third grade students would be taught six words per week. We made many modifications to our spelling instruction as a result of our research project. We began by making daily spelling instruction a priority; students were taught direct spelling instruction twenty minutes each day. Next we incorporated a variety of multisensory spelling methods; for example, students were allowed to write their spelling words in shaving cream, on sandpaper, with magnetic letters, with letter stamps, with colored pens, with clay and with sponges. In addition, students were taught spelling chants and songs.

We used word sorts weekly using the high frequency words. Students were encouraged to sort words in a variety of ways, such as by the number of letters in a word, the number of vowels in a word, by word patterns, blends, chunks, and categories of the students' choosing. Each teacher also developed and encouraged students to use a classroom word wall. Each week the new words were added to the word wall and students were encouraged to use the word wall to assist in their spelling. Students were also taught how to self-correct and edit their own writing. Students were taught to self-correct their work immediately after it was finished; students were also allowed to use a different color writing utensil to self-correct. This process was taught and practiced until it became automatic for the students.

Other modifications that we made in our classrooms included having students play spelling games and computer games, such as flashcards, word searches, etc. In our

classrooms, we had PowerPoint presentations that had the high frequency words for each grade level. These presentations ran throughout the day and there to provide students with more exposure to the words. We also encouraged students to practice their spelling words with a friend in the classroom and planned many buddy spelling activities.

Finally, we presented our spelling words in column format and administered a pretest at the beginning of each week to ensure that students practiced the words that they need to learn.

At the conclusion of our action research project, we again gave each student in the three classrooms a post-test of the high frequency words and a post-test of the Richard Gentry Developmental Spelling Inventory. We also collected post-intervention writing samples from our students. We decided at this point not to have any of our students complete the self-assessment checklist because we felt that the process of self-reflection was too complex for our young students to complete accurately. The self-assessment checklist was too long and did not seem to be meaningful for the students.

Presentation and Analysis of the Results

Post-intervention each classroom completed the high frequency word post-test and the Richard Gentry Developmental Spelling Inventory post-test. Post-test data indicated that all of the students had an increased number of words spelled correctly on the high frequency word post-test and all students moved one or more stages in the developmental spelling inventory. Therefore, every child showed growth in his/her spelling ability.

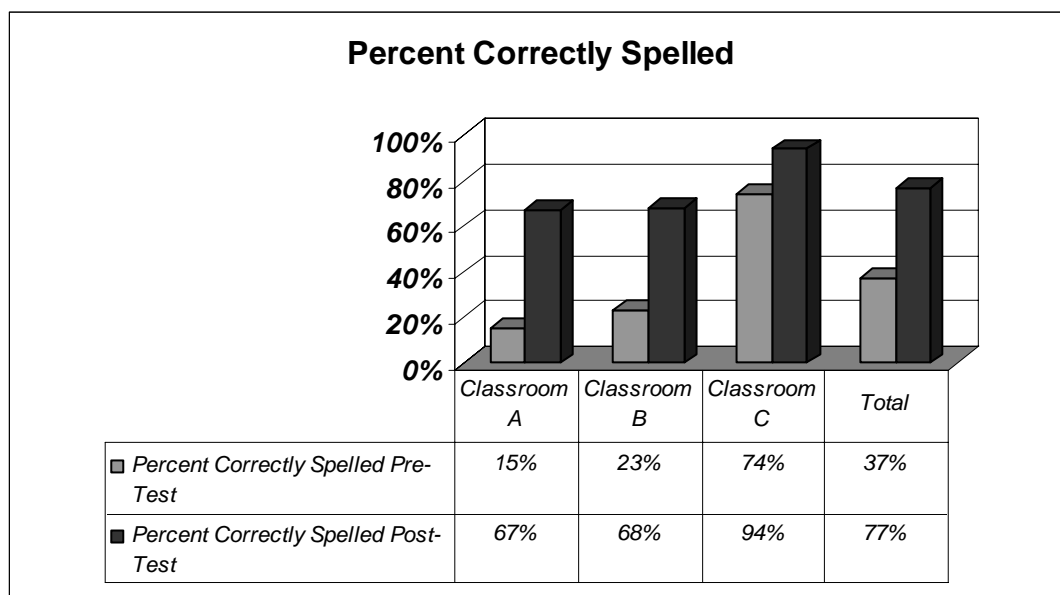
High Frequency Word Posttest

The high frequency word posttest was administered at both sites. At Site A, 17 students completed the posttest, which contained 26 words. Also at Site A, 20 students were administered the first grade high frequency word posttest, which contained 52 words. At Site B, 23 students were administered the third grade high frequency posttest, which contained 78 words.

Of the kindergarten students at Site A who completed the high frequency word posttest, the average percent of words correctly spelled was 67%; this is a 52% increase from the average percent of words that the kindergarten students spelled correctly on the pretest. Of the first grade students at Site A who completed the high frequency word posttest, the average percent of words correctly spelled was 68%; this is a 45% increase from the average percent of words that the first grade students spelled correctly on the pretest. Finally, of the third grade students at Site B who completed the high frequency word posttest, the average percent of words correctly spelled was 94%; this was a 20% increase from the average percent of words that the third grade students spelled correctly on the pretest.

Of all of the students at Site A and B who completed the high frequency word posttest, the average percent of words spelled correctly was 77%; this was a 40% increase from the average percent of the words that all students at Site A and B who completed the posttest spelled correctly on the pretest (see Table 3). After reviewing and comparing the data from the high frequency word pre and posttests, we have concluded that there was an obvious improvement in the students' abilities to spell high frequency words conventionally.

Table 3

High Frequency Word Posttest, December 2006*Richard Gentry Developmental Spelling Inventory*

In addition to the high frequency word posttest, developmental spelling tests were administered at both sites. Seventeen kindergarten students and 20 first grade students at Site A completed the Richard Gentry Developmental Spelling Inventory; in addition, 23 third grade students at Site B completed the Richard Gentry Developmental Spelling Inventory.

Of all of the students at Sites A and B who completed the Richard Gentry Developmental Spelling Inventory posttest, no students were in the precommunicative stage of spelling development. The precommunicative stage of spelling development is characterized by children using random letters to communicate sounds. During the Richard Gentry Developmental Spelling Inventory pretest, 32% of the students evaluated were in this stage of spelling development. The 32% of students who were in the

precommunicative stage of spelling development during the pretest have made progress and have moved to a more advanced stage of spelling development.

Of all of the students at Sites A and B who completed the Richard Gentry Developmental Spelling Inventory posttest, 18% of the students were in the semiphonetic stage of spelling development. The semiphonetic stage of spelling development is characterized by children beginning to use letters to represent sounds, but often the sounds do not completely represent the word. During the Richard Gentry Developmental Spelling Inventory pretest, 8% of the students evaluated were in this stage of spelling development. This data shows that there were more children in the semiphonetic stage of spelling development during the posttest than during the pretest.

Of all of the students at Sites A and B who completed the Richard Gentry Developmental Spelling Inventory posttest, 22% of the students were in the phonetic stage of spelling development. The phonetic stage of spelling development is characterized by children spelling words exactly as the word sounds, though sometimes these spellings are unconventional. During the Richard Gentry Developmental Spelling Inventory pretest, 23% of the students evaluated were in this stage of spelling development.

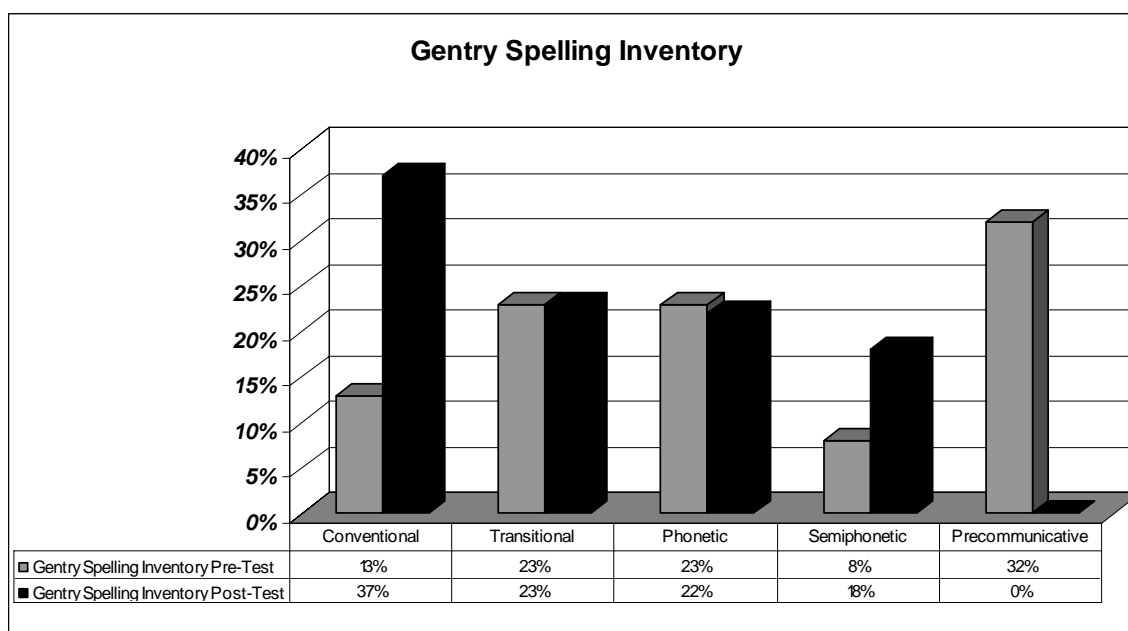
Of all of the students at Sites A and B who completed the Richard Gentry Developmental Spelling Inventory posttest, 23% of the students were in the transitional stage of spelling development. The transitional stage of spelling development is characterized by children using spelling patterns and beginning to spell words conventionally. During the Richard Gentry Developmental Spelling Inventory pretest, 23% of the students evaluated were in this stage of spelling development.

Of all of the students at Sites A and B who completed the Richard Gentry Developmental Spelling Inventory posttest, 37% of the students were in the conventional stage of spelling development. The conventional stage of spelling development is characterized by children using the correct spelling of words commonly used at their instructional level. During the Richard Gentry Developmental Spelling Inventory pretest, 13% of the students evaluated were in this stage of spelling development. The posttest data shows that 24% more students were spelling words conventionally than at the time of the pretest. The goal of this project was to increase students' ability to spell words conventionally.

This evidence reflected that 60% of the students evaluated were in the two most advanced stages of spelling development at posttest time. Given this we conclude that the intervention was successful (see Table 4).

Table 4

Richard Gentry Developmental Spelling Inventory Posttest, December 2006



Student Work Sampling

Each researcher collected students' writing samples pre-intervention in September of 2006. Teachers analyzed these work samples and completed a district writing checklist that consists of a number of writing conventions, including spelling. Post-intervention, teachers again collected writing samples and completed the district writing checklist. As the researchers collected work samples and took anecdotal notes regarding student writing, the researchers noticed that all of the students made improvements in their written work. In kindergarten and first grade, teachers noticed that students were using less inventive spelling and more conventional spelling. In all three grade levels, teachers noticed that students wrote more post-intervention and used conventional spellings of high frequency words.

In addition, after students were taught self-correcting techniques they began to edit their work automatically. The researchers also noticed that students' reading began to improve and students were able to recognize and read high frequency words without hesitation. Students seemed to be much more eager to write post-intervention and students seemed proud to share their written work.

Conclusions and Recommendations

After examining the data we concluded that the instructional adaptations that we used in our classrooms were successful. We noticed that each student made progress in his/her spelling of high frequency words. When reviewing the post-test data for the high frequency word test, every child's percentage of words spelled correctly increased from the pre to the post-test. We also observed that every child progressed in his/her stage of spelling development on the Richard Gentry Developmental Spelling Inventory from the

pre to the post-test. Finally, after reviewing all of the data we concluded that the students who had the lowest percentage of words spelled correctly on the high frequency word pre-test made the most growth on the post-test.

We concluded that our students benefited from learning to spell high frequency words in a variety of diverse instructional methods and we will continue to use these instructional strategies in our classrooms. We believe that the instructional adaptations that were the most valuable included use of a classroom word wall, teaching students self-correcting techniques, and daily spelling instruction using a variety of multisensory activities. We feel that the targeted number of words to learn each week in the different classrooms was manageable for each grade level. We recommend that kindergarten students learn two new high frequency words each week, first grade students learn four new words each week, and third grade students learn six new high frequency words each week. We do not recommend, however, that students complete the self-assessment checklist because we did not feel students answered honestly or understand the reflection process in the way it was presented. Additionally, in reviewing and analyzing the teacher survey done prior to our intervention, we concluded that there is a definite need for a continuum of instructional practices that can be implemented through the different grade levels. There is also a need for teachers to create a fairly consistent list of high frequency words at each grade level. We believe that high frequency words should be taught at all grade levels.

Reflection

Prior to the invention, the researchers taught spelling in a repetitive manner where the same spelling activities were assigned regardless of student preference and without

regard to students' varying learning styles. This method of spelling instruction was monotonous to both the teachers and the students. By implementing the interventions described in this action research project, spelling became more fun and engaging for the teachers and students. The researchers and their students see a greater importance of spelling and understand the connection between spelling and reading and writing. Teaching students to self-correct their work made students more accountable for their writing and helped students take ownership for their written work. Finally, the researchers now see the importance of teaching children to spell high frequency words. As a result of this project, the researchers are interested in pursuing a plan to ensure that teachers in their district teach the high frequency words at the primary grade levels.

The students loved the multisensory approach to spelling instruction and had fun with the hands-on activities. Many students used the classroom word walls daily and became more confident in their reading and writing ability as a result of the print-rich environment. Students also felt empowered because they learned how to self-correct their writing. Students seemed to have fun learning high frequency words and especially enjoyed the songs and chants that were used.

The researchers realized that they were more creative and flexible in their instruction methods than they had originally thought. The researchers learned how to use the resources around them to find new instruction ideas and find out what other researchers have done in the past that was successful. As a cooperative team, the researchers worked very well together and were able to share the responsibilities equitably. The researchers enjoyed the opportunity to share ideas and learn from one another.

The students truly wanted to feel successful in their learning experiences. Students also wanted to have fun, sing songs, and use a multisensory approach. In addition, students wanted to feel responsible and empowered by their own abilities and self-correcting gave students this ownership. Students appreciated and made use of the resources provided in the classroom, such as the word wall. Finally, the students were much more capable of rising to meet the expectations than the researchers originally thought. Prior to the intervention, the researchers thought that learning two new high frequency words per week would be too hard for kindergarten students; the kindergarten students, however, excelled and were successful with two words per week.

The researchers feel that they have had a significant change in their views regarding teaching and learning since the fall of 2005. The researchers now use more cooperative learning groups and brain-based instructional practices. In addition, the researchers now use more authentic forms of assessment, such as collecting work samples and giving students choices about their instruction and assessments. The researchers now expect more from their students and hold students more accountable for their learning. Finally, the researchers are now more flexible in their instruction and work collaboratively with each other to gain new ideas.

The researchers now understand that the Saint Xavier University (SXU) Masters of Arts in Teaching and Leadership (MATL) program is doable and is applicable in their classrooms. In addition, the researchers now know that they can complete an action research project successfully and that many teachers are doing action research and don't even realize they are doing it. Finally, the researchers now realize that collaborative

work can be fun and successful. This action research project has been a successful learning experience for both the students and teachers involved.

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APPENDICES

APPENDIX A

High Frequency Words to be Evaluated

Week to be Taught	Kindergarten Word List	First Grade Word List	Third Grade Word List
Week 1 9/4/2006	All students will take a pre-test of all of the high frequency words on their grade level list		
Week 2 9/11/2006	a I	all am be but	always around because about better bring
Week 3 9/18/2006	the red	are came did was	been before best carry clean cut
Week 4 9/25/2006	see blue	ate do get has	both buy call done draw drink
Week 5 10/2/2006	can green	good eat into must	cold does don't ate fall far
Week 6 9/9/2006	to yellow	new our ran pretty	fast first five full got grow
Week 7 9/16/2006	go orange	out now ride so	found gave goes hold hot hurt
Week 8 10/23/2006	at purple	saw say	green its

		soon there	made if keep kind
Week 9 10/30/2006	is in	they too under want	many off write laugh light long
Week 10 11/6/2006	my cat	went what will with	would read right much myself never
Week 11 11/13/2006	it dog	well who after again	sing which sleep only own pick
Week 12 11/20/2006	like fish	any as by could	tell their these seven shall show
Week 13 11/27/2006	look mom	ask every fly from	those upon us try small start
Week 14 12/4/2006	for dad	give going had would	use very wash warm today together
Week 15 12/11/2006	All students will take a post-test of all of the high frequency words on their grade level list		

Adapted from "Dolch Sight Word List"

APPENDIX B

Name _____

High Frequency Writing Words
Kindergarten Pre-Test

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

16. _____

17. _____

18. _____

19. _____

20. _____

21. _____

22. _____

23. _____

24. _____

25. _____

26. _____

APPENDIX C

Name _____

High Frequency Writing Words
First Grade Pre-Test

- | | |
|-----------|-----------|
| 27. _____ | 15. _____ |
| 28. _____ | 16. _____ |
| 29. _____ | 17. _____ |
| 30. _____ | 18. _____ |
| 31. _____ | 19. _____ |
| 32. _____ | 20. _____ |
| 33. _____ | 21. _____ |
| 34. _____ | 22. _____ |
| 35. _____ | 23. _____ |
| 36. _____ | 24. _____ |
| 37. _____ | 25. _____ |
| 38. _____ | 26. _____ |
| 39. _____ | 27. _____ |
| 40. _____ | 28. _____ |

29. _____

46. _____

30. _____

47. _____

31. _____

48. _____

32. _____

49. _____

33. _____

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37. _____

38. _____

39. _____

40. _____

41. _____

42. _____

43. _____

44. _____

45. _____

APPENDIX D

Name _____

High Frequency Writing Words
Third Grade Pre-Test

- | | |
|-----------|-----------|
| 41. _____ | 15. _____ |
| 42. _____ | 16. _____ |
| 43. _____ | 17. _____ |
| 44. _____ | 18. _____ |
| 45. _____ | 19. _____ |
| 46. _____ | 20. _____ |
| 47. _____ | 21. _____ |
| 48. _____ | 22. _____ |
| 49. _____ | 23. _____ |
| 50. _____ | 24. _____ |
| 51. _____ | 25. _____ |
| 52. _____ | 26. _____ |
| 53. _____ | 27. _____ |
| 54. _____ | 28. _____ |

46. _____

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67. _____

68. _____

69. _____

70. _____

71. _____

72. _____

APPENDIX E

Developmental Spelling Test

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

APPENDIX F

Richard Gentry Developmental Spelling Test Score Sheet

Name _____

Word	Precommunicative 1 point	Semiphonetic 2 points	Phonetic 3 points	Transitional 4 points	Conventional 5 points
1. monster	Random Letters	MTR	MOSTR	MONSTUR	monster
2. united	Random Letters	U	UNITD	YOUNIGHTED	united
3. dress	Random Letters	JRS	JRAS	DRES	dress
4. bottom	Random Letters	BT	BODM	BOTTUM	bottom
5. hiked	Random Letters	H	HIKT	HICKED	hiked
6. human	Random Letters	UM	HUMN	HUMUN	human
7. eagle	Random Letters	EL	EGL	EGUL	eagle
8. closed	Random Letters	KD	KLOSD	CLOSED	closed
9. bumped	Random Letters	B	BOPT	BUMPPED	bumped
10. type	Random Letters	TP	TIP	TIPE	type
Total Points:					

To determine the average Stage Score: Total the points from each column. Divide that number by ten and round that number to the nearest whole number.

Total points from each column = _____/10=_____

Score of 1= Stage A

Score of 2= Stage B

Score of 3= Stage C

Score of 4= Stage D

Score of 5= Stage E

Average Stage_____

APPENDIX G

Am I a Good Speller?

A=Always



S=Sometimes



N=Never



- ___ I try unknown words.
- ___ I try to write the sounds I can hear in a word.
- ___ I think about what the words look like.
- ___ I try to use other words I know to help me spell words.
- ___ I use class lists, word walls, books, and dictionaries to help me check my spelling.
- ___ I try my best when I write and I check my writing to be sure that I've done my best.
- ___ I know how to spell words that I use a lot.
- ___ I am learning how to spell some other words I use in my writing.
- ___ I ask for help when I can't figure it out by myself.
- ___ I know how to use capital letters at the beginning of sentences and for names of people and places.
- ___ I know how to use punctuation at the end of sentences.
- ___ I read a lot.
- ___ I write a lot.
- ___ I am interested in words.

Adapted from "Am I a Good Speller?" assessment checklist.
Instructor, August 1996.

APPENDIX H

Teacher Survey about Spelling

1. What grade do you teach?
2. Do you teach spelling in your curriculum?
3. Are you satisfied with your current spelling program? If not, why not?
4. Do you give a spelling test?
5. Where do you come up with the words to use on your spelling test?
6. In your experience, what has been successful with teaching spelling?
7. In your experience, what hasn't been successful with teaching spelling?
8. Do you integrate spelling into other content areas, such as writing?

9. If so, how?

10. How many of your students do you feel transfer accurate spelling knowledge to daily writing?
 - a. Most students
 - b. Some students
 - c. Very few students
 - d. No students

11. Do you evaluate student spelling on daily work?
 - a. Always
 - b. Usually
 - c. Sometimes
 - d. Never

12. If you do evaluate spelling on daily work, can poor spelling lower a student's grade?
 - a. Yes
 - b. No