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## Developmental spelling instruction through word study

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### Abstract

This article is an overview of word sorts and word study that has evolved from research in developmental spelling. The five stages of developmental spelling are described. Analysis of four students' writing samples from a second grade classroom was utilized in this study. Spelling inventories from *Words Their Way* were used three times throughout the year to evaluate developmental stages of spelling. This alternative approach to spelling instruction, including word sorting, writing sorts, speed sorts, and word hunts is discussed in this article.

DEVELOPMENTAL SPELLING INSTRUCTION THROUGH WORD STUDY

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Masters of Arts in Education

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by

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## Abstract

This article is an overview of word sorts and word study that has evolved from research in developmental spelling. The five stages of developmental spelling are described. Analysis of four students' writing samples from a second grade classroom was utilized in this study. Spelling inventories from *Words Their Way* were used three times throughout the year to evaluate developmental stages of spelling. This alternative approach to spelling instruction, including word sorting, writing sorts, speed sorts, and word hunts is discussed in this article.

## DEVELOPMENTAL SPELLING INSTRUCTION THROUGH WORD STUDY

I was meeting with a guided reading group as the other students in my second grade classroom were working at literacy centers. Tanner, Lori, Brad, Alex, and Kara were at the table with me working on a partner word sort addressing the spelling patterns of "CoCe" (consonant-long o-consonant-silent e) and "CoaC" (consonant-long o digraph-consonant). (All students' names are pseudonyms.) Tanner put the word "coat" in the column designated with the word "cone" that followed the "CoCe'" spelling pattern. I asked, "Why did you put that word in this column?" Tanner quickly noticed his mistake and moved the word "coat" under the column with the word "boat". Tanner continued to explain as he moved the word card that "coat" has "oa" in it like the word "boat". Tanner determined his own generalization about the spelling patterns of the word cards he was using for the word sort. After the sort was finished the students checked their word sort by reading both columns and discussing how the words in each column were alike and how the two columns were different.

The following day, I asked the students in my guided reading group to divide their white boards into two sections for a writing sort. The students labeled one

column "cone" and the other column "boat". I read the word cards again that followed either the "CoCe" spelling pattern or the "CoaC" spelling pattern. The students were asked to write the word that was read into the column that shared the same spelling pattern. All the students were doing well except Lori. I kept her briefly after group and asked her to read the word cards. She struggled to identify many of the words, so I decided that this spelling pattern was too difficult for her. I would need to take a step back and instruct her with some easier spelling patterns.

These scenes are representative of many that took place in my classroom over the past two years. The kinds of spelling instruction that took place here are the results of my growing frustration with other spelling programs and what I have done to implement one that I believe is better.

### The Study

From research, I discovered a developmental approach to spelling instruction. In previous spelling programs, I noticed that my students learned the words for the week, but I did not see them applying their spelling words in their written work. I decided to study the effects of a developmental approach to spelling instruction through the use of word sorting and word study. I wanted to determine

whether and to what degree learning spelling patterns assisted students in spelling development, and if they utilized those spellings in their writing. Did students in my class appear to progress through the developmental stages as described in the research?

As part of new daily routines that I put in place, students in my classroom were engaged in word sorting activities according to their developmental stage. The Elementary Spelling Inventory in *Words Their Way* (Bear, Invernizzi, Templeton, and Johnston, 2000) helped determine the students' developmental stage. The testing consisted of five word increments, which were organized in a hierarchy to assess the crucial orthographic features for each stage of spelling development. After a student missed three of the five words, testing stopped. The spelling errors were then analyzed for word study group placement. This inventory was administered at the beginning, middle, and end of the year so that I could adjust word-sorting activities to meet the developmental needs of my students. I also took into account students' writing to see what they were "using but confusing" in their spelling to make instructional decisions (Bear et al., 2000).

At the conclusion of the school year, I randomly selected four students' writing samples and spelling



inventories. I analyzed the spelling errors to see if the developmental spelling instruction had impacted the application of spelling patterns in students' writing. A progression in the developmental stages was another desired result of this analysis.

### Spelling Paradigms

According to Heald-Taylor (1998) three paradigms have dominated the history of spelling instruction. One model of spelling instruction is the traditional model in which students receive direct and formal instruction in spelling. Drilling, memorizing, and rote learning are emphasized in the traditional model. The transitional model focuses on integrating numerous spelling strategies, such as phonetic, visual, syntactic, and/or semantic. In this paradigm reading also plays a significant role in learning to spell. The transitional paradigm conducts spelling instruction without regard for students' developmental stages. The teacher provides direct instruction on orthographic features and offers opportunities for students to interact with these features through word study activities. For example, word sorts and spelling games like concentration and word bingo. Finally, the student-oriented model emerged from the traditional and transitional models. In this model, phonetic, visual, and semantic functions of words

are stressed. However, in contrast to the other paradigms, instruction takes into account the needs and developmental stages of students and is supported by extensive reading and writing (Heald-Taylor, 1998).

#### Why Word Study?

The instructional practices of word study coincide with the student-oriented model. Learning to spell is more than a matter of rote memorization and applying rules; it is a multi-faceted process. Good readers and spellers integrate how words sound, how they look, and what they mean (Jongsma, 1990). Word study engages students in active exploration of words to discover the regularities and differences that developing spellers need to know in order to read and write.

The study of words focuses on the interconnectedness of reading, writing, and spelling. After studying spelling patterns or word features, students are able to use these same patterns in understanding and decoding unfamiliar words in their reading. This skill also helps them to communicate more clearly as they write. Word sorts are a word study routine where students group words into categories by comparing and contrasting orthographic features. They offer students developmental experiences similar to those that nurture oral language, since oral and

written languages evolve in a similar manner (Gentry, 1984). Word study allows students to engage in activities that are developmentally appropriate according to invented spellings evidenced in their writing.

Finally, word study engages students in active analysis of words and patterns within words. Students compare and contrast orthographic features of words at their developmental level. Children are engaged in hands-on activities that encourage them to develop their own generalizations about spelling patterns rather than memorizing rules.

#### Developmental Spelling

Learning to spell is a developmental process and change in spelling occurs systematically and predictably (Gentry, 1984). Children tend to progress through a continuum of developmental stages as they learn to spell. Although these stages offer a general structure, each student's development is distinctive. Students may pass through stages in a variety of ways and at different ages (Norris, 1989). These stages are noted by advances in correct spelling and the complexity of misspellings that occur in students' writing (Zutell, 1996).

For instructional purposes it is important to determine students' developmental stages, especially their

zones of proximal development (ZPD). ZPD is a term coined by Russian psychologist Lev Vygotsky to denote that range in cognitive development where a student can transfer the skill of the task from the shared environment to individual control. At one end of this zone is the point at which the child can do it alone; at the other end is the point at which it is too hard even with assistance. In other words, instruction should be aimed at the zone in which learning is neither too hard nor too easy (Zutell, 1996). It is within this zone that developmental spelling instruction should occur. Developmental stages should be the major consideration in word study. Development in that area of literacy correlates to development in reading and writing as well (Bloodgood, 1991).

#### Developmental Stages

While the stages of development appear somewhat sequential, they are not fixed; there is considerable overlap between stages (Heald-Taylor, 1998). Embedded in research are several different continua of developmental stages, but they are all similar to each other. Richard Gentry (1984), for example, lists five developmental stages of spelling. These stages (precommunicative, semiphonetic, phonetic, transitional and correct) are conceptually very similar to those of Bear et al. (2000). The latter

continuum will be the one used to describe spelling development in this paper.

The first developmental stage is the Emergent Stage. Random marks and letters with no relationship to sound characterize this stage. In the Emergent Stage children begin to develop directionality (The left-to-right direction used for reading and writing English.) and learn to spell some basic words in their surroundings. Students in this stage may write "RN37" which shows a use of letter and number-like symbols in writing, which also characterizes this stage. In the late Emergent Stage a student may write "D" for "DOG" and "F" for "GOLF" which shows the child is beginning to make some letter-sound matches with words' most obvious sounds. The students in my study were beyond this stage of development.

The second stage is the Letter-Name Alphabetic Stage. In this stage sound becomes key to spelling (Griffith and Leavell, 1996). The most prominent features of the words become evident in spelling and students begin to match their speech to print. Students often depend on the way a word is articulated or feels in the mouth to help them spell. A student in my classroom wrote "JIF" for "DRIVE" because "dr" and "j" feel similar in the way they are articulated in the mouth. Likewise, the student may have

put "f" for "v" for the same reason. Near the end of this stage, short vowel patterns are represented in students' writing. Some attempted spellings noted in my class were students writing "WIN" for "WHEN" and "BAGS" for "BEGS".

Within Word Pattern is the third stage. Students begin to pay attention to groups of letters as they spell (Griffith and Leavell, 1996). Students begin to take notice of vowels within syllables and understand that patterns do not always have to match sounds. Students learn vowel patterns like CVC, CVCe, and CVV in this stage. Also evident in this stage are the use of blends and digraphs in student writing. Some examples of spellings from students in my class were "SNALE" for "SNAIL" and "REMOT" for "REMOTE".

Syllables and Affixes is the next developmental stage. Students in this stage have visual memory of spelling patterns. They begin to understand stress and accent across syllables. Children experiment with inflected endings and begin to use them correctly (Invernizzi, Abouzeid, and Gill, 1994). Some spelling attempts evident in my students' writing were "BAKKING" for "BAKING" and "SHOPING" for "SHOPPING". Students also start to understand the meanings of prefixes and suffixes. An

example of this type of spelling was a student writing "PERPARE" for "PREPARE".

The final stage is called Derivational Relations. In this advanced stage students examine roots, bases, and common origins and meanings. Students may attempt to use common Latin or Greek spelling origins in their writing. While none of my students reached the derivational relations stage, a typical spelling at this level of development might be "ANECDOTE" for "ANTIDOTE".

Conducting and analyzing a spelling inventory as well as examining what is revealed in the students' invented spellings as found in their writing can determine developmental stages. An example of a spelling inventory used in my classroom is included in Appendix A. Once the teacher identifies the developmental spelling stages of the students, they can be grouped accordingly and activities can be planned to study specific word features that are understandable at their developmental levels.

By charting the results of inventories on a class composite, I was able to determine common student instructional needs. My classroom composite revealed four word study groups. Initially, fourteen students were in the Letter-Name Alphabetic Stage, six were in the Within Word Pattern Stage, and one student was in the Syllables and

Affixes Stage. Because there were so many students in the Letter-Name Alphabetic Stage, I divided this group into two groups of a more workable size. Students who were in the early period of the Letter-Name Alphabetic Stage were grouped for instruction, as were the students in the late Letter-Name Alphabetic Stage.

I used the inventories as an indicator of each child's developmental stage. Students' writing samples were also used throughout the year to verify their developmental stage and to determine specific orthographic features that needed instruction. As the year progressed, children moved at various rates through the developmental stages. Therefore, the composition of these groups and instruction changed throughout the year. My class consisted of twenty-one students. At the onset of the year, I had fourteen students in the Letter-Name Alphabetic Stage, six in the Within Word Pattern Stage and one student in the Syllables and Affixes Stage. The end of the year assessments showed thirteen students in the Letter-Name Alphabetic Stage, but seven of these were in the late period of that stage compared to the three that were there at the beginning of the year. Four students appeared to be spelling in the late Within Word Pattern Stage, and four in the Syllables and Affixes Stage.



## What Are Word Sorts?

Word sorting is an instructional method used to facilitate developmental change in the strategies a child uses to represent words. It's an activity used to categorize or classify words that share common phonetic, syntactic, or semantic elements and to draw attention to specific word elements (Barnes, 1989). Word sorts provide the means for children to develop generalizations about regularities and exceptions in the English language and orthography (Fresch and Wheaton, 1997). Under the teacher's direction, students are given picture or word cards and asked to sort them into categories based on a certain word feature or word sound. These sorting activities offer students several opportunities to analyze, compare, and contrast words with a specific spelling pattern.

As students sort words by sight and sound, they may encounter words that do not fit the targeted sound or spelling feature. These words are often high frequency words. Students learn these words by repeated usage and simply because they do not fit into a specific orthographic category. Repeated opportunities to sort words builds accurate and automatized word recognition and spelling ability. That knowledge then becomes part of a student's repertoire as a reader and writer.

At the beginning of the year four word study groups were formed. While the activities remained similar, the orthographic features studied became more complex as students progressed through the developmental stages.

Inventories and student writing revealed that students in the early Letter-Name Alphabetic Stage were attempting to use short vowels, but often incorrectly. For example, some students wrote "WHIN" for "WHEN" "BAD" for "BED". From this information, I planned a word sorting activity where students sorted words that followed a "CVC" (consonant-short vowel-consonant) pattern. They sorted words according to the short "a" and short "i" sound. I chose to use these two vowels together because their sounds were easily distinguishable. This sort also included the word "was". Students determined that although it followed the "CVC" pattern, it did not share the same vowel sound. This word became memorable because it did match with the spelling pattern, but not with the sound.

For students in the late Letter-Name Alphabetic Stage, I felt it necessary to ascertain their ability to use short vowels while introducing blends. The students in this groups participated in a word sort that focused on the initial consonant blends of "br", "gr," "tr", and "cr". First students sorted words according to the blends listed

above. Secondly, they sorted the words according to the short vowel sounds in each word. This one sort allowed me to introduce a new orthographic feature and review a word feature previously learned.

The students at the beginning of the year who tested in the Within Word Pattern Stage were consistently writing words that followed a "CVCe" pattern. Their writing showed a lack of understanding of the "CVVC" spelling pattern. These students had a good understanding of long vowel sounds; therefore, I was able to teach the vowel combinations of "ai" and "ay". Students were also exposed to the word "said" that followed the orthographic pattern of "ai", but did not follow the sound that "ai" had made in the other words. Students learned that the word "said" did not fit into the "ai" category because it did not match by sight and sound. Other vowel combinations were also taught to reinforce the "CVVC" spelling pattern.

The only student in the Syllables and Affixes Stage appeared to need instruction on the use of inflected endings. I began instruction with word sorts where the inflected endings of "ed" and "ing" were added to base words without any change to the base word (jump, jumped, jumping). As these spelling patterns became evident and consistent in this student's writing we moved to sorts that

required dropping the "e" and doubling the consonant (biting, stopping).

### Classroom Routines

As described above, students in my classroom were grouped according to their developmental stage as measured by the spelling inventory previously mentioned. Word study sessions were conducted for 7-10 minutes daily within the context of guided reading groups (Fountas and Pinnell, 1996). Weekly word sorting routines were a component of reading instruction in my classroom. At the beginning of the week, students participated in teacher-supported closed picture or word sorts to study a spelling pattern or a particular sound. A closed sort is when the teacher models the word sort, and students then practice classifying words according to categories determined by the teacher. The closed sort was used to offer students the support of the teacher on their initial exposure to a new orthographic feature. During the week, students used the same words to complete several other word sorting activities.

A way to shift support from the teacher to support of peers was to assign students to carry out buddy sorts. Buddy sorts were completed with partners after students had opportunities to sort under teacher direction. One partner would read a word card without revealing it and the other

would point to the key word that followed a given spelling pattern or sound.

Writing sorts were also completed in guided reading group or with a partner. The words were pronounced and students wrote the word in the appropriate category using a key word as a guide for spelling.

Speed sorts were completed independently after students had several opportunities to work with the words. Speed sorting is done like a regular word sort except students try to complete the task quickly. This activity builds automaticity in understanding and recognizing the word feature being studied.

Students were responsible for keeping word study notebooks where their word sorts were recorded, giving them a chance to write the words being studied. Students also made connections to authentic literature by completing word hunts. They would search through reading material to find further examples of the sound or spelling pattern being studied. The words discovered in the word hunt were recorded in the word study notebooks.

#### Reviewing Students' Writing

This study on the effects of developmental spelling instruction was completed at the conclusion of the school year. As part of regular classroom practice, I retained

students' writing samples over the course of the year. Four students were randomly selected for this study. Eight writing samples spanning the year were used in analysis of spelling errors for each of the four students. Since this is a qualitative study, I will give examples of these students' growth in spelling throughout the school year. Examination of spelling inventories and analysis of writing samples were used as evidence of overall trends in changes of developmental stages.

The spelling inventory was administered three times during the year. These inventories were used as points of reference in this study and indicated the students' current stage of development. An example of an inventory is included in Appendix A.

When analyzing the writing samples, I categorized the spelling errors based on the characteristics of each stage and the type of error that the student made in spelling. For example, if a student wrote, "SMOCK" for "SMOKE", I would label that spelling error as a Within Word Pattern Stage. It is evident by this spelling error that instruction on long vowel patterns should be considered. If a student wrote, "HOPING" for "HOPPING", I would categorize that error as a Syllables and Affixes error because the student is using, but confusing, consonant doubling.

Because developmental stages do overlap, I made decisions regarding the stage to which each student's spelling errors best corresponded. When studying these errors, I attempted not to put too much emphasis on one spelling error. Instead I looked at the entire writing sample to get a full understanding of the developmental stage in which the child was functioning. Below is a description of the results of the spelling inventories and writing analysis for each of the four students selected for this study.

For each of the four students, I have included two writing samples included in the appendixes, one from the beginning of the year and one from the end, in order to demonstrate their developmental growth as spellers. It should be noted that examples of spelling errors might not always appear on the chosen writing samples in the appendixes, since only beginning and end-of-the-year samples were used. These student writing samples appear in the Appendixes B-E.

#### Reviewing Students' Writing

In this section, I will describe the initial spelling stages and the changes in spelling development of each of the four students that I studied.

Kara

According to the spelling inventory administered at the beginning of the year, Kara was in the late Letter-Name Alphabetic Stage. Her writing samples confirmed that she was making errors in this stage. She wrote "BAGS" for "BEGS" and "FOM" for "FROM". These spelling errors suggested that instruction for Kara at the beginning of the year should focus on short vowels, blends, and digraphs. However, by October Kara was beginning to make spelling errors in her writing that were in the Within Word Pattern Stage. She wrote "BON" for "BONE" and "STOR" for "STORE".

By mid-year, the spelling inventory showed that Kara had progressed to the late Within Word Pattern Stage. She wrote "ABUT" for "ABOUT" and "PAYED" for "PAID". Because of this growth, instructional focus then shifted to word sorts that included vowel patterns like "ou" and "ay".

At the conclusion of the year, Kara's spelling inventory showed a need to continue studying vowel patterns. However, she was beginning to use but confuse inflected endings and vowels in syllables as she wrote. Kara wrote "SHOPING" for "SHOPPING" and "PRSON" for "PERSON". This assessment indicates that instruction for the following year should reinforce vowel patterns, consonant doubling, and inflected endings.



*Jacob*

At the beginning of the school year, Jacob's spelling inventory revealed that he was in the late Letter-Name Alphabetic Stage and early Within Word Pattern Stage. Jacob wrote "NEME" for "NAME" and "SHY" for "SHE". These spelling errors indicated that Jacob should be instructed in word study pertaining to long vowel patterns.

By January, Jacob had made significant growth in his spelling. According to his mid-year spelling inventory, he was functioning in the Syllables and Affixes Stage. Some written examples of his spelling errors were, "PINED for PINNED", "DUPLACATION" for "DUPLICATION", and "DISAPERED" for "DISAPPEARED".

Jacob's end of the year spelling inventory showed that he was still in the Syllables and Affixes Stage of spelling. Jacob's writing samples included these kinds of errors, "FAVEORITE" for "FAVORITE", "THERE" for "THEIR" and "NEIBORS" for "NEIGHBORS". Jacob's rate of growth and understanding of spelling patterns should indicate word study next year in the Syllables and Affixes Stage coupled with exposure to word origin and meanings.

*Beth*

Beth's beginning of the year spelling inventory revealed she was spelling in the early Letter-Name

Alphabetic Stage. Her writing samples included errors like "WIN" for "WHEN" and "GAT" for "GOT". Word study at the beginning of the year focused on short vowels with exposure to digraphs and blends.

Beth had not progressed beyond the Letter-Name Alphabetic Stage by mid-year. She was becoming more proficient with her short vowel patterns, but she was still acquiring the use of digraphs and blends.

Beth's final spelling inventory showed that she was in the late Letter-Name Alphabetic Stage. However, her spelling errors in her writing showed evidence that she was extending into the Within Word Pattern Stage because of errors like "LEAN" for "LEARN" and "FLORD" for "FLOOR". These examples showed that word study with other vowel patterns should assist Beth's spelling development. Continued reinforcement of digraphs and blends should also be a focus at the next grade level.

#### *Tanner*

Tanner's initial spelling inventory showed him to be within the early Letter-Name Alphabetic Stage. However, his writing samples revealed that his errors were more closely related to the late Letter-Name Alphabetic Stage. Tanner wrote "MAC" for "MAKE", "WEN" for "WHEN", and "STIC" for

"STICK". Instruction included word study on digraphs and practice with long vowel patterns.

By mid-year, Tanner's spelling inventory indicated that he was in the late Letter-Name Alphabetic Stage. Again, his writing samples seemed to reveal that he was making more errors that would be considered in the Within Word Pattern Stage. He wrote "AMED" for "AIMED" and "REMOT" for "REMOTE". Considering the spelling inventory and his writing samples, word study included refining of digraphs and blends and the study of long vowel patterns.

Tanner's final spelling inventory indicated he was in the late Within Word Pattern Stage. Tanner's writing samples again showed some errors in this stage but also spelling errors that was classified in the Syllables and Affixes Stage. For example, Tanner wrote "LETTERS" for "LETTERS" and "SARENDR" for "SURRENDER". Instruction for Tanner next year should include syllable junctures.

#### Results and Interpretations

After reviewing the writing samples of these four students, the spelling errors showed an overall movement to more advanced developmental stages. As the research says, (Gentry, 1984; Invernizzi, Abouzied, & Gill, 1994) these students did progress systematically through the developmental spelling stages. In Kara and Tanner's cases

they moved through these developmental stages at a relatively steady pace. Jacob, however, made quick gains in learning spelling patterns and moved rather rapidly through the developmental stages. By looking at Beth's writing, I could see that she did move through the developmental stages but perhaps at a slower rate. Again, this reemphasizes that each child's development is unique (Storie and Willems, 1988).

#### *Multiple Sources of Assessment Data*

It became obvious to me after examining both the spelling inventories and student writing samples how important it is to consider both of these sources when planning instruction. The inventories were helpful tools for the purpose of getting a general idea at which developmental stage students were functioning. However, opportunities for instruction might have been overlooked if I had only considered the inventories and not the writing samples. In Kara and Tanner's cases the spelling inventories and writing samples often showed that they were making spelling errors in more than one stage.

One example of the importance of including writing samples in spelling assessment occurred with Kara. Kara's spelling inventory did not indicate any problem with the r-influenced vowels. However, her writing samples did,

including such misspellings as "STOR" for "STORE" and "CHERS" for "CHAIRS". Based on these samples, I designed word sorts for Kara that included words from the Within Word Pattern Stage. I planned a word sort for Kara that included words containing "or", "ore", and "oor". The word "your" was included in this word sort so that Kara could discover that it matched the sound pattern, but not the spelling pattern of the other words. Another r-influenced vowel sort that I used with Kara was "ar", "are", and "air".

When Tanner's inventory and writing samples showed evidence of errors in more than one developmental stage at the beginning of the year, I planned word sorts for him that included words from the late Letter-Name Alphabetic Stage. His inventory indicated instruction on short vowel patterns, but his writing samples had spelling errors such as "WEN" for "WHEN" and "FEN" for "THEN". Tanner's writing indicated a need to study initial consonant digraphs, so he participated in a two-fold word sort. First he sorted words according to the four basic digraphs: "th", "sh", "wh", and "ch". Secondly, he sorted the words according to the short vowel sounds to reinforce the appropriate use of short vowels in his spelling. This confirms the research that students may be acquiring spelling patterns in more

than one developmental stage at a time and how teachers can tailor their instruction for this overlap. (Heald-Taylor, 1998)

### *Students' Use of Spelling Patterns*

One question I had at the onset of this study was, "Do my students apply spelling patterns in their writing?" The answer to that question appears to be, "Yes". Students did apply the spelling patterns that had been studied, but at their developmental level. Many spelling programs based on word lists do not take into account student development. When students study spelling patterns that are at an appropriate level, they begin to use that knowledge in their writing. Each student selected in the study was applying or attempting to apply the spelling patterns that were suitable for their developmental level.

### *Implications for Classroom Instruction*

Word study instruction must begin with the child. The teacher needs to aim instruction for the learning of spelling patterns and concepts within the student's zone of proximal development (ZPD). Teachers can use inventive spellings to determine how a child is applying information about words and spelling patterns to make provisions in instruction for a student's developmental level of understanding. The order in which words are introduced

should coincide with the sequence of stages through which children naturally progress (Johnston, 1999). Teachers should assess the nature of spelling errors to lead their development of instruction but need to keep in mind that there are no set rules governing the sequence of instruction. Let the students' spelling needs guide instruction.

For effective word study, students should be grouped within performance ranges (Nelson, 1989) (Bear and Barone, 1989). Students who share common spelling errors and are within the same developmental spelling stages should be grouped for word study instruction. This allows the teacher to effectively meet the needs of the whole class while considering the instructional needs of individuals.

Word study should also be one component of a balanced literacy program. Students need multiple experiences with print. Daily purposeful writing helps develop spelling growth as students think about sounds in words and how to segment sounds in their spelling (Storie and Willems, 1988). These spelling approximations will guide the teacher's instructional planning.

Word sorting instruction is discovery based (Norris, 1989). Students should be actively engaged in discovering spelling patterns in words. They need to be able to

examine, manipulate, and make decisions about words according to their similarities and differences. Students should not be required to memorize rules nor should a teacher give students words and have them tell which phonic or spelling rule applies (Stahl, Duffy-Hester, and Stahl 1998). It is important that students be able to read the words they are sorting, so they can focus on sound and spelling patterns rather than decoding words.

When using word sorts, the teacher first introduces the word sorts followed by demonstrations and discussions. This is important to support students' learning as well as address any errors that arise in the initial word sorting activity. Vygotsky focused on the power of social engagement to transform children's thinking (Zutell, 1996). Teachers serve as facilitators as the groups work together to discover patterns and relationships among words. This type of analyzing provides scaffolding and allows the student to develop individual, automatic control of the word patterns being studied (Zutell, 1996). Developing automaticity is just as important as accuracy, which allows students to become proficient readers and writers. After independence is established, practice is continued through various independent and cooperative activities.



Students will learn spelling patterns more rapidly if they are presented with words that cause them to contrast as well as compare. These contrasts will help students sort out their uncertainties and allow them to find words that are unique or that do not correspond to a given orthographic category. Sorting by sight and sound helps students to employ the use of visual patterns as well as sound when reading and writing. Students should return to meaningful text after studying word features. They should look for words that coincide with the orthographic feature being studied. Children examine texts for application of spelling patterns, which also exposes them to new vocabulary.

Finally, the teacher must have a clear understanding of the nature of spelling and the stages through which children pass as they learn to spell. The teacher takes on a new role as a facilitator who guides students' thinking through questioning and planning. The teacher no longer is the transmitter of knowledge; instead, she helps students discover properties of print by pointing out features, scaffolding, and engaging students in discussions about commonalities and differences in words and spelling patterns.

Word sorts and word study build a strong support for students as they write and spell daily in a balanced literacy program. An important advantage is that a teacher is able to meet individual needs within the wider scope of the whole class. Small group instruction and scaffolding encourage independence and confidence. My study verified the application of spelling patterns in written work and a progression in spelling developmental stages. Of the four students included in this study, all progressed in their developmental stages. The analysis of students' writing and spelling inventories support the use of word sorting and word study instruction. Not only did I established this was more successful than other spelling programs I have used, but also my students became more confident and prolific in their ability to spell in their writing.

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# Appendix A

## Spelling Inventory

Feature Guide for Elementary Spelling Inventory 1

Student: Christopher Date: 2 Date: 8-30 Teacher: 11/15

Item	Consonant Initial	Final	Short Vowel	Long Vowel	Other Vowel	Prefix	Suffix	Base and Suffix	Word	Phonics
1. bed	0 X	0	X					bed	bed	2
2. rip	0 X	0	X					rip	rip	2
3. when	0 X	0	X					when	when	2
4. there	1 X	1 X						there	there	2
5. find	1 X	1 X						find	find	2
6. spin								spin	spin	2
7. focus								focus	focus	2
8. skin								skin	skin	2
9. type								type	type	2
10. change								change	change	2
11. mix								mix	mix	2
12. serve								serve	serve	2
13. stand								stand	stand	2
14. work								work	work	2
15. expect								expect	expect	2
16. show								show	show	2
17. rain								rain	rain	2
18. hour								hour	hour	2
19. even								even	even	2
20. star								star	star	2
21. picture								picture	picture	2
22. brother								brother	brother	2
23. control								control	control	2
24. ocean								ocean	ocean	2
25. operation								operation	operation	2

1. bed
2. rip
3. when
4. there
5. find
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_

Appendix B

Kara's Writing Samples

Beginning of the Year

9-13-02  
If I could make a meal  
I will make a cookie and  
ick cream and choklit pating  
and a chan on top.  
That is all.

End of the Year

5-14-03  
If I could be a animal I would be a dog  
because everybody will give me gifts to play with  
and I can keep the keys in my dog house. And I  
get bones, toys, water and food bowl, and a rag  
to chew on.

## Appendix C

## Jacob's Writing Samples

## Beginning of the Year

10-18-02

What don't like about scott is math. I  
 don't like add sheets. I do not like our  
 guidens. I don't like guidens because I  
 don't like siting for a long time. That  
 what I don't like about scot.

## End of the Year

4-24-03

If I was a dinosaur  
 I would be a raptor I would be a  
 Raptor I would hunt in a pack  
 and live in a pack. I will be the leader  
 If I know we can't fight off a  
 dinosaur I will make the pack turn  
 back. That's what I would be.



## Appendix D

## Beth's Writing Samples

## Beginning of the Year

If I had a \$100 dollars, I would spend it on  
 lots of toys. ~~That toys like puppets.~~ The puppets  
 name are ~~and~~ and Mrs. Overstock, ~~II~~  
 would buy more puppets. Every day for  
 a week! And then I had 17 puppets.  
 It would buy one more puppets.

## End of the Year

In third grade I would be shy at  
 first but I would learn to read. Then I would  
 know y, w, z, a. Then I <sup>can</sup> say I can write  
 in cursive and I would be taller than my  
 friend and I would write and at the end of  
 the first day all ride bus 34 and have the  
 walk home.

Appendix E

Tanner's Writing Samples

Beginning of the Year

IF I could cook a meal I woud <sup>9-13-02</sup> cook Cheese Pyzza! Or if I could cook a meal I woud cook fish! Or I woud mace macine. For desert I wood (mac icecreme! Du sint that sound good?

End of the Year

When I Am A Dad  
When I am a dad I will drive a car and take to my kids to a swimming pool or to a beach. and I will get a pet for them too! I will take them fishing at the Iowa River too.