

Implementing Research-based Spelling Instruction

by

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Field Project

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Abstract

This field project addresses the viability of implementing research-based spelling instruction in elementary age classrooms.

Through administration of developmental spelling inventories and analyses of writing samples the researcher determined the developmental spelling level of her subjects. The research developed a weekly instructional framework to include a pretest, word study, spelling strategies, and a posttest.

With the aid of a curriculum resource, the teacher chose developmentally appropriate words for each subject. Over the course of the four-week field project, the subjects worked within their zone of proximal development. The researcher provides analysis of student artifacts and an example of what other educators can expect when implementing research-based spelling strategies.

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Chapter I: Introduction

Identify the Issue

Research-based spelling instruction has been shown to improve the spelling development of children. Simonsen and Gunter (2001) summarized "[s]everal evaluations of *Spelling Mastery* and *Spelling through Morphographs* have provided compelling evidence for the importance of the research-validated components embedded within their instructional design" (p. 104). Whereas many once argued that children could learn to spell by reading, Gentry among others has now shown that "children learn to read by spelling" (2001, p. 11). Teachers should relearn how to teach spelling using research-based instruction.

Yet, American teachers rarely select their own spelling curriculum resource(s), just as they rarely select any of their own curriculum resources. Fresch (2003) found "60% (of teachers) reporting that instructional program selection was by a district or building curriculum committee" (p. 827). At the same time, many spelling curriculum resources are basal readers, which are not designed to follow research-based strategies for spelling instruction or to allow teachers differentiate instruction. Therefore, we can safely assume most teachers are not consistently implementing research-based spelling instruction in the classroom.

This field project investigates this issue. How can teachers implement research-based spelling instruction?

Importance of the Project

The teacher's knowledge of language processes impacts the student's literacy skills (Berninger & Fayol, 2008). Therefore, teachers must understand orthography to

implement research-based instruction. Regardless of the curriculum resource, each teacher dictates the procedures for spelling instruction.

Ehri (1997) and Henderson (1971) found the development of reading ability progressed like the development of spelling ability (Gentry, 2004a). As their understanding of orthography formed, each learner progressed through developmental spelling levels. Students learn best instructed within their developmental spelling level (Ouellette, Sénéchal, & Haley, 2013). Teachers cannot generalize spelling instruction for an entire class of students. To ensure best practices, each student can undergo a developmental spelling inventory. This leveling information dictates which lesson material teachers choose to use.

Teachers are responsible for implementing an individualized spelling curriculum that uses research-based instruction. The results of this field project clarify the essential parts research-based instruction. The field project includes an overview of orthography and provides instructional resources for teachers.

Project Goal

This field project combined the process of research-based instruction with a written spelling curriculum. It brought research-based instruction into the field of spelling instruction to improve the quality of instruction. In doing so, it sought to demonstrate the viability of research-based instruction for teaching spelling.

Specifically, this field project addressed three difficulties teachers face in implementing research-based spelling instruction.

1. It describes how research-based instructional strategies should be used as a child's orthography develops.

2. It shows how to record and analyze the implementation of these instructional strategies.
3. It shows the results teachers may expect by implementing research-based instructional strategies for spelling instruction in their setting, thereby presenting a goal for teachers and administrators.

Chapter II: Literature Review

Introduction

Spelling instruction is a debated topic in educational research and deserves recognition as an integral part of learning to read and write developmentally. Landmark studies by Read (1971) and Henderson (1981) demonstrated a natural progression of spelling. As students' phonetic, orthographic, and morphologic knowledge increased their spelling became conventional. They followed preschool students' identification and use of speech sounds from invented spellings to conventional spelling to validate their conclusions. Later, Ehri (1997) found that the developmental spelling stages mirrored reading developmental stages and thereby brought validity to developmental instruction.

The components of spelling instruction include orthographic knowledge, developmental spelling stages, and the effectiveness of the classroom teacher. Educators that examine the components of spelling instruction can implement the best practices of research-based spelling instruction in their classroom with the aid of curriculum resources. The implementation will benefit students' reading and writing development.

The definition of orthography begins the discussion about the components of spelling.

Components of spelling

Knowledge of the layers of English orthography and their relation to developing conventional spelling is the first component of spelling instruction (Bear, Invernizzi, Templeton, & Johnston, 2016). The foundational layer is alphabetic and means matching sounds to letters or pair of letters. Covering that is the pattern layer which reflects French language's influence on Old English. English has forty-four sounds but only twenty-six

letters. Combinations of letters form a specific order (pattern) to represent new sounds absent in the alphabetic layer. The final layer of English orthography connected to spelling acquisition is the meaning layer. In this layer, the student identifies and uses morphemes in words (Bear, Invernizzi, Templeton, & Johnston, 2016).

This understanding of the English language leads to the discussion of the developmental stages of spelling which is the second component of spelling instruction. Bear, Invernizzi, Templeton, and Johnston (2016) and Gentry (2004a) use two different naming systems for spelling levels. Gentry (2004a) developed his by his own research and the influence of Read (1971). Bear, Invernizzi, Templeton, and Johnston (2016) compiled theirs from multiple sources (Bryant, Nunes, & Bindman, 1997; Ehri, 1997, 2006; Templeton, 2002, 2003). The naming systems are in Table 1. Recognizing these stages informs classroom instruction. At the final stage of spelling development students can examine the layers of English orthography (Templeton & Morris, 1999). By knowing what to expect in students' spelling, teachers can best implement research-based spelling instruction.

Table 1

Progression of developmental spelling levels

Cited by		Title/ Skills/ Grade Level			
Gentry (2000)	<i>Phase 1:</i> Precommuni- cative	Semiphonetic	Phonetic	Transitional	<i>Phase 2:</i> Students learn HF words
	letters no sounds	partial sound letter match	every sound gets letter	chunks of patterns	patterns & principles by grade level
	beginning to mid K	middle to end K	1	end of 1	2-8
Bear, Invernizzi, Templeton, & Johnston (2016)	Emergent	Letter-Name Alphabetic Stage	Within Word Pattern	Syllables & Affix	Derivational Relations
	develop language awareness	write 1 letter for every sound	begin to use patterns in words	add inflected endings	recognize morphology
	PK-1	K- early 2	Late 1-mid 4	3-6	5-12

The third component of spelling instruction is the classroom teacher's instruction. The effectiveness of the teacher in evaluating students' spelling levels and applying instruction within their zone of proximal development (ZPD) dictates the students' success (Ouellette, Sénéchal, & Haley, 2013). The ZPD is the level of difficulty a student

can succeed at with guidance before they reach frustration (Vygotsky, 1978). Fresch (2003) found disparity in a survey of 355 elementary teachers between their theory and practice of spelling instruction. Obstacles cited for this divide were instructional materials, time, and district expectations. Also, lack of support designing supplemental materials reduced differentiation in the classroom. Basal reading programs provided levelled spelling words but did not facilitate authentic word study or differentiation within grade levels. Gentry (2004a) stated that for teachers to carry out research-based instruction they must have research-based evidence of effective strategies and time to implement them as a habit in the classroom.

Spelling connections to reading

Historically, reading and spelling instruction were not recognized as developmental. The debate caused swings in theory and practice. Traditionally, spelling and therefore reading instruction relied solely on phonics instruction. In the 1950s, Horn's research studies cited that the irregularities in the English language required students to memorize words. Horn developed grade-level lists of words for students to learn. In the 1980s and 1990s, researchers turned their attention from what words students should learn to how conventional spelling ability developed. The belief that student's ability to spell is developmental is still accepted (Schlagel, 2002).

These aforementioned instructional methods relate to the past designs of early reading texts. These texts were word-based control, sentence-based control, or phonics-based control. Morris (2015) argued that blending the three types of texts will motivate and meet the needs of readers. This balanced approach uses reading materials that recognize the incremental acquisition of word knowledge.

Ehri (1997) built on research completed about spelling development and drew connections to reading development. As students progressed through the spelling stages, they could do more with their word knowledge than ‘sound it out’ (Bear, Invernizzi, Templeton, & Johnston, 2016). From Table 1, the names of stages of reading correspond with those outlined by Bear et al (2016) in *Words Their Way*. They are called, Emergent Reading, Beginning Reading, Transitional Reading, Intermediate Reading, and Advanced Reading. The link between reading and spelling tells us:

The more students know about orthography-- how words work, their structure, and how that structure corresponds to sound and meaning -- the more rapidly they can identify words in print and generate words in writing. When learners function automatically at the word level, they have more cognitive resources available for processing and constructing meaning during reading and writing (Gehsmann, 2011/2012, p. 6).

Students are more likely able to read a word before they spell it. Templeton and Morris (1999) found the instructional level of spelling words matched words students read with automaticity. They suggested that teachers use levelled books to instruct students at their reading and spelling levels.

Spelling connections to writing

Spelling development links to writing because it is a “visible footprint of how he or she thinks the code works” (Gentry et al., 2004a, p. 26). Graham et al. (2012) suggested the teacher allow invented spelling and spelling by analogy in rough drafts. Editing of spelling mistakes should be a skill taught in the classroom to help students take ownership of their spelling abilities.

Using a writing scale can assist teachers in understanding student writing abilities. Such a scale, the Gentry Writing Scale (Gentry 2004a et al), meets this need. The teacher uses the results to help the student reach higher complexity. The Gentry Writing Scale has two phases. During Phase I, students from preschool age to the end of first grade apply alphabetic principles to their writing and use phonetic letter patterns. In Phase II, students from second grade to eighth grade focus on adding word entries to the lexicon of the brain and working towards automaticity in their spelling.

O’Sullivan (2000) found a positive correlation between writing frequency and spelling in case studies of elementary school children.

As the children wrote widely and at increasing length, their spelling noticeably developed. In the case of all the children, the experience of writing in different genres widened their written vocabulary and therefore the range of words they were attempting to spell. Where children’s writing experiences were limited for various reasons, their spelling development was adversely affected (p. 10). Children benefited from the opportunity to write in authentic situations. The variety of situations allowed them to use word knowledge and increase their spelling ability (O’Sullivan, 2000).

Research-based best practices of spelling instruction

Following development of orthographic knowledge along with the connections with reading and writing, research-based spelling instruction is introduced and examined.

Cognizant of developmental spelling, teachers begin assessing their students’ orthographic knowledge. Templeton and Morris (1999) found in their survey that

teachers had questions about assessing students' developmental level and its effect on classroom instruction. To assess students' spelling developmental level, educators have several options: writing samples, developmental spelling inventories/tests, the *Developmental Spelling Analysis* (DSA), and *The Tile Test*.

Educators can take samples of their student's independent writing and analyze their 'use but confuse' spelling errors (Invernizzi, Abouzeid, & Gill, 1994). Sampling a student's writing is time intensive. Also, students may only use a small number of words they are confident spelling limiting its usefulness. A teacher can administer spelling inventories or developmental spelling tests to an entire class at one time. Writers of spelling inventories choose tested words based on increasing difficulty allowing test results to indicate a student's level. Most popular types of these are the *Primary, Elementary, and Upper Level Spelling Inventories* (Bear, Invernizzi, Templeton, & Johnston, 2016) and the *Monster Test* developed by Gentry (2004a). Directions for analysis accompanies each test. Young (2007) found these types of assessments provide more information to inform instruction than norm-referenced tests. Teachers can find specific examples of a student's strengths and weaknesses in using orthographic knowledge.

Similar to a developmental spelling inventory, Ganske (1999) described the research study used to create *The Developmental Spelling Analysis* (DSA). He sets the theoretical basis by stating:

As children learn to read, graphic images of words as well as their phonological,

semantic and syntactic identities are stored in memory in a kind of mental dictionary or lexicon. Included in each word's stored identity are "links" that connect graphemes to phonemes, letters to sounds (p. 42).

The two parts of the test are a brief Screening Inventory and a parallel Features Inventory (Ganske, 1999). The Screening Inventory informs administration of the Features Inventory. As with previously mentioned spelling inventories, the Features Inventory has multiple words chosen within each level of spelling development. During field testing, surveyed teachers commented on its success in identifying the gaps in student's abilities. Teachers appreciated the way the assessment informed their instruction (Ganske, 1999).

The Tile Test is individually administered with slips of paper that act as movable tiles. Norman and Calfee (2004) developed this assessment because they believed students needed to manipulate word parts to explore orthography. The process of spelling words with letter tiles helps teachers scaffold the student's explanation of their thinking. By examining student's letter/sound correspondence in an engaged atmosphere and scaffolding their work, teachers can document what students understand. The test includes assessment on name and letter sounds, CVC decoding and spelling, and sight word reading. The assessment is performed in five to fifteen minutes, has a variety of sections to use, is statistically reliable, and results will inform instruction. A teacher can use different words specific to classroom curriculum.

Research-based spelling instruction begins with word study. Bear, Invernizzi, Templeton, and Johnston (2016) made this approach to spelling instruction accessible to classroom use through their textbook *Words Their Way*. Word study describes how

students examine, manipulate, and categorize words ... you must create a systematic program of word study, guided by an informed interpretation of spelling errors and other literacy behaviors. This is a teacher-directed, student-centered approach to vocabulary growth and spelling development (Bear, Invernizzi, Templeton, & Johnston, 2016, p. 87).

This approach to spelling instruction centers on the student's natural tendencies to construct meaning through patterns (Bear, Invernizzi, Templeton, & Johnston, 2016). Word study is referred to as word sorting and applies to teaching phonics, spelling, and vocabulary by comparing traits. Instruction begins in the student's developmental spelling level and stretches them to the next level. Word sort categories depend on the target sound, pattern, or meaning. Students can sort the same group of words according to different traits with the end goal being automaticity. Building from whole group instruction to small leveled groups to independent sorting this type of word study is used with a weekly spelling list.

Words Their Way advocates three main principles: look for what students use but confuse; a step backward is a step forward; and to use words students can read. These three principles communicate that a teacher should analyze a student's writing for misspellings to incorporate into word sorts, plus begin by choosing words below a child's spelling developmental level to build a firm foundation. In addition, compare words that *do* with words that *don't*, begin with obvious contrasts, sort by sound and patterns, and do not hide exceptions. These principles apply to the process of word sorting and encourage variety and flexibility of categories. Finally, teachers should avoid applying spelling rules

students have not already discovered for themselves and have students return to meaningful texts to find their words (Bear, Invernizzi, Templeton, & Johnston, 2016).

Strategy instruction to spell unknown words is a research-based practice. These strategies are: spelling by analogy, look, say, write and developing the spelling consciousness. Poor spellers tend to sound out words sound by sound because other strategies are unfamiliar or unknown (Asselin, 2002). One strategy is teaching to spell by analogy. This strategy works for all ages (Gaskins, 1992). After the correct spelling of a word is known, students are taught how to spell an unknown word. For example, if a student spells *charm* then they can deduce how to spell *alarm*.

Horn and Otto (1954) introduced their Method 2 for studying the spelling of unknown words. This method followed the pattern *look*, *say*, and *write*. Building off the traditional strategy, Templeton and Morris (1999) added the word *think* after *say*. This addition used individuals' learning to spell by analogy. After accessing his or her audial and visual recognition of the word, cognition further cements words into memory.

Every student has a spelling consciousness. A spelling consciousness is knowing one's own spelling difficulties and ability to find a misspelled word. Cordewener, Verhoeven & Bosman (2016) found that spelling strategy instruction increased student's spelling consciousness. Direct instruction developed the student's confidence and ability to correct their own spelling errors.

A research-based teaching strategy for early literacy (PK-2) works with student's zone of proximal development (ZPD) to develop their invented spelling closer to conventional spelling (Ouellette, Sénéchal, & Haley, 2013). This strategy encourages students to exaggerate the sounds in a word and then spell it. The facilitator then corrects

one part of the invented spelling to make it closer to conventional spelling. Coupled with phonological awareness instruction, this strategy had a medium/high effect size over the control group. By giving students repeated opportunities to refine their orthographic knowledge under the instruction of a teacher the student's developed their conventional spelling skills more quickly than their control group peers (Ouellette, Sénéchal, & Haley, 2013).

Curriculum resources

Gentry (2004a) instructed teachers to utilize a spelling curriculum that allows students to work at their developmental level. He provided a checklist (Appendix A) to evaluate spelling curricula. With a quality spelling curriculum, teachers will have access to materials for a pretest and posttest, levelled spelling lists, and word sorts. He suggested using these components and ensuring that students self-correct their spelling tests.

Based on his research, Gentry developed a weekly framework for spelling instruction (2000b, 2002, 2004; Gentry and Gillet, 1993). The day one routine includes a ten-word pretest and self-correction quiz. Teachers use three levelled lists according to the concepts studied for the week. The students correct their own quizzes to identify words for their weekly spelling list. On day two the students make an individual list of ten words. This list may contain up to five words from the pretest core words and the rest are from the student's personal spelling journal. Day three and day four are word study days which students use to work with their words through sorting or games. Finally, on day five the peer administered spelling test. Gentry (2004a) believed classes can succeed with individualized spelling lists with an established framework and routine.

Summary

Teachers implement research-based instruction by identifying the components of English orthography and developmental spelling stages. Best practices for spelling instruction include utilizing a student's ZPD to provide individualized leveled spelling lists, word study, strategy instruction, and a curriculum resource.

Chapter III: Implementation

Introduction

Teachers face the challenge of implementing research-based spelling instruction. Specifically, this field project addresses three difficulties teachers face in implementing research-based spelling instruction.

1. It describes **how research-based instructional strategies should be used** as a child's orthography develops.
2. It shows how **to record and analyze the implementation** of these instructional strategies.
3. It **shows the results** teachers may expect by implementing research-based instructional strategies for spelling instruction in their setting, thereby presenting a goal for teachers and administrators.

This chapter documents a four-week period of research-based spelling instruction in a home education setting. The two subjects, Student A and Student B, follow a set weekly routine studying words according to their developmental spelling level. Analysis of their work documents the research-based instruction in the field project. Results indicate how orthographic knowledge and word study aided the teacher's implementation of research-based instructional strategies. Comparison of each subject's pretests and posttests document learner achievement.

Procedures

First, I selected a curriculum resource. I compared three curriculum resources using the Checklist for Comparison of Spelling Books provided by Gentry (2004a). *Spelling Connections* (Gentry, 2004b) met all the criteria for a research-based spelling

curriculum resource (see completed checklist in Appendix E). This action met the first goal of my project because the curriculum resource provided leveled spelling lists and consistent opportunities for word study. I used this curriculum resource to ensure that I had tools to easily instruct each student at their level.

Next, I developed a weekly spelling instruction framework based on the recommendations of Gentry (2004a). Gentry found a positive effect by consistently providing students with opportunities to correct themselves, participate in word study, and strategically study words. The weekly spelling instruction framework followed this structure (see complete lesson plans in Appendix D):

- Day one- Pretest with self-correction and prepare word sort cards
- Day two- Mini-lesson about orthographic feature and word sort
- Day three- Word study activity in curriculum resource
- Day four- Mini-lesson about spelling strategy
- Day five- Posttest with self-correction

Further documentation of these lesson plans is in the transcripts of the weekly mini-lessons in Appendix F. The record of these lesson plans and transcripts meets all the goals of my project. The documents are records of research-based instructional strategies chosen according to my students' abilities and show other educators what results they may expect when they implement research-based instruction.

Next, I administered the Elementary Spelling Inventory to Student A and the Primary Spelling Inventory to Student B and the *Monster Test* to both students (Bear, Invernizzi, Templeton, & Johnston, 2016; Gentry, 2004a). Each subject gave a writing

sample. Then I used the subject's developmental spelling level to choose a word list from the curriculum resource and plan weekly instruction according to the set framework.

During the field project, levelled spelling lists provided students words within their ZPD. Weekly writing samples also guided spelling word selection. I used a guideline set out by Bear, Invernizzi, Templeton, and Johnston (2016) in *Words Their Way* to look for word patterns each student *used but confused* to inform word selection. For example, if a student consistently spelled the inflected ending *-ed* with a *-d* it would be appropriate for the teacher to introduce that trait if it was at the student's developmental spelling level. Two weekly mini-lessons developed the student's ability to sort words by traits and learn to spell words strategically.

The field project culminated with posttests. The posttests were developmental spelling inventories and *The Tile Test*.

The implementation of this field project outlines how educators can meet the developmental spelling needs of each student. Research-based instruction enables educators to structure class routines to build students' orthographic understanding.

Artifacts and Results

Student A

Student A is an eight-year-old girl in the third grade. I administered The Elementary Spelling Inventory in August 2017 and The Monster Test in December 2017 as pretests.

The student performed within the Early or Middle Suffix and Affix stages of the Elementary Spelling Inventory in August 2017. Bear, Invernizzi, Templeton, and Johnston (2016) define these developmental stages. The student's conventional spelling

of *serving* and *chewed* exhibited her orthographic understanding of inflected endings. She used two syllable junctures. She lacked orthographic knowledge regarding unaccented final syllables (*er, le, or, en, ar*). Complete test records for Student A are in Appendix G.

According to the Monster Test developed by Gentry (2004a), Student A performed within Phase 4 or the Transitional Stage of orthographic development. She was able to conventionally spell *monster, united, and dress*. But, she wrote *tipe* for the word *type*. Even though she misspelled this word, she revealed her understanding of CVCe. She correctly added the inflected ending to the words *closed* and *bum(p)ed*. This means she “has a store of conventional spellings; invented spellings include chunks of phonics patterns for each syllable” (Gentry, 1985). The Elementary Spelling Inventory and Monster Test results agree regarding her orthographic understanding.

Student A’s weekly writing samples (found in Appendix H) agree with the analysis of the developmental spelling inventories. Figure 1 features the student’s ability to conventionally add an inflected ending, but also her failure to correctly use the prefix *ex-* when she wrote *icsited* for the word *excited*. She also exhibits (in Figure 2) the correct spelling of Fry’s high frequency words: *write, from, went, and new*.

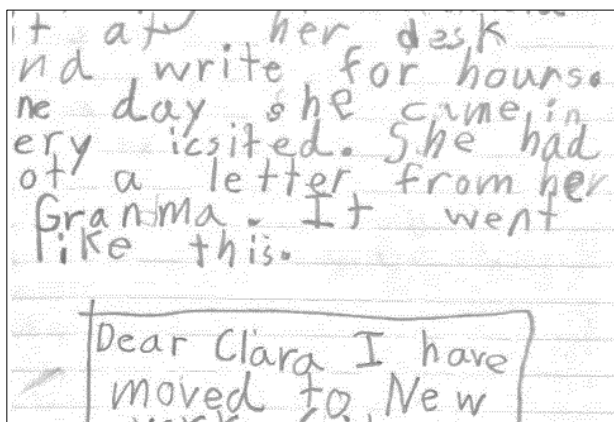


Figure 1. Student A spells *icsited* for *excited*.

On the first day of each school week, Student A took a pretest. She self-corrected the pretest as shown in Figure 2. Next, she created word sort cards. After a mini lesson on day 2, her work the following school day would be to sort her spelling words according to a certain pattern or characteristic. Figure 3 shows how the student sorted words according to the position (initial, final) of the schwa sound. The student's word sort demonstrates phoneme segmentation and location skills.

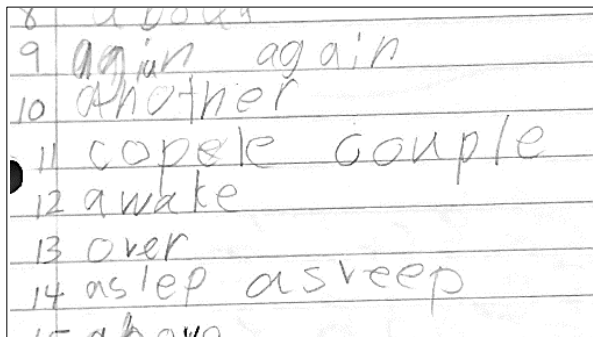


Figure 2. Student A corrects pretest.

SA W3		Word sort	
Schwa	first syllable	Schwa	last syllable
afraid		open	
upon		never	
about		ever	
around		couple	
asleep		over	
again			
awake			
above			

Figure 3. Student A sorts words according to position of schwa sound.

I noted in my Week 3 Reflection that during the word sort process, Student A began to carefully enunciate her words to identify which column the word belonged (Appendix I). The repeated self-corrected pretest and word sort are key pieces showing implementation of research-based instructional strategies.

As dictated by research-based best practices, the subjects received instruction specifically on word spelling strategies. I implemented the Look, Say, Think, and Write method from Templeton and Morris' (1999) at two different times. The first time it was introduced, the students visualized their spelling words to improve their spelling sense. In Week 4, the subjects constructed a Flip Folder to provide themselves with a convenient way to implement Look, Say, Think, Write (Gentry, 2004a). The three-flap design allowed the list of words to be under the first flap, and the second and third flaps for testing themselves as needed.

The next word spelling strategy involved repetition and oral spelling. During Week 2, the students challenged each other to a game of *Spelling Tic Tac Toe*. On a student's turn, they are asked to orally spell one of their words. If they spell the word correctly, they place their mark on the game board. The game offered repeated exposure to the words. These two spelling strategy interventions strengthened Student A's ability to practice her words independently and with automaticity.

In January 2018, Student A took the Elementary Spelling Inventory again. Comparing the August 2017 and January 2018 posttests showed only a few differences. Student A remained in the Middle Suffix and Affix Stage. This was not surprising because students typically progress through this stage from grades three to six. Student A made progress using one more unaccented final syllable than she did in the first test. On

the contrary, she misspelled an inflected ending that she spelled correctly in pretest. For this field project's purpose, the spelling inventory retest was not a negative factor because of the time-lapse between test sessions and because the goal of project was not to prove student achievement.

Student B

Student B is a six-year-old girl in the first grade. I administered the Primary Spelling Inventory in August 2017 and The Monster Test in December 2017 as pretests to determine her developmental spelling level. The results of her Primary Spelling Inventory were not descriptive because of her limited orthographic knowledge. She became frustrated easily and only completed the first five words of the test. She demonstrated that she could spell CVC words accurately. The student was unable to spell *hope* but rather spelled *hop* showing her unfamiliarity with CVCe pattern. She levelled into the Early Letter-Name Alphabetic Stage of spelling development according to Bear, Invernizzi, Templeton, and Johnston (2016). Complete test results recorded in Appendix J.

According to the Monster Test developed by Gentry (2004a), Student B performed in Phase 3 or the Phonetic Stage of her orthography development. She assigned letters to the sounds she heard in a word on a one to one basis. She does not have any conventional spelling patterns memorized. For example, she wrote *hict* for the word *hiked*. When analyzing the phonemes, the student identified four sounds and wrote a letter for each without considering the CVCe pattern or inflected endings. Figure 4 shows her spelling of the words *bumped* and *type*. Aside from her letter reversals, the student assigned one letter for every sound she identified. She failed to identify the *m* in

bumped. The results of these two tests agree because the results indicate that the student can assign one sound per letter and write words with initial, medial, and final sounds.

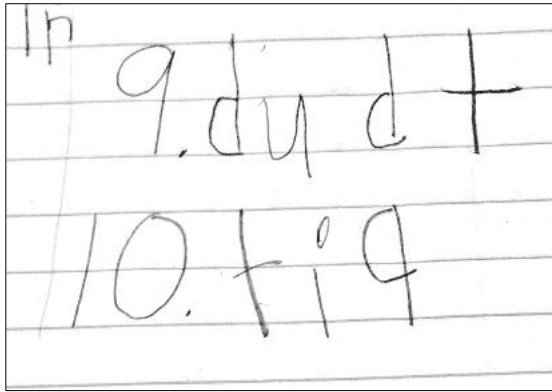


Figure 4. Student B assigns one letter per sound.

To meet the first goal of the field project, I took weekly writing samples. Writing samples show which skills the student can use independently. I analyzed these samples for spelling capabilities and utilized them to select a unit in the spelling curriculum resource. Figure 5 shows a writing sample collected before field project implementation. The student writes, *wlwdr wooman gos to fite evry nite. She livs at the casl. The End.* The conventional spelling for these sentences is: Wonder Woman goes to fight every night. She lives at the castle. The End. This sample shows that Student B can use initial and final sounds, has an early understanding of vowel sounds, and has some sight word knowledge. I decided that these examples of orthographic understanding validated that Student B progress out of the alphabetic portion of the spelling curriculum resource. She began with the CVC spelling pattern.

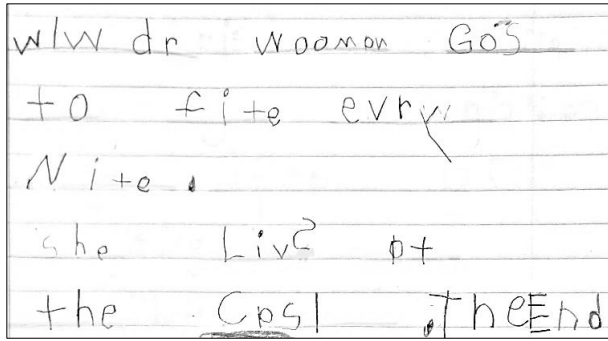


Figure 5. Student B uses CVCe

During Week 3, the student began taking a word from her writing and adding it to her spelling word list. This new initiative supports the student's ownership over their learning and self-assessment skills. The writing sample in Figure 6 shows her misspelling of the word *white* as *wite*.

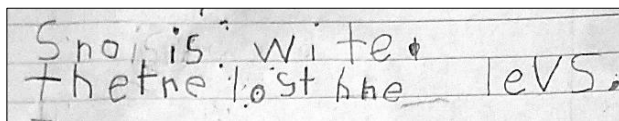


Figure 6. Student B misspells *white* as *wite*.

Each week, Student B started with a pretest. After completing the pretest, she corrected misspellings. Her pretests and test exhibit a mastery of the CVC pattern in Weeks 1 and 2. I adjusted her spelling list to reflect her ability in Week 3. I chose to use the curriculum resource section that reviewed all the short vowels and the CVC patterns together. This is an example of flexibly using a curriculum resource with the student's orthographic knowledge to determine the words studied. Next, Figure 7 shows the most dramatic growth in sight words for Student B with the words *was*, *of*, and *are* during Week 4. The student still made typical letter reversals which show developing knowledge of how the letter themselves are formed. The student showed her ability to learn new words that cannot be written by sounds alone. When students add sight words to their personal lexicon they can read and write more fluently (Gentry, 2004a). Overall,

Student B's performance on her pretests and posttests was indicative of her developmental spelling level showing alphabetic knowledge and increasing ability to learn sight vocabulary.

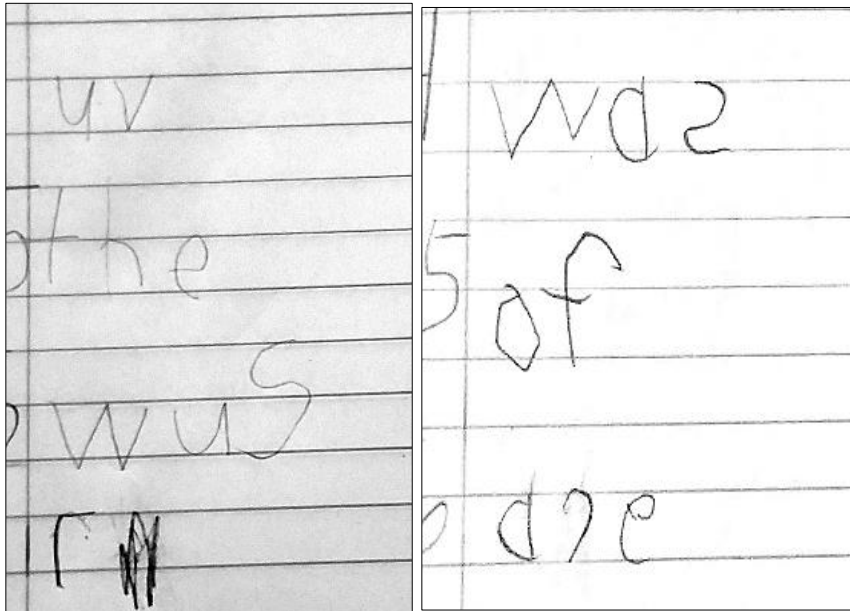


Figure 7. Orthographic growth from weekly pretest to posttest.

During word study, I instructed Student B on word sorting. In Figure 8, Student B used word cards and isolated the words in the -et family. Then in Figure 9, she recorded her word sort. This picture also shows the results of the weekly mini-lesson which focused on onsets and rimes. The student replaced the onset to make words with the -et family. The mini-lesson and word sort process occurred each week as written in the Weekly Lesson Plans and transcripts are provided in Appendix F. This part of the implementation of the research-based spelling instruction challenged Student B to compare words and sort them according to kind and meets the first goal of my field project.



Figure 8. Student B substitutes onsets with the -et word family

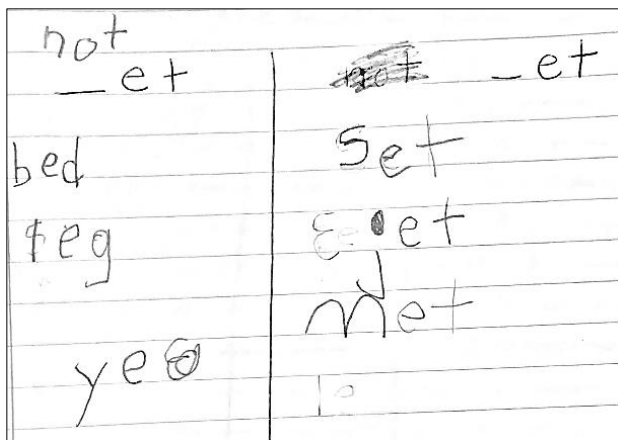


Figure 9. Student B sorts words.

I also compared her *Monster Test* with her second Primary Spelling Inventory (PSI) and *The Tile Test* from January 2018. On the posttest PSI, Student B exhibited the ability to use CVCe, digraphs, and initial blends. In Figure 10, she demonstrated correct use of the digraph *sh* in *shine*. In number eleven, in her attempted to spell *dream*, she uses the CVCe pattern. In number 12, she correctly spelled *blade* showing her understanding again of CVCe and ability to segment an initial blend. Finally, she implemented the CVCe pattern in her attempt to spell *coach* and uses the digraph *ch*. This posttest indicated her progression to the Early Within Word Pattern Stage.

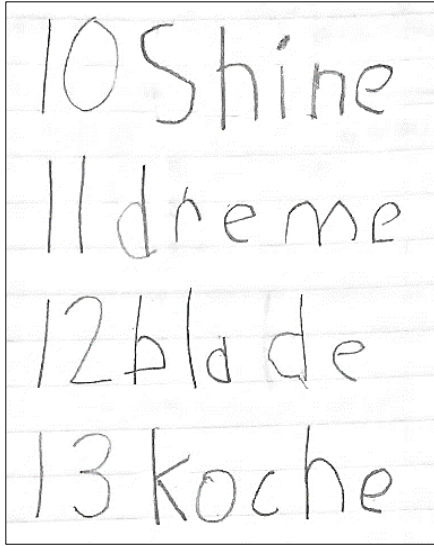


Figure 10. Student B uses the CVCe pattern and diagraph *sh*.

The results from *The Tile Test* (Norman & Calfee, 2004) found that the student had strong alphabetic knowledge and a surface understanding of the way her mouth produced sounds. The *Tile Test*'s purpose, as described in Chapter 2, is to understand the student's knowledge of orthography through word study and their explanation of their orthographic knowledge. This confirmed that Student B had mastered the CVC pattern and most CVCe words found in the Primary Spelling Inventory. As part of the word study portion of the test she recognized that she only needed to replace one new tile to make the word *pat* from *sat*. The results of this test indicate that the student identified grade level appropriate high frequency words. When describing her pronunciation of words, the student concentrated her description on how the front of her mouth moved but did not mention the feelings in the back of her throat like is common with a guttural sound. To describe her pronunciation of the made-up word *wembick* she only addressed the /w/ and said, "it goes little then big." *The Tile Test* and Primary Spelling Inventory found that the student progressed in her orthographic knowledge and is at grade level.

Chapter IV: Reflective Essay

Introduction

In this section, I take the opportunity to reflect on the field project. The motivation for this field project's design and implementation was to empower teachers, like myself, to provide research-based spelling instruction. I set out to describe research-based instructional strategies, record and analyze implementation of these strategies, and share these results with other educators.

Conclusions

Implementation of Instructional Strategies

To begin the implementation of instructional strategies I determined the developmental spelling level of my subjects. The Elementary and Primary Spelling inventories with their attached analysis record sheets were informative and appropriate for grades one through eight. Along with the Monster Test, these two made a good pair for informing instruction. But, since Student B was not able to complete the Primary Spelling Inventory, the use of an inventory to test her alphabetic knowledge would have provided more information about her starting knowledge base of spelling.

I learned how to evaluate spelling curricula with a detailed checklist of research-based criteria. *Spelling Connections* (Gentry, 2004c) was a satisfactory resource. The word lists progressed in a logical way and matched the subjects' abilities well. The words were also grouped to facilitate word sorting and therefore allowed students to investigate orthography.

I used bi-weekly mini-lessons to focus students' attention on the traits of the words they studied and challenged them to commit the words to memory. Studying words

in this way fostered connections between words and helped students to spell by analogy. I noted in my Week One reflection that my goal was limiting the spelling instruction period to fifteen-minutes. This goal challenged me to effectively plan and implement my instruction to ensure that the students had an opportunity to interact with their spelling words every day.

Record and Analysis of Implementation

The research portion of the field project broadened my understanding about how people learn to spell. Then, conducting the field project challenged me to put research into practice. Recording and analyzing implementations of tests and strategies challenged my own understanding of orthography. To analyze the subjects' spelling, I considered the different layers of orthography (alphabetic, pattern, and meaning) and applied it to the students' spelling.

Documenting the subjects' test results, writing samples, and word sorts provided a diverse sample of their understanding. I learned that a student can spell the same word different ways on different days and that is normal. Adding a qualitative reading inventory would give a teacher an even clearer picture of their development. The final comparison of the subjects' developmental spelling inventories identified appropriate next steps to improve student learning outcomes.

Expected Results for Implementation

By Week Three of our routine I noted that the subjects worked more independently. A set structure supported subjects' engagement with their words without needing daily whole group instruction. This is important because in a classroom setting a teacher cannot work with every student for the entire instructional block on their

individualized word list. For differentiated instruction to succeed, students must have meaningful word study activities that they can accomplish with partial independence.

Although the limited scope of this project prohibits me from drawing sweeping conclusions for every instructional situation, the specificity of this method provided a concrete example for every teacher. This project, when combined with other research and literature, provides teachers and administrators with the evidence needed to improve spelling instruction with research-based strategies.

Recommendations

Educators need professional development and applicable research to understand the benefits of research-based spelling instruction. By outlining the correlation between spelling and reading and writing, stakeholders will see the need to investment time and resources into this pedagogical shift. Teachers need to have professional development and spelling curriculum resources available to support their implementation of research-based practices. Through this change in practice, individualized spelling instruction is viable in the classroom.

A time block that needs to be noted in the weekly routine is a teacher preparation block, even though this will happen outside of class time. To implement research-based instruction teachers need time to analyze each student's pretest and posttest results. These results guide teachers to choose the next appropriate list and work alongside students to identify words from their writing or spelling dictionary.

Further research is conducted to determine what level of difficulty is appropriate for a student to be challenged with on a pretest. If the student misspells only two words out of ten, should that be considered worthy of a whole week of study? Or should the

teacher administer a new list? Results from this research would guide teachers in navigating their student's developmental level even more effectively.

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Appendix A: Checklist for Comparing Spelling Curricula

Gentry (2004a)

Checklist for Comparison of Spelling Books		
Question	Yes	No
1. Does the program have an author who has demonstrated expertise in spelling instruction?		
2. Does the program have a publication date?		
3. Are the theoretical and research bases of the program explicitly stated?		
4. Does the program differentiate instruction?		
5. Is there information included to help adjust for children who speak English as a second language?		
6. Does the program allow for review or recycling words?		
7. Is the teacher required to do lots of work to implement the program because resources are not provided?		
8. Is a developmentally appropriate word list provided?		
9. Does the program supply above, on, and below grade-level words for each weekly unit?		
10. Does the program allow for individualized instruction by allowing children to add misspelled words from their writing to weekly study?		
11. Does the program follow the test-study-test format?		
12. Does the program include research-based techniques? (List them in the Yes box)		
13. Does the program connect to authentic reading and writing?		

Appendix B: Primary Spelling Inventory

The Primary Spelling Inventory (PSI) is used in kindergarten through third grade. The 26 words are ordered by difficulty to sample features of the letter name–alphabetic to within word pattern stages. Call out enough words so that you have at least five or six misspelled words to analyze. For kindergarten students or other emergent readers, you may only need to call out the first five words. In late kindergarten and early first-grade classrooms, call out at least 15 words so that you sample digraphs and blends; use the entire list for late first, second, and third grades. If any students spell more than 22 words correctly, you may want to use the Elementary Spelling Inventory. Using the following list, call out the spelling word, then the sample sentence, then repeat the spelling word.

1. fan A fan will keep you cool on a hot day. Fan
2. pet I have a pet cat who likes to play. pet
3. dig Let's dig a hole in the sand. Dig
4. rob A raccoon will rob a bird's nest for eggs. rob
5. hope I hope you will do well on this test. Hope
6. wait You need to wait for the letter. Wait
7. gum I stepped on some bubble gum. Gum
8. sled The dog sled was pulled by huskies. Sled
9. stick I used a stick to poke in the hole. stick
10. shine He rubbed the coin to make it shine. shine
11. dream I had a funny dream last night. dream
12. blade The blade of the knife was very sharp. Blade
13. coach The coach called the team off the field. coach
14. fright She was a fright in her Halloween costume. fright
15. chewed The dog chewed on the bone until it was gone. chewed
16. crawl You will get dirty if you crawl under the picnic table. crawl
17. wishes In fairy tales, wishes often come true. wishes
18. thorn The thorn from the rosebush stuck me. thorn

19. shouted They shouted at the barking dog. shouted
20. spoil The food will spoil if it sits out too long. spoil
21. growl The dog will growl if you bother him. growl
22. third I was the third person in line. third
23. camped We camped down by the river last weekend. camped
24. tries He tries hard every day to finish his work. tries
25. clapping The audience was clapping after the program. clapping
26. riding They are riding their bikes to the park today. riding

Bear, Donald R.; Marcia A. Invernizzi; Shane Templeton; Francine A. Johnston. *Words Their Way: Word Study for Phonics, Vocabulary, and Spelling Instruction* (Words Their Way Series). Pearson Education. Kindle Edition.

Appendix C: Elementary Spelling Inventory

Elementary Spelling Inventory (ESI)

The Elementary Spelling Inventory (ESI) covers more stages than the PSI. You can use it as early as first grade, particularly if a school system wants to use the same inventory across the elementary grades. The 25 words are ordered by difficulty to sample features of the letter name–alphabetic to derivational relations stages. Call out enough words so that you have at least five or six misspelled words to analyze. If any students spell more than 20 words correctly, use the Upper-Level Spelling Inventory to get a more accurate estimate of a student’s ability; at the upper level, the ESI can overestimate the stage.

1. bed I hopped out of bed this morning. bed
2. ship The ship sailed around the island. ship
3. when When will you come back? when
4. lump He had a lump on his head after he fell. lump
5. float I can float on the water with my new raft. float
6. train I rode the train to the next town. train
7. place I found a new place to put my books. place
8. drive I learned to drive a car. drive
9. bright The light is very bright. bright
10. shopping She went shopping for new shoes. shopping
11. spoil The food will spoil if it is not kept cool. spoil
12. serving The restaurant is serving dinner tonight. serving
13. chewed The dog chewed up my favorite sweater yesterday. chewed
14. carries She carries apples in her basket. carries
15. marched We marched in the parade. marched
16. shower The shower in the bathroom was very hot. shower
17. bottle The glass bottle broke into pieces on the tile floor. bottle

18. favor He did his brother a favor by taking out the trash. favor
19. ripen The fruit will ripen over the next few days. ripen
20. cellar I went down to the cellar for the can of paint. cellar
21. pleasure It was a pleasure to listen to the choir sing. pleasure
22. fortunate It was fortunate that the driver had snow tires. fortunate
23. confident I am confident that we can win the game. confident
24. civilize They wanted to civilize the forest people. civilize
25. opposition The coach said the opposition would be tough. opposition

Bear, Donald R.; Marcia A. Invernizzi; Shane Templeton; Francine A. Johnston. *Words Their Way: Word Study for Phonics, Vocabulary, and Spelling Instruction* (Words Their Way Series). Pearson Education. Kindle Edition.

Appendix D: Weekly Spelling Plans***WEEKLY SPELLING LESSON PLAN STRUCTURE***

<i>Monday-</i>	<p>Administer pretest. Student self-correct pretest.</p> <p>Check spelling</p> <p>Make sorting cards. Teacher check cards for accuracy.</p>
<i>Tuesday</i>	<p>Teacher mini-lesson on spelling word attributes.</p> <p>Word sorting activities.</p> <p>Record word sort</p>
<i>Wednesday</i>	<p>Spelling book activities as applicable</p>
<i>Thursday</i>	<p>Teacher mini-lesson relating words to broader topic and spelling strategies.</p> <p>Look, Say, Think, Write</p>
<i>Friday</i>	<p>Spelling test. Student correct.</p> <p>Update personal spelling dictionary</p>

WEEK ONE – STUDENT A

Monday-	Administer pretest. Unit 14, page 86. Consonants: /j/, /s/ Student self-correct pretest. Review words with student to ensure comprehension. Make sorting cards for weekly word study. Teacher check cards for accuracy.
Tuesday	Mini-lesson: Help student infer <i>Spelling Strategy</i> for the week through word sort. The /j/ sound in age is spelled g, followed by an e. The /s/ sound in ice and city is spelling c followed by e or i. Word sorting activities. Record word sort on paper.
Wednesday	Spelling Book pg. 87 #1-15 These activities focus on analyzing the structure of the spelling words or checking the student's understanding of their meaning.
Thursday	Mini-lesson: Review spelling strategy: Look, Say, Think, Write. Student practice: Look, Say, Think, Write *record lesson for transcript.
Friday	Spelling test. Student correct. Update personal spelling dictionary with incorrect words from test and erase words that the student has mastered.

Spelling words:

Change, fence, space, age, center, large, since, price, page, ice, dance, pencil, slice, place, city

WEEK ONE – STUDENT B

Monday-	<p>Administer pretest- Unit 2, pg. 41. Short a.</p> <p>Student self-correct pretest.</p> <p>Review words with student to check comprehension.</p> <p>Trace sorting cards for weekly word study. Teacher check cards for accuracy.</p>
Tuesday	<p>Mini-lesson: the student will learn that when a word has one vowel it is usually short .</p> <p>Practice segmenting phonemes of the spelling words.</p> <p>Word sorting activities.</p> <p>Guide student to sort words two different ways.</p> <p>Record one word sort on paper.</p> <p>*record lesson for transcript</p>
Wednesday	<p>Spelling book pg. 41 #1-6.</p> <p>These activities focus on recognizing the short /a/ sound in the initial or the medial position.</p>
Thursday	<p>Mini-lesson: Review spelling strategy: Look, Say, Think, Write.</p> <p>Student practice: Look, Say, Think, Write.</p>
Friday	<p>Spelling test. Student correct.</p> <p>Update personal spelling dictionary with incorrect words from the test and erase words the student has mastered.</p>

Spelling words:

Am, at, cat, hat, has, and

WEEK TWO – STUDENT A

Monday-	Administer pretest. Unit 15, page 92. Diagraphs, Clusters Student self-correct pretest. Review words with student to ensure comprehension. Make sorting cards for weekly word study. Teacher check cards for accuracy.
Tuesday	Mini-lesson: Help student infer <i>Spelling Strategy</i> for the week through word sort. A consonant diagraph are two or more consonants together than spell one new sound. Two or more consonants together that make more than one sound are called consonant clusters. Word sorting activities. T Record word sort on paper.
Wednesday	Spelling Book pg. 94 #1-15 These activities focus on connecting spelling words to tangible definitions.
Thursday	Mini-lesson: Introduce Flip Folder spelling strategy. *record lesson for transcript.
Friday	Spelling test. Student correct. Update personal spelling dictionary with incorrect words from test and erase words that the student has mastered.

Spelling words:

Shook, flash, fresh, splash, speech, stitch, stretch, strong, string, spring, think, cloth, brook

WEEK TWO – STUDENT B

Monday-	Administer pretest- Unit 2, pg. 49. Short e. Student self-correct pretest. Review words with student to check comprehension. Trace sorting cards for weekly word study. Teacher check cards for accuracy.
Tuesday	Mini-lesson: the student will manipulate onsets and rimes. Begin with –et family. Student will practice substituting different onsets using picture cards for cues. Word sorting activities. Guide student to sort words two different ways. Record one word sort on paper. *record lesson for transcript
Wednesday	Spelling book pgs. 50-51. These activities focus on recognizing that matching word families result in rhyming pairs.
Thursday	Mini-lesson: Introduce Flip folders. Student practice making flip folders.

Friday	Spelling test. Student correct. Update personal spelling dictionary with incorrect words from the test and erase words the student has mastered.
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Spelling words:

Jet, set, met, bed, yes, leg.

WEEK THREE – STUDENT A

Monday-	Administer pretest. Unit 16, page 98. The Schwa Sound Student self-correct pretest. Review words with student to ensure comprehension. Make sorting cards for weekly word study. Teacher check cards for accuracy.
Tuesday	Mini-lesson: Help student sort words according to number and placement of schwa sound as suggested in curriculum resource. Help student recognize that the schwa sound can be spelled with an a, u, or e. Word sorting activities. Record word sort on paper.
Wednesday	Watch this video . Play this game to recognize schwa words in new words by reading them.
Thursday	Spelling test. Student correct. Update personal spelling dictionary with incorrect words from test and erase words that the student has mastered.

Friday	HOLIDAY
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Spelling words:

Afraid, around, upon, never, open, animal, ever about again, another, couple awake, over, asleep, above

WEEK THREE – STUDENT B

Monday-	<p>Administer pretest- Unit 13, pg. 85. Short vowel review.</p> <p>Student self-correct pretest.</p> <p>Review words with student to check comprehension.</p> <p>Trace sorting cards for weekly word study. Teacher check cards for accuracy.</p>
Tuesday	<p>Mini-lesson: the student will review short sounds using alphabet picture cards.</p> <p>Student will sort words according to short vowel sounds.</p> <p>Record one word sort on paper.</p> <p>*record lesson for transcript</p>
Wednesday	<p>Spelling book pgs. 85-87.</p> <p>These activities focus on recognizing the different short vowels in words through pictures and word clues</p>

Thursday	Spelling test. Student correct. Update personal spelling dictionary with incorrect words from the test and erase words the student has mastered.
Friday	HOLIDAY

Spelling words:

Bad, yet, fix, dot, hug, tub.

WEEK FOUR – STUDENT A

Monday-	Administer pretest. Unit 19, page 116. The /o/ sound (aw, o). Student self-correct pretest. Review words with student to ensure comprehension. Find two words from student's writing to add to list. Make sorting cards for weekly word study. Teacher check cards for accuracy.
Tuesday	Mini-lesson: Relate story of the boss in the straw hat to teach students the /o/ sound that they are studying. Differentiate the position or the /o/ sound in words. Word sorting activities. Record word sort on paper.
Wednesday	Complete pages 117-118 to solidify sound placement and meaning of words. Exercises focus on taking sounds in words apart and using their meaning in a sentence.

Thursday Mini lesson: Spelling strategy- look say cover write.
Make flip folder with student. Scaffold them to efficiently study words.

Friday Spelling test. Student correct.
Update personal spelling dictionary with incorrect words from test and erase words that the student has mastered.

Spelling words:

Draw, cost, down, across, belong, cross, soft, crawl, song, boss. Straw, lawn, raw, lost, law.

WEEK FOUR – STUDENT B

Monday- Administer pretest- Unit 14, pg. 89. Words writers use.
Student self-correct pretest.
Review words with student to check comprehension.
Choose one additional word from student's writing.
Trace sorting cards for weekly word study. Teacher check cards for accuracy.

Tuesday Mini-lesson: the student will review words with instructor and find them in storybook.
Student will choose categories and sort.
Record one word sort on paper.
*record lesson for transcript

Wednesday	Spelling book pgs. 91. These activities focus on using the words correctly in a sentence.
Thursday	Mini lesson: Spelling Strategy: Look, say, cover, think, write. Make flip folder together.
Friday	Spelling test. Student correct. Update personal spelling dictionary with incorrect words from the test and erase words the student has mastered.

Spelling words:

A, I, to, of, the, was, are.

Appendix E: Completed Checklist for Comparing Spelling Curricula

Checklist for Comparison of Spelling Books- <i>Words Their Way</i>		
Question	Yes	No
1. Does the program have an author who has demonstrated expertise in spelling instruction?	x	
2. Does the program have a publication date?	x	
3. Are the theoretical and research bases of the program explicitly stated?	x	
4. Does the program differentiate instruction?	x	
5. Is there information included to help adjust for children who speak English as a second language?	x	
6. Does the program allow for review or recycling words?	x	
7. Is the teacher required to do lots of work to implement the program because resources are not provided?		x
8. Is a developmentally appropriate word list provided?	x	
9. Does the program supply above, on, and below grade-level words for each weekly unit?	x	
10. Does the program allow for individualized instruction by allowing children to add misspelled words from their writing to weekly study?	x	
11. Does the program follow the test-study-test format?	x	
12. Does the program include research-based techniques? (List them in the Yes box)	Word study Word sort Developmental	
13. Does the program connect to authentic reading and writing?		x

Bear, R. B., Invernizzi, M., Templeton, S., & Johnston, F. (2016). *Words their way*. [Kindle DX version]. Retrieved from Amazon.com

Checklist for Comparison of Spelling Books- <i>A Reason for Spelling!</i>		
Question	Yes	No
1. Does the program have an author who has demonstrated expertise in spelling instruction?		x
2. Does the program have a publication date?	x	
3. Are the theoretical and research bases of the program explicitly stated?	Stated but not cited	
4. Does the program differentiate instruction?	x	
5. Is there information included to help adjust for children who speak English as a second language?		x
6. Does the program allow for review or recycling words?		x
7. Is the teacher required to do lots of work to implement the program because resources are not provided?		x
8. Is a developmentally appropriate word list provided?	x	
9. Does the program supply above, on, and below grade-level words for each weekly unit?	x	
10. Does the program allow for individualized instruction by allowing children to add misspelled words from their writing to weekly study?	x	
11. Does the program follow the test-study-test format?	x	
12. Does the program include research-based techniques? (List them in the Yes box)	Study help Self correction Deve. lists	
13. Does the program connect to authentic reading and writing?	x	

Burton, R., Hill, E., & Sutherland, K. (2000). *A reason for spelling*. Siloam Springs, AR: The Concerned Group.

Checklist for Comparison of Spelling Books- <i>Spelling Connections</i>		
Question	Yes	No
1. Does the program have an author who has demonstrated expertise in spelling instruction?	x	
2. Does the program have a publication date?	x	
3. Are the theoretical and research bases of the program explicitly stated?	x	
4. Does the program differentiate instruction?	x	
5. Is there information included to help adjust for children who speak English as a second language?	x	
6. Does the program allow for review or recycling words?	x	
7. Is the teacher required to do lots of work to implement the program because resources are not provided?		x
8. Is a developmentally appropriate word list provided?	x	
9. Does the program supply above, on, and below grade-level words for each weekly unit?	x	
10. Does the program allow for individualized instruction by allowing children to add misspelled words from their writing to weekly study?	x	
11. Does the program follow the test-study-test format?	x	
12. Does the program include research-based techniques? (List them in the Yes box)	Phonemic aw. Sound symbol aw. developmental	
13. Does the program connect to authentic reading and writing?	x	

Gentry, J. R. (2004). *Spelling connections*. Columbus, OH: Zaner-Bloser Inc.

Appendix F: Transcripts of mini-lessons

Instructor (I)

Student A (A)

Student B (B)

Week One- Mini-lesson 1

I: This is December 5, 2017, Student B mini-lesson 1. Here are your spelling words. Let's read them together: am,

B: at, cat, hat, has, and.

I: So when you make the /a/ sound, in all of these words, what do you notice about where the sound is coming from in your mouth?

B: /a/ /a/ /a/

I: Are you pointing to your throat? Is it way back in your throat? I notice that your mouth is open wide. So, what do you think? We've learn about the long and short sounds of vowels before: is this the long or the short sound?

B: short.

I: It is the short sound. Now, I want you to look at your spelling words here. How many vowels (a,e,i,o,u) do these words have? [pause] Let's start with am. How many vowels does it have?

B: 2, a and m

I: M is actually a consonant. The vowels are a, e, i, o, or u. So, let's look at the word as.

B: a, e, i, o, u.

I: So how many does it have?

B: 1.

I: What about for the word cat?

B: Will you say them again?

I: a, e, I, o, u.

B: a.

I: So that's just one. How about for the word hat?

B: 1

I: has?

B: 1

I: And and?

B: 1

I: So, what do all of these words have in common?

B: The one a.

I: They only have one vowel. This is something you should know about spelling. When there is only one vowel in a word it usually has the short sound. So the short sound for a is /a/. Do you remember what the short sound for e is? [pause] Is it /ee/ or /e/?

B: /e/ /e/

I: What about for the letter i?

B: /i/ /i/ /i/

I: What about for the letter o?

B: /o/ /o/ /o/

I: and the letter u?

B: /u/ /u/

I: Wow you know a lot of reading and spelling. Now that we've done this I want you to help me sort our words so that we can notice more things about them. So, we've never done a sorting activity before so let's do this together. I'm going to give you some categories or ways that we can sort it. On the left side of the board I'm going to write a space and the letters a, t. So that would be the sounds /at/. And then on the other one, I'm going to make this odd ball.

B: Can I show you something?

I: Sure. Go ahead

B: [grabs cards]

I: So now we're going to actually physically move the cards and you can separate them on the boards. Does this one fit in this category or is it an odd ball? You have the word am.

B: It's not an odd ball.

I: Does it have an /at/ at the end?

B: Yeah

I: Where? Let me see. We're not talking about the word cat now, we're talking about the word am. Where would you sort it?

B: Here [points to odd ball column]

I: Grab another one of your spelling words.

B: It goes here.

I: You're right. You put the cat under the -at category. Okay, what's next? We are sorting our words.

B: Hat. So, it goes there.

I: That one is backwards. Why don't you turn it over? It is h-a-s.

B: h-a-s. /h/ /a/ /s/. Has. It goes here.

I: Yes, it goes in the odd ball category. And now you put and in the odd ball category.

B: No

I: Yes, these don't all have to be the same but we are sorting the ones that fit in with the -at, or the ones that don't. So what about and? Does that sound the same as at? Cat and hat?

B: [nods]

I: Why do you think that?

B: Because it still has the /a/ sound.

I: Well you chose to am over in the odd ball category.

B: Oh.

I: Should we move this one?

B: Yeah.

I: Because this one needs to have /a/ /t/. So while you were reading your words, I noticed that you were able to break down the sounds that you heard in the word. Can you break down the sounds in the word has?

B: /h/ /a/ /t/- has.

I: So that is one of the ways that we can read. We can look at the sounds individually. And as you get to read more remember that you're going to start chunking sounds together that you already know. Okay? So I'm going to have you copy down your word sort in your writing folder.

Week One- Mini-lesson 2

I: Today we're going to talk about a specific way you could study your spelling words to help yourself remember them because even though sometimes you can read your spelling words really easily it is hard exactly to remember the way to spell it.

Sometimes we look at patterns and you try to remember the pattern. But today we going to try: look, say, think, write. Look, say, think, write. Can you say that? Look, say, think, write.

So we have your spelling list here in front of you, we'll look at the top of your list. You will say it. Then you will cover it in your book with this card. And think about then write it.

Okay so, [Student A] what is your first spelling word?

A: change

I: so now, I want you to look at it. Are you thinking about? Now you need to next to number one try to write it.

Read your word. Look at it. Say it. Think about it and then write it right here.

How did you do?

A: space

Week 2- Mini-lesson 1

I: Good morning! Will you begin by reading your words for me? Just try your best.

B: /m/ /e/ /t/- met. Jet, leg, dad, yes,

I: Will you reread this word for me?

B: /b/ /e/ /d/ bed

I: Great! So now what we're going to practice today is taking some of these words and adding in a new letter. We are going to substitute a new first sound. So all of these words have something in common.

B: E!

I: Yes, is there something else in common as well?

B: T!

I: Yes, so they have -et. So if you were to cover up everything but the end of the word what sound would it make?

B: -/e/ /t/

I: Can you say that together as a chunk?

B: /et/

I: /et/ So Sometimes we would say that this is the /et/ word family. I am going to draw you a little house.

B: An /et/ house.

I: See, you already have the right idea. We already have jet, set, and met. And if we take those first sounds off, And the first sound of a word is called the initial sound.

B: Can I do it?

I: Sure, write -et right here. Now can you put a little blank because we are going to be adding a sound right there?

B: A blank?

I: Yes like a dash or a minus sign because we are going to be adding a sound there. Now maybe should we say the abc's and see if any of those letters would fit in there? A, I don't think would be a good choice. What about b?

B: /b/ /e/ /t/? Bet?

I: Is that a real word?

B: Bet, bet.

I: I bet you could write bet in our house.

B: So I have to write it again. Big b or little b?

I: Doesn't matter. Ok, so you have b- bet. C, D, E, F, G. How about g? Could you put g in there?

B: /j/

I: /g/

B: /g/e/t/ get get. I get ice cream!

I: Good sentence. H, I, J, we already have j for jet. L, What if we put in L? If you substitute l in? l-e-t

B: /l/ /e/ /t/. Let! I let you teach me!

I: I let you get some ice cream? Okay, and then we already have met. What about n?

B: let's try. N, up down up and then an e.

I: What word is that?

B: net!

I: N, O, P. I bet you're going to love that word.

B: p, e, t. pet. Pet. When can we have a pet?

I: Good question. Net, pet, set.

B: What about bet?

I: I bet you want to get a pet?

B: But we already have bet.

I: I know but I was using all of the words that we already have in one sentence. Can you think of any other ones?

B: bet, chet, chet,

I: Can you use chet in a sentence?

B: I chet ice cream?

I: You're being silly, that's a made up word.

Week Two: Mini-lesson 2

I: Okay, today we are going to play Spelling Tic Tac Toe. The first thing that we need to do is find a partner and draw a tic tac toe grid on your paper. Are you guys ready?

A: Yes.

B: Yes

I: Please trade spelling lists. Student A you get Student Bs list. And you get her list. Why don't we start on this piece of paper? Next, what we will do one of you will be exes and one of you will be ohs. Which is ohs.

A: I'll be ohs.

B: I want to be ohs.

A: Okay, I'll be exes.

I: Okay great, so now, Read the the first word on you partner's list out loud. Your partner should spell the word out loud while you use the list to check the spelling. If your partner is correct, he should write an ex or an oh on the tic tac toe grid. If your partner is not right you should spell the word for your partner. Then you will trade jobs. Keep taking turns until you or your partner make three exes or three ohs on the grid. If you fill up the board before either of you makes a line, start again. First of all, lets find a way for you to hide your partner's list. Are you going to set it by you or behind you? Are you going to tip it up in your lap? What are you going to do?

A: I'm going to use this to cover it.

I: But everyone is going to be using this to write exes or ohs.

B: I'm just going to put it on the side.

I: Would you please say one of your partner's words?

A: jet.

B: j-e-l

I: Is she correct?

A: No.

I: So now you spell it back to her.

A: j-e-t.

B: I was right with the j and e.

I: You were. Now you read this word, shook.

B: Shook.

A: s-h-o-o-k.

B: You're right.

I: Now she gets to put her ex or oh on the grid.

A: ex.

I: Now you go ahead and read her the next word.

A: set

B: S-e-t

A: correct

I: You read another word to her. Speech.

B: Speech.

A: s-p-e-a-c-h

B: no

I: Now you spell it out for her.

B: No, it's s-p-e-e-c-h.

A: met

B: m-e-t

A: correct

I: Go ahead and put your thing. Go ahead and try that one, spring.

B: Spring.

A: s-p-r-i-n-g

B: yes, I hope that she gets the last one wrong.

I: Is that the nicest thing that you could say?

A: Bed

B: b-e-d

A: correct.

I: She is about to win. You know how to play tic tac toe

A: Don't tell her!

I: I'm not. Please place your oh.

B. I don't want to

I: Where is a place you could possibly win? Now you get to ask her a word.

A: You have to!

I: Scratch

B: Scratch

A: Can I have a piece of paper to write it down?

I: You have to spell it out loud. You can trace it on your hand if you want to.

A: s-c-r-a-t-c-h

B: Right

A: I win

I: Good game!

Week Three: Mini-lesson one

I: Student B, Week 3. Would you please read your words that we have here on the cards?

B: bed

I: Try again it starts with a b.

B: /b/ /a/ /b/

I: That's the d. So you had the b correct, you had the a correct, but that is a d.

B: /b/ /e/ /d/

I: Why are you changing this to an e sound? It is an a.

B: bad

I: Can you use it in a sentence, so I know you know what word it is?

B: Clara is bad because she is Samantha.

I: Please read the next word. Are you having a hard time reading your handwriting?

B: /y/ /e/ /t/

I: yet.

B: Can I write the T a little more. Yet. Not yet I can go away.

I: Okay, go ahead.

B: fix, fix, I fix mama's car.

I: oh, that would be nice, go ahead.

B: /d/ /o/ /t/ dot, hug,

[interruption]

B: /h/ /e/ /d/

I: can you repeat that? It doesn't make sense to me. This is a u.

B: /h/ /u/ /g/ I hug my Mommy close.

I: Thank you, and the last one?

B: /t/ tub. I sit in a warm water of tub.

I: Okay, we're going to do this again. But I want you to try to do it without sounding out each letter. We can start at the bottom. This is the one you just said.

B: tub, hug, dot, fix, and yet.

I: That's the a, so what sound does the a make?

B: bad. I was whispering it to myself.

I: That's fine. That is making you a better reader. Now what we're doing. Actually, I should ask you a question. How confident do you feel with these words?

B: Not very.

I: Why?

B: because they're hard words.

I: They're a little bit hard. Before I thought you were doing so well because you were getting them all right on the pretest, at the beginning of the week on Monday. And you were getting them still right at the end of the week. So I wanted to challenge you a little

more this week. So what we have this week is some words that are short a, you have ones with the o, the i, and the e. One more, what is the other vowel? A e i o u. Today for your word sort I'm going to have you pick up one word at a time and put it in the different columns. Pick a word, any word.

B: Are we doing it this way down?

I: Yes, so read the word to me.

B: tub

I: So which column did you put it in?

B: /u/ column

I: Yes, the letter u that makes the /u/ sound. Can you find any others that would go in the u column?

B: hug

I: Which one would you like to do next?

B: The e column.

I: What word is that?

B: /y/ /e/ /t/ yet

I: Okay, next.

B: /f/ /i/ /x/ fix, /d/ /o/ /t/ dot.

[interruption]

B: dad

I: bad

B: /a/!

I: This is really good for you because you're going to have to focus on learning the b and the d and how to spell the words. So now that we have sorted the words, do you have any questions about the sounds that the vowels make?

B: no

I: Please copy down our word sort.

Week 4- Minilesson 1

I: Okay, Student B, today we are going to start by reading your words and then you are going to decide how you want to sort them. Please read the list.

B: a, I, to, of, the, what [was], are.

I: Okay, I think you're still getting a little comfortable with these words. Let's practice them one more time with sign language. [a] So what's the next word?

B: I

I: You need to do your pinkie. To. T-O. You need to look at your paper. The next word is the word of.

B: O

I: Is F like this? Now the word the. Will you spell it for me?

B: T-H-E

I: Nice work, and the next word is was, W-A-S. Look at number 7, is the word are. A-r-e. The reason all of these words have been put together is that they will help you to be a good writer. So they are common words that we use to write but don't necessarily follow a pattern. I saw that you were struggling to read the words was and are so we are going to work extra hard on those. I think that you would like to use them in your writing. So, now that we can't follow a pattern to sort our words. What is something else that we could do to sort our words?

B: Sort them by sound?

I: Is there a common sound? Are we going to be able to put them together?

B: [mumbles] no, not really

I: One of the ways I thought we could do it is by how many letters they have. So maybe in one column we could put the words with one letter, two letters, three letters. How does that sound?

B: Yeah! Can I write them now?

I: Please, what word are you starting with.

B: I'm going to go down.

I: Can you please turn your a around?

B: I need an eraser.

I: Can you write it next to it?

B: one

I: One is a number, I is a letter. How could you use this word in a sentence?

B: I love you.

I: Perfect, the next word.

B: to. T-

I: Which column do you need to put that in?

B: [points]

I: Nice work, now next one.

B: the

I: You skipped this one.

B: for

I: What word is that?

B: for!

I: No, open your mouth like the o.

B: /o/ /f/ - off

I: Of

B: of. Is it to or ot?

I: It is o-f. Hook it over on the top so that we know it is an f. So the next word is:

B: the, t-h-e

I: Okay, looks good. And the last two words?

B: Which last? The hard ones both go in the three.

I: w-a-s spells:

B: w-a-s spells was,

I: correct, we don't want to say was.

B: a-r-e is are.

I: Are you my mother?

B: because you are my mother.

I: Are you ready for ice cream?

B: Yes!

I: read me the list one more time.

B: a, I to for, of I meant, the, was, are.

I: Good job, how do you feel about the words now?

B: A little better?

I: We'll come back to them again tomorrow.

B: I just found something that tells me this word. R.

Week four- Mini-lesson 2

I: Today we are going to make a flip folder to help you study your words. The first thing we want to do is make sure, is make sure that we have all our words written under the first flap. Make a line. If our paper is placed here we want to make a line. Even if we close the first flap we can trace along it. You're not opened up to your unit yet. I believe it might be 19.

A: I think it might be 19.

I: So open it back up and what we're going to do, Right here I'm going to write your words for you. Get your list and read your words to me.

B: a

I: circle line, lowercase i.

A: Okay, so what should I do?

I: trace your spelling words on this side of the line.

B: to

I: How do you spell to?

B: t-o, of

I: How do you spell of?

B: o-f

I: that's a new word that you learned this week. What's next?

B: are, a-r-e

I: Okay, what's your next word?

B: waas

[interruption]

I: What is another sound you could put in for the a sound?

B: was

I: Is that a word that you know? What about the /u/ sound?

B: was. W-a-s

I: Now that we have all of our words and we looked at them really well. This is what we do. You are going to say your word and then close this flap, open the second flap and try to write it.

B: Can I try one last time?

I: Nope just give it a try. Okay, now you may check your spelling. What is the next one?

B: I

I: So now we're going to close it. Close your eyes and visualize what it looks like and try to write it from memory. Okay, now open it back up and write it. Now what do you do next?

B: You open the flap and check.

I: So what's the next word?

B: to!

I: Great, now visualize it in your mind.

B: to. O-f.

A: I'm finished with mine.

I: Can you follow the same? Great.

B: are, a-r-e.

I: Okay, close your eyes. Picture it in your mind.

B: I can't. a-r-e.

I: You have a little bit of an issue. You have all the letters, but this is what the letters look like. Try it again, say a-r-e. Now what we're going to do is you are going to try again. So what we do is we close this flap. You got it wrong, so we are going to try again.

B: a-r-e.

I: Now we write it in the third column.

B: why?

I: Because this is your new chance, right here. Okay, are you my mother? We were under the one. Please say this word and spell it out loud.

B: The. T-h-e

I: What do you do next? Student B, I want you to guide this process. What do you do next? You looked at it, you said it out loud and you spelled it then

B: shut it

I: Then you closed the flap,

B: write

I: Did you visualize it in your mind?

B: yep

I: Okay, lets open it up and check. Are you correct or incorrect?

B: Correct.

I: You are correct but one of your letters are backwards.

B: One of them?

I: Yep, which one of them is backwards?

B: h

I: The h, so we're going to do it again. Close this flap. Say it again. Close your eyes.

B: Imagined it. [writing] the h goes towards that.

I: And you know what I noticed. You did a really good job getting you t and h the same height. And your e is half the size.

[interruption]

I: This is the word was.

B: w-a-s spells was

I: except for this one. Let's close the flap, we have the opportunity to practice again.

B: w-a-s spells was.

I: Will you use it in a sentence please?

B: I was cold.

A: I finished

I: How did it go for you? [shrug] Which one was the most challenging for you?

A: None of them.

I: What about your tight and right?

A: They were alright.

I: was

B: what was after was?

I: Close your eyes and imagine it?

A: tight

I: Maybe close your eyes and imagine it. Maybe write it both ways and see which one looks better.

B: It goes towards the a.

I: Correct. Um, no, the other way towards.

A: you can't tell her.

I: This is for her learning, its not the final test. Maybe think of a clock. The s goes counter clockwise. Why don't we face the same direction? I'm going to use both my arms and do the s, do you want to do it with me? So we're going to go counter clockwise.

/ssssssssssssss/

B: /ssssssssssss/ aha!

I: nope. If you're really struggling you go back to the first flap. Do you want to trace over this s?

A: I got all of them right. I'll show you all my flaps.

I: Okay, how would you write the word sight? Great, good job.

Appendix G: Student A test results

Words Their Way Elementary Spelling Inventory Feature Guide
 Student Clara Timmermann Teacher _____ Date 8/30/17
 Grade 3 Words Spelled Correctly: 15 / 25 Feature Points: 51 / 62 Total 66 / 87 Spelling Stage (Early) Syllables and Affixes

Stages and gradations → Features → ↓ Words	Emergent		Letter Name		Within Word Pattern			Syllables and Affixes		Derivational Relations		Feature Points	Wo Spel Corr				
	Late	Early	Middle	Late	Early	Middle	Late	Early	Middle	Late	Early			Middle			
	Consonants Begin, Final	Short Vowels	Digraphs	Bleeds	Long Vowels	Other Vowels	Inflected Endings	Syllable Junctures	Unaccented Final Syllables	Harder Suffixes	Bases or Roots						
1. bed	b ✓	d ✓	e ✓										✓				
2. ship		p ✓	i ✓	sh ✓									✓				
3. when			e ✓	wh ✓									✓				
4. lump	l ✓		u ✓		mp ✓								✓				
5. float		t ✓			fl ✓	oa ✓							✓				
6. train		n ✓			tr ✓	ai ✓							✓				
7. place					pl ✓	a-e ✓							✓				
8. drive		v ✓			dr ✓	i-e ✓							✓				
9. bright					br ✓	igh ✓							✓				
10. shopping			o ✓	sh			pping ✓										
11. spoil				sp		oi											
12. serving						er ✓	ving ✓						✓				
13. chewed			ch ✓			ew ✓	ed ✓						✓				
14. carries						ar ✓	ies	ir									
15. marched			ch ✓			ar ✓	ed ✓						✓				
16. shower			sh ✓	✓		ow ✓			er ✓				✓				
17. bottle							tt ✓	le									
18. favor							v ✓	or ✓					✓				
19. ripen							p ✓	en ✓					✓				
20. cellar							ll ✓	ar									
21. pleasure						or ✓			ure		pleas ✓						
22. fortunate									ate		fortun						
23. confident									ent ✓		confid ✓						
24. civilize									ize ✓	ss	civil						
25. opposition									tion		pos ✓						
Totals	7	17	5	5	5	6	7	17	5	5	4	5	3	5	51	62	15

Words Their Way Elementary Spelling Inventory Feature Guide
 Student Student A Teacher Timmermann Grade 3 Date 1/11/18
 Words Spelled Correctly: 15 / 25 Feature Points: 51 / 62 Total 66 / 87 Spelling Stage Early Syllables and Affixes

Stages and gradations → Features → ↓ Words	Emergent		Letter Name		Within Word Pattern			Syllables and Affixes		Derivational Relations		Feature Points	Words Spelled Correctly		
	Late	Early	Short Vowels	Digraphs	Late	Early	Middle	Early	Middle	Late	Early			Middle	
		Consonants Begin. Final				Blends	Long Vowels	Other Vowels	Inflected Endings	Syllable Junctures	Unaccented Final Syllables	Harder Suffixes	Bases or Roots		
1. bed	b ✓	d ✓	e ✓												
2. ship		p ✓	i ✓	sh ✓											
3. when			e ✓	wh ✓											
4. lump	l ✓		u ✓		mp ✓										
5. float		t ✓			fl ✓	oa ✓									
6. train		n ✓			tr ✓	ai ✓									
7. place					pl ✓	a-e ✓									
8. drive		v ✓			dr ✓	i-e ✓									
9. bright					br ✓	igh ✓									
10. shopping			o ✓	sh ✓					pping						
11. spoil					sp ✓			oi							
12. serving								er ✓	ving ✓						
13. chewed				ch ✓				ew ✓	ed						
14. carries								ar ✓	ies ✓	rr					
15. marched				ch ✓				ar ✓	ed ✓						
16. shower				sh ✓				ow ✓							
17. bottle										tt ✓	er ✓				
18. favor										le ✓	le ✓				
19. ripen										v ✓	or ✓				
20. cellar										p ✓	en ✓				
21. pleasure										ll ✓	ar				
22. fortunate								or ✓				ure	pleas		
23. confident												ate	fortun		
24. civilize												ent ✓	confid ✓		
25. opposition												ize ✓	civil		
Totals	7	17	5	5	5	6	17	3	15	4	15	2	15	51/62	25

Student A Monster test	
12/4/17 2017	
1	Monster
2	united
3	Dress
4	Bottom
5	Hickade
6	Humen
7	egrel
8	closed
9	Bamed
10	tipt

	Student A Pretest	
	Unit 14	12/4/17
1	Engaged	Change Slice
	fence	
2	space	14 place
	age	
3	center	15 City
	Large	
4		A
5		
6		
7	sice	
8	price	
9	page	
	ice	
10		
11	Dance	
12	pencele	
	pencil	

Student A Week one Spelling Test

- | | |
|----|--------|
| 1 | large |
| 2 | space |
| 3 | slice |
| 4 | since |
| 5 | page |
| 6 | city |
| 7 | price |
| 8 | dance |
| 9 | place |
| 10 | fence |
| 11 | age |
| 12 | ice |
| 13 | pencil |
| 14 | change |
| 15 | center |

	Student A Week 2 Pretest
1	shock
2	flash
3	fresh
4	splash
5	speech speech
6	stitch
7	scratch scratch
8	switch
9	stretch
10	strong
11	string
12	spring
13	think
14	cloth
15	brook Brook

Student A W2 Test	
1	splash ♥
2	strengthen ♥
3	switch ♥
4	spring ♥
5	fresh ♥
6	scratch ♥
7	stringer ♥
8	stitch ♥
9	brook ♥
10	cloth ♥
11	stronger ♥
12	think ♥
13	speech ♥
14	flash ♥
15	shook ♥

SA W3 Pretest

Unit 6

1 afraid

2 around

3 upon

4 never

5 open

6 animal animal

7 ever

8 about

9 again again

10 another

11 couple couple

12 awake

13 over

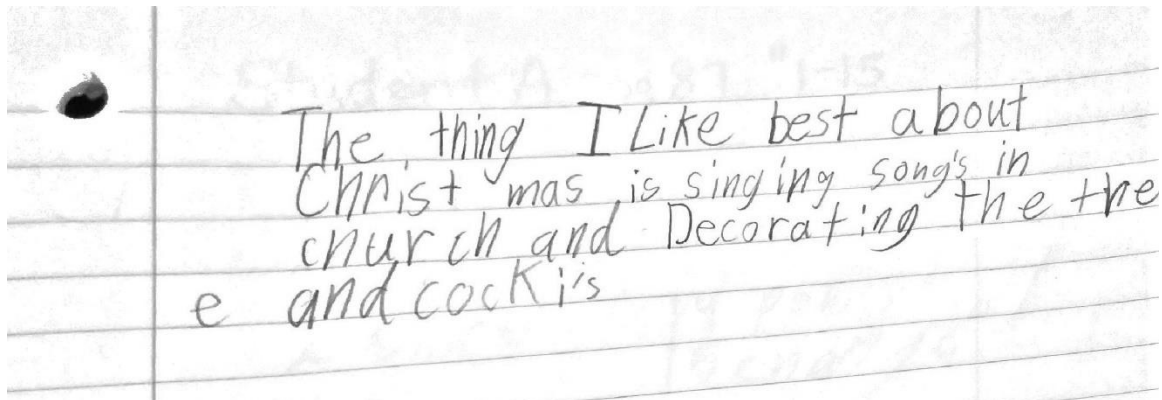
14 asleep asleep

15 above

16 would

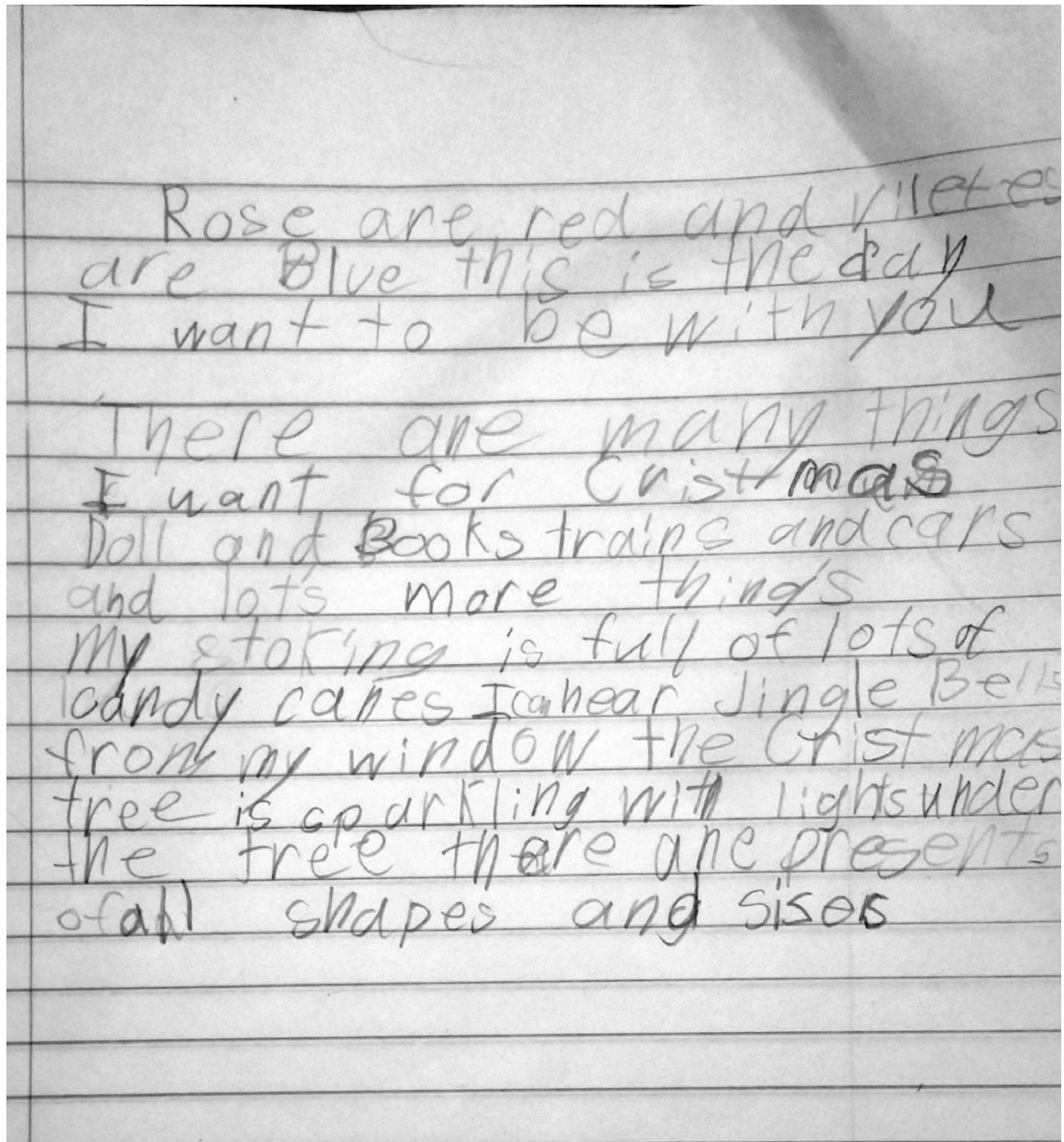
17 dressed

SA W3 Test		
1	dressed	h
2	would	h
3	above	v
4	asleep	v
5	over	v
6	awake	v
7	couple	v
8	another	v
9	again	v
10	about	v
11	ever	v
12	animal	v
13	open	v
14	never	v
15	upon	v
16	around	v
17	afraid	v
18		

Appendix H: Student A writing samplesA photograph of a piece of lined paper with a single hole punch on the left. The paper contains handwritten text in cursive script. The text is written across four lines of the paper. The first line starts with 'The thing I Like best about'. The second line continues with 'CHRIST mas is singing song's in'. The third line continues with 'church and Decorating the tre'. The fourth line continues with 'e and cock is'. The handwriting is somewhat informal and shows some spelling variations like 'CHRIST mas' and 'cock is'.

The thing I Like best about
CHRIST mas is singing song's in
church and Decorating the tre
e and cock is

Clara went down and asked why did
 Grand ma New York City
 She did not know! So Clara called Grandma
 (she was 10) But Grandma didn't pick up. A week
 later Mom said they were going to Grandma's
 ran all the way to her room to pack
 when she was finished packing she
 ran all the way to the car. Mom
 was waiting for her. She said it would
 take two hours to get there. Clara
 slept all the way there. When
 Clara woke up the next morning she
 ran to the kitchen and gave Grandma
 a big hug. Why did you move to New York City?
 Grandma said, It was Grandpa's idea. Know Grandma



Sustte goes to Fort La Point Island with her family to trade furs. After they arrived someone stole some furs. And the competition of who had the most furs was cancelled. Next the person who did steal the furs took two of the furs and Sustte's father's cross and put it where someone would find it. And Sustte's father is accused of stealing the furs and goes to jail. But Sustte finds the cave the real thief had hidden the furs in and almost gets caught. She escaped through the top of the cave and tells one of her friends and he gets help and the thief gets captured. Sustte's family has a party for his return.

Appendix I: Researcher Reflections

Week One - Instructor Reflections

1. How do I know that research-based instruction was presented?

Research-based instruction was presented because I used the spelling curriculum resource to choose developmentally appropriate spelling words. Also, the weekly spelling routine included opportunities for the students to study the sounds and patterns of the words. The routine also included word sorting.

2. How was my personal ability to implement this type of instruction refined?

I wanted to keep spelling lessons into a fifteen-minute window per the recommended research-based time frame for a week. This challenged me to make the most of my time with the students and not waste time with laborious or time-filler type activities.

○ Were the subjects productively engaged?

The students were engaged with their words during the spelling instruction time. They both corrected their weekly pretest and posttest. Plus, they sorted their words and recorded it. Each student also independently completed pages from their curriculum resource that reinforced what they have practiced the previous day with the instructor.

○ Based on how the lesson went today, how might I change it in the future?

I think overall, the students need to continue to be challenged because the spelling words, even at the pretest, were not challenging for them to spell. The instructional routine is good for them to practice with words that are well within their reach, but as that becomes more familiar the instructor will continue to choose units from the curriculum resource that challenges their ability. The instructor will look at their writing samples to see orthographic patterns they might be using but confusing.

○ Based on how the lesson went today, what might I review or do differently in the upcoming lessons?

There are no areas for review that I took note of. I might add one more opportunity during the week for the students to review the words independently once they become more challenging.

Week 2- Instructor Reflection

o How do I know that research-based instruction was presented?

Research-based instruction was presented through developmentally appropriate spelling words, self correction practices, and engaging student exercises. As the students wrote their spelling words I observed that they slowed their speech and tried to enunciate the words.

o How was my personal ability to implement this type of instruction refined?

My ability was refined the challenge of articulating orthography. Understanding words and letters is something that I take for granted as an adult. Children that are just learning the ‘code’ do not have that luxury and need facilitated experiences to learn it. Some of these experiences will be through direct instruction and some and through discovery. I was able to provide both to my subjects this week.

o Were the subjects productively engaged?

Through self-correction and word sorting the students reflect on the structure of their words. These activities make them pause and compare different words. This time in reflection help them to connect words to their prior knowledge.

This week’s game of Spelling Tic Tac Toe resulted in the subjects being highly engaged. They both enjoyed playing and continued longer than was required for instruction.

Repetition through their word list did not deter them from continuing.

o Based on how the lessons went this week, what might I review or do differently in the upcoming lesson?

I noticed that Student A rushed through some of her work when she was copying words independently. In the future I will make sure to give a reminder to show attention in that area and/or stay with her as she works.

The students are performing well on the words presented in their curriculum resource. Therefore, I will look at some of their writing samples with them and choose words that they are struggling with that are appropriate for them to know how to spell.

Week Three- Instructor Reflection

o **How do I know that research-based instruction was presented?**

I know that research-based instruction was provided because I recognized Student B's spelling and reading abilities inform a jump ahead in lists provided by curriculum resource. Student B easily read and spelled short vowel sounds. Therefore, in Week 3 her list was included a review of all the short vowel sounds together to verify my decision. Plus, we examined her writing and she chose to words that she had been struggling to spell.

o **How was my personal ability to implement this type of instruction refined?**

Deciding to skip over multiple units in the curriculum resource felt like a leap of faith to me. But in retrospect, it wasn't. I was relying on what I knew, based on research, about the development of a child's orthography and trusted that it was better for her to add new opportunities for growth than trudge through understandings that she was already comfortable with.

o **Were the subjects productively engaged?**

The students are comfortable with word sorting and our self-correct routines. Therefore, since they know what to expect they get right to work instead of stalling because the task seems too large.

o **Based on how the lessons went this, what might I review or do differently in the upcoming lesson?**

Student B still struggled with the two words chosen from her writing at the end of the week. Therefore, I think it would be more appropriate for her to just choose one new word each week.

Week Four- Instructor's Reflection

o **How do I know that research-based instruction was presented?**

We continued with all previous weeks' spelling routines. Students continued to work with in their developmental spelling stage for tested words. Student A was also engaged in choosing words she struggled with but though she should know how to spell.

I was humbled by my student's abilities when given consistent research-based instruction. Student B's reading, writing, and spelling levels are blossoming, and she is showing consistent growth. Student A's interest in spelling has grown.

○ **How was my personal ability to implement this type of instruction refined?**

I think through the biweekly lessons that are recorded, the extra accountability challenges me to put research-based instruction into practice. I think that as I type out the transcripts for the culmination of the field project I will further evaluate how my instruction refined.

○ **Were the subjects productively engaged?**

The subjects efficiently and actively participated in spelling instruction. I'm concerned that even though our routine is effective, if occasionally the student's would lose engagement because it is predictable.

○ **Based on how the lessons went this week, how might I change it in the future?**

This week Student B did not have any words from her own writing because the unit taken from the curriculum resource was 'words writers use'. This means that the words did not follow any pattern. In the future, the student will have at least one word from her own writing.

Student A is doing well on all of her pretests and only struggling to spell one to three words that are tested. I would like to do more research to see if it is the most beneficial to 'challenge' or develop her orthography in this way if it is almost accurate for a certain set of words.

Appendix J: Student B test results

Student's Name Lillian Timmermann Words Their Way Primary Spelling Inventory Feature Guide Grade 1 Date 8/30/11

Words Spelled Correctly: 15 / 26 Feature Points: 56 / 56 Total: 17 / 82 Spelling Stage: 1

SPELLING STAGES →	EMERGENT		LETTER NAME-ALPHABETIC		WITHIN WORD PATTERN		SYLLABLES AND AFFIXES				Words Spelled Correctly
	LATE	EARLY	EARLY	MIDDLE	LATE	EARLY	MIDDLE	LATE	EARLY		
Features →											
1. fan	f ✓	n ✓	a ✓	p ✓							✓
2. pet	p ✓	t ✓	e ✓								✓
3. dig	d ✓	g ✓	i ✓								✓
4. rob	r ✓	b ✓	o ✓								✓
5. hope	h ✓	p ✓									
6. wait	w	t									
7. gum	g	m	u								
8. sled			e		sl						
9. stick			i		st						
10. shine					sh						
11. cream						dr					
12. blade						bl					
13. coach					-ch						
14. fright						fr					
15. chewed					ch			ew	-ed		
16. crawl						cr		aw			
17. wishes					-sh				-es		
18. from					th			or			
19. shouted					sh			ou	-ed		
20. spoil								oi			
21. glow								ow			
22. third					th			ir			
23. camped									-ed		
24. tries						tr			-es		
25. clapping									-ppng		
26. riding									-ding		
Totals	15	5	17	17	17	17	17	17	17	56	1/26

Student's Name Student B Words Their Way Primary Spelling Inventory Feature Guide Date 1/18/10
 Words Spelled Correctly: 9 / 15 Teacher Timmermann Grade 1
 Feature Points: 32 / 30 Total: 41 / 53 Spelling Stage: Early Within Word Pattern

SPELLING STAGES →	EMERGENT			LETTER NAME-ALPHABETIC			WITHIN WORD PATTERN			SYLLABLES AND AFFIXES			
	LATE	EARLY	FINAL	Initial	Consonants	Short Vowels	Digraphs	Blends	Long Vowel Patterns	Other Vowels	Inflected Endings	Feature Points	Words Spelled Correctly
1. fan	✓	n	✓	f		a							✓
2. pet	✓	t	✓	p		e							✓
3. dig	✓	g	✓	d		i							✓
4. rob	✓	b	✓	r		o							✓
5. hope	✓	p	✓	h									✓
6. wait	✓	t	✓	w									✓
7. gum	✓	m	✓	g		u							✓
8. sled						e		sl					✓
9. stick						i		st					✓
10. shine							sh		i-e				✓
11. dream								dr	ea				✓
12. blade								bl	a-e				✓
13. coach							-ch		oa				
14. fright							ch	fr	igh				
15. chewed										ew	-ed		
16. crawl								cr		aw	-es		
17. wishes							-sh						
18. thorn							th			or			
19. shouted							sh			ou	-ed		
20. spoil										oi			
21. growl										ow			
22. third							th			ir			
23. camped								tr			-ed		
24. tries											-ies		
25. clapping											-pping		
26. riding											-ding		
Totals	7	7	7	7	7	7	3/3	5/5	3	0/1	0/1	38	15

Monster Test
Student B 12/4/17

1. Moo str
2. unit d 9. du d t
3. pres 10. f i g
4. doo tum
5. hict
6. humin
7. egi
8. clod

Title Test: Recording Sheet
 Student Student B Date 1/11/18 School Teacher R. Timmermann

Letter Identification: Lay out letter tiles [m, a, p, i, f, s, t, d, n].
 "Here are some letters. I'll say the name of a letter and ask you to point to the letter. Point to the card that has the letter m." (Record, continue procedure)
 "Now, I'll point to a card and you'll tell me two things about the letter. First, the name of the letter, and second, the sound that it makes." (Record)

Identification	Name	Sound		Identification	Name	Sound	
m	<u>m</u>	<u>/m/</u>		s	<u>s</u>	<u>/s/</u>	
a	<u>a</u>	<u>a</u>	<u>u</u>	t	<u>t</u>	<u>/t/</u>	+16
p	<u>p</u>	<u>/p/</u>		d	<u>d</u>	<u>/d/</u>	
i	<u>i</u>	<u>i</u>		n	<u>n</u>	<u>/n/</u>	

Words:
 Add these letter tiles to the tiles above: [h, e, w, c, k, v, u, l, s, o, d, b, r, r].
 "Now let's put some letters together to make words. Some of the words are real words and some are pretend words. I'll go first and make a word, then I'll ask you to read it for me." (Manipulate only necessary letters.)

pat	<u>p-a-t</u>	<u>pat</u>	vute	<u>v-u-te</u>	<u>vute</u>	
*sat	<u>s-a-t</u>	<u>sat</u>	flass	<u>f-l-a-s-s</u>	<u>flass</u>	+8
sam	<u>s-a-m</u>	<u>sam</u>	loddod	<u>l-o-d-d-e-d</u>	<u>loddod</u>	
hin	<u>h-i-n</u>	<u>hin</u>	wembick	<u>w-e-m-b-i-c-k</u>	<u>wembick</u>	

*ML: "I noticed that you said 'sat' (or repeat what the student said if different). How did you know to change it that way from 'pat' (or repeat what the student said)?" They both make /at/ at the end. +3

Articulation: "Tell me what your mouth did to say the first sound in wembick." (Repeat the most difficult word they read correctly.) Record verbal responses and behaviors.
/w/ "It goes little then big" +4

ML: "How did you know to say that way?"

"Now, I'll say a word, and you make it for me." (As you dictate, clearly articulate by "stretching" each sound. Example: tan = t::a::n::)
 *tan tan
 *tad tad
 tap tap
 leb leb

plat	<u>plat</u>	
map	<u>map</u>	✓
pridder	<u>pridr</u>	+7
radmin	<u>radmin</u>	

*ML: "How did you know to change [the 'n' to a 'd']? (Use the letter changes the student has made.) I don't know. +2

Articulation: "Tell me what my mouth did to help you spell plat." (Repeat the most difficult word they spelled correctly.) Record verbal responses and behaviors.
p-l-a-t, "little to big" "a opened up" "for t it was closed" +5

ML: "How did you know to spell that way?"

"Now I want you to read one sentence for me." (Give the student the sheet with the sentence printed on it. Record the student's reading.)
Kim and Nate smiled as they hopped on the trip home at sunset. Kim and Nate slimmed/sled as my on the snip home ant sunset.

o Student short vowel words and two long vowel words. Student most of the high frequency words. Student struggled with words ending in -ed for the whole assessment.
 45/56

1	Student B
	Week One pretest 12/4
1.	pm
2.	pt
3.	cat
4.	hot
5.	hps
6.	phd


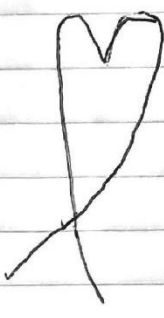
•	Student B Week 1 Spelling Test	
1	pm	
2	at	
3	cot	
4	hot	
•	5	hp5
	6	and

Student B Week 2 Pretest

1	Jet
2	Set
3	met
4	bed
5	swesyes
6	Leg leg

Student B W2 Spelling Test

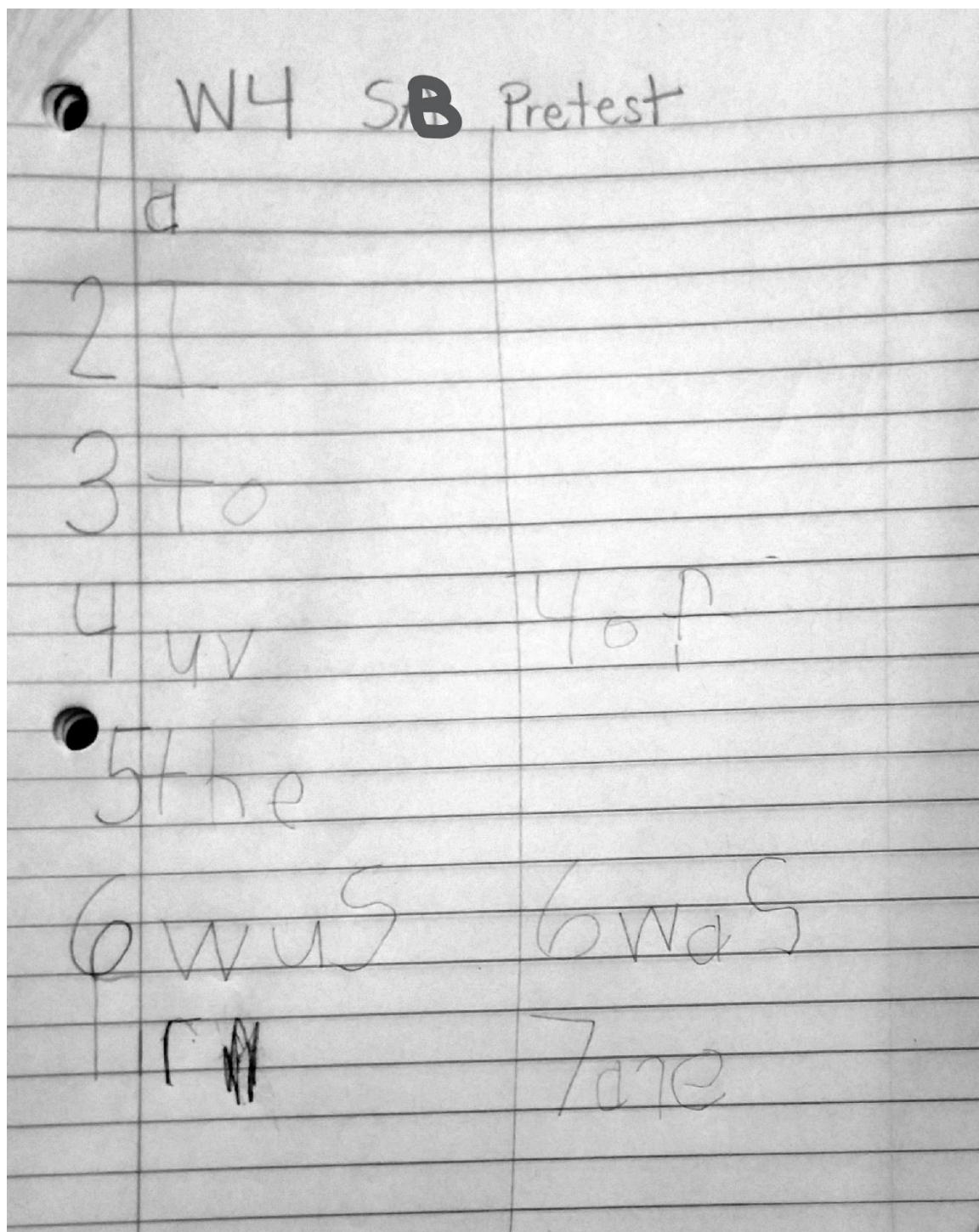
1	lep	
2	yes	
3	bed	
4	met	
5	Set	
6	let	



SBW3 Unit 13 Pretest

1	bpd d
2	xet y
3	Fix
4	dot
5	hug
6	tyd
7	white
8	who

SB W3 Test	✓
1 bad who	
2 wite	White
3 bad	
4 yet	
5 fix	
6 dot	
7 hug	
8 tub	



SB W4 Test	
1 the	
2 I	
3 a	a
4 was	was
5 of	
6 are	are
7 to	