

10-19-2015

## Spelling Instruction in the Primary Grades: Teachers' Beliefs, Practices, and Concerns

Antoinette Doyle

*Faculty of Education, Memorial University of Newfoundland, ardoyle@mun.ca*

Jing Zhang

*Elementary Education and Reading, Buffalo State College, zhangj1@buffalostate.eduelementary*

Chris Mattatall

*Faculty of Education, Memorial University of Newfoundland, chris.mattatall@uleth.ca*

Follow this and additional works at: [https://scholarworks.wmich.edu/reading\\_horizons](https://scholarworks.wmich.edu/reading_horizons)



Part of the Curriculum and Instruction Commons, and the Elementary Education and Teaching Commons

### Recommended Citation

Doyle, A., Zhang, J., & Mattatall, C. (2015). Spelling Instruction in the Primary Grades: Teachers' Beliefs, Practices, and Concerns. *Reading Horizons: A Journal of Literacy and Language Arts*, 54 (2). Retrieved from [https://scholarworks.wmich.edu/reading\\_horizons/vol54/iss2/2](https://scholarworks.wmich.edu/reading_horizons/vol54/iss2/2)

This Article is brought to you for free and open access by the Special Education and Literacy Studies at ScholarWorks at WMU. It has been accepted for inclusion in Reading Horizons: A Journal of Literacy and Language Arts by an authorized editor of ScholarWorks at WMU. For more information, please contact [wmu-scholarworks@wmich.edu](mailto:wmu-scholarworks@wmich.edu).



---

## Spelling instruction in the primary grades: Teachers' beliefs, practices, and concerns

Antoinette Doyle, Memorial University of Newfoundland  
Jing Zhang, Buffalo State College  
Chris Mattatall, Memorial University of Newfoundland

---

### Abstract

---

This study examined Canadian teachers' beliefs, practices and concerns about spelling instruction in the primary grades. Data from surveys ( $n = 56$ ) indicated that most teachers believe that spelling is important and plan for spelling instruction. For most teachers, the spelling words and activities used, and the instructional resources they chose, reflected an attempt to incorporate both holistic and traditional approaches to instruction. Teachers reported that substantial numbers of children experience difficulty with spelling. They suggested that greater emphasis be placed on defining spelling outcomes in the curriculum, as well as on teacher education and resources for teaching spelling to diverse learners.

---



## **Spelling instruction in the primary grades: Teachers' beliefs, practices, and concerns**

### **Introduction**

Early 20th century spelling instruction, based on a view that English orthography was essentially irregular, focused on rote memorization of word lists (Templeton & Morris, 2000). In the latter half of the 20th century, however, the focus of spelling instruction had shifted in response to the work of Hanna, Hanna, Hodges and Rudorf (1966) and others who found that in spite of its deep orthography, English has a high degree of regularity. Other research has focused on the developmental nature of children's acquisition of orthographic knowledge (Henderson, 1981, 1985). Since English orthography is complex but not chaotic, several researchers have argued that if the structure of English is made transparent to children through explicit instruction, they will acquire the knowledge for tackling word spellings (Carreker, 2005; Moats, 2000; Treiman, 1998). Numerous spelling resources have recently been published that connect developmental perspectives on spelling acquisition with the teaching of orthographic structure (Bear, Invernizzi, Templeton & Johnston, 1996, 2011; Gentry, 2004; Gentry & Gillet, 1993); however, even earlier examples include explicit attention to letter sounds, letter patterns, syllables and affixes (Kuska et al., 1962).

For over thirty years, other perspectives on spelling within the context of a holistic contextualized reading and writing framework emerged that led to a dramatic shift in approaches to spelling instruction in North American elementary schools (Schlagal, 2002). Approaches to spelling instruction, based on spelling textbooks (spellers) were largely abandoned (Johnston, 2001). Instead, spelling development was theorized to be best taught through instructional activities reflecting the demands of the particular context, the reading and writing activity at hand. This approach eschewed the view that spelling was best developed through a focus on predetermined lists of words. Teachers were encouraged to focus on words related to topics of study in the classroom, misspelled words, high-frequency words, and words that children indicated an interest in learning (Graham, 2000).

Concurrent with these developments, an emphasis was increasingly placed on the communicative purposes for writing. The focus of classroom writing activities shifted from an emphasis on mastery of the various forms and mechanics of writing to a focus on the message in the writing. To encourage written expression, invented spelling was advocated as an appropriate instructional approach that would allow children to put their ideas in writing without fear or hindrance due to concerns about the accuracy of their spellings (Gill, 1997). Children were encouraged to spell words inventively based on what they knew about sound-to-spelling relationships or other aspects of word knowledge. This was thought to enable the young writer to focus on what was most important, communication of the intended message (Gentry, 2000).

The benefits of invented spelling for children in the primary grades are adequately documented to support their continuing use (Ehri & Wilce, 1987; Gill, 1997; Ouellette & Sénéchal, 2008; Rieben, Ntamakiro, Gonthier, & Fayol, 2005; Sénéchal, Ouellette, Pagan & Lever, 2012). English orthography, however, is determined by more than simple letter-sound relationships. English spelling rules and patterns are influenced by both the morphology and phonology of the many languages from which English is derived, including Anglo-Saxon, Latin and Greek (Henry, 2003). Spelling patterns in these and other languages influence the spelling of English words. Since there is not a simple relationship between how words sound and how they are spelled in English, as there is in some alphabetic languages, English is said to have a deep orthography. Thus, although letter-sound knowledge contributes to reading and spelling accuracy, many patterns in English such as *-le* in *little* or *-tion* in *motion*, defy simple translations from letter to sound (Moats, 2000; Treiman & Casar, 1997). Word-specific knowledge, such as knowing when to double letters in spelling (as in the word *rabbit* but not *habit*) is also required for acquiring a high degree of spelling competency (Holmes and Castles, 2001).

Some Canadian curriculum documents promoting the contextualized approach to spelling do, in fact, acknowledge that there is a substantial regularity in the structure of written English and suggest various types of word-study activities (e.g., Government of Newfoundland and Labrador, 1996; Government of Newfoundland and Labrador, 1998). However, they do not recommend a sequenced program of words to teach. Questions about the use of spellers as an educationally-sound practice are posed (Government of Newfoundland and Labrador, 1998). Instead, spelling instruction in response to

what writers needed to know or the errors they made were strongly advocated. Documents such as these reflect holistic approaches that became widespread in the United States and also gained prominence in Canadian curriculum documents and teaching practices. In a review of spelling instruction, however, Graham (2000) concluded there was little evidence to justify the replacement of traditional instruction with contextualized approaches. It is important to consider how disparate perspectives on spelling development and instruction across research literature and curriculum materials influence what teachers believe about spelling development and instruction, and what they do about it in their classrooms.

Studies in the U.S. in the past decade or so have queried American teachers' beliefs about spelling, and their instructional practices and concerns (Fresch, 2007; Graham et al., 2008; Johnston, 2001). Wide variation is found in the directives given to teachers about how they should teach spelling (Johnston, 2001), the sources of words teachers use (Fresch, 2007; Graham et al., 2008; Johnston, 2001), their beliefs about spelling development, their instructional practices, and if and how they modify instruction for struggling spellers (Graham et al., 2008; Johnston, 2001). In examining the issue of instructional modification for students, Graham et al., (2008) found that a sizeable minority of teachers (42%) make 0-2 modifications, while a much smaller proportion of teachers (29%) made over two-thirds of all modifications reported in their study. Fresch's (2007) study focused on teachers concerns about children's spelling development and their role in spelling instruction, noting for example that many teachers felt students' learning was temporary for "Friday Spelling Test" purposes, but it was not retained in the long term in their writing. These teachers were also concerned about their ability to meet the diverse spelling needs of their students.

### **Purpose of the Study**

Graham et al., in 2008, noted the paucity of studies capturing the "big picture" of contemporary spelling instruction in the U.S. A search of the literature since that date did not find subsequent studies of this nature. The extant literature suggests great variability in the instructional beliefs and practices of American teachers, as well as considerable uncertainty about how to best teach spelling. Even less is known about the perspectives and practices of teachers in Canada or whether or not the issues identified in the U.S.

research literature are relevant in Canadian schools. The purpose of this study was to investigate, in one Canadian context, primary teachers' beliefs about how children develop spelling knowledge, and examine the spelling instruction practices they use to support this development. This study addressed three areas of inquiry:

1. What do teachers believe about the nature of children's spelling development?
2. What do teachers believe are the best approaches for planning spelling instruction?
3. What practices do teachers regularly engage in for teaching spelling to typically-developing students and struggling students in their classrooms?

Teachers' beliefs about the underpinnings of spelling development on children - the competencies and attitudes children possess - were of interest in this study, since these beliefs are likely to impact instructional planning and practice (Moats, 2009; Nespors, 1987). How teachers planned and implemented spelling instruction - specifically the types of spelling words, the instructional activities and the evaluation methods chosen - were also of particular interest in order to document teachers' practice in spelling instruction in grades one, two and three, which were the grades targeted in this study. The authorized and teacher-selected resources used by the teachers are considered in relation to the beliefs and practices of the teachers in the study.

## **Method**

### **General Procedures**

To answer the research questions, a teacher questionnaire, described in the *Measures* section, was used. Information packages were sent to principals in a large random sample of 90 schools in three school boards in the province in which instruction is provided in English. A letter to the principal explained the nature of the research and the data collection procedures. The package also contained three teacher packages - one each for teachers teaching grade one, two and three. The principals were requested to inform the teachers of the opportunity to participate in the study. Teachers could then decide if they were interested in participating. As required by the school boards as part of their permission for the study, the decision to forward the information to teachers

was left to the discretion of the principal. Many schools in the three school boards also had at least one stream of French-Immersion in which instruction in all subjects was provided in French to native English speakers; however, as outlined in the information letters to the educators, only teachers of English language arts were of interest in this study. The teacher information package contained the information letter and questionnaire. Teachers were asked to complete the anonymous questionnaire and return it by mail.

### **Participants**

The participants were teachers who taught grade one, two or three English language arts in regular classroom settings, in three school boards in the province. In all except three cases, the teachers taught in single grade classrooms. The other three teachers taught combined grades, for example, grades one and two together in the same classroom. Respondents taught in both urban and rural settings in schools comprised of a variety of grade configurations, from primary-grade only schools, to schools comprised of all grades from kindergarten to grade twelve.

In total, the province, which is comprised of an island and a portion attached to the mainland of Canada, has just over 525,000 residents, about 500,000 of whom live on the island (Newfoundland and Labrador Statistic Agency, 2013). The three school boards participating in the study spanned the entire island portion of the province. As such, schools involved in the survey were drawn from a broad socio-economic range. According to the most recent National Household Survey, the “mother tongue” of the province in which the study was conducted is predominantly English (98%), with the remaining 2% comprised of French (Canada’s other official language), and other non-official languages (Statistics Canada, 2011).

### **Measures**

**Teacher Questionnaire.** The questionnaire consisted of four sections—information about the respondents (e.g., teaching experience, grade currently taught, class size), teacher beliefs about the value of spelling and about how children learn to spell, teachers’ spelling instructional practices, and teachers’ opinions about instructional supports for the teaching of spelling. Forced choice, Likert-type rating scales and open-ended questions were utilized. This questionnaire was informed by other research literature examining spelling instructional practice (Graham et al., 2008; Johnston, 2001). Because it was

possible that some teachers would have been teaching in multi-grade settings, questions were designed to allow teachers to respond separately by grade level where answers may have varied between grades. To improve the clarity and validity of the questionnaire, a pilot study was conducted among a small number of primary teachers before finalizing the questionnaire. These teachers completed the questionnaire and provided feedback regarding the length of time required to complete it, the clarity of the questions, and the appropriateness and comprehensiveness of the questions.

Since the distribution of the questionnaire was left to the discretion of the principals it is not possible to know how many questionnaires were received by the teachers. If every teacher was made aware of the study, a maximum of 270 teachers (three for each of 90 schools) could have participated. In some schools, however, due to low enrollments necessitating multi-grade classrooms, fewer than three teachers would have been on staff teaching grades one through three. The return of 56 of these questionnaires indicates a minimum return rate of 20.7%. This is higher than anticipated return rates for mail-in surveys (Weisberg, Krosnick, & Bowen, 1996), and in other research on spelling instructional practice using mail-in surveys (Fresch, 2007).

### **Analyses**

A mixed-method approach was used. For each open-ended question one coder examined all responses. These responses were initially categorized into emerging themes following a coding method for the open ended questions in which recurring regularities reveal patterns that can be sorted into categories such that the sorted data reveals internal homogeneity within categories and external heterogeneity among categories (Patton, 2002). Upon the assignment of all responses to the categories, the categories were reviewed and in some cases further divided or combined with others. All responses were again reviewed to ensure the categories for each open-ended question were sufficient to represent the responses of the teachers, without overgeneralizing these responses. All responses to each open-ended question were then coded according to the final categories. Using a random sample (25%) of the surveys, generated using a statistical software program, a second coder independently scored the open-ended questions using the categories created from all responses. Inter-rater agreement was 96 percent. The final number of categories for each question differed according to the variability of the responses within a



category. The categories identified for each type of open-ended question are noted in the results section and the number of responses associated with each category is presented. The respondents sometimes made multi-faceted responses to open-ended questions. In such cases their responses were then coded into more than one category. Thus, for a single question, the total number of responses indicated by category would exceed 56—the total number of respondents. These data and the responses to forced-choice questions and rating scales were entered into a database. Where appropriate, such as in reporting on class size or number of years of teacher experience, descriptive statistical techniques were employed to examine the participants' responses. Other statistical techniques such as t-tests or chi-square tests were used to identify relationships amongst participant factors and responses, for example, the relationships among grade level and the frequency of struggling spellers.

## **Results**

The results are organized in four sections: the characteristics of the teacher participants and their students, teachers' beliefs about spelling development, teachers' planning for spelling instruction, and teachers' practice and reflections on instructional supports for teaching spelling.

### **Characteristics of Teacher Participants and Their Students**

The 56 teachers varied greatly in their teaching experience from those in their first few years of teaching to those with over thirty years teaching experience ( $M = 16.79$  years,  $SD = 8.68$  years). On average, the teachers were well-experienced in teaching the grade they taught at the time of the study ( $M = 6.55$  years,  $SD = 5.01$  years). Fifty-three teachers taught in single grade classrooms—19 taught grade one, 20 taught grade two, and 14 taught grade three. There were no significant differences in years of teaching experience among grade levels. Three other teachers taught in multi-grade classrooms in which children in two primary grades were grouped together.

Class sizes varied considerably from 8 to 26 students ( $M = 17.65$  students,  $SD = 4.98$ ). There were many fewer multi-grade classrooms in the study to compare to single-grade classes; however, it is typical of multi-grade classrooms, by nature of being in situated in very small communities, to have substantially lower numbers of children. There were no significant differences in class size by grade among the single-grade classrooms.

Teachers were asked to estimate the percentage of children exhibiting greater than average spelling difficulty. The term *greater than average* was used to identify children who struggle persistently and substantially with spelling, since it would be expected that almost all children would exhibit some difficulty, especially with novel words or word patterns, and this would help to identify the proportion of children for whom spelling is particularly challenging. Estimates varied from 0% to 75%,  $M = 28.82$ ,  $SD = 19.51$ . There was little difference in the means between grade one ( $M = 25.65$ ) and grade two ( $M = 23.32$ ); however, by grade three the reported difficulty in spelling was much higher ( $M = 40.14$ ). ANOVA Post hoc tests indicated significant differences between grades one and three ( $p < .05$ ) and grades two and three ( $p < .05$ ).

### **Teachers' Beliefs about Spelling Development and Instruction**

**Importance attributed to spelling.** Teachers' rating of the importance of spelling acquisition was gauged on a 5-point Likert-type scale from not important at all (0), to very important (4). On average the teachers considered spelling to be important ( $M = 3.10$ ,  $SD = 1.06$ ). There was little variance in means by grade level and no significant differences in these means. Bivariate correlational analysis also revealed no significant relationship between years of teaching experience and the importance attributed to spelling development.

Teachers were asked to explain their rating by responding to an open-ended question querying their rationale for the rating of importance they attributed to spelling. The responses were grouped into nine categories, five of which supported the importance of spelling and spelling instruction and four that were more ambivalent. Some responses were multifaceted and coded into more than one category. The frequencies associated with each type of response are indicated by the numeral within the parentheses. The most frequently-cited arguments for the importance of spelling argued for its necessity for reading one's own writing and having one's writing to be interpretable by others ( $n=23$ ), and the importance of spelling knowledge supports reading development ( $n=19$ ). Also cited is the argument that children who spell without difficulty engage in writing with less apprehension and frustration, allowing them to focus on higher level writing skills such as organization and expression ( $n=10$ ). Some ( $n=5$ ) argued that while technology is very useful, it is not fail-proof or always available; therefore independent spelling skill is needed. A few

others (n=4) focused on the “how” and the “what” of spelling, that it should be systematic and direct, with a focus on spelling patterns, rules, and strategies.

**The underpinnings of spelling development.** In an open-ended question, teachers were asked about what they believe to be the knowledge and skills necessary for becoming a good speller and their responses were grouped into seven categories. Knowledge of phonics and other orthographic features of English, such as silent letters, were most frequently cited (n=41). Knowledge of rules and spelling strategies was also referenced by many (n=23). Less frequently, phonological awareness (n=11), reading competency (n=11), memory skills (n=5), and attitude toward learning to spell (n=5) were mentioned.

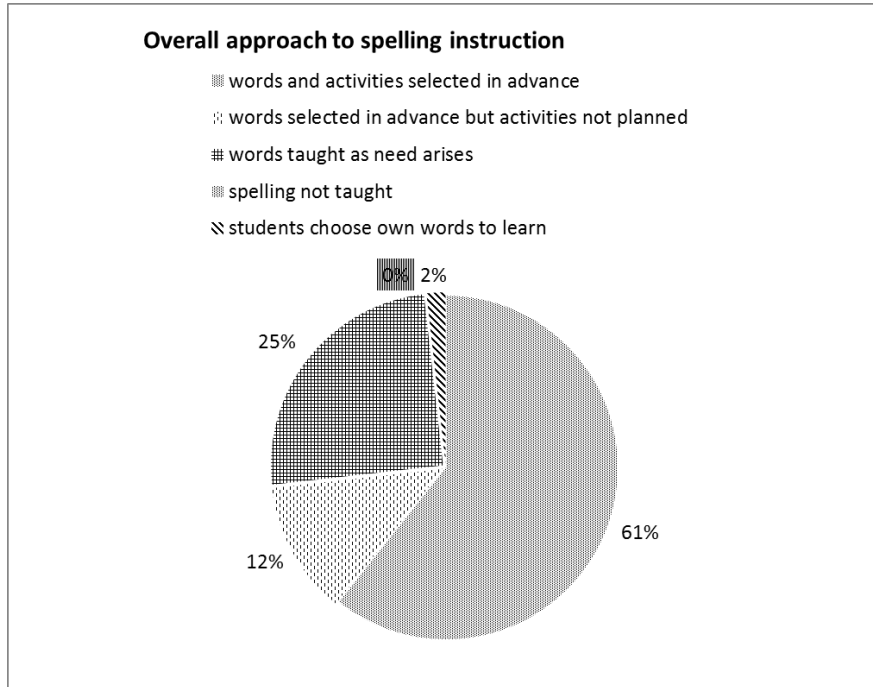
**Teachers’ goals for engaging in spelling instruction.** An open ended question asked teachers what they hoped children would gain from spelling instruction. It was expected that improvement in accuracy of spelling performance would obviously be cited and this was borne out in the responses (n=26). Also of interest in this question, however, were teachers’ perceptions of *how* instruction might facilitate this improvement in spelling, and if other curriculum areas might also be positively impacted by this improvement. A number of responses suggest how teachers’ perceived the pathway to spelling improvement. Instruction was cited by many as a means for enhancing children’s confidence in spelling (n=24), and desire to spell correctly (n=3). Improvement in letter-sound knowledge (n=11) and knowledge of rules for spelling (n=7) were also cited as means of improvement. With respect to how spelling instruction might have a positive impact on other areas, 15 respondents suggested that instruction would improve reading performance, while three stated that vocabulary knowledge would also be enhanced.

### **Teachers’ Instructional Planning**

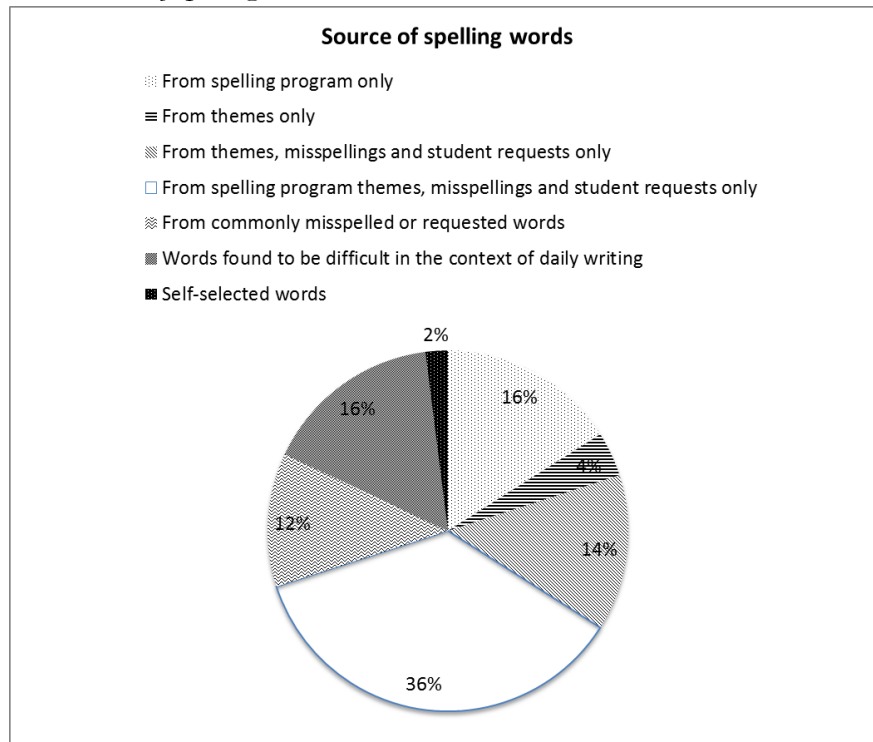
Using forced choice responses, teachers were asked about their overall approach to planning spelling instruction (Chart 1), their main source of words for teaching (Chart 2) , the type of words chosen (Chart 3), and the resources available to them and their perceived usefulness (Chart 4). These data are considered further in the discussion section.

### **The Implementation of Spelling Instruction**

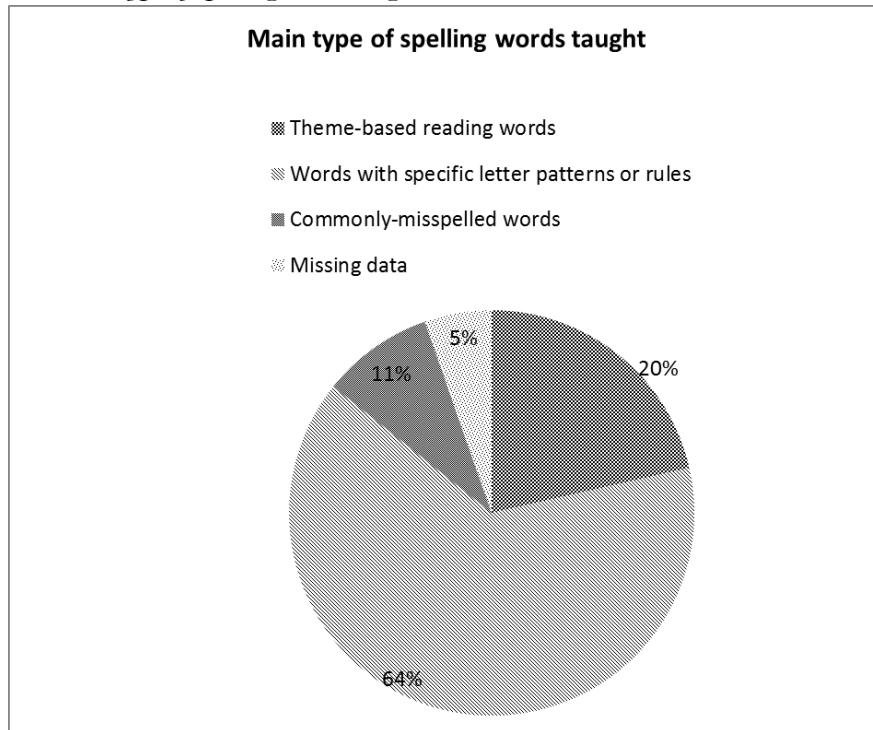
**Chart 1:** Overall approach to spelling instruction



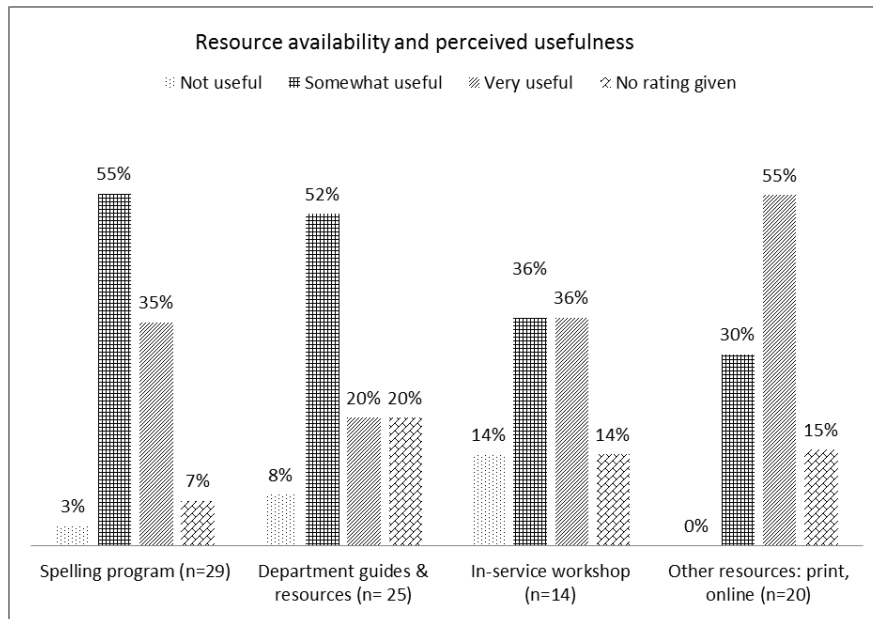
**Chart 2:** Source of spelling words



**Chart 3:** *Main type of spelling words taught*



**Chart 4:** *Resource availability and perceived usefulness*



Numbers in parentheses refer to number of teachers possessing these resources. Percentages refer to usefulness rating of the resource.

**Timing and sequencing of spelling instruction.** Teachers indicated that, on average, they taught spelling about 46 minutes per week, and about 39 minutes of this time involved direct instruction. In an open-ended question, teachers were asked to describe the main instructional activities that they engage in with their students. Teachers frequently (n=28) reported discussing the orthographic features of chosen words, e.g., word families, blends, etc., as well as rules and strategies (n=7) for using these words (e.g., how to form plurals). Teachers also noted they planned word study activities for the week related to those words (n=30), and talked specifically about opportunities for practicing spellings (n=18) using a variety of forms including daily reading and writing in context, games and use of websites. Other noted instructional activities included examining word meanings in addition to word spellings (n=15) although it was not clear if the connections between roots and variant spellings were examined, assigning spelling homework (n=11), conferencing with individual students (n=10), and encouraging the use of tools for checking spelling such as word walls and personal dictionaries (n=9).

For those teachers who plan in advance to teach specific words and engage in related activities, a common sequence of instruction emerged. At the beginning of the week, these teachers typically introduced the words to be learned and many of these teachers examined the orthographic and phonological features of the words. Sometimes, the words could be categorized; for example some plural forms added “s” while other possessed “es” suffixes, and these similarities and contrasts were discussed and rules were generalized for these. During the week, teachers planned various instructional activities that allowed students to practice spelling the words, working with rules and strategies, and expanding their word knowledge by examining word and variant meanings and using these words in their reading and writing. Independent writing, paired and small-group activities using traditional games or computer games, and center-based activities were reported, indicating that children worked alone at times, while at other times they collaborated with peers. During this time teachers sought to differentiate instruction by assigning children to specific words, tasks, and/or peer-groups, and varying the amount of supervision and guidance given to each student while they were completing the assigned learning activities. Before the end of the week, teachers often held a practice quiz by calling the words and having the students or a peer correct the spellings. During the week, homework sometimes included practicing spelling

words and completing related activities. At the end of the week, or after a longer period of time, where applicable, teachers gave a final quiz of the word spellings.

**Adaptations to Instruction.** The teachers were asked if they adapted instruction for different students' needs and, if so, how. Most respondents (n=38) indicated they adapted instruction to meet the needs of different children in their classrooms; however, 14 indicated they did not. Chi-square tests revealed no significant differences across grade levels in the number of teachers making adaptations to instruction. In an open-ended question, teachers who indicated they did adapt instruction were asked about how they did this. Many teachers (n=34) indicated they vary the words given. Of these teachers, some assign a core set of words and vary the remaining balance of the words given, depending on the students' perceived needs. Some teachers (n=15) indicated they give fewer words to struggling spellers or allow students to choose their own words to learn (n=4). A few teachers (n=4) indicated they provided more guidance and support to struggling students when completing activities involving spelling. One teacher indicated that she does not assign spelling to students she believes are not ready to learn; these grade two students would presumably have considerable learning challenges. Finally, one teacher indicated that her classroom instruction does not vary, but she assigns words and activities for children to take home for their parents to decide if their children will do any of the activities, based on their (parents') assessment of what their children need.

**Sequencing of Instruction and Assessment.** Most teachers (n=42) indicated they taught a new group of words each week, while others focused on the same words for about two weeks (n=9) or less frequently (n=1). Teachers were asked to describe their assessment practices and all unique responses were noted and coded into categories. Many (n=37) teachers reported conducting pre-and-post-test written assessments of spelling performance. Meanwhile, 35 teachers stated they used children's daily writing activities (e.g., journal writing) to gauge spelling progress. Respondents did not indicate if in examining daily writing, the spelling of specific words under current or recent study were of particular scrutiny, or whether or not the "old" spelling errors of particular children had been resolved. Indeed, comprehensive assessment on children's individualized learning of specific words or orthographic pattern mastery using "free writing" samples such as journal writing, in which specific words may or

may not appear, would be quite challenging. Taken together, the prevalence of these two approaches, assessment of specific word learning through regular quizzes and monitoring of their use and retention in daily writing, indicate that most teachers aim for a systematic formal assessment of spelling, and also seek evidence that learned words transfer to writing activities.

### **Teachers' Reflections on the Teaching of Spelling**

**Teacher Confidence.** Teachers were asked to indicate their confidence in teaching spelling, on a 5-point Likert-type scale which was coded from 0 (not confident at all) to 4 (very confident). Scores ranged from 2 (moderately confident) to 4 (very confident) with a mean score of 3.09 ( $SD = 0.75$ ). There was no significant correlation between number of years teaching experience and confidence in teaching spelling.

**Satisfaction with curriculum and instructional supports.** When asked if spelling was adequately addressed in the curriculum, 43 teachers replied “no”. Chi-square tests revealed no significant difference in this rating between less-experienced teachers and those with more experience. When asked to evaluate the usefulness of the authorized resources on a scale of 0 (not important at all) to 3 (very important), not surprisingly, there was a significant-lower valuation ( $t(21) = -2.45, p < .05$ ) of the authorized resources by these teachers ( $M = 0.82, SD = 0.55$ ) than by those who believed that spelling instruction was adequately addressed in the curriculum ( $M = 1.40, SD = 0.56$ ). Nonetheless, a series of chi-square tests indicated that regardless of overall approach to teaching spelling (planning words and activities in advance or teaching them as they arose in context), whether or not they used a supplemental spelling program, and the type of words of primary focus (theme-words, orthographic patterns, or misspelled words), teachers' dissatisfaction was not significantly different across groups.

The 43 teachers who stated they did not believe spelling was being adequately addressed in the curriculum were asked to explain their concerns and offer suggestions for improving programming. Most frequently ( $n=20$ ) teachers suggested that a program should be made available and incorporate the scope and sequence of the English orthographic structure to ensure that children “cover the bases” of content knowledge necessary for being a competent and confident speller, and that in-service education ( $n=7$ ) was needed. Related to this was the argument made by several teachers ( $n=8$ ) for consistency across



grades, the district, and the province. One teacher stated that since all grade three children completed province-wide tests of language arts, consistency in the messages teachers received about how to teach spelling, and the resources provided for doing so, were important. One teacher posited that “teachers are left to their own devices” in deciding what to teach and how. Related to this concern was the concern of several teachers (n=10) that in the curriculum documents, learning outcomes for spelling were not sufficiently represented or valued.

One teacher noted that while she believed her instructional practices were perceived as “old school”, she felt that they were, nonetheless, the best approach for ensuring that her students received a thorough grounding in the principles underlying English spelling structure. Further, a number of comments (n=6) made suggesting that direct, systematic spelling instruction was frowned upon by the district administration, as well as comments (n=3) that spelling instruction too early can stifle creativity and hinder writing development, indicate that some teachers are conflicted about spelling instructional practices. These comments demonstrate that many teachers do not feel that at a district or department of education level, spelling receives sufficient attention. They also suggest that many teachers perceive a lack of clarity about what they are expected to teach and how. How can it be reconciled that teachers, overall, feel confident in teaching spelling, yet do not consider spelling to be adequately addressed in the curriculum? This is an important matter for consideration in the discussion section of this paper.

## **Discussion**

This section is organized around the findings related to teachers’ beliefs about children’s spelling development, their instructional planning, their instructional practices, and their reflections on their teaching of spelling within their educational community. These beliefs, plans, practices, and reflections are discussed in relation to the curriculum documents and teaching resources authorized for use in the classroom.

### **Teachers’ Beliefs about Spelling Development and Instruction**

Most teachers, regardless of grade level or years of experience, believed that spelling was important. These teachers cited practical purposes for spelling skill, such as being able to communicate ideas in writing effectively with others or for advancing one’s own reading ability. Several teachers, who rated spelling

as a skill of moderate to low importance, suggested that a focus on spelling compromised creativity. While a few studies (Gill, 1997; Ouellette & Sénéchal, 2008) suggest that encouragement of the use of invented spelling leads children to produce a greater volume of writing, it has not been demonstrated that creativity or progress in writing over the longer term is inhibited by an early introduction to conventional spelling instruction. The relationship and level of trust that children have with their teachers, not the method of spelling instruction, may be a more influential factor in children's willingness to engage in writing.

It was not entirely surprising that about 10% of respondents explicitly cited a concern that a focus on conventional spelling could be detrimental to the writing development of primary children. The provincial curriculum documents and authorized resources are strongly influenced by a holistic philosophy, and some indicate a rather tepid enthusiasm for the teaching of spelling. For example, *Spelling in Context* (1998) begins by stating, "Spelling is one of the less interesting and more laborious aspects of writing." (p.1). In another resource, *Spelling handbook for teachers* (1996) a poem entitled, *A literacy poem*, suggests that English orthography is illogical. A second poem, entitled *Why is English so hard?*, also suggests that English orthography is incomprehensible. Indeed, English has a deep orthography because it is rooted in Anglo-Saxon, Latin, Greek and other languages, and is shaped by the historical influences that have been brought to bear on these languages, over time (Moats, 2000). This leads many linguists and educators to argue, however, for the need for systematic, explicit instruction, instead of the opportunistic (as the need arises) approach (Chall, 1967, 1996; Henry, 2003; Moats, 2000; Snow, Burns & Griffin, 1998).

In *Invitations* (Routman, 1994), a provincially-approved and widely-distributed resource, however, the author argues for a holistic approach to spelling. She cautions, "Spelling should facilitate communication of written language, not limit it...The need for standard spelling should be kept in proper perspective....There should be no spelling curriculum or regular lesson sequences" (p. 238). The natural discovery method is advocated, through which children are posited to discover the rules of English orthography through their writing experiences and reflections. Teachers are advised, therefore, to conduct a mini-lesson of five to ten minutes duration if they notice several students making the same error (p.240).

Other resource documents, such as *Spelling: Sharing the Secrets* (Scott, 1993), also strongly support the discovery method, and advise against formal spelling instruction. Another resource—*First Steps Spelling Resource Book* (Rees, Kovalevs, & Dewsbury, 1994)—states, “This chapter [entitled *Teaching Graphophonics*] is based on the belief that a problem-solving approach to teaching phonics is far more powerful than teaching ‘letter’ stories and drilling ‘sounds’, because it teaches children strategies that they can use as independent learners” (p. 40). The association of phonics instruction with “drill” may indeed be rooted in the practices of the past; thus, the criticism may be a very valid one. Nonetheless, the evidence for direct instruction of letters and sounds is well documented (Adams, 1990; Chall, 1967, 1996; National Institute of Child Health and Human Development, 2000; Snow et al., 1998). Interestingly, the discovery method is also recommended by advocates of systematic instruction. However it differs markedly in that the teacher selects words in advance to highlight a specific orthographic pattern in a planned sequence of instruction with a view to the ‘big picture’ of teaching the scope of English orthography (Carreker, 2011; Moats, 2005).

Clearly, teachers believe that spelling is important, but hold differing views about its place in instruction. The mixed-messages given in the various authorized resources, as well as teachers own reflections on teaching and learning spelling, likely all play a role in the variance observed. While some teachers view formal instruction as an early foothold into higher-level writing, others view it as a potential detriment to the writing progress. For these teachers, standard spelling must be acquired, but it is not to be of major focus until the later grades. Irrespective of teachers’ views on the timing and method for teaching spelling, in this study teachers’ long-term instructional goals for spelling were similar, focusing predominantly on children’s mastery of English orthography through the acquisition of phonics knowledge, orthographic pattern recognition, and knowledge of rules and strategies and how to apply them.

### **Teachers’ Instructional Planning**

The majority of teachers in this study chose words to be learned in advance, similar to the findings of Graham et al. (2008) and Johnston (2001). Overall, these words adhered to the criteria for selecting words that were widely recommended in the authorized resources: theme words, misspelled words, and

high-frequency words. Most of these teachers, however, also chose words from published programs. These teachers created word lists in advance, and majority of words on these lists were chosen to teach specific orthographic patterns. Thus, it is evident they were clearly striving to provide an orthographic framework for students to help demystify the complexities of English.

It is interesting to note that in the various resources provided to teachers, selection of words for ensuring comprehensive exposure to orthographic patterns in a systematic fashion is not mentioned. One resource, *Spelling in Context* (1998), does suggest the inclusion of “words that teachers know children need” (p. 24), which, presumably could include word possessing specific orthographic patterns if teachers deemed such words to be important. A later section of *Spelling in Context* on grapho-phonemics, acknowledges the role of phonics and other aspects of orthography in spelling, but provides no comprehensive list of these features or recommendations for sequencing of teaching. This may be a deliberate decision based on developmental spelling theory (Henderson, 1985) that emphasizes the individualized nature of spelling development. Problems may arise, however, when this theory is interpreted to mean that the planned teaching of spelling structure or sequence is pedagogically inappropriate.

Although the resources available to the teachers state a belief that phonics plays a role in spelling, and some offer selected examples of orthographic patterns and suggested activities, none state that phonics knowledge, and orthographic knowledge more broadly (including morphology), are central to children’s spelling progress and understanding of English orthography. Some of the recommended activities (e.g., word sorts suggested in *Spelling in Context*) are worthwhile for developing orthographic knowledge, and by extension could also be used to develop morphological and semantic awareness. Other suggestions in this resource are of questionable benefit to spelling development, such as using shape boxes to learn word spellings, and creating rebus representations of words. Morris, Blanton, Blanton, and Perney (1995) have also questioned the educational merit of some spelling activities in some context-based spelling resources for teachers.

### The Implementation of Spelling Instruction

Based on their reports of the time spent engaged in teaching spelling, teachers see innumerable opportunities for teaching it, and spend what is perhaps an incalculable amount of time engaging in systematic instruction, incidental spelling instruction, or a combination of both, given the nature of teaching language arts. For those who did plan instructional time for spelling, the high proportion of planned time on average, 39 minutes per week, in relation to the overall estimated time engaged in spelling, 46 minutes per week, suggests that planned activities, whether teacher-directed, simple practice, or discovery-approach, were seen by teachers as an important component of their language arts instruction. The total instructional time is substantially less than the 90 minutes per week reported in the Graham et al. (2008) study. Both studies, however, reported very large amounts of variability of the time spent teaching spelling.

For some teachers, instruction occurred incidentally as teachers noticed that children encountered difficulty with spelling or when children asked for assistance with spelling in their writing. Most teachers, however, planned to teach specific word spellings, usually with associated planned activities beyond simply practicing spelling. The pattern of presenting words, examining their phonological and orthographic features, reviewing and applying rules, and practicing working with these words in activities and in their daily writing, suggests that teachers were striving to bring together systematic, explicit approaches and contextualized approaches.

Across the grades, teachers reported that about 29% of students experience greater-than-average struggle with spelling, similar to the literature on reports by American teachers ( $M = 27\%$ ) across several states (Graham et al., 2008). The reported proportions of strugglers in grade one (25.65%) and grade two (23.32%) suggest that teachers, perhaps observing reasonably-phonetic but nonstandard spelling in many students, considered the majority of students to be making good progress. By grade three, however, where there was a higher average percentage of struggling spellers reported (40%), teachers may have judged spelling progress by students' ability to produce standard spellings for most words used in daily writing and on tests.

Indeed, the *English Language Arts Curriculum Guide – Primary* (1999) outcomes for transitional writers, described in the curriculum guide to typically

be children in grade three to five, state that children should spell many words conventionally and use dictionaries. The outcomes, however, for emergent writers (primarily kindergarten – grade one children) and early writers (grade one and two children) focus on having children take risks to attempt invented spellings and being able to correct a few misspellings. This difference in criteria for evidence of spelling achievement may explain why there was a significantly-higher proportion of grade-three children reported to be experiencing difficulty. Practically speaking, it is not unreasonable that grade three teachers would expect children near the end of their fourth year of education to have acquired a large corpus of words that they could correctly spell.

The similarity of teachers' level of adaptation of instruction across grade levels indicates that regardless of their estimation of how well their students were doing, most teachers' practices were rooted in helping children make progress at their individual level. The two most frequently-cited adaptations, reducing the number of words and/or varying the type of words so that simpler or fewer letter patterns are required to be studied at one time, are responsive to the developmental nature of orthographic understanding. Yet, these follow a plan that maps instructional sequence onto the orthographic structure of English. Planned instruction for struggling children that is responsive to students needs and informed by the structure of English orthography has been shown to support better progress than children in classrooms where instruction did not vary (Morris et al., 1995).

### **Teachers' Reflections on Spelling Instruction in Their Educational Community**

The proportion of teachers dissatisfied with how spelling was addressed in the curriculum (78%) is similar to Johnston's (2001) finding that 73% of the American teachers surveyed were also dissatisfied. In the current study of Canadian teachers, the finding that teachers generally felt confident in teaching spelling is interesting in contrast to the fact that most were generally dissatisfied with how spelling is addressed in the curriculum. It may be that teachers who strongly adhered to a context-based approach, in which words were mainly taught by theme or as the need was perceived in the context of daily writing, feel affirmed by the tone and directives of the authorized curriculum documents. On the other hand, teachers who perceived a lack of instructional supports sought out additional resources, as evidenced by the finding that half of the teachers reporting using a supplemental program. Further, there was a

significantly lower valuation of the authorized resources for these teachers than for those who believed that spelling instruction was adequately addressed in the curriculum. Because these teachers cited the classification of words by patterns and the availability of worthwhile activities as two reasons why they used these resources, they likely also felt confident that spelling was being taught thoroughly. In spite of their confidence in their instruction, they identified some specific concerns including a need for increased valuation of spelling in the curriculum documents with more clearly-defined outcomes, the provision of an authorized program for spelling that teaches the structure of English words, and more in-service education to assist teachers in planning for differentiated instruction. Such concerns are also identified by American teachers (Fresch, 2007; Johnston, 2001).

### **Conclusion and Implications for Practice**

The teachers in this study believed that spelling was important, and most planned to teach specific words often following planned activities. It was also reported that considerable numbers of children experience substantial difficulty with spelling, and that most teachers adapted instruction to help these students to learn using a wide variety of approaches. Many teachers sought to incorporate the teaching of English orthographic structure systematically in their teaching using supplementary resources in addition to following the contextualized approach as advocated in the authorized resources provided to teachers. These teachers held the view that their instruction would be more effective following a systematic approach. This makes sense in light of the research literature on learning to read. Numerous studies have shown that good readers do not rely primarily on context for accurate word reading but on knowledge of the phonological-graphemic-morphological structure of words, and that systematic instruction that focuses on teaching these structures is the most effective means of word recognition (Chall, 1967, 1996; Gough; 1983; Juel, 1991; National Reading Panel, 2000; Share & Stanovich, 1995). Many of the cognitive processes and knowledge stores utilized during reading and spelling are related (Ehri, 1997), but learning to spell is even more difficult than learning to read (Bosman & Van Orden, 1997; Frith, 1980; Invernizzi & Hayes, 2004; Joshi & Aaron, 1991).

There is little doubt that contextualized reading and writing instruction can provide engaging learning experiences to aid in the development of spelling.

Contextualized reading and writing experiences alone, however, are not sufficient for ensuring that children become good spellers; instruction that addresses the orthographic structure of English is also needed (Carreker, 2005; Graham & Santangelo, 2014; Moats, 2000). However, as Johnston (2001) reported, even when teachers were aware that their students' spelling skills were inadequate, they felt they lacked the resources and the knowledge needed to teach spelling more effectively. School districts should, thus, do more to ensure that curriculum documents be broadened to include support for explicit instruction, and that professional development in the teaching of spelling is provided. Professional development focusing explicitly on effective instructional practices has been shown to be predictive of student achievement (Wenglinsky, 2002). Teachers need to be provided with opportunities to acquire explicit knowledge of English orthography for planning instruction and for supporting the spelling development of all of their students. Professional development is often provided to teachers through "one-shot" types of workshops that then leave the classroom teacher alone thereafter to apply those ideas without any ongoing support, feedback, or avenue to discuss the implementation of those ideas in any professional manner. What is needed is for teachers to be provided on-going support, time to plan collaboratively, and the assistance from school administrators to implement effective instructional approaches (Fresch, 2003). One additional suggested approach is the use of facilitated discussion meetings specifically on the teaching of English orthography, the nature of their students' spelling errors, and how teachers might differentiate instruction for students at different levels (Fresch, 2003; Gill & Scharer, 1996).

### **Limitations and Directions for Future Research**

Given the ethical parameters around the study, requiring that respondents be anonymous, it was not possible to contact respondents to clarify information provided or request responses to unanswered questions. It was also not possible to determine if those teachers who chose not to respond to the survey were categorically different than those who did, in ways that would impact the findings of the study. Unlike some published studies which compare respondents and non-respondents on demographic information using existing registries (Graham, Harris, Fink-Chorzempa & MacArthur, 2003), no lists of this nature are available for public access or purchase in the province in which the study was conducted.



This study, believed to be the first to examine spelling instruction practices in Canada, took a broad view of teachers' beliefs, practices and concerns about the teaching of spelling. As such, many critical topics remain to be more fully explored, especially instructional adaptations and teacher supports. This issue is particularly pertinent since, like their American counterparts, struggling students in Canada increasingly receive all or most of their instruction in the regular classroom. Future research is needed to examine how teachers can be supported in developing instructional practices for increasing students' explicit knowledge of orthographic structure and its effects on the spelling achievement of both typical and struggling students.

## References

- Adams, M. J. (1990). *Beginning to read: Thinking and learning about print*. Cambridge, MA: MIT Press.
- Bear, D., Invernizzi, M., Templeton, S., & Johnston, F. (1996). *Words their way: Word study for phonics, vocabulary, and spelling instruction*. Upper Saddle River, NJ: Merrill.
- Bear, D., Invernizzi, M., Templeton, S., & Johnston, F. (2011). *Words their way: Word study for phonics, vocabulary, and spelling instruction, 5<sup>th</sup>*. Ed. Harlow, UK: Pearson.
- Bosman, A., & Van Orden, G. (1997). Why spelling is more difficult than reading. In C. A.
- Perfetti, L. Reiben, & M. Fayol (Eds.), *Learning to spell: Research, theory and practice across languages* (pp. 173-194). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Carreker, S. (2011). Teaching Spelling. In J. Birsh (Ed.). *Multisensory teaching of basic language skills, (3rd ed.)* (pp. 251-292). Baltimore, MD: Paul Brookes Publishing Co.
- Chall, J. (1967). *Learning to read: The great debate*. New York, NY: McGraw Hill.
- Chall, J. (1996). *Learning to read: The great debate (Rev. Ed.)*. New York, NY: McGraw Hill.
- Ehri, L. (1997). Learning to read and learning to spell are one and the same, almost. In C.
- Perfetti, M. Rieben & M. Fayol (Eds.) *Learning to spell: Research, theory, and practice across languages* (pp. 237-269). Mahwah, NJ: Erlbaum.
- Ehri, L. & Wilce, L. (1987). Does learning to spell help beginners learn to read words? *Reading Research Quarterly*, 22 (1), 47-65. DOI: 10.2307/747720
- Fresch, M. J. (2007). Teachers' concerns about spelling instruction: A national survey. *Reading Psychology*, 28, 301-330. DOI: 10.1080/02702710701545510

- Fresch, M. J. (2003). A national survey of spelling instruction: Investigating teachers' beliefs and practice. *Journal of Literacy Research, 35* (3), 818-848. DOI: 10.1207/s15548430jlr3503\_2
- Frith, U. (1980). Unexpected spelling problems. In U. Frith (Ed.), *Cognitive processes in Spelling* (pp. 496-515). London, UK: Academic Press.
- Gentry, J. R. (2000). A retrospective on invented spelling and a look forward. *The Reading Teacher 54* (3), 318-332.
- Gentry, J. R. (2004). *The science of spelling: The explicit specific strategies that make great readers, writers, and spellers*. Portsmouth, NH: Heinemann.
- Gentry, J. R., & Gillet, J. W. (1993). *Teaching kids to spell*. Portsmouth, NH: Heinemann.
- Gill, D. (1997). The effectiveness of encouraging invented spelling. Retrieved from ERIC database (ED406645).
- Gill, C. H., & Scharer, P. L. (1996). Why do they get it on Friday and misspell it on Monday? Teachers inquiring about their students as spellers. *Language Arts, 73*(2), 89-96. Retrieved from <http://search.proquest.com/docview/196885316?accountid=12378>
- Gough, P. B. (1983). Context, form and interaction. In K. Rayner (Ed.), *Eye movements in reading: Conceptual and language processes* (pp. 203-211). San Diego, CA: Academic Press.
- Government of Newfoundland and Labrador. (1996). *Spelling handbook for teachers*.
- Department of Education and Training, Division of Program Development.
- Government of Newfoundland and Labrador. (1998). *Spelling in context: Directions for teachers and learners*. Department of Education, Division of Program Development.
- Government of Newfoundland and Labrador. (1999). *English Language Arts Curriculum Guide Primary*. Department of Education, Division of Program Development.

- Graham, S. (2000). Should the natural learning approach replace spelling instruction? *Journal of Educational Psychology*, 92 (2), 235-247. DOI: 10.1037/0022-0663.92.2.235
- Graham, S., Harris, K., Fink-Chorzempa, B. & MacArthur, C. (2003). Primary grade teachers' instructional adaptations for struggling writers: A national survey. *Journal of Educational Psychology* 95 (2), 279-292. DOI: 10.1037/0022-0663.95.2.279
- Graham, S., Morphy, P., Harris, K., Fink-Chorzempa, B., Saddler, B., Moran, S., & Mason, L. (2008). Teaching spelling in the primary grades: A national survey of instructional practices and adaptations. *American Educational Research Journal*, 45 (3), 796-825. DOI: 10.3102/0002831208319722
- Graham, S., & Santangelo, T. (2014). Does spelling instruction make students better spellers, readers, and writers?: A meta-analytic review. *Reading and Writing: An Interdisciplinary Journal*. Advance online publication. DOI: 10.1007/s11145-0149517-0
- Hanna, P. R., Hanna, J. S., Hodges, R. E., & Rudorf, H. (1966). *Phoneme-grapheme correspondences as cues to spelling improvement*. Washington, DC: United States Office of Education, Cooperative Research.
- Henderson, E. (1981). *Learning to read and spell: The child's knowledge of words*. Dekalb, IL: Northern Illinois University Press.
- Henderson, E. (1985). *Teaching spelling*. Boston: Houghton-Mifflin.
- Henry, M. (2003). *Unlocking literacy: Effective decoding and spelling instruction*. Baltimore, MD: Paul H. Brookes.
- Holmes, V., & Castles, A. (2001). Unexpectedly poor spelling in university students. *Scientific Studies of Reading*, 5 (4), 319-350. DOI:10.1207/S1532799XSSR0504\_02
- Invernizzi, M., & Hayes, L. (2004). Developmental-spelling research: A systematic imperative. *Reading Research Quarterly*, 39 (2), 216-228. DOI: 10.1598/RRQ.39.2.4

- Johnston, F. (2001). Exploring classroom teachers' practices and beliefs. *Reading Research and Instruction, 40* (2), 143-156. DOI: 10.1080/19388070109558339
- Joshi, R. M., & Aaron, P. G. (1991). Developmental reading and spelling disabilities: Are they dissociable? In R. M. Joshi (Ed.), *Written Language Disorders*. Boston, MA: Kluwer Academic Publishers.
- Juel, C. (1991). Beginning reading. In R. Barr, M. L. Kamil, P. B. Mosenthal, & P. D. Pearson (Eds.), *Handbook of reading research: Vol. 2* (pp. 759-788). New York, NY: Longman.
- Kuska, A., Webster, E., The School Sisters of Notre Dame, & Quidon, L. (1962). *Spelling in the language arts*. Don Mills, ON: Thomas Nelson & Sons (Canada) Ltd.
- Moats, L. (2000). *Speech to print: Language essentials for teachers*. Baltimore, MD: Paul H. Brookes.
- Moats, L. C. (2005). How spelling supports reading and why it is more regular and predictable than you may think. *American Educator, 29* (4), 12-43.
- Moats, L. (2009). Knowledge foundations for teaching reading and spelling. *Reading and Writing: An Interdisciplinary Journal, 22* (4), 379-399. DOI: 10.1007/s11145-009-91621
- Morris, D., Blanton, L., Blanton, W., & Perney, J. (1995). Spelling instruction and achievement in six classrooms. *The Elementary School Journal, 96* (2), 145-162. DOI: 10.1086/461819
- Morris, D., Blanton, L., Blanton, W., Nowacek, J., & Perney, J. (1995). Teaching low-achieving spellers at their "instructional level". *The Elementary School Journal, 96* (2), 163-177. DOI: 10.1086/461820
- National Institute of Child Health and Human Development. (2000). *Report of the National Reading Panel: Reports of the subgroups*. Washington, DC: National Institute of Child Health and Human Development Clearinghouse.
- Newfoundland and Labrador Statistics Agency. (2013). Population Estimates, July 1, 2001 to 2013, Census Divisions and St. John's Census Metropolitan Area (CMA), Newfoundland and Labrador. Retrieved

from: [http://www.stats.gov.nl.ca/Statistics/Population/PDF/Population\\_Estimates\\_CDCMA.pdf](http://www.stats.gov.nl.ca/Statistics/Population/PDF/Population_Estimates_CDCMA.pdf)

- Nespor, J. (1987). The role of beliefs in the practice of teaching. *Curriculum Studies*, 19, 317 -328.
- Ouellette, G., & Sénéchal, M. (2008). Pathways to literacy: A study of invented spelling and its role in learning to read. *Child Development*, 79 (4), 899-913. DOI: 10.1111/j.1467 8624.2008.01166.x
- Patton, M. Q. (2002). *Qualitative research & evaluation methods*, (3rd ed.). Thousand Oaks, CA: Sage Publications Inc.
- Rees, D., Kovalevs, K., & Dewsbury, A. (1994). *First steps: Spelling resource book*. Portsmouth, NH: Heinemann.
- Rieben, L. Ntamakiliro, L., Gonthier, B., & Fayol, M. (2005). Effects of various early writing practices on reading and spelling. *Scientific Studies of Reading*, 9 (2), 145-166. DOI: 10.1207/s1532799xssr0902\_3
- Routman, R. (1994). *Invitations: Changing as teachers and learners K-12*. Portsmouth, NH: Heinemann.
- Schlagal, B. (2002). Classroom spelling instruction: History, research, and practice. *Reading Research and Instruction*, 42 (1), 44-57. DOI: 10.1080/19388070209558380
- Scott, R. (1993). *Spelling: Sharing the secrets*. Toronto, ON: Gage Educational Publishing Company.
- Sénéchal, M., Ouellette, G., Pagan, S., & Lever, R. (2012). The role of invented spelling on learning to read in low-phoneme-awareness kindergartners: A randomized-control-trial study. *Reading and Writing: An Interdisciplinary Journal*, 25 (4), 917-934. DOI: 10.1007/s11145-011-9310-2
- Share, D. L., & Stanovich, K. (1995). Cognitive processes in early reading development: Accommodating individual differences into a model of acquisition. *Issues in Education*, 1 (1), 1-57.
- Siegler, R.S. (1998). *Emerging minds: The process of change in children's thinking*. New York, NY: Oxford University
- Snow, C., Burns, S., & Griffin, P. (1998). *Preventing reading difficulties in young children*. Washington, DC: National Academies Press.

- Statistics Canada. (2011). Population by mother tongue by province and territory. Retrieved from <http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/demo11a-eng.htm>
- Templeton, S., & Morris, D. (2000). *Spelling*. In M. Kamil, P. Mosenthal, P.D. Pearson & R. Barr (Eds.), *Handbook of reading research: Vol. 3* (pp. 525-543). Mahwah, NJ: Lawrence Erlbaum Associates.
- Treiman, R. (1998). Why spelling? The benefits of incorporating spelling into beginning reading instruction. In J. Metsala & L. Ehri (Eds.), *Word recognition in beginning literacy*, (pp. 289-313). Mahwah, NJ: Erlbaum. 1998.
- Treiman, R. & Casar, M. (1997). *Spelling acquisition in English*. In C. Perfetti, M. Rieben & M. Fayol (Eds.) *Learning to spell: Research, theory, and practice across languages* (pp. 61-80). Mahwah, NJ: Erlbaum.
- Weisberg, H. F., Krosnick, J. A., & Bowen, B. D. (1996). *An introduction to survey research, polling, and data analysis* (3rd ed.). Thousand Oaks, CA: Sage.
- Wenglinsky, H. (2002). How schools matter: The link between teacher classroom practices and student academic performance. *Education Policy Analysis Archives*, 10 (12), 58-63. Retrieved from <http://epaa.asu.edu/epaa/v10n12/>.

## Appendix A

### Teacher Questionnaire about Spelling Instruction

#### BACKGROUND:

1. In what grade(s) do you currently teach language arts? Grade(s) Do you teach in a multi-grade classroom? Yes or No?
2. Including this year, how many years have you taught the grade(s) you currently teach?
3. Including this year, how many years of teaching experience do you have in total?
4. In what school district do you currently teach?
5. How many students do you teach? If you teach language arts in more than one grade this year, please mark your answers to note all of these grades.
6. About what percentage of students in your class(es) have greater than average spelling difficulty?

#### SPELLING INSTRUCTION IN YOUR CLASSROOM:

7. Circle one letter only for the statement that best describes your approach to teaching spelling:
  - a) I choose spelling words to be learned and plan activities to specifically examine the words' spellings. The students also practice spelling the words.
  - b) I choose spelling words to be learned, but do not plan activities to specifically examine the words' spelling. The students practice spelling the words.
  - c) I do not plan for specific words to be taught, but teach individual or groups of children about the spellings of the words, as the need arises.
  - d) I do not teach students to spell words.
  
8. Circle one letter only for the statement that best describes your main source of words for spelling instruction:
  - a) In advance, I choose words from lists in a published spelling program.
  - b) In advance, I choose words from themes under study in the classroom.



- c) In advance, I choose words from themes under study in the classroom, and words I notice that children frequently misspell or request help with.
  - d) In advance, I choose words from lists in a published spelling program and add words from themes under study in the classroom, and words I notice that children frequently misspell or request help with.
  - e) In advance, I choose words I notice that children frequently misspell or request help with.
  - f) I do not choose words in advance, but teach words to children, as the need arises.
  - g) Not applicable because I do not teach students to spell words
9. a. If you answered either b, c, d, or e for question 8 (you create your own lists of words or add words to a list from a spelling program) please answer the following question: Are there any other factors, not mentioned above that influence your choice of spelling words? Yes or No?  
 b. If yes, please explain.
10. a. On average, how many minutes per week do you engage in spelling instruction?  
 b. How many of these minutes involve planned direct instruction by you?
11. Which type of spelling words make up the majority of words you teach?  
 Please circle one:
- |                      |  |                           |
|----------------------|--|---------------------------|
| theme/reading words, | words with certain patterns/rules e.g., silent letters, blends | commonly-misspelled words |
|----------------------|--|---------------------------|
12. Please indicate if you have the following resources and their importance in your instructional planning:

Resources for teaching spelling	Do you have this resource? Circle one:	If yes, how important is this resource in your teaching? Circle one:	If yes, why do you think this resource is very important, somewhat important or not important?
Grade-level spelling program with units of words and activities	Yes No	Very important Somewhat important Not important	



22. Briefly describe how you measure your students' spelling progress.

**YOUR OPINIONS ABOUT SPELLING:**

23. a. On a scale of one to five (1 = very unimportant and 5 = very important) how important do you think spelling is in children's language arts development? Circle One: 1 2 3 4 5
- b. Why do you think so?
24. In your opinion, what kinds of knowledge and skills do you think are important for becoming a good speller?
25. What do you want your students to gain through spelling-related instructional activities?
26. On a scale of one to five (1 = not confident at all and 5 = very confident) how confident are you in teaching spelling? Circle One: 1 2 3 4 5
27. a. Is spelling instruction adequately addressed in the curriculum? Yes or No?
- b. If you answered no, please comment on how you would recommend improving the teaching/learning of spelling in the primary grades.

## **About the Authors**

Antoinette Doyle is a member of the Faculty of Education, Memorial University of Newfoundland. Her research interests lie in the areas of developmental reading and writing of preschool and school-aged children, reading and writing instruction including spelling and its relation to reading.

Jing Zhang is a faculty member in the Department of Elementary Education and Reading, SUNY Buffalo State. Her research interests include early reading and writing instruction, and bilingual development for ELL learners.

Chris Mattatall is a member of the Faculty of Education, Memorial University of Newfoundland. His research program is focused on school-based and home-base intervention research in areas related to reading instruction, reading acquisition, and collaborative planning among teachers.

