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Differentiated Spelling Instruction: A Theoretical Approach to Instruction

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DIFFERENTIATED SPELLING INSTRUCTION:
A Theoretical Approach to Instruction

by

Amanda Gibson

**Thesis submitted in partial fulfillment
of the requirements for the degree**

of

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Logan, UT**

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Abstract

Research has been conducted to determine the best method of teaching spelling instruction. Several studies have concluded that differentiated spelling instruction is the best method to teach spelling. In this type of instruction, the teacher determines the students' spelling level and then delivers spelling instruction based on their spelling level. To test this theory of instruction I conducted my own study using fourth grade students. I determined that differentiated instruction improves students' spelling by providing instruction that is specific to students' ability level and needs while offering high-quality instruction.

I compared two groups of students in my study. With the intervention group I delivered standard spelling instruction as well as differentiated spelling instruction using Words Their Way, an instruction manual and guide. The other group, or control group, was given only the standard spelling instruction. I worked with the intervention group for a seven-week period. At the end of the seven weeks I delivered a post-assessment to determine if the differentiated spelling instruction increased the intervention group's spelling level. The results showed that the intervention group advanced further in spelling levels than the control group.

Differentiated Spelling Instruction-A Theoretical Approach to Instruction

In elementary classrooms, now and through the ages, students stretch across a spectrum of abilities: above grade level, below grade level, and everywhere in between. Baffled teachers search for ways to deliver the required curriculum. The instruction must remain consistent with state requirements while simultaneously meeting the child's individual needs. Research has shown differentiated instruction to be a successful method for fulfilling this requirement. Differentiated instruction improves students' spelling by providing instruction that is specific to students' ability level and needs while offering high-quality instruction.

I have determined to devote my professional career to teaching children. As an educator, I want to provide the best instruction possible that helps children of all ability levels. This inevitably means long hours of planning and preparation on the teacher's part. Any teacher can give instruction that covers the material. It takes much more for a teacher to give instruction that not only covers the material, but gives it in a variety of ways to meet all of the students' ability levels in his/her classroom. I am committed to learning all that I can in order to provide a classroom where students feel important, a classroom where students grow at their pace, a classroom where students learn, not a classroom where curriculum is "covered."

When I was first introduced to differentiated spelling instruction during my third year of teacher's education, I wanted to know more. So I conducted literature reviews, assessments, and explored the use of differentiated spelling instruction with students in my practicum. I learned that an "increased development in spelling will lead to increased development in writing and reading, known as synchronous development" (Bear, Invernizzi, Templeton, & Johnston, 2004,

p. 21). With spelling acting as such an important factor in literacy development, it makes sense to deliver it at the students' various levels.

In order to better understand the reason for and process of differentiated spelling instruction, I chose to conduct my own research. As a future educator, I am learning the principles needed to become an effective teacher. The first principle is that teachers must find and implement instruction that meets the students' individual needs. Professional development is another principle and it is one of the ten Interstate New Teacher Assessment & Support Consortium (INTASC) standards after which future and current teachers are instructed to pattern their teaching. The INTASC standard for professional development includes studying current research and determining which practices will improve his/her classroom environment and instruction. These principles led me to my current interest and research in differentiated spelling instruction. My main goals for this project were to learn more about differentiated spelling instruction, test this instruction by using it, and determine whether differentiated instruction using word study improves the spelling abilities of the students in the study group.

Literature Review

Spelling Development

Words Their Way: Word Study for Phonics, Vocabulary, and Spelling Instruction describes differentiated spelling instruction as instruction directed at a student's developmental spelling stage. The teacher assesses each student's spelling and determines each student's stage of spelling development. Based on their ability levels, the students are then divided into groups. The teacher rotates working with each group, providing the spelling instruction that meets their needs. This cycle of assessment-instruction meets students' needs and supports the students as

they learn and grow. *Words Their Way* provides the 25-word spelling assessment, "Feature Guide for Elementary Spelling Inventory-1", that is used in the assessment-instruction cycle for differentiated spelling instruction. "Teachers can use spelling assessments to select the content of instruction in word recognition, alphabet study, phonics, vocabulary, and spelling (Bear et al., 2004, p. 26). *Words Their Way* gives a description of the history of differentiated spelling instruction, what it is, and how educators should administer this type of instruction.

Edmund Henderson and colleagues at the University of Virginia studied students' spelling, looking for the patterns and logic that underlie the students' spelling errors. A comprehensive model of developmental word knowledge emerged from the Virginia spelling studies. This model reveals information about students' understanding of how written English works. The spelling assessment involves an analysis of errors based on the spelling patterns discovered in the Virginia spelling studies. Word study is instruction determined by these assessments (Bear et al., 2004).

Word study is an effective approach to teaching literacy because it gives students the opportunity to manipulate word concepts and to apply critical thinking skills while they work. Hands-on activities and manipulation of the words helps students learn spelling patterns for words that are essentially impossible to memorize individually. Instead, the students have practice reading and writing the words multiple times, in and out of context. The daily use of word study gives students a chance to use higher-order thinking as they study words and find spelling patterns (Bear et al., 2004).

There are five spelling stages used in the *Words Their Way* spelling assessment (Bear et al., 2004). The first stage is the "emergent stage." Characteristics of this stage are scribbles in

letters and the children pretend to read and write. The lesson focus for this stage is vocabulary, phonological awareness, alphabet knowledge, letter-sound knowledge, and concept of word in print (Bear et al., p. 101). The teacher encourages invented spelling when the students write. Words sorts are based on pictures and beginning sounds.

The second stage is the "letter name-alphabetic stage." A major characteristic of students' spelling at the beginning of this stage is representations of beginning and ending sounds. Word study is based on picture sorts and beginning sound sorts. Later in this stage characteristics of the students' spelling are that they spell initial and final consonants and some letter blends. Word study later in this stage focuses on sorting by short-vowel word families. Simple sound sorts comparing vowels are also used.

The third stage is the "within word pattern stage." Spelling characteristics of this stage include using beginning consonant digraphs and single-syllable short vowel words correctly. Word study focuses on sorting and classifying words with long, short, and r-controlled vowels. Diphthongs (oi, ou, au, ow) are explored late in this stage.

"Syllables and affixes" is the fourth stage. Students in this stage spell most single-syllable words correctly, but they make some errors at syllable breaks and in unaccented syllables. Word study introduces consonant doubling and inflected endings. Unaccented syllables like "er" and "le" are studied. Affixes (prefixes and suffixes) are studied and sorted including accent on two-syllable words.

The final stage is the "derivational stage." Students in this stage spell high frequency words correctly. They make errors mostly with low frequency, multisyllabic words. Word study is based on words derived from the students' reading and writing. Roots, prefixes, and suffixes

are included in sorts. In this stage spelling and meaning (vocabulary) are combined.

Differentiated Instruction

Teacher Karen Larsen uses differentiated instruction in her classroom. She believes teachers cannot successfully instruct every child in their class the same way (Larsen, 2004). The instruction must stretch the students so they are learning, but not be too easy or too hard so that they become frustrated and give up. In her article "Sink or Swim", Larsen stated that "the goal of differentiation is to bring the ideas and concepts of the curriculum to the learner at a pace and depth that is appropriate for the ability of each student" (p. 15). Larsen stated that the class as a whole may be studying the same concept, but the way the concept is taught depends on the students' needs. Using differentiated instruction helps to ensure that all children succeed (Larsen, 2004).

Michael Ford also claimed that "one size rarely fits all" when it comes to literacy instruction (Ford, 2005, unpaged). He stated that grouping children according to their ability will ensure they are given the instruction they need at the level they need it. In his article, Ford goes on to say that it is not only the material being taught that must address the students' needs, but the learning environment must be set up to meet each ability group's needs as well (2005).

Ford claimed that whole group instruction often leads to disinterested children. When high-level students are not challenged they disengage from learning, while low-level students are in over their heads, so they give up. That is why Ford chooses to use differentiated grouping. Students are learning at their level and teachers are successfully reaching all students (2005).

To further support the use of differentiated instruction in actual classrooms, Judy Brown discussed her success as she researched spelling instruction with her second grade class. Brown

discovered in her graduate research that failure in spelling often leads to failure in all literacy aspects (Brown & Morris, 2005, p. 165). Brown decided to implement differentiated spelling instruction into her classroom to help all students, but especially for those needing extra support in literacy, particularly spelling (2005, p. 168).

Judy Brown explains that she already has students in her class divided into groups for reading so she knew it was possible to create spelling groups as well (2005, p. 170). To do this she followed the pattern used in *Words Their Way*. First she assessed the students' spelling using a specific list of words. Then she grouped them according to the students' spelling levels as determined by their performance on the pre-assessment. She planned and delivered instruction to each group according to the needs of each spelling level throughout the year (Brown & Morris, 2005, p. 167-171). After Brown gave her students the post-assessment, she analyzed the data. She found that differentiated spelling instruction improved the spelling of all her students, but she found it especially rewarding that her lowest spelling group showed huge improvement by the end of the year (Brown & Morris, 2005, p. 179).

Morris and colleagues conducted a similar research study on differentiated spelling instruction, hoping to prove its effectiveness over whole class spelling instruction. They first delivered a spelling assessment of 30 words to students in grades 2-5, three classes per grade (Morris, Blanton, Blanton, Nowacek, & Perney, 1995). The researchers explored spelling instruction levels by examining "the types of spelling errors made by good and poor spellers at a given grade level", meaning the spelling words were determined by grade level (Morris et al., 1995, p. 164). For each student they determined a percent correct score and a quality of misspellings score. Their results showed that students ranged in abilities and grade-level when it

came to spelling (1995, p. 165). Thus, from this study the researchers concluded that low-spellers fall far behind their higher-level peers when taught spelling by whole-class instruction (1995, p. 165).

In their second study, Morris and colleagues observed classrooms where spelling instruction was again delivered through whole-class instruction. From this study the researchers concluded that low spellers did not fall too far behind their peers in weekly spelling tests. Yet when it came to reviews months later, the low spellers were not able to recall the spelling patterns (Morris et al., 1995). Therefore, the researchers concluded that whole group instruction was not effective for low spellers because they could not maintain what they had learned and transfer it into their long-term memory (1995, p. 166).

Knowing the results of these two studies helped Morris and colleagues design another study on the use of differentiated spelling instruction. This study used seven third-grade classes, four of which used an intervention plan with differentiated spelling instruction while the other three taught strictly grade-level spelling instruction (Morris et al., 1995). The intervention teachers divided their classes into two groups: grade-level and low-level spellers. Using word study and other types of differentiated instruction, the teachers were able to balance the two groups while delivering instruction that met the students' needs (Morris et al, 1995). The end-of-year post tests revealed the intervention classes were successful. The low spellers actually progressed more with the intervention plan than the students given grade level spelling instruction the entire year (1995, p. 175). Differentiated spelling instruction made a difference, just as the researchers had expected (Morris et al., 1995).

Description of Intervention

My Project

After studying research and literature on differentiated instruction, I was better prepared to begin my project. I chose to conduct my research in a setting offering realistic implementation. The fourth-grade class I student taught in fall 2006 became my environment for research. To begin I spoke with my cooperating teacher, Debbie Lowry and explained my project to her. I received her approval that I conduct my research project during the 7 weeks I would student teach in her class. With her enthusiasm for my project, we next determined the best way to integrate the project into the school day. During reading groups seemed to be the most logical placement and integration for a spelling project. With plans in place, I was ready to begin.

I first administered a spelling pre-assessment to the entire fourth grade class. The words on the spelling assessment are chosen to specifically test at which developmental spelling stage the student is, from emergent spelling to derivational relations spelling. I analyzed the pre-assessments and determined the current spelling stage of each student. Their spelling ability level is based on the spelling errors they made on the words in the assessment. I obtained the assessment form and word list I used for this study from *Words Their Way* (Bear et al., 2004). The assessment form is titled "Feature Guide for Elementary Spelling Inventory-1." (Feature Guide Post-Assessment attached-see Appendix 1).

Table 1 shows the spelling levels the students were in for the pre-assessment and how many students were in each level. I determined that I would choose students from the spelling stage with the most students, giving me more students to work with for the study. I also wanted to choose students from the average to upper spelling stage in order to provide possible spelling

increase results that are typical results for the class overall.

Table 1. Whole-class pre-assessment spelling level

Spelling Stage	Number of Students
Within Word Pattern - Middle	2
Within Word Pattern - Late	4
Syllables and Affixes - Early	5
Syllables and Affixes - Late	12

After determining the students' spelling stages, I found at which level most of the children were. The largest group of students were in the late-syllables and affixes stage of spelling. I needed an even number of students for my study so I could divide them into two equal groups: an intervention (or *Words Their Way*) and control (or standard spelling) group. Six students was the maximum number of students in the late-syllables and affixes stage that Mrs. Lowry and I determined would be appropriate for my study. This was a good number of students for my study because I wouldn't be taking too many students out of class but I would have enough students to see results at the end of the study.

I randomly selected the six students that were in the late syllables and affixes stage to be in my study. From those six students I randomly selected three students to be in the intervention group and three students to be in the control group. I conducted my spelling intervention plan of *Words Their Way* with the intervention group of students. Using students that were at the same spelling stage made it possible for me to focus my intervention plan on the students' specific spelling needs. With the two groups of students who initially started at the same spelling level, I would be able to do a comparison at the end of the study to determine if the intervention group increased in their spelling abilities more than the control group.

Once I had the group of students I would work with in my study, I coordinated with Mrs. Lowry a set time that I would work with the students each day. I was able to work with the students for about 20 minutes a day during reading groups. The intervention group of students I worked with were also on the same reading level, again making reading groups a perfect integration time for the spelling study. A set schedule ensured that the study remained consistent and that the students received the daily word study practice they needed for the intervention to be effective. As the student teacher of this class, I was also able to remain consistent in my teaching patterns for spelling of both the intervention and control groups since I taught both the standard spelling to the whole class and the intervention spelling group. This helped control most variables that would affect the study, making intervention with *Words Their Way* the dependent variable for my study.

Consistency while I delivered the spelling instruction to the intervention group was also important. *Words Their Way* provides an instruction plan for teaching students at each stage of spelling development. I used this instruction plan to design all of the daily lessons I taught the students. This required that I prepared lessons and materials daily. The lesson plans included the use of sorts such as sound sorts, pattern sorts, meaning sorts, and open/closed sorts (Bear et al., 2004, p. 63-72). When using sorts, students categorize the words into spelling groups according to the type of sort it is (see Appendix 2). Sorts are taught and used along with word games, such as matching, which help students reinforce what they have been learning. Within the sorts I based instruction on the spelling patterns and students' needs, not the patterns specifically addressed in the spelling assessment. Therefore, my instruction did not target the words in the assessment, rather my instruction addressed general spelling patterns so that the

students could transfer to spelling the words on the assessment. The seven weeks of my study followed this plan (adapted from *Words Their Way*):

Monday: Introduce sort (open sort). I began the week by giving all three students their own set of words for the spelling pattern we would study that week. Introducing the spelling pattern by using an open sort offered a variety of benefits. For open sorts the students decide how they think the words should be sorted. This teaching technique got the students thinking about word similarities/differences as they looked for patterns and ways to sort the words. Sometimes their sorts were far different than the spelling pattern we would study, but they still had exposure to words and spelling patterns. Then I would give clues and have the students look for the specific pattern we were studying that week. Once I had given them the closed sort rules (teacher-directed sort), the students resorted their words as needed to meet the closed sort rules.

Tuesday: Practice sort/write sort. On Tuesday I gave the students the same set of words we sorted on Monday. This served as a review sort as the students re-sorted according to the closed sort rules. We reviewed the spelling pattern that we were learning. This sometimes included a speed sort where we timed how fast the students could sort their words. After practice with sorting, the students would write down words that fit into that spelling pattern. They could look at their set of words as they wrote to ensure correct spellings of the words.

Wednesday: No-peeking sorts/writing sorts. For no-peeking sorts on Wednesday, the students first divided a piece of paper according to the spelling patterns (such as pain/pane) we were studying. At the top of each category I gave them a guide word, or example word, for that spelling pattern. Then I read words that they had studied for each category. The students had to decide in which category each word fit and how to correctly spell each word. We had discussion

along the way about why certain words fit in each category and how to determine where the words fit. It also helped to have guide words for each category so the students could use these as a reference when deciding how to spell the words I gave them. After I gave them all the words for the set, we went over the correct spelling for each word so the students could check their lists and spellings. This activity continued to give the students exposure to spelling patterns in words that they were becoming familiar with.

Thursday: Word hunts. At this point in the weekly schedule, the students had practiced the week's spelling pattern extensively. They knew the spelling pattern categories and how to spell the guide words for each category. Now was a perfect time to bring in outside resources to the lesson. I had the students bring to our lesson the book they were reading in class for self-selected reading. They divided a blank piece of paper into the categories for the spelling pattern (typically we studied three categories for each spelling pattern) with the guide words written at the top for reminders on how to spell the words in each category. If they couldn't remember what the guide words were or how to spell them, I supplied them. I wanted to ensure they were successful and had the guidance needed to complete the activity.

With everything set up, the students then looked through the chapter or a part they had just read in their book for words that fit in each spelling category. Typically I would assign them to find two new words for each category. I would challenge them to do the best they could to find words, but if they couldn't find any in their book, they could look around the room (posters, charts, etc...) for help. Also, we shared all of our words afterwards so at that time they could write down each other's new words. This gave the students real practice with using the spelling pattern. As one student read aloud the words they found, the other students had to determine

which category it belonged in and how to spell it correctly. The reader would then tell where the word belonged and how to spell it correctly. We did this with all the new words found, so our bank of words that fit into our spelling pattern grew immensely. The students kept and studied their new list of words for our review game the next day.

Friday: Assessment and games. The students looked forward to Fridays the most because we applied all the skills and words they had learned during the week into a game. During these review games I used a variety of words to connect spelling patterns they had learned to new words. I also used the games as informal assessments to determine what the students had learned, what we still needed to work on, and what concepts each student was/was not understanding. We played matching games, Slap Jack, Crazy 8's, and board games using words following the spelling pattern we had focused on during the week.

During the week I also collected data on the students' performances by making daily assessment notes, doing informal assessments, and analyzing the students' work. To organize my observations and assessments I created a chart (see Appendix 3). It included the date, lesson/activity, and each students' name. Under their name I recorded how the student did on each activity. This proved to be a very beneficial assessment as I could refer to it daily and determine the needs of each student.

I also recorded how the students sorted their words in the open sort at the beginning of the week. This gave me great insight into the students' thought processes and how they classified words. Often, their open sorts were based on past experience and background knowledge. As the weeks progressed and we continued learning new spelling patterns, their open sorts completely changed. The students began to see words in new ways. At the beginning of the

study they often sorted by first/last letters, topics, and rhyming. Soon they learned to search for vowel patterns and recognized differences among words that weren't intially apparent to them. They looked for patterns and were able to build a strong foundation of words they could spell correctly because they understood how the spelling pattern worked.

The chart also helped me apply the assessment-instruction cycle I discussed earlier. When a teacher can build her instruction based on assessment of the students' needs, the instruction is most effective. I used my notes and observations from my chart to guide my teaching the following day and weeks. I discovered that some lessons I thought the students would understand quickly needed more time and explanation than just a week. So I planned extra time and used more materials to give the students additional exposure to the spelling pattern we were studying. Also, I was able to give one-on-one help for that student that may need extra support on a concept that the other two may have understood. I would give more examples of words, give time for him/her to find words, and have the students work as a team to help and support each other's growth.

Project Results

On December 8, the end of the time frame for the intervention plan and the end of my term for student teaching, I delivered the post-assessment to both groups of students: the intervention and control group. Both the pre-assessment and post-assessment use the same spelling words, making comparisons between assessments more accurate. After assessing both groups, I compared the pre- and post-assessment scores of the students to determine if differentiated spelling instruction improved the students' spelling in the intervention group. With the short seven-week period I was able to deliver instruction, the results of my study were

not astonishing, but they were encouraging.

The intervention group increased steadily from the pre-assessment to the post-assessment. Their overall score for words spelled correctly increased as well as their score for words spelled correctly within each spelling level. In the late-syllables and affixes stage, Brendan incorrectly spelled 4 words and in the early-derivational relations stage he missed 3 words on the pre-assessment. For the post-assessment he didn't miss any words in the late-syllables and affixes stage, missing the same 3 words again in the early-derivational relations stage. Therefore, early-derivational relations became Brendan's new spelling stage.

On the pre-assessment, Sarah missed 5 words in the late-syllables and affixes stage and 4 words in the early-derivational relations stage. For the post-assessment she missed 3 only words in the late-syllables and affixes stage she previously missed. In the early-derivational relations stage Sarah missed only 3 words, gaining one new word.

McKenzie lost 6 words in the late-syllable and affixes stage and 4 in the early-derivational relations stage for the pre-assessment. She missed 5 words on the post-assessment in the late-syllable and affixes stage, spelling 2 new words correctly and missing a word she had previously spelled correctly. She missed 2 words in the early-derivational relations stage, spelling 3 new words correctly again missing one word she previously spelled correctly.

The control group, or standard spelling group, varied in their comparisons from pre to post assessments. In the control group only one student increased their score on the post assessment. On the pre-assessment Cierra incorrectly spelled 4 words in the late-syllables and affixes stage and missed 3 in the early-derivational relations stage. For the post-assessment she missed 5 words in the late-syllables and affixes stage and 4 words in the early-derivational

relations stage, missing a word she had previously spelled correctly in each stage.

Aubree's pre-assessment score was 7 missed words in the late-syllables and affixes stage and 5 in the early-derivational relations stage. Her post-assessment scores showed no improvement with the exact same words missed in both stages.

Ashlee missed 5 words in the late-syllable and affixes stage and 5 words in the early-derivational relations stage on the pre-assessment. She missed 3 words on the post-assessment in late-syllables and affixes, getting 2 new words right and misspelling a word she previously spelled correctly. She also missed only 4 words in the early-derivational relations stage, increasing her overall post-assessment score.

The following tables depict both groups' pre and post-assessment scores. Table 2 shows the intervention group's scores. Table 3 shows the control group's scores. The students' names in the group are listed, their pre-assessment scores, their post-assessment scores, and the percent change between the two.

The score for each assessment is determined by the total feature points, 53, given on the assessment. There are 25 words on the assessment and each word is given a certain point value according to the difficulty of spelling patterns in each word. Adding all of the feature points for the 25 words gives the 53 total feature points possible. These points are given based on the student's spelling of each word on the assessment. The percent change between pre- and post-assessment scores are calculated by subtracting the pre-assessment score from the post-assessment score and dividing that number by the pre-assessment score.

Table 2. Intervention Group

Students' Names	Pre-Assessment Scores	Post-Assessment Scores	% Change
Mckenzie C.	42	45	7.1 %
Brendan F.	45	50	11.1 %
Sarah M.	43	45	4.7 %
average	43.3	46.7	7.8 %

Table 3. Control Group

Students' Names	Pre-Assessment Scores	Post-Assessment Scores	% Change
Ashlee M.	41	46	12 %
Cierra L.	46	42	-8.6 %
Aubree H.	38	38	0 %
average	41.7	42	.7 %

An interesting point to note is the beginning scores for each group of students. The average scores for the pre-assessment were close for the intervention group and the control group. This may be due to the same spelling instruction both groups of students were receiving. The average scores of the post-assessments vary a little more with a bigger increase for the intervention group. These average scores can be used to determine the average percentage increase for both groups.

The average increase comparison between the two groups demonstrates that the students from the intervention group improved, to a greater degree than the control group, their spelling scores from the pre-assessment to the post-assessment. Differentiated spelling instruction, as the independent variable for the two groups' spelling instruction, improved the students' spelling abilities. Instruction for the intervention group was based on their needs and spelling level,

supporting each student's growth and understanding of how spelling works. The students were able to generalize this knowledge and improve in spelling.

As mentioned earlier, I chose students from the spelling stage with the highest number of students in order to give a more accurate spelling improvement average for the class. Although these results may reflect an average increase for students, it is difficult to determine if this increase of scores would be consistent for students from all spelling stages. For example, lower-achieving students have a wider range within which they can improve, so they may have had an even greater increase of spelling achievement between pre- and post-assessments.

On the other had, low-achieving students may have needed more time than the seven weeks to show measurable improvement. As educators know, results largely depend on the students, their spelling abilities, and their ability to improve in a short period of time. To test the differences among students in various spelling stages, a study with whole-classroom testing would be more appropriate and accurate.

Future Research

Although my study showed promising results for differentiated spelling instruction, a few limitations existed in my study that could be worked out for future research. First, the intervention group received practice with differentiated spelling in addition to the standard spelling. This gave them more time spent on spelling. For future research, it would be important to ensure that both groups received the same amount of spelling instruction time. This would eliminate the possibility that extra time spent on spelling actually increased the intervention groups' spelling rather than differentiated spelling instruction itself.

Also, the intervention group of students had greater motivation to succeed on the post-

assessment. This is because they had been working for 7 weeks for it, knowing the post-assessment was coming. They had also come to know each other and me very well as we worked towards the same goal of increasing their spelling. When the treatment group of a study has greater motivation to succeed and the control group has less, a "research effect" is created. This makes it difficult to determine the true reason for the intervention groups' spelling improvement on the post-assessment. To avoid this research effect, it is important to ensure that both groups have motivation to do well on the post-assessment. This is something that would most likely need to be set up in the beginning and continued throughout the study to ensure the control group maintains motivation to do well on the post-assessment.

Integration of Differentiated Spelling Instruction

The important part of this study is the actual integration of the spelling instruction into the school day. Teachers have incredible amounts of pressure to teach a variety of subjects throughout the day. With the stakes higher than ever in education, integration of instruction is the most effective way to use *Words Their Way*. Reading groups are often taught using differentiated instruction based on the students' reading level. As discussed earlier, literacy is intertwined and connected between reading, writing, and spelling. So the students' reading level often closely matches their spelling level. Therefore, obvious and practical integration of *Words Their Way* is during reading groups.

The teacher can follow the same weekly outline I used during my study. Beginning with an open sort, discussion of the new sort, and then natural integration with reading as students search for spelling patterns in their books. As the teacher rotates working with various reading groups, she will also have the chance to address spelling needs for the students. This integration

will provide extra support with words: vocabulary and spelling patterns. The students will feel

success as all areas of their literacy are increased together. This success is possible through

differentiated spelling instruction.

Biography

Amanda Gibson was born and raised in American Fork, UT. She attended American

Fork High School and graduated with high honors in May 2003. In high school Amanda served

as the vice-president for her school's National Honors Society. She also served in the

psychology and French clubs. In August 2003, Amanda moved to Logan to begin her education

at Utah State University. As the oldest of six children, Amanda learned to take a leadership role

in life, teaching and loving the children around her. Her love for children and learning drove her

to be an elementary and early childhood education dual major. For the past four years Amanda

has gained valuable experience and knowledge about the process, expectations, and skills

required for teaching young children. In May 2007, Amanda plans to graduate from Utah State

University with both University and Departmental Honors. With degree in hand she will move

forward in meeting her goals of changing the lives of the children she is blessed to teach.

Feature Guide for Elementary Spelling Inventory-1

post-diserrment

> Directions: Check the features that are present in each student's spelling. In the bottom row, total features used correctly. Check the spelling stage that summarizes the student's development. Begin Instruction at that stage with a focus on the types of features where the student missed two or more features in a column.

Student's Name **Brendon Fristrup** Teacher **Mrs Lowry** Grade **4th** Date **12/0/06**

SPELLING STAGES: EMERGENT LATE · LETTER NAME-ALPHABETIC EARLY MIDDLE LATE · WITHIN WORD PATTERN EARLY MIDDLE LATE · SYLLABLES & AFFIXES EARLY MIDDLE LATE · DERIVATIONAL RELATIONS EARLY MIDDLE LATE

Features→	Consonants Beginning Final		Short Vowels	Digraphs & Blends	Long-Vowel Patterns	Other Vowel Patterns	Syllable Junctures & Easy Prefixes & Suffixes	Harder Prefixes, Suffixes, & Unaccented Final Syllables	Reduced & Altered Vowels, Bases, Roots, & Derivatives	Feature Points	Words Spelled Correctly
LATE EMERGENT TO LETTER NAME ALPHABETIC											
1. bed	b ✓	d ✓	e ✓								
2. ship		p ✓	i ✓	sh ✓							
3. when		n ✓	e ✓	wh ✓							
4. lump	l ✓		u ✓	mp ✓							
WITHIN WORD PATTERN											
5. float				fl ✓	oa ✓						
6. train		n ✓		tr ✓	ai ✓						
7. place					a-e ✓						
8. drive		v ✓		dr ✓	i-e ✓						
9. bright					igh ✓						
10. throat					oa ✓						
11. spoil						oi ✓					
SYLLABLES & AFFIXES											
12. serving						er ✓	ing ✓				
13. chewed				ch ✓		ew ✓	ed ✓				
14. carries							rries ✓				
15. marched				ch ✓		ar ✓	ed ✓				
16. shower						ow ✓	er ✓				
17. bottle							tt ✓	le ✓			
18. favor								or ✓			
19. ripen							en ✓				
20. cellar							ll ✓	ar ✓			
DERIVATIONAL RELATIONS											
21. pleasure								ure ✓	pleas ✓		
22. fortunate						or ✓		ate ✓	fortun		
23. confident								ent ✓	confid		
24. civilize								ize ✓	civil ✓		
25. opposition								op ✓	position		
Totals →	2 (2)	5 (5)	4 (4)	8 (8)	6 (6)	6 (6)	9 (9)	8 (8)	2 (5)	(53)	(25)

SPELLING STAGES:

☐ EARLY ☐ MIDDLE ☐ LATE
☐ LETTER NAME–ALPHABETIC
☐ WITHIN WORD PATTERN
☐ SYLLABLES & AFFIXES
☐ DERIVATIONAL RELATIONS

Words Spelled Correctly: /25
Feature Points: /53
Total: /78

Appendix 2
Template for Word Sort

TEMPLATE FOR WORD SORTS

McKenzie   Clark

collect	collection	collectible
contract	contraction	contractable
reduce	reduction	reducable
exhaust	exhaustion	exhaustable
repress	repression	repressable
express	expression	expressable
product	production	productable
X	X	X

Appendix 3
Assessment/Observation Chart

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Honors Thesis Project

Week 1

Fall 2006

Date	Lesson/Activity	Brendan F.	McKenzie C.	Sarah M.
10/23/06	- Introduction to spelling group - Explanation of wordsorts began open sort w/ 's/est endings - then gave base words & [passed]	• open sort = alphabetical order • closed sort - guess did 1st, but not right • closed sort - fixed it • goal adding new words	• open = alphabetical sort • closed sort - didn't finish • quick @ adding new words	• alphabetical sort • closed sort - guess - did right • closed sort - fixed it
10/24/06	• Did closed sort w/ base words, review • I wrote base words & they chose ending • Then kids wrote words on board	• quickly sorted, remembered sp. patterns • knew words sorts I wrote, could produce own	• quickly sorted, remembered sp. patterns ★ a little confused on "s", "es"	• got confused on "es" & "s"
10/25/06	• Base words adding ing, ed, es, s • Then look in book for base words & prefix add prefix	• tricked on "cry, panic" admit (double) • good adding new words leave, tell, left	• tricked on "cry, panic" admit (double) • confused on past tense "ed", change sp	• tricked on "cry, panic" admit (double) • confused on adding endings
10/26/06	• We played "Race track Spelling" - I wrote in endings & they spelled words to fit endings	• really good review came up w/ words quickly	• good review, sometimes struggled coming up with words quickly, mixed up "es" & "s"	• good w/ several words, sometimes slow w/ words, adding tricky endings
10/27/06	• We reviewed the words & endings they struggle with ex "s", "es", -y -ck	• good at adding endings, picked up quickly	• good mostly, needs practice w/ doubling letters	• good at adding endings, needs more practice w/ doubling letters

★ practice rules w/ endings

- then kid has words

Date	Lesson/Activity	Brendan F.	McKenzie C.	Sarah M.
10/30/06	• new sort "L" endings – open sort, 'il, el, le, al – closed w/ lead words – said & spelled words in groups aloud	• wasn't sure how to sort at all in open sort • sorted right w/ lead words, a little slower	• open sort – sorted by 1st letter • sorted correctly w/ lead words	• got sorts right 1st time • slowly sorted, but got sort right
10/31/06	No groups –	Halloween !		
11/1/06	• Sylvia came to observe/ give feedback • closed sort • wrote sorts, separated • word hunt in books, posters	• sorted quickly • added words quickly, able to find own w/ some promptings or ideas	• sorted quickly • able to find more words on own	correctly sorted ~~○○○○○○○○~~ • Difficult time finding new words - confused by added endings "s" "ed"
11/2/06	• Speed sort • Word hunt (4 new words) • No-peek sort ★ Study word list for tomorrow!	• good speed on sort • able to find a few words, wrote correctly • wrote no-peek words correctly	• good speed on sort • able to find new words • difficult time/confused on endings for no-peek	• Missed sort = work on staying organized • found a few new words • got a few wrong on no-peek "le"
11/3/06	• Review w/ game Spelling racetrack "al," "il," "le", "el"	• good at coming up with words on his own for endings	• needed some hints/ ideas for words ★ Much harder sort!	• needed a lot of help & ideas for words to find sort

Amanda Gibson
Honors Thesis Project

Week 3

Fall 2006

Date	Lesson/Activity	Brendan F.	McKenzie C.	Sarah M.
11/6/06	• New Sort - "or, ar, er" • open sort • Closed sort "why are there hard 2" • Read together & practice spell	• got sort right 1st time/ open sort • good at spelling new words	• got correct sort 1st time • got new words spelled correctly	• correct sorting 1st time for open sort • got most new words right.
11/7/06	• closed, speed sort • read & spell sorts • write sorts, adding new	• Sorted quickly, last one • good spelling aloud • correct spelling on "No Peek"	• sorted quickly, 2nd • gets a little confused spelling aloud • a little confused on "or" "ar"	• sorted 1st • gets confused spelling aloud • good spelling on "No peek"
11/8/06 open then closed	• Find new words in text to add to lists • Extension Sort = "people who do things, words to compare"	• struggled a little finding new words in text • Seemed tired/ a little off, w/ prompt got sort	• great & quickly found words • with clues, got sort quickly	• found words on her own in text • with clues, got sort, after several attempts didn't quite get it
11/9/06	• Sort review on white boards	• Spelled all endings correctly - came up w/ words for endings	• came up with great new words - mixed up "ar/or"	• mixed up "ar/or" • tricky time coming up w/ new words
11/10/06	• Game review "Crazy eights"	☒ Fun review - everyone did great spelling ☺		

Date	Lesson/Activity	Brendan F.	McKenzie C.	Sarah M.
11/13/06	★ Mrs. Lowry had to give whole-class instruction, so we didn't have time to do spelling today.			
11/14/06	★New sort "ure" – open, then closed	• This was a hard sort for everyone. The sort was a lot more confusing than I anticipated. So we're going to review tomorrow and include sorts we've done previously.		
11/15/06	• Review today using all sorts done so far – on whiteboards	• Great! He got all the words I gave him	• She got some words, but she doubles some letter unnecessarily and mixes up endings / or /ar	• Great! She got most of the review words correct
11/16/06	• Review again today – assessing the sorts they knew & which ones they need practice on.	• He only missed a few words – not a specific sort.	• missed words out of almost every sort, one here & there, nothing specific	• missed words out of almost each sort, sometimes misspelling root word, too!
11/17/06	• Slap Jack game review – all previous sorts included	• good w/ all sorts – spelled most correctly • good coming up w/ words	• came up w/ good words, spelled most correctly.	• hasn't studied words – couldn't remember past sorts

Week 5

Date	Lesson/Activity	Brendan F.	McKenzie C.	Sarah M.
11/20/06	• New sort, adding "-tion", "-ssion" • open 1st/closed 2nd • Discuss adding endings (think of base word)	• Needing explanation of sort • needed help w/ new words	• Did sort right 1st try • needed help w/ new sort	• Needed explanation of how to sort • needed help w/ new sort
11/21/06	• speed sort w/ -tion & -ssion • spell-aloud words + ending • did new sort with ending -ition, -ation	• good spelling & adding endings • struggled w/ new sort even when I explained it to him	• confused -tion, but I talked her through it • struggled with new sort kind of understood when I explained	• could add endings, but confused spellings for beginning parts of word • struggled w/ new sort even when I explained.
11/22/06		☆ Try something else for next week, this one was too complex!		
11/23/06		Thanksgiving		
11/24/06		Holiday ↓		

Date	Lesson/Activity	Brendan F.	McKenzie C.	Sarah M.
11/27/06	• fill-in writing sorts * base words + -tion & -able • open sort then ✓ spelling together	• good writing/adding endings • Added a few "table"s in wrong place	• good trying to write/ add endings • Added a few "table"s in wrong place	• harder time concentrat - felt sick • Confused endings & misspelled beg. [?]
11/28/06	• reviewed yesterday's writing sort • new write-in sort - we checked spelling then resorted	• good adding endings to root words • great adding new endings on new sort.	• had a harder time adding endings for yesterday's sort • great adding new endings - but did ss+tion!	• good adding endings to root words & spell beg. words! • good except added ss + tion
11/29/06	• Mixed writing sort adding -ing. -able	• Did great on adding endings, only missed - apply → applicable		• She went home sick today!
11/30/06	• Review on white boards- I gave roots + endings for them to spell	• over-all did very well on words, only missed a few letters & it was always in root word	• Over-all did pretty well, missed a few letters in roots & confused -ation w/ -ition	• good with endings, her hardest time in knowing how to spell root words
12/1/06	• Game review "matching" of root words to -tion & -able endings	• Found lots of matches & remembered/ Stated roots to endings	• Great job finding & remembering matches of root words and suffixes	• She struggled stating root words and suffixes and being able to match them together- it's too complex right now for her.

Date	Lesson/Activity	Brendan F.	McKenzie C.	Sarah M.
12/4/06	• New sort - open sort of homonyms • closed sort • add/write new homonyms	• got sort right during open set • harder time finding own homographs	• got it right during the open set • came up with her own homograph	• didn't know how to sort in open, but got it right in closed • came up with own homographs.
12/5/06	• New sort - open sort of syllables • Closed sort w/ lead words • spelled words in sorts	• Tricky even once I explained how to do sort, but with help & clues, they were able to sort them well. • good spelling, had to re-adjust a few letters	• recognized "ie, ei" sort, but not sure how to get 4 categories	• Not sure how to open sort • had to fix a lot of letters, mixed up in sort
12/6/06	• open sort - New w/ syllables : 2, 3, & 4 • closed sort w/syllables as lead words • spell words in sort & then add new words	• good thinking on open! - sorted by info. on cards • lots of clapping and saying the words out loud to practice saying the words outloud! • good saying & spelling new words	• good thinking on open! also sorted by info. on cards Good reading which is good integration	
12/7/06	• review write on boards of all sorts learned so far	• Spelled most words correctly, just wrote slowly.	• wrote quickly & spelled most words correctly	• wrote quickly & had correct endings; just misspelled some root words
12/8/06				

References

Bear, D.R., Invernizzi, M., Templeton, S., & Johnston, F. (2004). *Words their way: Word study for phonics, vocabulary, and spelling instruction.* (3rd ed.). Upper Saddle River, NJ: Pearson Education, Inc. .

Brown, J., & Morris, D. (2005). Meeting the needs of low spellers in a second grade classroom. *Reading and Writing Quarterly, 21,* 165-184.

Ford, M. P. (2005, December). *Differentiation through flexible grouping: Successfully reaching all readers.* Naperville, IL: Learning Point Associates. Retrieved July 19, 2006 from www.learningpt.org.

Larsen, K. (2004, Nov/Dec). Sink or swim. *Library Media Connection, 23*(3), 14-16. Retrieved July 19, 2006, from www.epnet.com.

Morris, D., Blanton, L., Blanton, W.E., Nowacek, J., & Perney, J. (1995). Teaching low-achieving spellers at their "instructional level." *The Elementary School Journal, 96*(2), 163-177.

Nelson, C. (1994). Organizing for effective reading instruction. *ERIC Digest,* 3 pages. Retrieved on April 24, 2006, from www.epnet.com.