

**AN INVESTIGATION INTO THE IMPLEMENTATION OF WORDS THEIR WAY AS A
CLASSROOM WORD STUDY PROGRAM**

By

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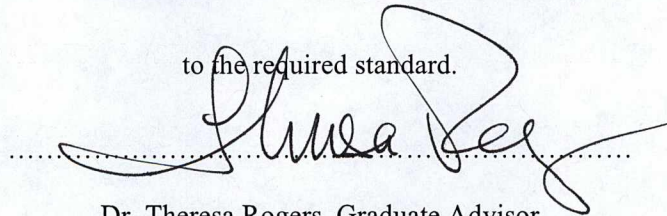
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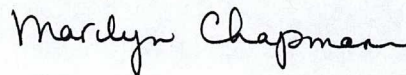
Department of Language and Literacy Education

We accept this major paper as conforming

to the required standard.

A handwritten signature in black ink, appearing to read 'Theresa Rogers', is written over a horizontal dotted line.

Dr. Theresa Rogers, Graduate Advisor

A handwritten signature in black ink, appearing to read 'Marilyn Chapman', is written below the signature of Theresa Rogers.

Dr. Marilyn Chapman

THE UNIVERSITY OF BRITISH COLUMBIA

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Abstract

The purpose of my research is to survey teachers in my district about the usage and implementation of a word study program called *Words Their Way* (Bear, Invernizzi, Templeton & Johnston, 2008). Reviews of literature and previous research pertaining to spelling acquisition theories, word sorting, and teacher implementation of programs support the use of the program and help to explain why wide-spread implementation is not occurring. District literacy coaches anecdotally report that few teachers are implementing the program. My research questions are: What obstacles impede the implementation of *Words Their Way* (Bear et al., 2008) as a word study program in classrooms? What do teachers believe would support implementation to make it more successful? The major source of data was an online survey administered to elementary school teachers in one district who teach Language Arts in a classroom setting. I investigated their views on implementing, and their classroom experiences with, *Words Their Way* (Bear et al., 2008). Other data sources included a research journal and anecdotal field notes. In response to the research findings, staff in-service opportunities, in the form of classroom demonstrations, workshops and mentorship, were created and offered.

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Faculty...
from whom I learned
so much

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Dr. Marilyn Chapman

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Commit yourself to
instruction; listen carefully
to words of knowledge.
Proverbs 23:12

Family...
who supported me

Bruno, James & Maya
...for doing everything I
didn't have time to do!

Jill, Dad and Linda
...for encouraging
phone calls

I can do everything
through him who gives
me strength.
Philippians 4:13

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for coffee...even when I
didn't think I had time

Mom
...my proof-reader
extraordinaire

Colleagues...
who encouraged me

Encourage one another.
1 Thessalonians 4:18

Delta Language and
Literacy Cohort

Morgan, Sharon
and Myra

An Investigation into the Implementation of *Words Their Way* as a Classroom Word Study Program

Words Their Way (Bear et al., 2008) is a research-based word study program focusing on word sorting. I have used *Words Their Way* in my classroom for three years and I have observed the benefits to students and their growth as spellers. Based on various communications with teachers, including conversations, blogs and networking, I came to realize that word sorting was not widely used; this was confirmed by many literacy coaches in schools. Since I have had success in my classroom with word sorting, I wondered why teachers in my district do not use this as a method to teach word study. The questions I am investigating are: What obstacles impede the implementation of *Words Their Way* as a word study program in classrooms? What do teachers believe would support the implementation process to make it more successful?

I reviewed literature to investigate the research supporting the use of word sorting, including research that was conducted by the authors and creators of *Words Their Way* (Bear et al., 2008) and other experts in the fields of spelling, phonics and vocabulary development. I examined research and studies spanning almost 40 years of enquiry relating to word sorting and the development of spelling, phonics and vocabulary acquisition. Furthermore, I used research relating to the ways in which teachers implement new programs to situate the current hesitancy of program implementation in my school district.

As Juel and Minden-Cupp (2000) argue, “students need hands-on opportunities to manipulate word features in a way that allows them to generalize beyond isolated, individual examples to entire groups of words that are spelled the same way” (as cited in Bear, Invernizzi, Templeton, & Johnston, 2008, p. 3). An example of an instructional method that accomplishes this goal is word sorting. Word sorting is a method of teaching word study which incorporates

spelling, vocabulary and phonics, whereby the student classify small cards with words from a similar word family or words sharing features. Despite decades of research relating to word sorting, this investigative learning approach is still just gaining popularity as teachers shift away from more teacher-directed approaches, such as worksheets (Mesmer & Griffith, 2006). The literature and research supporting such a paradigm shift is encouraging and well documented.

Review of the Literature and Research

Writing and spelling research conducted by Dr. Charles Read 40 years ago is still used as a supporting framework in the field of emergent literacy (Bear et al., 2008; Fresch, 2000; Johnston, 1999; Juel & Minden-Cupp, 2000; Zucker & Invernizzi, 2008). Word sorting is based on theories such that “children make consistent, overt judgments of sound similarities” (Read, 1975, p. 17) and thus, students are “forced to group sounds together in some way for spelling purposes...on the basis of the twenty six letter-names [available] to represent the forty-some phonemes of English” (p.19). Emergent spellers initially group these phonemes together to create inventive spellings, which “reveal interesting phonetic judgments” (p. 19). As the students progress, they transition to conventional spelling as their knowledge and experience increases. Word sorting assists students in making connections between known and unknown words, thus increasing their experience and knowledge relating to spelling and vocabulary development.

Word sorting was presented as a newly coined term in 1978 when it was introduced as a “developmentally sound method of teaching spelling” (Gillet & Kita, 1978, p.1). It was defined as “a technique which capitalizes upon a child’s natural ‘feature analysis’ abilities [whereby] the learner physically arranges the words into groups...to help draw conclusions about how words

are related” (p.1). Current definitions of word sorting vary negligibly and have the same rationale as 30 years ago. Historically, spelling was, and often still is, taught to the whole class using teacher determined word lists, either from a spelling primer or with words taken from curricular fields of study or themes. It is argued that this method is often random and relies on memorization, which does not provide lasting learning (Fresch & Wheaton, 1997). Word sorting is an integrated approach to spelling which is in contrast to how “spelling in elementary grades is usually taught as an isolated skill, as a visual task” (Joshi, Treiman, Carreker, & Moats, 2008, p. 6). The rote and visual memory for letters is limited and is therefore not the most effective way of teaching spelling, especially when patterns within word families exist (Bear et al., 2008; Joshi et al., 2008).

To address the “orthographic avalanche” (Juel & Minden-Cupp, 2000) of words that a young student is faced with, rules for spelling are frequently taught and memorized, in addition to the numerous exceptions to the rules. Even the most comprehensive phonics programs rarely provide direct instruction for more than about 90 phonics rules, yet over 500 different spelling-sound generalizations are needed (Juel, 1994, as cited in Juel & Minden-Cupp, 2000). A common conclusion is that while phonics instruction is integral to spelling and reading alike, the methods by which it is taught are met with varying degrees of success (Juel & Minden-Cupp, 2000).

Many teachers have expressed frustration that the spelling words dictated and spelled correctly on Friday’s spelling test are not transferred into future writing. Pre-packaged spelling programs appear to have “little impact on the children’s self-selected writing. They rarely used the words they learned for the spelling tests in their journals. Weekly spelling programs cannot anticipate which words the students already know, or will need for their writing” (Rymer &

Williams, 2000, p. 248). Furthermore, words are often taught in isolation and are not linked to word families, which could help the students make generalizations from known spellings to unknown spellings. Most spelling programs are “one-size fits all” (Rymer & Williams, 2000) and, therefore, do not meet the varying needs of each speller and the spelling phase in which they are currently functioning.

Theoretical Perspectives on Spelling Acquisition and Spelling Phases

To better understand how word sorting may assist students in learning to spell, a general understanding of how spelling is learned is necessary. The three main theories of spelling acquisition include Gentry’s five-stage model, Siegler’s wave theory and Fresch’s developmental phases. Gentry (2000) identified spelling development as a five-stage model: pre-communicative stage (isolated letters used), semi-phonetic stage (initial and final consonants with few spaces between words), phonetic stage (most consonant sounds represented), and the conventional stage (uses basic rules of English orthography). Siegler’s wave theory (1995, as cited in Scott, 2007) proposed that spellers do not learn in concrete stages, but rather in overlapping waves with the spellers relying on varying concepts, such as phonology and morphology, at different times in their writing careers. Fresch (2000) combined aspects from both of these models, endorsing a six phase developmental continuum in which spellers can be classified as “early” or “late” in each phase to create a broad range across the spectrum. Furthermore, Fresch identified two pre-literate phases, pre-phonetic and phonetic, and four literate phases: letter-name, within-word, syllable juncture and derivational constancy.

In the letter-name phase, spellers attempt to use logical relationships between letters and sounds. For example, *c* may be used to spell sea or see. Spellers in the within-word phase use short vowels correctly; however, they frequently over generalize learned patterns.

Spellers in the syllable juncture phase begin to double consonants before adding endings and show an increased orthographic awareness. Derivational spellers are beginning to make connections between historical roots and word families. (Fresch, 2000)

Fresch's phases are closely related to the five main phases of spelling as used in the word sorting program, *Words Their Way* (Bear et al., 2008): Emergent, Letter Name Alphabetic, Within Word Pattern, Syllables and Affixes, and Derivational Relations (p. 271). Each phase is further broken into early, middle and late. Students are assessed to ascertain in which of these phases they are situated.

Assessment using Spelling Inventories

A spelling inventory (Appendix A), together with the analysis of student writing including invented spellings, assists teachers in addressing the timing of teaching word families and which word features should be taught to which students. "Instruction which targets their 'zone of proximal development' will be efficient and successful [while] instruction which is beyond what children can understand or covers what children already know, is a great waste of time" (Johnston, 1999, p. 74). Spelling inventories provide thorough and easily administered assessments of common word features. A quantitative score of words spelled correctly is not the only measure of success on such spelling inventories; qualitative information can also be gathered by looking at the errors a student has made. "A child may misspell a word but apply sophisticated understanding to make a conventional prediction" (Fresch & Wheaton, 1997, p. 21). Analysis of such errors aids teachers in grouping students requiring coaching in a common theme and thus enabling instruction and investigation of word families to be presented at different instructional levels within a class. "Whereas schools traditionally group children by ability for reading instruction, spelling is usually taught as a whole class activity: all students

regardless of literacy level are expected to master the same set of spelling words” (Zutell, 1998, p. 219). Word sorting is developmental and needs to match the word knowledge of the learner, and is “not a one-size-fits-all program of instruction that begins in the same place for all students within a grade level” (Bear et al., 2008, p. 8). In this program, three functional levels of orthographic knowledge are used as instructional guidelines: *correct* (easy, independent level), *use but confuse* (instructional level), and, *absent* (frustration level, words not used because too challenging) (Invernizzi et al., 1994, as cited in Bear et al., 2008, p. 9). Assessing students’ developmental levels is integral in order to help them build on what they already know, learning what they need to know, and moving them forward (Bear et al., 2008). “Determining a spelling instructional level reveals the zone of proximal *orthographic* development which students can most productively examine words and abstract spelling patterns” (p. 121). Teaching students in small, developmentally appropriate groupings is most effective (Bear et al., 2008; Fresch, 2000; Fresch & Wheaton, 1997; Zutell, 1998).

Teaching Word Study

“Word family and pattern recognition is a key to understanding the complexities of the English language. Teaching of the patterns is easier if you can recognize the readiness of your students” (Johnston, 1999, p. 64). Thirty-seven high frequency rimes, from which 500 primary words can be derived, are worthy of study due to number of words they generate (Wylie & Durell, 1970, as cited in Johnston, 1999). The specific words chosen for the spelling inventories in programs such as *Words Their Way* (Bear et al., 2008) highlight specific word features. These word features are taught to and discovered by the specific group of students in a class who require instruction in that area.

An empirical study of first grade students (Joseph, 2000, as cited in Joseph 2002), found that confidence was gained by manipulating words, thereby declaring that “children performed better during word sorts than during traditional spelling instruction” (p. 123) and concluded that the performance of students who received “word sort instruction over traditional phonics [instruction] on phonemic segmentation, word identification and spelling” (p. 123) was superior. Students involved in word sorts searched for words that shared a common sound and spelling pattern and placed them into categories, causing them to closely examine and discriminate among word patterns (Barnes, 1989, as cited in Joseph, 2002, p 123). Most importantly, students who used word sorting were able to transfer word identification and spelling skills to words that were not directly taught, but were similar to those presented in the word sort (Joseph, 2002). Since word sorting promotes the discovery of connections between known words and unknown words, generalizations about “orthographic neighbors” (Varnhagen, 1997, as cited in Joseph, 2002) (words sharing similar word features, such as should, could, and would) can be made about other words, even if those words have not been explicitly taught.

Words sorts are typically either performed as an open sort or closed sort. An open sort is a student-centered activity whereby the student determines how to categorize the words. This allows the student to express and reveal their thinking, while allowing the teacher to assess for understanding, observe and question students’ rationale. Closed sorts are teacher-directed with the student sorting based on headings provided by the teacher. Direct instruction of word features assists students in recognizing similarities and making generalizations. Games such as ‘guess my category’ can be played with open sorts and speed sorts can be introduced to students using closed sorts (Bear et al., 2008). Spelling based word sorts can be based on relationships among letter patterns, pronunciation, word origins or meaning. Further categorization divides

sound sorts (for example, using pictures to determine words containing the “short a” and “long a” sounds) and pattern sorts (for example, sorting word cards having the “sh” and “ch” digraphs) allowing students to study both words and pictures. Prior to sorting words, picture sorts allow emergent spellers to sort picture cards based on pronunciation. Picture sorts are also useful to expose English language learners to new vocabulary, shifting the focus to emphasize oral vocabulary growth and away from an initial focus on spelling.

“Word sort activities involve having the learner search for words that share common sounds and spelling patterns and place them into categories” (Joseph, 2002, p. 123). By physically manipulating the words on pieces of paper, the student is making decisions about relationships to and connections with other words or sounds that they know and understand. “Their decisions were multilayered and multifaceted, thus leading students to a deeper level of understanding and retention...that didn’t occur through memorization but rather through ownership of the material” (Nixon & Fishback, 2009, p. 21). Word sorting is flexible, enabling the learner to relocate words as they see patterns and contrasts emerge (Nixon & Fishback, 2009; Zutell, 1998). After students have sorted their words, discovered connections and familiarized themselves with the word families, links to real world literacy can be developed. For example, students can use authentic literacy artifacts, such as menus, T.V. listings guide or newspapers, to hunt for more words which fit into the word families or have the same features as the words in their sort. Opportunities are endless to further expand word hunts using stories, readers and poems.

An in-depth study of four grade one classrooms conducted by Juel and Minden-Cupp (2000) compared the effectiveness of phonics instruction in different classrooms. The pair set out to examine “whether specific forms of instruction might differentially affect students with

varying levels of phonological awareness, alphabetic knowledge and other early literacy foundations.” (p. 461). Success was measured by improvement in a number of vocabulary, spelling, writing and reading assessments performed before, during and after the instruction over the course of the school year and the data were thoroughly reported in the peer reviewed journal article. They suggest that “the most successful classroom combined an onset/rime approach with sequential letter-sound decoding...the phonics instruction reflected knowledge of both hands-on nature of activities and the active-child decision making involved in compare and contrast activities that can facilitate cognitive growth” (p. 488). Students’ use of hands-on manipulatives, such as word cards for sorting patterns and pocket charts for sorting picture cards by sound, both individually and in groups, was found to be one of the best methods because the students were thoughtfully and physically engaged, rather than completing worksheets and memorizing (Juel & Minden-Cupp, 2000).

The latest development related to teaching word sorting is e-sorting. This digital extension would be ideal for classrooms equipped with an interactive whiteboard or a class cart of computers. Aimed both to hook and engage students with a poor attitude to literacy and for students who have not mastered the techniques using conventional methods, the computer-based approach of the traditional paper word sorts is currently being studied further to document any effectiveness in advancing students’ spelling knowledge (Zucker & Invernizzi, 2008). Students manipulate words into groupings using a mouse and a computer screen, instead of cards on their desk. Most programs allow changes to still be made if the student rethinks their sort once patterns become evident. One benefit of the commercial e-sorting products is that feedback is instant; however, the opportunity for the teacher to assess why the student sorted the way they did is potentially lost unless a written or oral component is added.

Word sorting is inclusive of all ages and stages of learning from Kindergarten through to adult learners. Word sorting strategies have been successfully used in a community college to teach a “content-heavy, text-driven science course...in a non-traditional manner that used active-learning and critical thinking strategies rather than the traditional lecture style” (Nixon & Fishback, 2009, p.19). Word sorting offers students with learning disabilities the opportunity to be included in activities identical to those of the rest of class while using words or pictures at their level (Fresch, 2000). Word sorting activities can serve as a “link between oral morphology, with which many children with spelling problems experience no real difficulty, and written morphology, with which they experience noticeable difficulty” (Hauerwas and Walker, 2004, p. 173). Further modifications to provide extra support to learners with developmental difficulties may include highlighting the word features, adding pictorial clues, and supplying the student with a sorting mat to keep the words organized.

The research and literature spanning almost forty years clearly shows that word sorting is a valuable tool in learning the relationships of word families and understanding common features of words. When word families are recognized and common features are understood, including the history behind words, the speller has the tools to make inferences to unknown words. “Students are actively engaged in problem solving, constructing knowledge as they discover complex relationships within and between words, and taking greater responsibility for their own learning” (Zutell, 1996, as cited in Fresch & Wheaton, 1997, p. 23). Word sorting is both interactive and engaging for students, while providing the explicit spelling, vocabulary and phonics instruction that most students require to flourish as spellers. My goal is to investigate why more teachers are not implementing word sorting in their classrooms since the research shows that it is a valuable tool.

Implementation of New Programs

Teachers are often hesitant to implement new programs or to make changes to their existing method of curriculum delivery or instructional practice (Clarke, 2003; Hord & Huling-Austin, 1986; Obara & Sloan, 2010; Roehrig, Kruse & Kern, 2006). Changes in Canadian curriculum and classroom instruction models were studied by Anderson (1997) and comparable results were found. His work focused on the following five assumptions of change:

- (1) change is a process, not an event;
- (2) change is accomplished by individuals;
- (3) change is a highly personal experience;
- (4) change involves development growth in feelings and skills; and
- (5) change can be facilitated by interventions directed toward the individuals, innovations, and contexts involved. (p. 333)

These assumptions can be addressed in the context of implementation of a program such as *Words Their Way* (Bear et al., 2008). The process of change is a “developmental process of altering existing practices and learning new ones” (Anderson, 1997, p. 345); both teachers and students need time to become familiar with the new concept of word sorting and to develop the skill set required to make it successful, such as each student cutting and storing twenty or more small slips of paper. Likewise, parents also need to be given the opportunity to understand that word study can be more than studying for the Friday spelling test. Furthermore, “interventions” (p. 333), such as mentoring with a teacher experienced in the management of word sorting in a classroom or a hands-on teacher workshop, can lead to a spelling paradigm shift and change.

Due to the autonomy of teachers in the studied district to choose which materials they feel are best suited to teaching a particular subject, a word study program such as *Words Their*

Way (Bear et al., 2008) can only be suggested as a program to use, not mandated. In order to encourage teachers to use research-based programs such as *Words Their Way* (Bear et al., 2008), studies such as this are necessary to find out why there is not wide-spread implementation and what courses of action could increase the usage.

This study sought to find what obstacles impede the implementation of *Words Their Way* as a word study program in classrooms, and to uncover what teachers believe would support the implementation process to make it more successful.

Methodology

Research Design

This study was designed to investigate teachers' perceptions about the use of *Words Their Way* (Bear et al., 2008) as a classroom word study program, to uncover why teachers were not using it and what they felt might increase their success with the implementation of the program. A survey of teachers was chosen as the primary method of data collection because it allowed for many teachers to be questioned in a short period of time, and at a low cost. Surveys are "fundamentally a matter of asking a sample of people from a population a set of questions and using the answers to describe that population" (Fowler, 2009, p. ix). Issues that were considered before choosing the survey method were: the literacy level of the population being sampled, the language of proficiency of the population, the accessibility of the internet for receiving the invitation to participate in the survey and answering the survey, the time constraints, and the general level of potential cooperation of participants. Survey research is a very common form of data collection used by both generalist researchers and by teacher researchers because it is efficient, versatile and unobtrusive (Fowler, 1988; Sagor, 2000; Tomal, 2003). Survey questions can be framed to gather data concerning cognitive, attitudinal or

affective issues (Sagor, 2000). All three types of questions were posed to obtain information regarding usage, perceptions, opinions and feelings related to *Words Their Way* (Bear et al., 2008). Sagor's (2000) "survey development guidelines" (p.106) were used as a framework with which to shape the rough draft of the survey. A small field test was conducted prior to the survey being sent out to ensure that the survey questions were clear and not potentially misleading. Two questions were reconstructed to add clarity before the survey was administered. Furthermore, issues of anonymity, confidentiality and disaggregation were reflected upon prior to the distribution of the survey.

Teacher research is defined as "a form of enquiry that involves action and research. It is a way that enables you to explain how you came to develop your work as praxis" (McNiff, Lomax, & Whitehead, 2003, p. 175). This is the theoretical framework on which the study was formulated. Although most research performed by teachers typically involves students in their classroom (Lassonde & Israel, 2008; McNiff et al., 2003; Sagor, 2000), research carried out by teachers involving teacher perceptions is also considered teacher research in the field of education (Sagor, 2000; Tomal, 2003). Through the "systematic, intentional process of teacher research, teachers [can] make instructional decisions and take action based on data" (Lassonde, Ritchie, & Fox, 2008, p. 11).

Full project approval was obtained through the University of British Columbia's Behavioural Research Ethics Board (BREB) (Appendix B) and through the school district prior to commencing the research.

A "triangulated data collection plan" (Sagor, 2000, p. 104) involved recoding anecdotal comments and personal observations, in conjunction with the survey. These three methods of data collection provided the basis for the study. Since teachers are not required to report to the

district or school what resources they use to teach the curriculum with, secondary data was not available regarding the classroom usage of *Words Their Way* (Bear et al., 2008) to compare actual usage rates against my findings.

Context

The study took place in a mid-sized school district located on the outskirts of a large metropolitan centre on the west coast of Canada. The municipality is divided into three distinct, geographically separated communities and the schools located within each community service families with socio-economic features indicative of each region, ranging from upper class to low, inner city school status. Some schools in the district provide a breakfast program for at risk students while other district schools offer costly, elite sports development programs. The district is composed of 24 elementary schools and 7 secondary schools, with an enrollment of nearly 16,000 students. All of the teachers in this district have access to a web-based messaging platform; this was the forum used to dispatch the invitation to participate in the study.

Participants and participation. Through the district web-based messaging platform, all teachers who teach Language Arts in a classroom setting were invited to participate in the anonymous, 7 question online survey (Appendix D), which took approximately 5 minutes to complete. Teachers from Kindergarten to grade 12 were included. My rationale for including all teachers rather than just elementary school teachers was that perhaps some secondary teachers had used the program previously, if they had taught at the elementary or middle school levels. I was also curious to find out if any teachers were actually using it at the secondary level. The invitation (Appendix C) stated that by taking the online survey, teacher consent was implied and the survey results were collected anonymously. If teachers chose not to participate, they did not answer the online survey. The district literacy coordinator assisted me in distributing an

invitation to each of the school-based literacy coaches, who were expected to forward the email to each of the teachers on their staff who taught Language Arts in a classroom setting. The invitation to participate included a brief statement about my research and a functioning link to the online survey site. My intention was to limit the number of respondents to the first one hundred who answered the survey, due to the limitations of the website used for creating and administering the online survey; however, limiting the number of respondents was not necessary since the return rate was very low. Out of approximately 300 possible survey responses, initially only 21 were received. After a gentle reminder, 4 more were received, for a total of 25, or approximately 8%.

Rates of return between 15 and 20% for web-based surveys can usually be expected (Cook, Harris, & Thompson, 2000). Fowler (1988) states three main reasons for poor survey response are:

“(a) the data collection procedures do not reach or get to the respondents, thereby not giving them the chance to answer the questions; (b) those asked to provide data refuse to do so; and (c) those in the sample asked to provide data are unable to perform the task required of them. For example...some people do not speak the researcher’s language, and in the case of self-administered questionnaires, some people’s reading and writing skills preclude their filling out the questionnaires.” (p. 45)

I believe that the first and second reasons provide possible explanations to the low response; however, such reasons can only be speculated upon. The timing of the distribution of the survey and a breakdown in the chain of distribution seem to be the two main factors relating to the poor response. I did not heed the advice of Eldridge, Stein, Wasko & Pena (2008) to “try to distribute [my] survey at a time in the year that is less busy” (p.108), instead issuing the invitation at the

end of November, during the busy report card time, amidst concert rehearsals and winter festivities. It seems that it was indeed “a poor time to poll colleagues” (p.108). I later heard from many teachers that they did not receive the invitation to participate in the study, so it seems that many literacy coaches did not forward the survey to their staff as requested which caused a breakdown in the distribution system. Data collection and analysis methods were adjusted to compensate for this poor rate of return, including sending out a second request for survey participants two months later, which yielded four more responses for a total of 25 responses.

Data Sources and Collection

Sources of data consisted of a survey administered to teachers, my research journal, personal observations and anecdotal field notes regarding the implementation and usage of the program. I recorded the observations and field notes in my research journal, as well as questions, contemplations, and thoughts.

Survey. The primary source of data was the seven question online survey (Appendix D). SurveyMonkey.com was used as the survey forum. The survey was composed online and formatted using the free program. A direct link was supplied to the participants in the invitation to participate in the study. Each of the seven questions was specifically posed to solicit either general background information about the teacher or specific information regarding the usage of *Words Their Way* (Bear et al., 2008). There was a combination of both closed and open-ended items, which allowed for paragraph answers to provide more information, opinions and perceptions. The survey took approximately 5 minutes to complete.

The first question inquired about the grades that were currently taught; this question was posed to discover which grades were the most common grades in which word sorting is used. The second question was a two part question. Teachers were firstly asked if they use, or had

used, *Words Their Way* (Bear et al., 2008). If they answered “yes”, then there was space to state why they use it and for how long.

Questions three, four and five were only answered by those who use, or have used, the program. The third question reported on the length of time that it took the teacher to become comfortable and confident using the program in their classroom. Three options were available as answers: (a) within one year, (b) one to two years, or (c) two or more years. The fourth question inquired about the obstacles that teachers faced when implementing *Words Their Way* (Bear et al., 2008). Space for extended answers was provided.

Questions five and six were answered by teachers who do not currently use the word study program. Question five, probing their willingness to try the program if it were widely adopted within the district, was answered with a four point scale, ranging from ‘very likely’ to ‘certainly not’. Question six was an opinion question that explored why teachers do not currently use the program. The final question was answered by all participants, regardless of whether they currently use the program or not. It was an opinion-focused question, regarding which tools which they felt would help them implement *Words Their Way* (Bear et al., 2008) or best support them in using the program. There were suggested tools, of which multiple selections were possible, followed by a section for the respondents to add other ideas. The last part of the question was directed at teachers who do not want to use *Words Their Way* (Bear et al., 2008) and they were invited to state why they were not interested in trying the program.

After the respondents completed the survey, their anonymous answers were collected on the online survey site and held there securely in a password protected file until they were downloaded.

Research journal. I kept a research journal documenting the non-linearity of the research process, my observations of colleagues and other teachers' use of the program and their questions, and notes relating to my trials and triumphs experienced as a novice teacher-researcher. This journal provided rich, contextual information, which helped to explain the results. Initially, this journal was for my own reflective purposes, but I soon realized the wealth of information that had been woven together from multiple communications with other teachers and my own observations. I questioned whether this was valid data to be included in my research; however, Sagor (2000) states: "behaviour is data. The problem [with it] is that, unless you deliberately capture these data in a timely fashion, they are likely to fade from your memory" (p. 80). Furthermore, by "keeping a journal, you will create a treasure trove of data" (p.80). My journal has become the treasure trove Sagor refers to. It provides me with another tool to triangulate the data that I received from other sources, such as the survey. The beginning entries were primarily based on my frustrations with the BREB process. Once that lengthy process was complete, I documented the learning that preceded the creation of my survey and the science behind effective survey writing. I frequently and thoughtfully reflected on the process of action research both in my journal and with my colleagues. During some of the interactions with colleagues, I noted their excitement, questions, frustrations and concerns with *Words Their Way* (Bear et al., 2008). Once the survey was made available to the district's teachers, I documented my disappointment in the poor return rates and then the process of trying to expose what the reasons may have been and what I could have done to increase the response rate. Currently, my reflections are based on how to best serve the teachers who have expressed an interest in learning more about *Words Their Way* (Bear et al., 2008). It is both exciting and daunting to switch from the relative safety of being a researcher to inviting teachers, many with years more experience

than I have in the classroom, into my classroom to observe word sorting in action. The data collected in my journal have been invaluable in my growth as a teacher and as a researcher.

Data Analysis

Data from each survey question were downloaded from the website used to administer the survey. It was compiled and organized by question number; it was then saved in a Word document and printed. The web survey was removed once the data were retrieved and all data were erased from the survey site. Not all respondents answered each question, therefore not all responses add to 25 for each question. Furthermore, some respondents selected multiple answers, which resulted in some questions having more responses than the total number of teachers who responded (e.g., Figures 1, 5 and 7).

Descriptive statistics were used to summarize the numbers based data. The data extracted from the open-ended questions, including anecdotal responses and opinions, were coded and further analyzed. Prior to coding the data, I read and re-read the pieces of information to see what trends were embedded in the data. There were no scales or standards by which to base the coding process, therefore, for “open-response type questions, codes [were] developed in an interactive process whereby the researcher identifies categories that emerge from the answers” (Fowler, 1988, p. 129). Data were coded using idea units (Kontos, 1981) which emerged. Idea units are meaningful statements or questions about one idea. Each of these general idea units was broken down into more specific codes. Specific survey responses, anecdotal comments and observations were amalgamated within each code, under the main idea unit.

Results

Teachers who responded to the survey were almost exclusively in elementary schools teachers (Figure 1). Teachers with combined grades selected all of the grades they currently teach; 36 different grades were taught by the 25 teachers who responded.

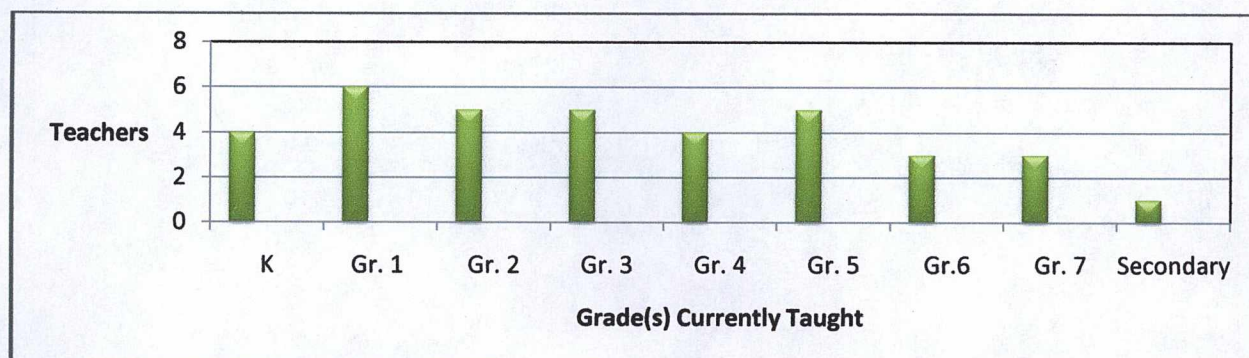


Figure 1. Survey responses: What grade(s) do you currently teach?

Of the 14 teachers who reported that they use or have used *Words Their Way*, 6 teachers have used it for 2-4 years while 8 teachers have used it for 1 year or less. Many stated that they were introduced to it through a workshop that was held for literacy coaches about 3 years ago.

All teachers who used the program, except one, reported they were comfortable using the program within one year of implementing it (Figure 2).

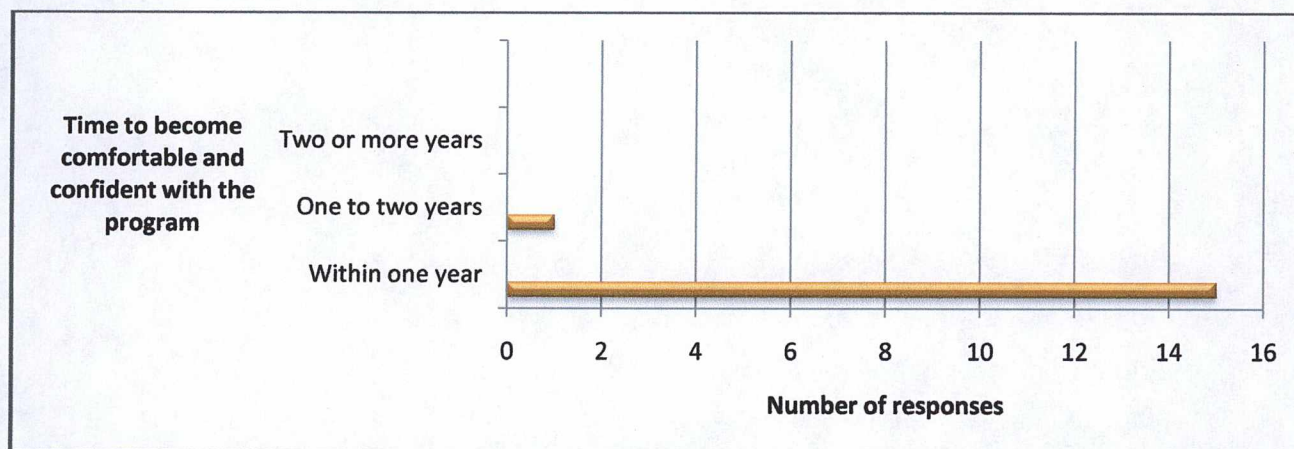


Figure 2. Survey responses: How long did it take you to become comfortable and confident using the Words Their Way program in your classroom?

Of the teachers who do not currently use the program, more than 80% of the respondents reported that they would be either very likely or likely to try *Words Their Way* (Bear et al., 2008) if it were a commonly used and supported program within the school district (Figure 3).

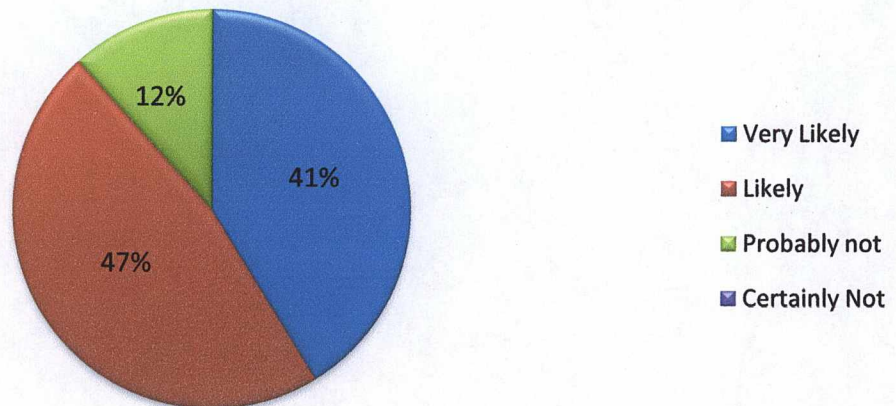


Figure 3. Survey responses: Would you be more likely to try *Words Their Way* if it were a commonly used program within the school district, such as *Reading Power* or *Write Traits*?

Idea Units

Each question from the survey with anecdotal answers was analyzed for idea units. General idea units were further divided into more specific codes. For example, codes for classroom management included formation and maintenance of groupings, management of resources, and organization of the day plan.

Six main idea units emerged from the anecdotal data responses to the question: What obstacles, if any did you face when implementing *Words Their Way*? (Figure 4). Grouping issues were most frequently reported as an obstacle. In response to obstacles with the program, one teacher reported: "I have a difficult time trying to figure out how to introduce the words to each group, while having the other groups working independently."

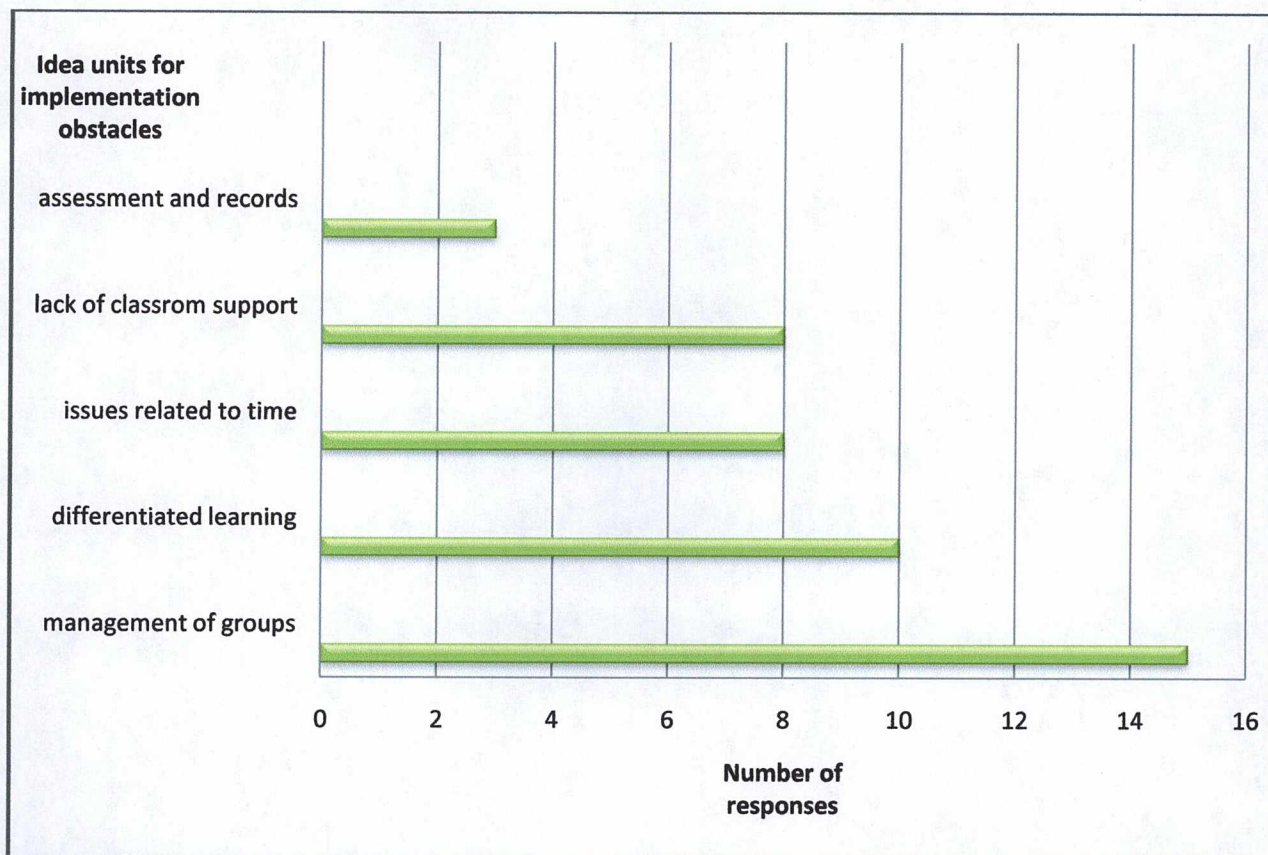


Figure 4. Implementation Obstacles

Four predominant idea units emerged in response to the question, Why do you use *Words Their Way*? (Figure 5). Most teachers commented that they used *Words Their Way* (Bear et al., 2008) for differentiated learning and to improve spelling and vocabulary. Other reasons related to hands-on learning and assessment. Differentiated learning was the most commonly stated reason for using *Words Their Way* (Bear et al., 2008). One teacher wrote: “I like the diagnostic inventory which I administer in September. This tells me where each student is at in their spelling development. I find this better than the “old” way since it meets the needs of each child”.

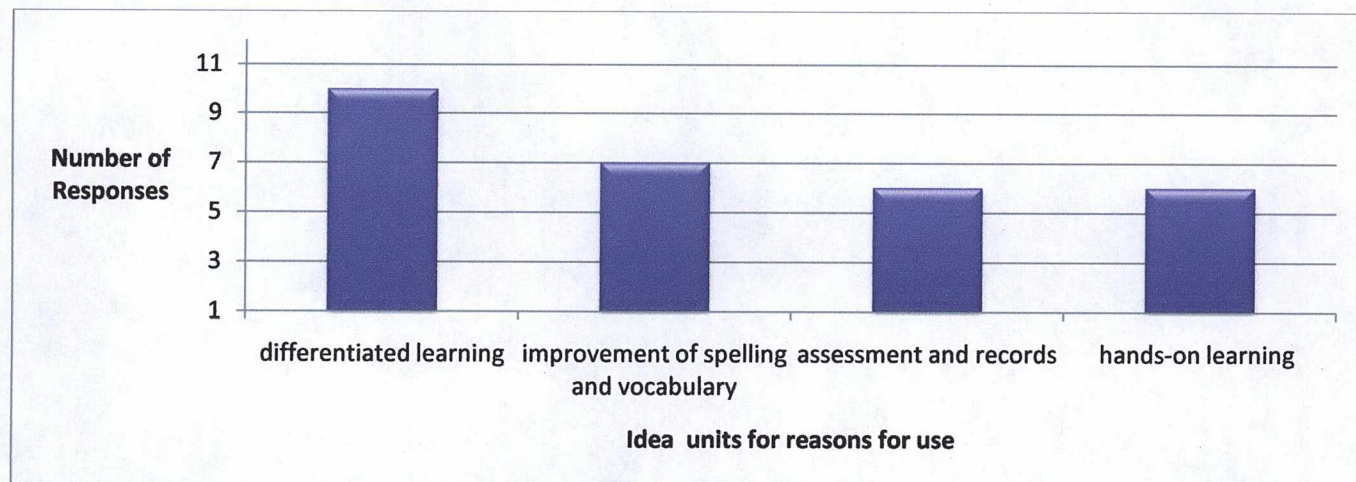


Figure 5. Reasons for Using

If teachers reported that they did not currently use *Words Their Way*, the survey directed them to the final question which asked: If you do not currently use *Words Their Way*, why not? Two main idea units emerged: teachers were unfamiliar with the program or they felt it was not appropriate for their current class (Figure 6). Responses such as “I’ve never heard of it” or Kindergarten students wouldn’t be able to sort words” were received.

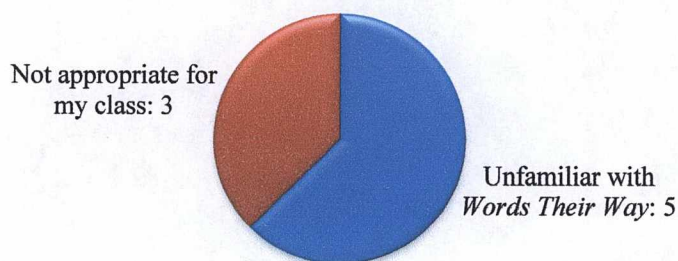


Figure 6. Reasons for Not Using

One idea unit, which arose only once, was the lack of resources available to teach word sorting in French Immersion classrooms. Words cannot be directly translated due to the differences in word families and word features in French. There is some preliminary work being

done by a few district teachers to translate some work into French. Currently there are Spanish-English bilingual resources commercially available, but nothing is available in either French or as a bilingual edition, combining French and English.

When asked, “What may increase the likelihood of you implementing *Words Their Way*? Or if you currently use the program, what support would you find helpful to increase the success of the program in your classroom?”, 16 of 21 respondents responded that they felt that they might benefit from some type of workshop or mentorship. (Figure 7)

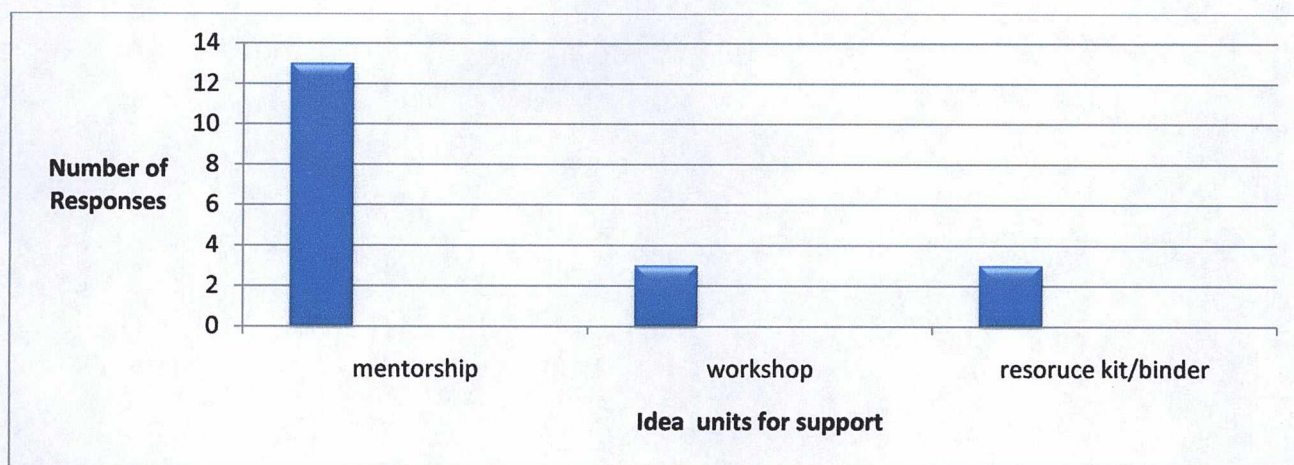


Figure 7. Support which may increase the success of using *Words Their Way*.

Discussion

Analysis of all of the responses to the questions and the idea units for each lead to the emergence of three main themes: (1) teachers value the aspects of differentiated instruction and hands-on learning related to *Words Their Way* (Bear et al., 2008); (2) teachers struggle to find time; and (3) teachers feel that mentorship and workshops would support them. Triangulation of the data from multiple sources confirmed that these topics were worthy of addressing in teacher in-service.

Differentiated Learning

The value of the differentiated learning that occurs in word sorting is well documented (Bear et al., 2008; Fresch, 2000; Fresch & Wheaton, 1997; Gentry, 2004; Gillet & Kita, 1978; and Zutell, 1998) and supported by the teachers in this study as an integral reason for using word sorting. One teacher commented:

“It would be easier to just open a spelling text program to a chapter and [have] everyone do the same words and work each week, but since I know that doesn’t meet the needs of each learner, I can’t do that anymore. WTW takes longer but it is more meaningful for each student because it teaches them where they are at and they all have success at their level. No more do some kids get 20/20 each week and others always get 2/20. They succeed at their level which I check regularly through the spelling inventory”.

Furthermore, Gentry (2004) endorses the use of groupings by concluding that “differentiated instruction is the key to the successful teaching of literacy” (p. 22). The hands-on aspect of word sorting is also integral to this type of word study which is a tactile approach addressing the needs of multisensory learners. Juel and Minden-Cupp (2000) reported that students who were active and physical while learning retained more. Many teachers made related comments, such as one teacher who wrote: “I was excited about using a program that was so hands-on and that could help my students really learn the spelling as well as their acquisition of new vocabulary”.

Combining the benefits of both the hands-on nature of word sorting and the differentiation within this word study program, Gentry (2004) supports it by stating: “word sorting is compatible with the brain research as a way of practicing words and word patterns” (p.62). The teachers seem to understand the value of differentiating learning with a program such as *Words Their Way* (Bear et al., 2008).

While the management issues related to having multiple groups working simultaneously can be daunting, most teachers have methods of working with groups already established in their classrooms. Guided reading, discovery- based science lessons and writers' workshop are all widely used by teachers and all require students to be working on different tasks while the teacher works with a small group of students. The same management techniques are applicable for word sorting groups.

Time constraints

The second theme which emerged related to having enough time. Some teachers commented on the time needed for assessments: "It took me awhile to complete the marking of the assessments." Others commented on the time it takes to teach multiple groups: "Taking and having the time to introduce different words to two or three groups! I can only handle two groups to do a good job." One teacher noted that, "it can be quite time consuming in the beginning, but once the routines are set, the students like the predictability of it". Furthermore, it takes time to learn the workings of the program: "I don't have the time to read up on it before implementing the program". The text book style manual written by Bear et al. (2008), which is accompanied by six leveled books, can be quite daunting as it reviews the research supporting word study and word sorting, and investigates the theory and background of spelling. Many teachers would prefer to have a shorter version outlining how they can best get started without getting bogged down in extra reading.

Mentorship, In-service and Support

Lastly, in addressing the third theme, Roehrig, Kruse, & Kern (2006) stated that "the presence of a supportive network at their school site" (p. 883) strongly supported the implementation of new curriculum. The survey respondents expressed their desire to be

mentored and to have the opportunity to observe a program that is up and running in a real classroom.

In keeping with the mandate of teacher research being encased with an element of action in response to the findings (Sagor, 2000), I created and offered staff in-service opportunities in the form of classroom demonstrations and workshops, and made myself available as a word-sorting mentor.

In-service was offered to elementary teachers, at no cost, in the same district where the survey was administered. Teachers did not receive any compensation for participating. Many teachers contacted me and expressed an interest in learning more about word sorting after they responded to the survey. Teachers at the school where I teach were invited to attend, as well as other colleagues in neighbouring schools. Workshops were offered both during after-school hours and on Professional Development days. Classroom visits were offered during regular school hours. Visits were either organized during my prep times so that I was free to teach and model lessons in another classroom, or during other teachers' prep times which allowed them to come to my room to observe. Teachers shared with other teachers about their experiences, so even those who hadn't initially been involved were informed and wanted to participate. In total, 31 teachers attended four workshops. Six teachers came to observe in my classroom and two teachers invited me to their classroom to teach and model word sorting lessons. The PowerPoint presentation (Appendix E) outlines a blend of the developmental research theory to support word sorting, as well as practical classroom techniques to manage the groupings. The workshops offered time for the teachers to try out word sorting and to experience and practice scoring the diagnostic assessments. Further in-service will be offered in February 2011 at the district-wide

professional development day and all teachers in the school district will be invited to attend, free of charge.

Taking action which is directly tied to the research findings is integral to upholding my rationale for being a teacher-researcher. One teacher started implementing it in her classroom the following week and reported that “students are so much more engaged when working on WTW than other programs I have tried for teaching spelling and vocabulary. Once I figured out how to organize the class with respect to partners and their levels, and how the flow of the lessons went, the preparation for a week’s worth of instruction was actually quite quick and easy. Your workshop helped me get it all going!”

Continuing the mentorship beyond the workshop and occasional classroom visit is fundamental to the continued success and longevity of an implemented program. Hord and Austin (1986) researched the process of implementing new practices and the need for:

providing personalized information for specific teachers’ needs and facilitating each teacher’s use of the new program by clarifying meaning and solving individual problems.

The data show that successful implementation involves a large amount of consultation and reinforcement, particularly in the first 2 years. (p.107)

Given this understanding of the support needed for a teacher to successfully implement a new program or curriculum, the aim of a mentorship role should be a long-term arrangement to help support teachers through the obstacles that they may face while implementing *Words Their Way* (Bear et al., 2008).

Implications for Further Research

Two main themes arose from issues and questions raised during the research which have become areas of study that I would like to investigate further. Firstly, I am interested to follow

up with the teachers who have participated in the in-service. I am curious to see if attending some form of in-service increased their success with implementing and using word sorting in their classroom. Was there a difference in their perceived success of implementation if the teacher attended a workshop and a classroom visit, or experienced only one of the types of in-service? If they only attended one type of in-service, which was the most effective form of support?

Secondly, the use of word sorting in French Immersion classrooms requires further inquiry and support. Currently, there are very few word sorting resources available in French. A few teachers in the district are working together to translate and create appropriate word sorts but more communication, support and organization are needed so there is not unnecessary overlap in materials created.

In hindsight, I would have broadened the BREB application to include both the formation of a focus group to solicit discussion and yield answers to specific questions in a group setting and a follow up survey or focus group to understand how the in-service changed their implementation experience. By adding a focus group, further rigor, validity and triangulation would have been added to the study and allowed participants a chance to network with other users, or potential users, of the program. I would like to have been able to facilitate and report on a scenario such as Sagor (2000) refers to: “when teachers begin engaging their colleagues in discussions of classroom issues, the multiple perspectives that emerge and thus frame the dialogue tend to produce wiser professional decisions” (p. 9). Following up with teachers after the in-service would have been beneficial to tailor and guide the formation of future in-service opportunities to better meet the needs and interests of teachers.

Reflections and Conclusion

What obstacles impede the implementation of *Words Their Way* (Bear et al., 2008) as a word study program in classrooms? What do teachers believe would support implementation to make it more successful? Based on my analysis of the data, teachers understand the value of using a program such as *Words Their Way* and some teachers in the school district are successfully using the program. Other teachers lack the time to become familiar with a new method of spelling instruction, while some are unsure how to proceed with the multiple groupings. Backed by a thorough review of the research and my experience with the program, I am encouraged to continue promoting the benefits of word sorting as a tool to teach spelling, phonics and vocabulary development in classrooms. Ultimately building teacher confidence and knowledge of vocabulary and spelling development and instruction is more important than promoting a particular program. Each teacher's professional knowledge allows him/her to make informed decisions about research-based instruction procedures, whether they choose to use a program such as *Words Their Way* (Bear et al., 2008), or something designed by the teacher. It is my goal that through in-service and on-going mentorship, including an open-door policy encouraging teachers to come and observe word sorting in action, that more teachers will weave word sorting into their daily routines, confident that it is a powerful, research-based tool.

References

- Anderson, S. (1997). Understanding teacher change: Revisiting the concerns based adoption models. *Curriculum Inquiry*, 27 (3), 331-347.
- Bear, D. R., Invernizzi, M., Templeton, S., & Johnston, F. (2008). *Words their way: Word study for phonics, vocabulary, and spelling instruction* (4th ed.). Upper Saddle River, NJ: Pearson Education Ltd.
- Clarke, P. (2003). Culture and classroom reform: The case of the district primary education project. *Comparative Education*, 39 (1), 27-44.
- Cook, C., Harris, F., & Thompson, R. (2000). A meta-analysis of response rates in web- or internet- based surveys. *Educational and Psychological Measurement*, 60, 821-836.
- Eldridge, D., Stein, M., Wasko, A., & Pena, A. (2008). *Teachers taking action: a comprehensive guide to teacher research*. (C. A. Lassonde & S. E. Israel, Eds.). Newark, DE: International Reading Association.
- Fowler, F. J. (1988). *Survey research methods* (2nd ed.). Newbury Park, CA: Sage.
- Fresch, M. (2000). *Using think-alouds to analyze decision making during spelling word sorts*. *Reading Online*, 4(6). Retrieved March 1, 2009, from http://www.readingonline.org/articles/art_index.asp?HREF=/articles/fresch/index.html.
- Fresch, M., & Wheaton, A. (1997). Sort, search and discover: Spelling in the child centered classroom. *The Reading Teacher*, 51(1), 20-31.
- Gear, A. (2006). *Reading power*. Toronto: Stenhouse.
- Gentry, J. R. (2004). *The science of spelling: Explicit specifics that make great readers and writers (and spellers!)*. Portsmouth, NH: Heinemann.

- Gillet, J. W., & Kita, J. M. (1978, May). *Words, kids and categories*. Paper presented at the 23rd Annual Meeting of the International Reading Association, Huston, TX.
- Hauerwas, L. B., & Walker, J. (2004). What can children's spelling of running and jumped tell us about their need for spelling instruction? *The Reading Teacher*, 58(2), 168-176.
- Hord, S. & Huling-Austin, L. (1986). Effective curriculum implementation: Some promising new insights. *Elementary School Journal*, 87 (1), 96-115.
- Johnston, F. R. (1999). The timing and teaching of word families. *The Reading Teacher*, 53(1), 64-75.
- Joseph, L. M. (2002). Research brief: Facilitating word recognition and spelling using word boxes and word sort phonic procedures. *School Psychology Review*, 31(1), 122-129.
- Joshi, R. M., Treiman, R., Carreker, S., & Moats, L. C. (2008). How words cast their spell: Spelling is an integral part of learning the language, not a matter of memorization. *American Educator*, 6-16, 42.
- Juel, C., & Minden-Cupp, C. (2000). Learning to read words: Linguistic units and instructional strategies. *Reading Research Quarterly*, 35(4), 458-492.
- Kontos, S. (1981). The origins of metacogniton. *Journal of Educational Research*, 77(1), 43-54.
- Lassonde, C. A., Ritchie, G. V., & Fox, R. K. (2008). *Teachers taking action: a comprehensive guide to teacher research*. (C. A. Lassonde & S. E. Israel, Eds.). Newark, DE: International Reading Association.
- McNiff, J., Lomax, P., & Whitehead, J. (2003). *You and your action research project* (2nd ed.). London: Routledge Falmer.
- Mesmer, H. E., & Griffith, P. L. (2006). Everybody's selling it: But just what is explicit, systematic phonics instruction? *The Reading Teacher*, 59(4), 366-376.

- Nixon, S., & Fishback, J. (2009). Enhancing comprehension and retention of vocabulary concepts through small-group discussion: Probing for connections among key terms. *Journal of College Science Teaching, 38*(5), 18-21.
- Obara, S., & Sloan, M. (2010). Classroom experiences with new curriculum materials during the implementation of performance standards in mathematics: A case study of teachers coping with change. *International Journal of Science and Mathematics Education, 8*(2), 349-372.
- Read, C. (1975). *Children's categorization of speech sounds in English* (National Council of Teachers of English report 17). Urbana, IL: National Council of Teachers of English. Retrieved November 11, 2008, from ERIC Document Reproduction Service No. ED 112426.
- Roehrig, G., Kruse, R., & Kern, A. (2006). Teacher and school characteristics and their influence on curriculum implementation. *Journal of Research in Science Teaching, 44*, 883-907.
- Rymer, R., & Williams, C. (2000). Wasn't that a spelling word? Spelling instruction and young children's writing. *Journal of Language Arts, 77*(3), 241-249.
- Sagor, R. (2000). *Guiding school involvement with action research*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Scott, R. M. (2007). Spelling research: Classroom implications. *Encyclopedia of Language Arts and Literacy Development, 1-6*. London, ON: Canadian Language and Literacy Research Network. Retrieved March 2, 2009, from <http://www.literacyencyclopedia.ca/pdfs/topic.php?topld=230>.
- Tomal, D. R. (2003). *Action research for educators*. Oxford: Scarecrow Education Press.

Zucker, T. A., & Invernizzi, M. (2008). My e-Sorts and digital extensions of word study. *The Reading Teacher*, 61(8), 654-658.

Zutell, J. (1998). Word sorting: A developmental spelling approach to word study for delayed readers. *Reading & Writing Quarterly*, 14(2), 219-239.

Appendix A: Sample Spelling Assessment Inventory from *Words Their Way* (Bear et al., 2008)**Words Their Way Primary Spelling Inventory Feature Guide**

Student's Name _____ Teacher _____ Grade _____ Date _____

Words Spelled Correctly: _____ / 26

Feature Points: _____ / 56

Total: _____ / 82

Spelling Stage: _____

SPELLING STAGES →	EMERGENT		LETTER NAME-ALPHABETIC				WITHIN WORD PATTERN			SYLLABLES AND AFFIXES		Words Spelled Correctly
	LATE		EARLY	MIDDLE	LATE		EARLY	MIDDLE	LATE	EARLY		
	Consonants		Short Vowels	Digraphs	Blends		Long Vowel Patterns	Other Vowels	Inflected Endings	Feature Points		
Features →	Initial	Final										
1. fan	f	n	a									
2. pet	p	t	e									
3. dig	d	g	i									
4. rob	r	b	o									
5. hope	h	p					o-e					
6. wait	w	t					ai					
7. gum	g	m	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					fr	igh						
15. chewed				ch				ew	-ed			
16. crawl					cr			aw				
17. wishes				-sh					-es			
18. thorn				th				or				
19. shouted				sh				ou	-ed			
20. spoil								oi				
21. growl								ow				
22. third				th				ir				
23. camped									-ed			
24. tries					tr				-ies			
25. clapping									-pping			
26. riding									-ding			
Totals	17	17	17	17	17	17	17	17	17	56	26	

Appendix B: Certificate of BREB Approval

The University of British Columbia
Office of Research Services
Behavioural Research Ethics Board
Suite 102, 6190 Agronomy Road,
Vancouver, B.C. V6T 1Z3

CERTIFICATE OF APPROVAL - FULL BOARD

PRINCIPAL INVESTIGATOR: Theresa Rogers	INSTITUTION / DEPARTMENT: UBC/Education/Language and Literacy Education	UBC BREB NUMBER: H09-02398
INSTITUTION(S) WHERE RESEARCH WILL BE CARRIED OUT:		
Institution	Site	
N/A	N/A	
Other locations where the research will be conducted: internet survey Delta School District #37		
CO-INVESTIGATOR(S): Heather M. Dettling		
SPONSORING AGENCIES: N/A		
PROJECT TITLE: A Survey of Teachers' Use of Words Their Way as a Classroom Word Study Program		
REB MEETING DATE: October 22, 2009	CERTIFICATE EXPIRY DATE: October 22, 2010	
DOCUMENTS INCLUDED IN THIS APPROVAL:		DATE APPROVED: November 23, 2009
Document Name	Version	Date
Protocol: Dettling protocol	N/A	October 3, 2009
Advertisements: advertisement to recruit teachers	1	October 4, 2009
advertisement to recruit teacher	3	November 18, 2009
Questionnaire, Questionnaire Cover Letter, Tests: survey	1	October 4, 2009
The application for ethical review and the document(s) listed above have been reviewed and the procedures were found to be acceptable on ethical grounds for research involving human subjects.		
<p>Approval is issued on behalf of the Behavioural Research Ethics Board and signed electronically by one of the following:</p> <p>Dr. M. Judith Lynam, Chair Dr. Ken Craig, Chair Dr. Jim Rupert, Associate Chair Dr. Laurie Ford, Associate Chair Dr. Anita Ho, Associate Chair</p>		

Appendix C: Invitation to Participate

Topic: Word Study Implementation Survey

Dear Delta Colleagues;

I am currently pursuing my MEd through UBC (Language and Literacy cohort) and I am conducting a short, online survey regarding the specific word study program, *Words Their Way* (Bear, Invernizzi, Templeton, & Johnston, 2008), a research based program used to teach word study, including spelling and phonics. If you are interested in participating in my research and completing the short, anonymous survey, please follow the link at the end of this posting. By completing the survey, you are implying consent to be a participant of the research. All participation is voluntary. Refusal to participate in the survey will remain anonymous and will not have any adverse effects. I will not contact you again, nor will I know who has answered the survey.

Thank you in advance for your interest and time!

Sincerely,

Heather Dettling

hdettling@deltasd.bc.ca

survey link:

http://www.surveymonkey.com/s.aspx?sm=kSylf8aqYWCW0SskoAUj2w_3d_3d

Appendix D: Survey Questions

1. What grade(s) do you currently teach?

- K
- gr.1
- gr.2
- gr.3
- gr.4
- gr.5
- gr.6
- gr.7
- Secondary School

2. Do you currently use, or have you used, WTW in your classroom?

YES: Why do you use it? How long have you used it?

NO: Skip to question 5.

3. How long did it take for you to become comfortable and confident using with the WTW program in your classroom?

- within one year
- one to two years
- two or more years

4. What obstacles, if any, did you face when implementing WTW?

(after answering, please skip to question 7)

5. If WTW were a program commonly used within your school district, such as Reading Power, would you be more likely to try it?

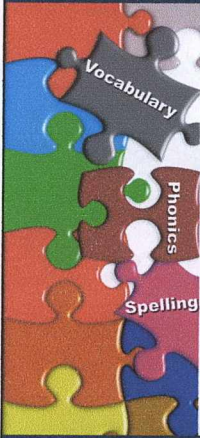
- very likely
- likely
- probably not
- certainly not

6. If you do not currently use WTW, why not?

7. What may increase the likelihood of you implementing WTW? Or if you currently use it, what support would you find helpful to the success of the program in your classroom?

- resource kit / binder (potentially on loan through the DML)
- 2 hr teacher in-service
- support in my classroom from a teacher who has experience with the program
- other (please specify below)
- not interested in a new word study program at this time (please briefly explain why)


Appendix E: PowerPoint Outline for Workshop



Words Their Way

Word Study in Action

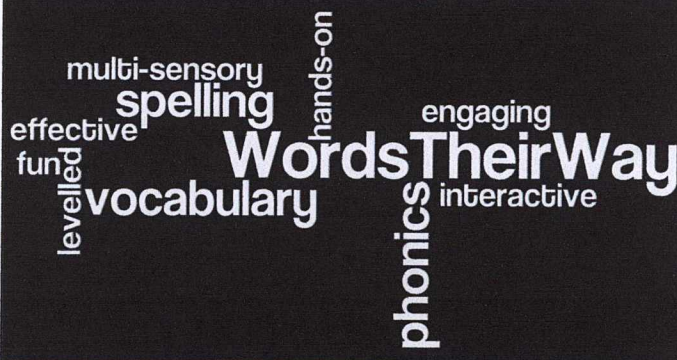
Heather Dettling



Heather Dettling...

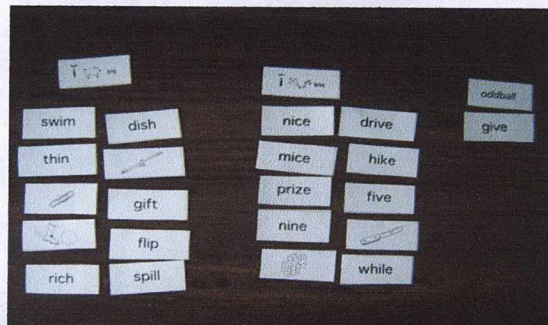
- Delta teacher
- currently teach grade 2 at Jarvis Traditional School
- have 2 children at in French Immersion at Burnsvew
- BSc (Agr)
- BEd
- MEd (Language and Literacy) (pending)

Word Sorting...what's that?



multi-sensory
effective
fun
levelled
spelling
hands-on
engaging
interactive
phonics
vocabulary
Words Their Way

What does a word sort look like?



Background of Words Their Way




- Developed by Donald Bear, Marcia Invernizzi, Shane Templeton, Francine Johnson
- Initial research done in 1970 by Dr. Charles Read
- Word sorting term first used in 1978
 - “capitalizes on a child’s natural feature analysis abilities.....to help draw conclusions about how words are related”

Three theories of spelling acquisition...

- **Gentry’s 5 Stage Model (2000)**
 - Pre-communicative stage to conventional stage (i.e. invented spelling)
- **Siegler’s Wave Theory (1995)**
 - Over generalize when learning a new concept
- **Fresch: combined both to “6 Phase Developmental Continuum” (2000)**
 - Continuum model: combination of above
 - overlapping stages as progress is made






The creation of ...

Words Their Way

- took Fresch's phases and created a 5-phase word study program focussing on **vocabulary** development, **phonics** and **spelling**...


1. Emergent
2. Letter Name Alphabetic
3. Within Word Pattern
4. Syllables and Affixes
5. Derivational Relations



(Each phase is broken down to early, middle and late)


What is the rationale behind word sorting?

- *"Students need hands-on opportunities to manipulate word features in a way that allows them to generalize beyond isolated, individual examples to entire groups of words that are spelled the same way." (Bear et. al., p 3)*



Why should I use Words Their Way?

- 😊 students are grouped according to ability levels
- 😊 instruction is in Vygotsky's "Zone of Proximal Development"
- 😊 developmentally sequential
- 😊 ownership of words
- 😊 hands-on + engaging



Even more reasons to use *Words Their Way...*

- 😊 involves oral language
- 😊 social interactions
- 😊 engaging
- 😊 addresses different learning preferences
- 😊 can be used with all students including LD, gifted, ESL



A few drawbacks with WTW...

- 😞 dialects and accents can impact sorting
(bag, mom, roof)
- 😞 American spellings of words
(humor/humour)
- 😞 photocopying: 1-2 sheets per student, each week
- 😞 requires time to assess students and to establish routines
- 😞 French resources are not yet available

How do I get started?



1. Initial assessment and groupings
2. Routines and management

A photograph showing three young children, two girls and one boy, all wearing red shirts, sitting at a light-colored wooden table. They are focused on a project, with their heads down and hands on the table. The background is a plain wall with a blue panel on the right.

1. administer spelling inventory
 - Primary, Elementary or Upper-level
2. mark diagnostic according to set criteria
3. group students according to their orthographic developmental level (3-4 groups)

[illegible]

Student's Name	Words They Way Prim. Spelling Inventory Feature Guide				Grade	Date				
Words Spelled Correctly	Feature Points		Total		Spelling Stage					
SPELLING STAGES	EMERGENT	INITIAL	LETTER NAME-ALPHABETIC	WORD	RECOGNITION PATTERNS	FLUENCY	INDEPENDENT AND WRITING			
	LATE	DATE	DATE	DATE	DATE	DATE	DATE			
Patterns --	Initial	Final	Short Vowels	Diagrams	Blends	Long Patterns	Other Words	Inflected Endings	Feature Points	Words Spelled
1. sat	(s)	(a)	(t)							
2. pat	(p)	(a)	(t)							
3. dig	(d)	(i)	(g)							
4. mid	(m)	(i)	(d)							
5. frog	(f)	(r)	(o)			(g)				
6. wall	(w)	(a)	(l)			al				
7. gum	(g)									
8. and		(a)								
9. sock		(s)			st					
10. when				sh		wh				
11. dream				dr		em				
12. made				ma		de				
13. coach				co		ch				
14. knight				tr		gh				
15. chewed				ch			ew	ed		
16. great				gr			ea			
17. when				sh				en		
18. from				fr						
19. shouted				sh			ou	ed		
20. word				or						
21. animal						an				
22. head						h				
23. camp					y			mp		
24. ties								es		
25. clapping								ing		
26. riding								ing		
TOTAL	2/17	3/17	2/17	2/17	1/17	2/17	1/17	1/17	1/56	

[illegible]

1. assessment of each student
2. groupings determined
3. establish routines and expectations, develop a management plan

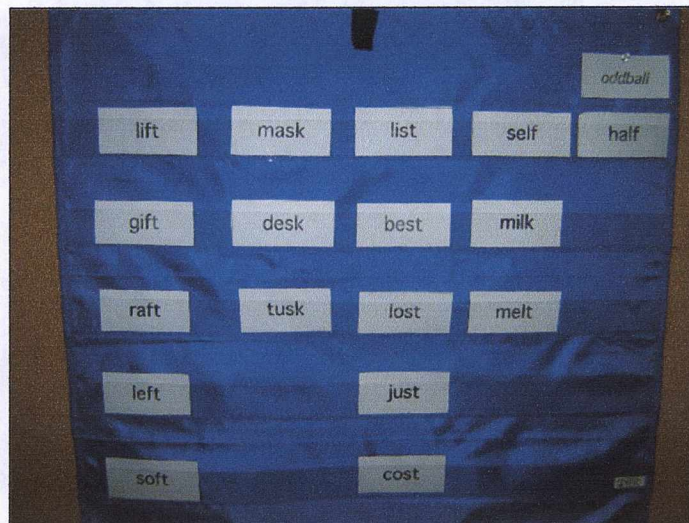
- whole class does same sort until routines established (2-3 weeks)
- choose words from low-middle grouping
- teach routine of “scribble, cut, and bag”



Getting started with the whole class... day 1



- ❖ Teacher introduces and models using a “think aloud” process
- ❖ Teacher establishes sorting categories (*closed sort*), including *Oddball* category
- ❖ Invites students to participate in word placement



Getting started with the whole class... day 1 (con't)



- Read aloud and repeat sorted word columns together
- Students repeat process independently while teacher checks for understanding
- Students store words in bags in their desks

Getting started with the whole class... day 2

- students work alone or with partner to sort words according to day 1's lesson
- students write words onto mini chalkboards or into word study notebook
- Introduce a game:



Speed Sort



Getting started with the whole class... day 3

Two more games:

Blind Sort



Word Hunt



Getting started with the whole class... day 4

Review

Understanding of the closed sort patterns
Student input regarding open sorts

More games...

"Guess My Sort"
"Memory" style game
"Be a Mind Reader"



Getting started with the whole class... day 5

- Mainly informal weekly assessments K-2
- Try "double point spelling tests"
 - each word worth two points:
 - one for correct spelling
 - and one for writing it in the correct word sort column
- Glue words into word study book



Adapting for all



Students with learning difficulties or ELL:

- begin with picture sorts to increase vocabulary
- reduce number of categories
- highlight headings and corresponding vowel/sound pattern



Adapting for all... con't



Students who are highly able:

- Move to independent, open sorts more quickly
- Increase number and complexity of words
- Write words in sentences or create a story using 10 word sort words

Moving to Levelled Groups

- ✓ Once students and teacher are comfortable with routines, split into developmentally appropriate word study groups
- ✓ Use initial assessment to group students with similar orthographic knowledge



Management of Groups

- 3 to 4 groups works well



- same management techniques as for guided reading, etc
 - while one group meeting with T, other groups can sort words, do literacy centres, write journals, silent read, etc.

Management of Groups

Group	Monday	Tuesday	Wednesday	Thursday	Friday
Low	meet with T ; learn meaning of words; T models sort	group sort with T support	independent sort (support as needed)	independent sort; word hunt; meet with T as needed	assessment and gluing
Middle	meet with T	independent sort	independent sort	blind sort and writing	assessment and gluing
High	open sort (whole group without T)	meet with T; reflection of sort	independent sort and game	blind sort and writing	assessment and gluing

Home Connection

Send a copy of the words home
each week for homework...


- **sort** words
- **blind** sort with siblings, parents
or grandparents
- **write** words
- **hunt** for words on
labels, newspapers etc.



Words Their Way is...

- research based
- multi-sensory
- suitable for all students
- engaging
- student-centred
- hands-on
- covers PLOs from reading,
writing and oral language






Words Their Way...

links together the puzzle pieces of **vocabulary** development, **phonics** and **spelling**.

It is word study in action!



References

Bear, D. R., Invernizzi, M., Templeton, S., & Johnston, F. (2008). *Words their way: Word study for phonics, vocabulary, and spelling instruction* (4th ed.). Upper Saddle River, NJ: Pearson Education Ltd.


Fresch, M. (2000). *Using think-alouds to analyze decision making during spelling word sorts*. *Reading Online*, 4(6). Retrieved March 1, 2009, from http://www.readingonline.org/articles/art_index.asp?HREF=/articles/fresch/index.html.

Fresch, M., & Wheaton, A. (1997). Sort, search and discover: Spelling in the child centered classroom. *The Reading Teacher*, 51(1), 20-31. doi:9710274833.


Fresch, M., & Wheaton, A. (2007). *Spelling for Writers* (1 ed.). New York: Great Source: Houghton Mifflin Harcourt.

Gentry, J. R. (2000). A retrospective on invented spelling and a look forward. *The Reading Teacher*, 54, 318-332.

Read, C. (1975). *Children's categorization of speech sounds in English* (National Council of Teachers of English report 17). Urbana, IL: National Council of Teachers of English. Retrieved November 11, 2008, from ERIC Document Reproduction Service No. ED 112426.



Questions



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