

# The Language and Literacy Spectrum

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*Co-Editors*

Rachel Brown  
Syracuse University

Kathleen Hinchman  
Syracuse University

*Editorial Assistant*

Zhaoyang Chi

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## In Memory and Invitation

*Rachel Brown and Kathleen Hinchman, Syracuse University*

This is our fourteenth edition of the *Language and Literacy Spectrum*, and our second as editors. As much as we have enjoyed our two-year stint interacting with all of you as editors of this delightful journal, one of our colleagues recently passed away, and we finish this edition with the heaviness and perspective that a death of a close friend can bring. But then we thought, what better way to honor extensive commitment to literacy education than to dedicate the fourteenth edition of *Language and Literacy Spectrum* to this dear colleague, Columbus M. “Ted” Grace?

Because of his extensive professional service, many of you knew Ted Grace. In addition to being a professor with us at Syracuse University, Ted was a prolific storyteller, well known throughout New York State as part of a storytelling team, the Storyweavers, with his beloved wife Jackie. His interest in understanding, celebrating, and developing culturally relevant pedagogy through children’s oral language was the central theme of his life’s work. Before his stint as a professor, he served the Syracuse community by developing a successful program for young children of color and the Chamber of Commerce as an advocate for minority businesses. Most important, he was the father of five and grandfather of five.

True to Ted’s spirit, a majority of the articles in this edition of *Language and Literacy Spectrum* represent a Focus on Practice. Karen Bromley invites us to rethink vocabulary instruction. Ruth McQuirter Scott helps us to consider spelling instruction in the middle years. Lisa Ann Rizopoulos provides important information about fluency development. E. Francine Guastello and Claire Lenz teach us to invite parents to participate in improving their children’s writing. Steven A. and Marsha L. Nathanson extend our understanding of ties between brain research and evidence-based literacy instruction. Michael P. French helps us consider students’ text selections for sustained silent reading. Richard Sinatra tells us about the impact of a summer literacy program. Joanne Marie Robertson tells us about implications of the “dog project.” Finally, Heather Bridge tells us how to support problem solving in early childhood.

Literacy teacher education is also an important NYSRA focus, and several of our articles share this Focus on Professional Development. Reva Cowan and Erin McCloskey show how teachers can be transformed through supervised fieldwork. Elizabeth Yanoff reviews a professional development text. The 2004 NYSRA Children’s Literature Committee again reviews books for children, and Elizabeth Mascia looks at books for adolescents.

We invite you to join with us to honor Ted’s memory as you read this edition of *Language and Literacy Spectrum*. Please share this year’s volume with friends and colleagues, joining in NYSRA’s longstanding commitment to professional development. We also invite you to help NYSRA with next year’s journal in one of three ways. First, share your responses to this year’s articles with us at the address to be found at [www.nysreading.org](http://www.nysreading.org). Second, join the *Language and Literacy Spectrum*’s editorial board. To do so, send a letter sharing your relevant interests and experiences. Third, submit an article. We know that many of you have important ideas, instructional innovations, or inquiries that should be shared with others. Directions for submission can also be found on the New York State Reading Association’s web site.



## Rethinking Vocabulary Instruction

*Karen Bromley*

### ABSTRACT

This article briefly reviews the research on word learning and vocabulary teaching, provides a rationale for building a rich vocabulary and identifies nine guidelines for sound vocabulary instruction. Problematic classroom practices are highlighted and a “best-practice” vocabulary teacher is described. The article also includes a Vocabulary Self-Assessment tool for teachers and a list of resources; Professional Books, Children’s Books that Focus on Vocabulary and Internet Sites for Building Students’ Vocabulary.

### AUTHOR BIOGRAPHY

Karen Bromley is a Professor and Coordinator of the Literacy Program at Binghamton University (SUNY). She was a third grade teacher and K-8 reading specialist in New York and Maryland. She has written several books for teachers including *Stretching Students’ Vocabulary* and *50 Graphic Organizers for Reading, Writing and More*.

For many years, vocabulary has not been considered an important topic by leaders in reading education (Cassidy & Wenrich, 1997-98; Cassidy & Cassidy, 1998-99; 1999-2000; 2000-01; 2001-02; 2002-03). Indeed, both teachers and teacher educators note that vocabulary instruction has almost disappeared in many classrooms and become a neglected area in teacher education and professional development programs (Brabham & Villaume, 2002, p. 264). Traditionally, for many content area teachers, vocabulary instruction has meant *assign, define and test*. For many classroom teachers, vocabulary instruction has meant *identify, discuss and assume*. These teachers have used word lists, dictionary definitions and discussion rather than multi-dimensional, semantically focused and interactive encounters with words that theory and research suggest are most effective.

### Importance of Vocabulary

Wise teachers realize what common sense and experts remind us, that a large vocabulary is an asset for students. Words stand for concepts and are basic units for storing sound (phonemes) and meaning (morphemes) in memory. Vocabulary is “...the glue that holds stories, ideas and content together” (Rupley, Logan & Nichols, 1999, p. 339). Conventional wisdom tells us that vocabulary knowledge builds self-esteem and confidence. Research and theory tell us also that vocabulary knowledge:

**Promotes fluency.** Students who recognize and understand many words, read more quickly and easily than those with smaller vocabularies. Fluent readers read at a faster rate, process more material more quickly and have better comprehension than less fluent readers (Allington, 2001; Samuels, 2002).

**Boosts comprehension.** Vocabulary knowledge strongly influences comprehension (Anderson & Freebody, 1981; Nagy & Scott, 2000; Pearson, 1984; Thelen, 1986). On a component analysis of comprehension, word meanings were found to make up 74% of comprehension (Davis, 1972).



**Improves achievement.** A large vocabulary means a large fund of conceptual knowledge which makes academic learning easier. Students with large vocabularies score higher on achievement tests than students with small vocabularies (Stahl & Fairbanks, 1986).

**Enhances thinking and communication.** Words are tools for analyzing, inferring, evaluating and reasoning. A large vocabulary allows for communicating in ways that are precise, powerful, persuasive and interesting (Johnson & Pearson, 1984; Vacca & Vacca, 2002).

Vocabulary instruction is one of five areas of instruction (phonemic awareness, phonics, fluency, vocabulary and text comprehension) identified by the *National Reading Panel Report [NRP]* (2000) as critical for successful reading. A summary and classroom implications related to the five areas appear in *Put Reading First: The Research Building Blocks for Teaching Children To Read* (2001). The *Reading First Initiative*, an outgrowth of President Bush's *No Child Left Behind* (2001) legislation, funds states to establish programs that implement research-based reading programs, and vocabulary is identified in this legislation as one of "...the research building blocks for teaching children to read." In classrooms across the country, teachers are rethinking the teaching of vocabulary, and teacher educators are voicing the need to "...address vocabulary instruction more deliberately" in their teaching (Brabham & Villaume, 2002, p. 264).

## Word Learning

Opinions vary as to the size of children's vocabularies when they enter school, the rate of vocabulary growth during school and the reasons for these differences. Norman (2002) estimates the spoken vocabularies of five-year old children vary between 1,000 and 5,000 words in September depending on the home environment. Beck and McKeown (1991) estimate that children's sight vocabularies grow at the rate of 3 to 20 new words a day and between 3,000 and 7,000 words a year. Hart and Risely (1995) found that preschool children from families receiving welfare have smaller vocabularies and learn words more slowly than preschool children from professional homes. White, Graves and Slater (1990) report that between grades 1 and 3, the vocabularies of children who live in poverty increase by 3,500 words a year while the vocabularies of middle-class students increase by 5,000 words a year. Clearly, many factors can affect vocabulary learning, including prior knowledge, experiences, exposure to spoken language and print, interactions with others around books, family socio-economic level and, perhaps most important for teachers, the kind of instruction students receive in school.

Sound teaching practices that result in successful word learning require understanding the multiple dimensions of words (Baumann & Kameenui, 1991; Nagy & Scott, 2000). Words are complex and possess different dimensions including; visual (graphics), structural (phonemes, morphemes, prefixes, roots and suffixes), spoken (pronunciation), written (spelling), grammatical (function and use) and semantic (meaning and relationships with other words). So, vocabulary instruction needs to be anchored in a variety of rich contexts including analysis of words parts and meanings, connections to other words, discussion about the context in which a word appears and attention to word structure (Juel & Deffes, 2004).

We know that word knowledge grows over time with words learned little by little, perhaps one dimension at a time and in no sequential order, with full understanding (knowing it well) occurring for some students after many different kinds of encounters. To add to the complexity of words, as many as 70% of the most commonly used words have multiple meanings, possessing either fine shades of



difference or unrelated meanings (Lederer, 1991). But, interestingly, the meanings of 60% of the new words students encounter can be inferred by analyzing word parts (Nagy & Anderson, 1984). Clearly, knowing a word well requires complex understandings.

## Problematic Practices

Studies of teachers' beliefs about vocabulary, how it is taught and learned and reviews of vocabulary theory and research suggest several problems with existing practices.

***Narrow views and teacher control.*** Some teachers have a one-dimensional view of the purpose of vocabulary teaching. Watts (1995) studied six, fifth and sixth grade teachers who said they taught vocabulary to help students understand what they were about to read. They did not see broader benefits of teaching vocabulary, nor did they vary their methods. Vocabulary was taught as a prereading activity and teachers typically defined a word, asked for a definition and gave a short context for the word. Teachers controlled the talk about word meanings and closely followed instructions in the manual. Konapack and Williams (1994) analyzed surveys and written lesson plans of 32, Pre-K to grade 5 teachers, and also found they controlled vocabulary instruction and limited it to using new words in context for students and paraphrasing sentences that contained new words.

***Mechanical activities in manuals.*** Many basal reading manuals and content manuals provide low-level, mechanical vocabulary instruction. Ryder and Graves (1994) examined fourth and sixth grade basal manuals and found instruction that was "neither rich nor deep." It was not powerful enough to improve comprehension and did not give students opportunities to process new words in meaningful ways. Words were usually introduced before reading with definitions given by the teacher who directed discussion on some aspect of the word and used the word in a sentence. Students already knew many of the targeted words and teachers made inaccurate predictions of which words students did not know. Harmon, Hedrick and Fox (2000) examined fourth to eighth grade social studies manuals and found instruction focused on definitions, matching terms and fill-in-the-blanks. Many activities were in review sections of chapters or units where words were not introduced first. They found few suggestions for helping students work interactively to manipulate word meanings.

***Flashcard practice and little engagement.*** Practice with flash cards may improve sight-word recognition, but Stahl and Fairbanks (1986) found that multiple repetitions of the same type of information about a target word do not improve comprehension. To gain complex, multifaceted knowledge of a word, students need meaningful and different experiences with it. Methods work best that give students many opportunities to process a word and its dimensions in different ways by making connections to schema (Baumann & Kameenui, 1991; Blachowicz & Fisher, 2000). Making semantically meaningful connections lets students personalize what they learn about a new word and how they learn it.

***Incomplete definitions.*** Dictionary definitions are often inadequate in understanding a new word. McKeown (1993) studied fifth graders' word learning and found that dictionaries define a word by using similar words that don't always give full meanings of the concepts the words stand for. She revised these definitions to include ideas she considered central to a word's meaning which resulted in better responses from students. But, even with revised definitions, students' knowledge of the words was limited. Simply learning definitions was not a powerful route to vocabulary mastery. McKeown concluded that students



need “repeated exposures to information-rich contexts” and dictionary definitions are only introductions to meanings, not routes to mastery.

**Unreliable context.** Context within or beyond a sentence is not always reliable in determining a word’s meaning. Sometimes context does not contain enough clues. At other times context contains clues, but students do not know how to use them effectively. Beck and McKeown (1991) and Rupley, Logan and Nichols (1999) found that context can reveal a lot or a little about a word’s meaning. Watts (1995) found that teachers frequently instructed students to use context and the dictionary to teach new words which is somewhat effective. In fact, Baumann et al. (2002) found that morphemic and context analysis together helped fifth graders learn and remember words better than either strategy alone. As a stand-alone vocabulary instruction strategy, teaching the use of context does not help acquire rich understanding of the many dimensions of a word.

## A “Best-Practice” Vocabulary Teacher

What might a typical teacher look like who has rethought his or her vocabulary teaching? Let’s call this “best-practice” vocabulary teacher Robin. Robin believes vocabulary instruction improves reading comprehension, writing, speaking, content area learning and communication across students’ entire lives. S/he loves words and language, eagerly seeks out and uses new and interesting words, and shares this knowledge, excitement and passion with students. S/he believes students can learn and doesn’t blame them for their difficulties with word learning. S/he models various strategies for learning new words and teaches students to use these strategies independently as they read in science, social studies and math. She makes time for students to interact with each other around new words and helps students analyze words parts and derivations to determine meaning. S/he doesn’t routinely teach words the basal manual or content text suggests. S/he determines which words students already know and teaches only important words they will need to know now and later. S/he makes time for students to interact with each other around new words and helps students analyze word parts and derivations to determine meaning. Robin connects what students already know to the new words they will learn. S/he varies her teaching of new words, sometimes presenting words before reading, sometimes during reading and sometimes after reading. Robin does not rely on the *assign, define and test* method or on the *identify, discuss and assume* method. Rather, s/he engages students in multiple interactions with new words in a variety of contexts so they will learn the many dimensions of words.

## Research-based Recommendations

We know there is no one “best method” for teaching new words. But, the evidence from theory, research, and practice suggests nine tentative recommendations for sound vocabulary instruction:

1. Display an attitude of excitement and interest about language and words. When you appreciate out-of-the-ordinary, powerful and appealing word use with students and engage them in wordplay, you share your interest and enjoyment with them. This kind of *word consciousness* is a critical aspect of successful word learning programs (Graves & Watts-Taffe, 2002). So, share your excitement with students about the fascinating nature of words and language because this is a subtle way to inspire them to feel the same way.



2. Assess student knowledge and a word's importance before teaching it. Students may already know a new word and you may not need to teach it. Or, the new word is so unique or obscure that it may not appear again soon in anything students read in the future (Nagy & Scott, 2000). Teach only those words that represent critical concepts, are important to comprehension and will likely appear repeatedly in students' reading, writing and speaking.
3. Vary when you teach new words. Sometimes it makes sense to teach a few key words *before* reading that are critical to comprehension. But, sometimes it makes sense for students to meet new words on their own so they can practice word learning strategies independently (Bromley, 2002b; Watts, 1995). Then you can assess whether students' strategies work and if necessary teach new vocabulary *after* reading. And, sometimes it's a good idea to spend time *after* reading in ways that develop the multiple dimensions of a word.
4. Activate students' schema and metacognition. Linking new concepts and knowledge to what students know is a powerful way to "cement" the learning of a new word (Rupley, Logan & Nichols, 1999; Thelen, 1986; Vacca & Vacca, 2002). Activate students' schema (prior knowledge) with questions like "What do I already know about this word?" and their metacognition (understanding of how they learn) with questions like "What do I need to know to remember this word?" and "How did I learn that word?"
5. Note multiple meanings and provide paraphrased meanings. Don't rely on dictionary meanings since they are often incomplete and inadequate for understanding a new word (McKeown, 1993). Do use the dictionary and other sources to investigate word histories and derivations since so many words have multiple meanings and interesting origins (Lederer, 1991). And, encourage students to paraphrase by reframing definitions in their own words so they process meanings personally.
6. Teach word structure and relate new words to other words. Analyze new words by looking at word parts, their meanings and derivations (Bear, Invernizzi, Templeton & Johnston, 2003). Often overlooked by teachers, as many as 60% of the new words a student encounters can be inferred by analyzing the meanings of word parts (Nagy & Anderson, 1984). Even younger students can dissect words to learn the meanings of prefixes, roots and suffixes, e.g., *transformer* (*trans-* to change, *form-* shape, *er-* one who does something). Then, they can connect this learning to the meanings of other words such as *transportation* and *transmission*.
7. Invite students to interact with each other around new words. Providing multiple and varied opportunities to process words and construct meanings both alone and in interactions with others is critical to learning new words (Blachowicz & Fisher, 2000; Rupley, Logan & Nichols, 1999; Stahl & Fairbanks, 1986; Zumwalt, 2003). Help students engage actively together in concept development, use prior knowledge, search for context clues to a word's meaning, use the new word orally, and explore it in relationship to other words so they process meanings, practice pronunciation, and use the words themselves.
8. Model and teach word learning as an active strategy for independent use. Show students how you search for a new word's meaning and pronunciation in a variety of ways and ask student to share their own strategies, e.g., connect to schema, use context before and after the word, analyze parts



of the word, consider a word's function or part of speech and use a dictionary or glossary when all else fails. Teach students to use a variety of techniques as they develop a strategy they can use independently across the curriculum (Bromley, 2002b; Harmon, 2000; Nagy 1988).

9. Don't overlook the Internet as a way to motivate word learning. There are a variety of sites for building word knowledge that students of all ages find motivating and challenging. These sites include interactive puzzles, games, acronym databases, new-word-a-day ideas, dictionaries, thesauruses, and information on slang, technical vocabulary and language in general (Bromley, 2002a; 2002b; and see Fig. 2). You might post a list of these sites near your classroom computer for student use during free time. And, consider sending a list of these sites home for parents to bookmark on the family computer for easy access by children and adults at home.

## **Rethinking Vocabulary Teaching**

Because of the important role vocabulary plays in fluency, comprehension, achievement, thinking and communication, it is critical for teachers and teacher educators to understand word learning so that we can embrace sound teaching practices. Better understandings of perceptions and practices related to word learning can help us rethink the kinds of vocabulary instruction we value and use in our classrooms and teacher education programs. Self-assessment can be a first step in that understanding, and responses to a questionnaire like the one in Figure 1 can provide insight into one's personal beliefs and practices related to word learning and vocabulary instruction. Self-assessment can also serve as an opportunity for reflection, confirmation of sound practices, or the need for change. The lists of related professional books, children's books, and internet sites (see Fig. 2) may be helpful as you begin to rethink vocabulary instruction in your classroom and school. It's not too late to make sound vocabulary instruction an important aspect of your teaching.

### **Figure 1. Vocabulary Self-Assessment**

1. What do I know about word learning?
2. What do I believe about the relationship between vocabulary and fluency, comprehension, achievement, thinking and communication?
3. Do I provide a word-rich environment and immerse my students in new, important and interesting words?
4. Do I have a "can do" rather than a "can't do" attitude about students' word learning abilities?
5. Am I passionate and enthusiastic about word learning?
6. Do I model word learning strategies across the curriculum?
7. Is one of my main goals to develop each student's independent word learning strategies?
8. Do my students already know the new words the manual says I should teach?
9. Which words are central to the selection, chapter or unit? Which words may reappear during the year?
10. How and when do I introduce new words? Is it consistently the same way? Do I routinely pre-teach vocabulary using a manual? Who does the talking?



11. Do I make new words meaningful by linking new information to my students' prior knowledge?
12. Do I assume context always gives my students clues to figure out new words? Or, that students know how to use context?
13. How do I involve students in examining, manipulating and processing new words?
14. Do I provide activities that include more than repetition?
15. Do I assume once a new word is taught it is learned?

## Figure 2. Resources for Vocabulary Instruction

### Professional Books

- Allen, J. (1999). *Words, words, words: Teaching vocabulary in grades 4-12*. Portland, ME: Stenhouse.
- Bear, D.R., Invernizzi, M., Templeton, S., & Johnston, F. (2003). *Words their way: Word study for phonics, vocabulary, and spelling instruction* (3<sup>rd</sup> ed.). Columbus, OH: Merrill.
- Beck, I.L., McKeown, M.G., Kucan, L. (2002). *Bringing words to life: Robust vocabulary instruction*. New York: Guilford.
- Blachowicz, C., & Fisher, P.J. (2002). *Teaching vocabulary in all classrooms* (2<sup>nd</sup> ed.). Columbus, OH: Merrill.
- Blevins, W. (2001). *Teaching phonics and word study in the intermediate grades*. New York: Scholastic.
- Bromley, K. (2002). *Stretching students' vocabulary*. New York: Scholastic.
- Ganske, K. (2000). *Word journeys: Assessment guided phonics, spelling, and vocabulary instruction*. New York: Guilford.
- Nagy, W.E., (1988). *Teaching vocabulary to improve reading comprehension*. Urbana, IL: ERIC Clearinghouse on reading and communication skills.
- Pinnell, G.S., & Fountas, C. (1998). *Word matters: Teaching phonics and spelling in the reading/writing classroom*. Portsmouth, NH: Heinemann.
- Terban, M. (2002). *Building your vocabulary*. New York: Scholastic.
- Vocabulary [module] (2000). IRA literacy study groups. Newark, DE: International Reading Association.

### Children's Books That Focus on Vocabulary:

- Donovan's Word Jar* by Monalisa DeGross (1998). New York: Harper Trophy (Gr. 3-6). A young African American boy loves new words and collects them on slips of paper he puts in his word jar. His grandmother helps him figure out what to do when the jar is full.
- Frindle* by Andrew Clements (1998). New York: Alladin (Gr. 2-4). When Nick learns how words originate he decides to call his pen a *frindle*, a term his classmates, the community and the country adopt.
- The Last of the Really Great Whangdoodles* by Julie Edwards (1999) New York: Harper Collins (Gr. 3-6). Professor Savant teaches three children to see the world in a different way as they visit Whangdoodleland, a special place full of extraordinary creatures like *furry Flukes*, *the High-Behind Splintercat* and *the wonderful Whiffle Bird*.
- Miss Alaineus: A Vocabulary Disaster* by Debra Frasier (2000). San Diego: Harcourt (Gr. 4-6). Home with the flu, Sage misunderstands the weekly vocabulary words her friend gives her which is the beginning of a funny story filled with hundreds of words and definitions.



- Scranimals* by Jack Prelutsky (2002). New York: Greenwillow (K-6). A collection of funny poems about a trip to Scranimal Island, the home of exotic compounded animals like *spinachickens*, *broccolions*, *hippopotamushrooms* and *porcupineapples*.
- A Series of Unfortunate Events* by Lemony Snicket (1<sup>st</sup> in series-1999- 2003). New York: Harper Trophy (Gr. 4-9). Funny stories about the unlucky adventures of three orphaned children that include colorful and sophisticated words and definitions and bleak events where things never turn out as you'd hope.
- The 6<sup>th</sup> Grade Nickname Game* by Gordon Korman (2000). New York: Hyperion (Gr. 5-6). Best friends, Jeff and Wiley create nicknames for everyone including their class - *the dim bulbs* and the principal - *a deer in headlights* as they adjust to a new teacher.
- There's an Ant in Anthony* by Bernard Most (1992). New York: Mulberry Books (K-2). Anthony discovers the small word *ant* in his name and finds some words where it appears and some words where it doesn't appear.
- Who Put the Butter in Butterfly and Other Fearless Investigations into Our Illogical Language* by David Feldman (1990). New York: Harper Collins (Gr. 3-6). Explanations of the origin of words, curious clichés and phrases including such terms as *jaywalking*, *ladybug* and why an outdoor bazaar is called a *flea market*.
- Word Wizard* by Cathryn Falwell (1998). New York: Houghton Mifflin (Gr. K-3). With a magic spoon and alphabet cereal, young Anna and Zack discover how to rearrange letters to make new words.

### Internet Sites for Building Students' Vocabulary:

- [www.eduplace.com/tales/](http://www.eduplace.com/tales/) Creates and publishes "Wacky Web Tales" using 10-15 words supplied by students (Gr. 3-6)
- [www.puzzlemaker.com](http://www.puzzlemaker.com) Offers clip art and tools for creation of word puzzles (Gr. 3-8).
- [netnet.net/~jgales/wrdsites.html](http://netnet.net/~jgales/wrdsites.html) Offers links to games like "What's in a Name?" (students have 2 minutes to make as many words as they can from the letters in a name). (Gr. 3-8)
- [www.vocabulary.com](http://www.vocabulary.com) Offers puzzles, games and the opportunity to earn a diploma from "Vocabulary University." (Gr. 3-12)
- [www.askanexpert.com](http://www.askanexpert.com) Experts develop word meanings by answering questions about specific subjects. (Gr. 3-12)
- [www.acronymfinder.com/about.asp#what](http://www.acronymfinder.com/about.asp#what) Provides an acronym database with words and meanings for 232,000 acronyms (Gr. 3-12)
- [www.encyclopedia.com](http://www.encyclopedia.com) Gives information on various subjects and world events and links to dictionaries, almanacs and thesauruses. (Gr. 3-12)
- [www.surfnetkids.com/games/](http://www.surfnetkids.com/games/) Gives a directory of games (e.g., crossword or jigsaw) and topics (e.g., science or history) (Gr. 3-12)
- [www.m-w.com/game](http://www.m-w.com/game) Introduces "Word Game of the Day" in different puzzle formats (Gr. 3-12)
- [www.randomhouse.com/words/](http://www.randomhouse.com/words/) Presents slang, technical vocabulary and new words, answers questions about words, accepts suggestions for new words and includes vocabulary games. (Gr. 3-12)
- [www.maps.com](http://www.maps.com) Contains map and geography games that teach and test knowledge of place names around the world. (Gr. 4-12)
- [www.wordsmith.org/awad/index.html](http://www.wordsmith.org/awad/index.html) Introduces a word a day related to a weekly theme, its definition, pronunciation, etymology and use. (Gr. 6-12)



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## Spelling Instruction In The Middle Years

*Ruth McQuirter Scott*

### ABSTRACT

This article advocates continued attention to spelling in the middle years. Students need systematic spelling instruction from grades one through eight that is appropriate to the developmental stages of learning to spell. Teachers are encouraged to include both spelling patterns and spelling strategies in their spelling curriculum and provide links between the formal study of spelling and its application in writing contexts across the curriculum.

### AUTHOR BIOGRAPHY

Ruth McQuirter Scott is an Associate Professor in the Faculty of Education, Brock University, St. Catharines, Ontario (Hamilton Campus) where she teaches language arts to pre-service and graduate students. Ruth has authored and co-authored thirty books on spelling.

There has been a growing consensus that children in the early years of schooling benefit from systematic instruction in spelling, particularly at the level of sound/symbol correspondences (Cramer, 1998; Gentry, 1993; Fountas & Pinnell, 1999). Word study activities, whether they are conducted through the use of a published spelling program or designed by teachers, stress the skills of examining sound patterns in spelling and building words from simple elements such as onset units and rimes.

Developmental research on stages of spelling growth also focuses much attention on the early years. Teachers are trained to distinguish among non-phonetic, semi-phonetic, and phonetic attempts at spelling words, and to watch for milestones in spelling development such as the movement from a purely sound-based approach (*jump* for *jumped*) to a strategy that incorporates morphemic elements such as past tense markers (*jumped*).

Regrettably, the same attention to spelling development has not always been present in the middle years, especially as students approach the high school level. Too often, the same advice is given to students year after year. They are told to sound out words that are unfamiliar or to use a set range of techniques to memorize difficult words. There is often the assumption that students will inevitably learn to spell by repeated exposure to the same high-frequency words, and when they do not, they and their teachers often conclude they are simply not born to be good spellers.

Such conclusions, however, may not be justified. Cognitive developmental research in spelling has shown that children explore different aspects of the spelling system after the early years and continue to need systematic, sequenced instruction to support their growth (Cramer, 1998; Henderson, 1990). Teachers should introduce more sophisticated spelling principles in the middle years and encourage students to broaden the range of spelling strategies they use for words that do not follow predictable patterns.

This paper addresses the stages of spelling development linked with early adolescence and advocates a number of teaching strategies most pertinent to this age group. Effective spelling instruction in the middle years should be tailored to the cognitive abilities of students in this age range and to the levels of the spelling system that early adolescents are able to investigate.



Cramer (2001) maintains that “children need consistent spelling instruction starting in first or second grade and continuing through grade eight. Many students would benefit from continued instruction throughout high school” (p. 316). This advice suggests that there should be continuity from one grade to the next so that children can build on what they learned in previous years. Cramer adds that by grade eight, children should be able to automatically spell the vast majority of words likely to be used in writing or encountered in reading.

## Stages of Spelling Development

In order to make appropriate decisions related to spelling instruction, teachers should be aware of the spelling stages associated with the middle years. These stages have been described by cognitive developmental researchers such as Henderson (1990), Gentry (1993), and Cramer (1998). By grade 4, most children have moved through the Pre-phonetic and Phonetic stages of spelling growth. Their spelling attempts, if incorrect, are at least phonetically plausible. Students at this point need practice in consolidating their knowledge of basic vowel and consonant patterns, and encouragement to explore more complex patterns within words.

**Patterns Within Words.** Children can be described as being in the “Patterns Within Words stage” when they begin to realize there is often more than one way to spell a given sound, and are experimenting with patterns of letters to represent sounds. These patterns include the use of consonant blends and digraphs (*splash*), vowel combinations (*boat*, *boil*), unusual consonant clusters (*light*), and the silent e marker for long vowels.

**Syllable Juncture.** When children have a basic spelling vocabulary and an understanding of many long and short vowel patterns, they gradually move to the “Syllable Juncture” stage. This stage focuses on the place within words where syllables meet. The patterns at this stage are at a deeper linguistic level than in the sound-based stages and require the juggling of more variables.

For example, when *-ed* or *-ing* are added to the ending of a verb, it sometimes requires a change to the spelling of the base word. In the case of *hope* - *hoping*, the final *e* is dropped; in *apply*-*applied*, the final *y* changes to *i*; in *drum*-*drumming*, the final consonant is doubled. Although the doubling of the consonant in a single-syllable word such as *drum* is relatively straightforward, when the base has more than one syllable (*commit*-*committed*, *commitment*), the pattern is considerably more complex and requires a sensitivity to stress patterns. Many students are not able to handle the cognitive load of this pattern until grade six or later. Other rules related to the syllable juncture stage govern the formation of plurals, possessives, and contractions.

**Meaning-Derivation.** An important understanding children acquire in the “Meaning-Derivation” stage is that in written English, meaning is more important than sound. Words that are related in meaning or have a common root are usually spelled alike even if they are pronounced differently.

For example, the silent *c* in *muscle* can be remembered if it is associated with *muscular*. Both words are related in meaning, and since meaning takes precedence over sound, the *c* in *muscle* remains even though it is silent. People who point to silent letters as evidence of the irrational nature of English spelling neglect the fact that by keeping *muscle* spelled this way rather than a phonetic rendition such as *mussel* or *mussle*, a reader can distinguish between the mollusk *mussel* and the organ *muscle*. Furthermore, if a reader has not previously encountered the word *muscular*, he or she can relate the word to its base and make a good guess as to its meaning.

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The meaning-derivation connection is particularly suited to older students. Since the vocabulary they use in their writing is more complex than that of younger children, they are more likely to use derived forms. They will encounter words such as *definition*, *opposition*, and *competition*. In each of these words there is a schwa vowel in the middle that is not articulated clearly. Therefore, sounding the word out is not helpful. If, however, students are taught to go back to the base form (*define*, *oppose*, *compete*), they can quickly apply the “meaning principle” and spell the schwa vowel accurately.

Children in the Meaning-Derivation Stage also show an ability to spell roots, prefixes, and suffixes of Greek and Latin origin. The suffix *-tion*, for example, is no longer spelled phonetically as *shun*. Furthermore, children in the later grades display an increasing ability to deal with homophones. They have sorted out the meaning connections between pairs such as *its/it’s* rather than relying on sounding out for spelling. Cramer and Cipielewski (1995), nevertheless, found that homophones were the most common error category in grades seven and eight and the second most common in grades four to six.

The spelling patterns described above that relate to the Syllable Juncture and Meaning-Derivation stages should be covered in spelling programs for middle years students. The more sophisticated vocabulary used by this age group in everyday writing requires a knowledge of how multi-syllabic words are constructed and how many words are related in meaning. These understandings are often beyond the cognitive capacity of younger children. To restrict formal spelling instruction to the level of phonics would, therefore, deprive older students of crucial insights into the English spelling system.

## Spelling Strategies

The stages described above refer to the patterned nature of spelling. They do not take into account the large number of English words that seem irregular and must somehow be memorized. Mature spellers have both an understanding of what makes sense about the spelling system and a repertoire of strategies to deal with its irregular features (McQuirter Scott & Siamon, 2004; Hughes & Searle, 1997).

While middle school students need to deal with the more complex spelling patterns previously mentioned, they also need to develop a wider range of spelling strategies as they grow older. Their maturing vocabulary contains longer words, and this guarantees an increase in schwa vowels, the bane of every speller’s existence. Schwa vowels, or vowels in unstressed syllables, are not usually articulated clearly in speech. The speller asks, “Is it *helmut* or *helmet*? *animals* or *anamals*?” Sounding the words out will not provide the answers.

Older students also face the challenge of more sophisticated words in content area subjects. These words are often borrowed from other languages or have Greek and Latin origins. Neither rote memorization nor sounding out is likely to lead to accurate spelling of these words.

Mature spellers are able to use a wide variety of spelling strategies to fit the nature of the word to be learned. If sounding the word out does not work, they may try a visual strategy such as color-coding the letters to be remembered. Sometimes a simple mnemonic or memory trick works, as in the case of saying *strawberry shortcake* to remember the double *s* in *dessert*.

Skilled spellers also understand how long words are constructed. Rather than trying to memorize the word *multinational*, they break the word into its component parts: the base word *nation*, the prefix *multi*, and the suffix *al*.

Turbill (2000) points to the development of a “spelling conscience” as a further mark of a mature speller. Such individuals take responsibility for proofreading their drafts and use a systematic approach to editing their work. They are able to identify the misspelled words and use a range of strategies for changing these words so that they are spelled conventionally.



It is the skillful application of spelling patterns and spelling strategies that marks a good speller. Although spelling is a lifelong challenge, the skilled speller is able to approach new words with a knowledge base and repertoire of strategies that makes almost any word manageable. These qualities require years of development, and cannot be assumed to be in place by the time a child reaches early adolescence. Therefore, teachers need to provide instruction that is suited to the specific needs of these learners.

## Spelling Instruction

When teachers understand how complex the skill of spelling is, they often marvel that anyone becomes a competent speller. They also wonder how they can support their students without sacrificing precious time from other aspects of a crowded curriculum. These are reasonable questions, and the answers will vary with each classroom context. There are, however, some general principles and approaches to spelling instruction that are particularly pertinent to the middle years:

1. Cover spelling concepts that are appropriate to the developmental level of the students. As described earlier in this paper, students in the middle years need to consolidate previous learnings and move on to more sophisticated spelling patterns. Teachers can determine suitable concepts to address in a number of ways:
  - a. Consult a reputable published spelling program for the grade. Be sure that it is based on developmental research in the field of spelling. If, for example, the program for grades four through eight is strongly oriented to phonics, it is unlikely to be suitable for most students in the middle grades. Whether used as a primary source or as a reference, a text can be a valuable tool in decision-making. (see Figure 1 for some stating pointers.) (Bear & Templeton, 1998; Henderson, 1990; McQuirter Scott & Siamon, 2004; Scott & Siamon 1998).
  - b. Use student writing to assess specific spelling needs and common concerns in the class. Although it is useful to record frequently misspelled words and for students to use these in personal spelling lists, more significant assessment information can be gleaned from student writing. Notice what spelling concepts the students are familiar with and what inaccurate conclusions they may have reached about the spelling system. For example, a student who continues to spell the *-tion* suffix as *-shun* is likely still using a sounding-out approach to spelling rather than recognizing common suffixes.
  - c. Use teacher-student editing and proofreading conferences to gain insight into student needs. Let the students talk about why they spelled a word in a certain way or what strategies they typically use to spell unfamiliar words. Not only does this approach provide significant assessment information, it also encourages students to reflect on their own spelling and to take some responsibility for their progress. Although this strategy is relevant to all grades, students in the middle grades have had a number of years to reflect on their spelling development and can often provide keen insights into their preferred learning styles. Furthermore, young adolescents need to be weaned from a reliance on their teachers for spelling support and to come up with their own strategies for making progress in spelling.



**Figure 1. Typical spelling concepts by grade**

<b>Grade 1</b>	<b>Grade 2</b>	<b>Grade 3</b>	<b>Grade 4</b>
Prephonetic –[arrow] Phonetic Stages (letter-name)	Phonetic (letter-name) – Patterns within Words Stages	Patterns within Words Stage	Patterns within Words – Syllable Juncture Stages
<ul style="list-style-type: none"> <li>• readiness activities</li> <li>• awareness of individual sounds and sequences of sounds</li> <li>• printing</li> <li>• holding pencil</li> <li>• letter sounds</li> <li>• short vowel patterns</li> <li>• onset/rime (e.g. at, ug, est)</li> <li>• one or two long vowel patterns (to contrast with short)</li> <li>• consonant digraphs</li> <li>• consonant blends</li> <li>• high frequency, irregular words</li> </ul>	<ul style="list-style-type: none"> <li>• review of short vowel patterns</li> <li>• common long vowel patterns</li> <li>• r-influenced patterns (e.g. art, ore)</li> <li>• review of digraphs (th, ch)</li> <li>• double consonant patterns (hill, puff)</li> <li>• compound words</li> <li>• homophones</li> <li>• inflected endings (-s, -ed, -ing)</li> <li>• concept of base word and endings</li> <li>• vowel sound /ow/</li> <li>• high frequency, irregular words</li> </ul>	<ul style="list-style-type: none"> <li>• review of short and long vowel patterns</li> <li>• homophones</li> <li>• compound words</li> <li>• r-influenced vowels (er, ir, ur)</li> <li>• two-syllable words</li> <li>• syllable juncture (button, batted)</li> <li>• base words</li> <li>• e-drop and consonant doubling principles; y to i</li> <li>• common prefixes and suffixes</li> <li>• unstressed syllables (er, le)</li> <li>• contractions</li> <li>• possessives (singular)</li> <li>• plurals (regular)</li> <li>• high frequency, irregular words</li> </ul>	<ul style="list-style-type: none"> <li>• review of basic vowel patterns</li> <li>• r-influenced vowels</li> <li>• silent consonants</li> <li>• syllables and stress</li> <li>• schwa vowels</li> <li>• plurals (irregular)</li> <li>• possessives</li> <li>• contractions</li> <li>• homophones</li> <li>• compound words</li> <li>• simple prefixes and suffixes</li> <li>• e-drop, y to i, and consonant doubling principles (reviewed)</li> <li>• unstressed syllables</li> <li>• unusual spellings</li> <li>• borrowed words</li> <li>• new words in English</li> <li>• high frequency, irregular words</li> </ul>



Figure 1. Typical spelling concepts by grade (continued)

Grade 5	Grade 6	Grade 7	Grade 8
Syllable Juncture – Meaning-Derivation Stages	Syllable Juncture – Meaning-Derivational Stages	Meaning-Derivational Stage	Meaning-Derivational Stage
<ul style="list-style-type: none"> <li>similar to grade 4</li> <li>review of basic spelling principles</li> <li>pace more rapid</li> <li>syllable juncture in both 2 and 3 syllable words (happening; occurred)</li> <li>irregular plurals</li> <li>homophones</li> <li>compound words</li> <li>possessives (singular and plural)</li> <li>related words (sign/signature)</li> <li>broader range of prefixes and suffixes</li> <li>schwa vowels</li> <li>high frequency, irregular words</li> </ul>	<ul style="list-style-type: none"> <li>reinforce previous concepts using more sophisticated vocabulary</li> <li>schwa vowels</li> <li>final, unstressed syllables</li> <li>common Latin prefixes and suffixes</li> <li>irregular plurals</li> <li>homophones</li> <li>compound words</li> <li>possessives (singular and plural)</li> <li>contractions</li> <li>syllable juncture in longer words (doubling, e-drop, y to i)</li> <li>related words (muscle/muscular)</li> <li>irregular past tense verbs (e.g. brought)</li> <li>unusual spellings</li> <li>high frequency, irregular words</li> </ul>	<ul style="list-style-type: none"> <li>review of basic spelling principles</li> <li>application to adult vocabulary</li> <li>roots and meaning relations among derived forms (e.g. divine, divinity)</li> <li>schwa vowels</li> <li>use meaning principle to spell schwa vowels (compose – composition)</li> <li>easily confused word pairs (angle, angel)</li> <li>borrowed words</li> <li>new words in English</li> <li>homophones</li> <li>high frequency, irregular words</li> </ul>	<ul style="list-style-type: none"> <li>same as grade 7, using increasingly sophisticated vocabulary</li> <li>roots and meaning relations among derived forms (e.g. column/columnist)</li> <li>schwa vowels</li> <li>use meaning principle to spell schwa vowels (compose – composition)</li> <li>easily confused word pairs (affect, effect)</li> <li>borrowed words</li> <li>new words in English</li> <li>homophones</li> <li>high frequency, irregular words</li> </ul>

d. Work with colleagues to provide coverage of important spelling principles and continuity in instruction from one grade to the next. If teachers are not using a common published spelling program, they should agree upon an overall scope and sequence of spelling concepts for their school and a common philosophy regarding the teaching of spelling.

2. Present spelling as a problem-solving activity. Struggling spellers tend to see spelling purely as a memorization task (Scott, 1991). As their vocabulary increases and they encounter longer words in their reading, such students find the rote memorization of words increasingly difficult and inefficient. Many students have been reasonably effective spellers in the early grades because they were able to memorize the short words used in their writing. The same students, however, often struggle beyond fourth grade when the words required for writing in content areas and their own personal work are more complex and cannot simply be memorized.



Teachers can help students look for patterns in spelling through the use of word sorts. These are banks of words that represent a specific spelling rule or generalization. Word sorts enable students to elaborate concepts underlying words they already know, and to make important distinctions among concepts and words (Bear, Invernizzi, Johnston, & Templeton, 2000).

At the level of sound, a word sort might contain twenty words with the long *o* sound. Students would then sort the words into four patterns for spelling long *o*: *oa*, *ow*, *o-consonant-e*, *ough*.

At a structural level, which relates to the syllable-juncture stage of spelling development, students could learn the rules for doubling final consonants when adding *ed* or *ing*. Half of the words would appear in pairs such as *dump-dumping*; *catch-catching*; *splash-splashed*. Each of these base words ends in a consonant-consonant pattern. The other half of the word sort would be comprised of pairs such as the following: *drum-drummed*; *grip-gripping*; *chat-chatting*. These base words end in a short vowel and single consonant. Students could then be asked to decide what rule governs the doubling of the final consonant when *ed* or *ing* is added. Only after they have generated the rule themselves would a formal version be given: When adding *-ed* or *-ing* to single syllable verbs ending in a short vowel + consonant, double the consonant. The students could then apply this rule to other words that follow the pattern.

3. Help students to see the logic behind the spelling of most long words. Word building activities are vital in helping students understand that most multi-syllabic words are simply base words to which affixes have been added. If a student does not approach words systematically, learning to spell *irreplaceable* would be a major undertaking. With the number of vowels and the double *r*, this word would place a significant load on memory.

On the other hand, if the same student deconstructed the word *irreplaceable*, and saw it in terms of a base word (*place*) to which prefixes (*ir-*; *re-*) and a suffix (*-able*) have been added, it is not a difficult word. Represented as an equation, it could be described as *ir + re + place + able*. Teachers can help their students see these relationships even more clearly by color-coding the prefixes, base, and suffix differently.

4. Model and practice the use of a wide range of spelling strategies. It is not enough to present students with a list of spelling strategies and hope they will utilize them when learning to spell irregular words. These approaches must be introduced, discussed, modeled, and practiced on a regular basis. These activities can take place as a whole class when a commonly misspelled word is encountered, in individual study sessions, and in small group settings where students brainstorm strategies and reflect on their own spelling difficulties. Teachers can provide excellent modeling by admitting there are words they find tricky and then discussing with the class approaches to remembering the spelling of these words.
5. Explore the origins of words and the continuing evolution of our language. Johnston (2001) encourages teachers to look past the apparent irregularities in English spelling and to share with students interesting facts about the history of the language. For example, the word *breakfast*, the first meal of the day, comes from an old phrase “to break one’s fast.” If students think of this when spelling *breakfast*, it will be easier to remember the *ea* in the first syllable and the *a* for the final schwa vowel. Students in the middle and later grades find word origins particularly interesting.



Students should also realize that our language continues to evolve, with new words being added at a rapid rate. Resources such as the *Oxford Dictionary of New Words* (1997) not only catalogue and define new terms in English, but also cite the first recorded use of each entry. For example, this dictionary states that the computer term *reboot* was first used in *Computer Shopper* in July, 1993.

Delving into the history of English and being aware of new developments in the language can add excitement to the study of English and help students understand why English spelling can be so challenging.

6. Give students a reason for spelling accurately. A rich and meaningful writing program should be at the heart of any approach to spelling. Otherwise, learning to spell is just a mechanical exercise that has little relevance to the real world. When students are engaged in writing about topics of interest, they are more likely to develop a “spelling conscience,” and see correct spelling as a courtesy to their readers.

Writing portfolios are also an excellent source of information about specific student needs in spelling. Teachers should be cautious, however, about basing their entire spelling program on words students misspell in everyday writing. Unless the teacher has a solid background in linguistics and is willing to track each student’s needs, there is the risk of having a scattered spelling program that does not provide coverage of major spelling principles (Cramer, 1998; McQuirter Scott & Siamon, 2004). Nevertheless, when spelling is addressed in the context of writing, spelling strategies and patterns that have been presented formally can be reinforced in a meaningful setting.

7. Teach the skills of proofreading so that students can assume more responsibility for their spelling. Turbill (2000) warns that proofreading skills do not come naturally to many students: “Proofreading is a special kind of reading that needs to be explicitly taught, so that students, in turn, can understand how it differs from other kinds of reading, such as reading for meaning, skim reading, and critical reading” (p.209).

Many students rely on computer spell checks for proofreading. While such programs do provide valuable assistance, students should realize the limitations of spell checks for spotting errors in homophones, word substitutions, incorrect endings to words, and so forth. They need to see the spell check as another tool in their arsenal of proofreading devices, but that ultimately it is their own responsibility to detect spelling errors in their writing.

8. Foster links between the formal study of spelling and its use throughout the curriculum. As the typical middle school curriculum becomes increasingly crowded, it is important to integrate learning whenever possible. Many spelling principles can be addressed within the context of content area subjects. When students encounter difficult spelling words in these subject areas, it is an ideal time to brainstorm useful spelling strategies. The word *hypothesis*, for example, could be recalled by exaggerating the sounds and saying *thesis*. The long *e* in *thesis* will be a reminder of how to spell the schwa vowel in *hypothesis*. Furthermore, the word building techniques described earlier with *irreplaceable*, can be used for content area terms such as *multinational* and can facilitate fluent reading as well as spelling. Finally, students will see that careful attention to spelling is important throughout the day rather than restricting it to specified “Language” times in the curriculum.



## Conclusion

Effective spelling instruction for the middle years requires teachers to be knowledgeable about the spelling system and how children learn to spell. Both the content and approaches used for the middle grades should reflect the needs and learning styles of students in this age range. In order for students to progress toward mature spelling, they need formal instruction in spelling patterns and strategies as well as ample opportunities to apply this knowledge throughout the school day.

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## Traditional and Innovative Approaches to Fluency Development: The Neglected Area of the Curriculum

*Lisa Anne Rizopoulos*

### ABSTRACT

In the past, fluency has been considered a neglected area of reading instruction, but it is unequivocally an essential component of an effective reading program. For children to develop into confident, fluent readers, they must be exposed to a variety of meaningful strategies that provide plenty of successful reading practice. Teachers that implement traditional approaches can complement their instruction with more innovative approaches to fluency development by integrating technology into the curriculum. These innovative, multisensory approaches to fluency development will encourage struggling and resistant readers to work on their fluency skills through the use of information and communication technology.

### AUTHOR BIOGRAPHY

Dr. Lisa Anne Rizopoulos teaches undergraduate and graduate reading courses at Manhattan College in Riverdale, NY. Her Ph.D. is from Fordham University in Language, Literacy, and Learning. She has published numerous articles in the field of adapting literacy instruction to meet the diverse needs of both mainstream and inclusion students.

What strategies can teachers use to foster fluency and reading comprehension in the elementary and secondary classroom? The International Reading Association (IRA, 1999) cites fluency as being one of the five priority areas of reading instruction and recommends effective strategies for teaching this skill. As teachers, we realize that it is crucial for us to use a variety of successful strategies to improve fluency in order to enhance comprehension and reading enjoyment. "Fluency instruction is important, and it can be developed by the teacher modeling fluent reading, and by having students engage in repeated oral reading" (IRA, 1999).

According to Allington (2001), reading fluency is a neglected area of the literacy curriculum. Children are taught to decode words accurately, but lack explicit instruction in reading fluency. The National Institute for Literacy (2001) concurs that one critical factor for reading comprehension is fluency.

The report of the National Reading Panel (2000) also indicates that reading fluency is one area that holds great promise for improving student reading. It is important for students to be fluent readers because learners who are not reading at their independent reading level spend more time on decoding than they do on understanding the meaning of a text. Therefore students who do not develop reading fluency, regardless of how bright they are, are likely to remain poor readers throughout their lives (National Reading Panel, 2000). The National Reading Panel Report (2000) suggests that one of the most effective ways to develop reading fluency is through repetitive reading practice. There are many traditional strategies and newer, technology-based interventions that teachers can use to support reading fluency and accelerate reading achievement through meaningful repetitive reading activities.

This article will present strategies for multiple opportunities for repeated reading of connected texts to develop fluency. The traditional methods of encouraging repeated reading include Paired Reading, Guided Reading, and Readers' Theater. Technology is another progressive and powerful



approach to fluency development that is highly motivating and educational for students at varying reading levels. Assistive technologies capture students' attention as the Internet and specialized software packages use multisensory approaches for fluency development.

### What is Reading Fluency and Why is it Important?

Reading fluency is defined as the ability to read orally with accuracy, and with an appropriate rate, expression, and phrasing (<http://www.ed.gov>). Fluency in oral reading involves the ability to read both smoothly and accurately. It also is quick, expressive, and meaningful (Flippo, 2003). Many researchers agree that fluent reading is highly correlated with measures of reading comprehension; therefore as automaticity and fluency develop, readers can read more quickly and concentrate more fully on the meaning of what is read (Armbruster, Lehr, & Osborne, 2001; NAEP Study, 2000; Chall, 1983). Dowhower (1994) reported that the research on the positive effects of repeated reading was so strong that it should be "woven into the very fabric of daily literacy instruction" (p. 343).

Once fluency is mastered, students can focus on making connections with the text and their background knowledge instead of exerting cognitive energy on decoding. Fluent readers are able to focus on comprehending the text and not on decoding and assessing individual words. Students who are not fluent readers, often read in a halving word-by-word fashion. They also read at a slower pace and pause frequently. Reading may sound like this: I/ may/ go/ to/ the/p/a/r/k.

### Traditional Approaches for Developing Oral Reading Fluency

Perhaps the best known reading intervention designed to support fluency development is the Repeated Reading Approach (Cunningham & Allington, 1999). The basic method of repeated readings was developed by Samuel and Dahl (1979), and numerous research studies (O'Shea, & O'Shea, 1988; Samuels, 1979) have documented the impact of repeated reading in improving reading fluency and word recognition accuracy.

When using this strategy, students reread an excerpt from a book three to five times in an effort to improve their reading rate and decrease the number of errors they make. These selections (50-200 words) are from stories that students would be too difficult to read fluently by themselves. As reading rate increases, students' attitudes toward reading improve because they can better understand the material. When reading the same passage over and over, the number of word recognition errors decreases, reading speed increases, and oral reading expression improves. (Samuels, 2002). Thus, repeated reading is an effective strategy because as the student reads aloud, confidence and enthusiasm for developing fluency are heightened.

Paired reading, guided reading, and readers' theater also offer meaningful opportunities for conducting repeated readings that are conducive to the development of fluency skills. A brief description of each approach follows.

**Paired reading.** Samuels (2002) suggests that teachers pair students together for oral repeated reading. He recommends that students read the text at least three times. The first time the student reads the text aloud with the teacher. Then, the student reads the passage to herself. Finally, the student can be paired with a partner and rereads the text. While the learner is reading, the partner provides feedback about the tone and style. After the reading, a listening chart is used to evaluate a partner's reading.

Paired reading is an effective strategy designed to help students develop reading fluency by providing practice in dyads for approximately 15-20 minutes per day (Koskinen, & Blum, 1986). In this



procedure, a fluent student is partnered with a student who is having difficulty. Students read material, using short passages or excerpts from books (50-100) that are predictable and at a level that guarantee success (Vacca, Vacca, & Gove, 2000)

During paired reading a learner and a skilled reader read a text together. The learner takes over the reading where he or she feels comfortable to do so, and the skilled reader acts as a support by modeling fluent reading and offering feedback. The advantage of paired reading is that it builds confidence by allowing the reader to make the choice about when to join in the reading. The technique allows for students to be supported while reading texts of greater difficulty levels than they would be able to read at their independent level.

Topping and Whitley (1990) used a sample of over 1000 adult tutors and a structured questionnaire to collect research data on the effectiveness of the paired reading strategy. Seventy percent of the respondents felt that their tutee was reading more accurately, more fluently and with better comprehension after paired reading. Greater confidence in reading was noted by 78% by the tutors. Teachers reported generalized reading progress in the classroom in a slightly smaller proportion of cases. Of a sample of 964 students who completed the questionnaire, 95% felt that they were better at reading after paired reading, 92% liked reading more, 87% found it easy to learn to do, 83% liked doing it, and 70% said they would continue using the strategy.

***Guided repeated oral reading.*** Research conducted by the National Reading Panel (2000) concluded that guided repeated oral reading procedures that included direction from teachers, peers, or parents had a significant and positive impact on word recognition, fluency, and comprehension across a range of grade levels. The goal of guided oral reading is for students to become fluent readers who can problem solve strategically and read independently and silently. Students develop as individual readers while being involved in a supported activity. During the guided reading lesson, students have the opportunity to develop and use reading strategies so they can read progressively difficult texts independently. They experience success in reading for meaning and learning how to problem solve independently with a new text. Teachers use running records to assess student growth by observing individual students as they problem solve new texts. During guided oral reading, teachers support students' reading and their use of reading strategies (Fountas & Pinnell, 1996).

According to Tompkins (2003), guided oral reading lessons include prereading, reading, responding, exploring, and applying. During *prereading*, the teacher activates students' prior knowledge by reading the book title and author's name aloud from a big book. Students are encouraged to make predictions based on the picture on the front cover and the title of the story. The second step, *reading*, involves the teacher reading the book aloud and tracking print as the group reads. The teacher reads with appropriate expression and encourages students to join in on recognizable and rhythmic lines of the story. During this stage, the teacher is modeling fluent reading and is providing an example of how reading should sound. The third step, *responding*, requires students to dialogue and interact with the topics in the book. The teacher asks questions that help students make connections between their own lives and the situations and characters in the story. The fourth stage, *exploring*, calls for teachers and students to reread the book over several days. Students practice familiar and predictable words, and become increasingly able to read more and more of the text. This stage also emphasizes the modeling of expression. The final stage, *applying*, allows students to use their newly acquired words in an authentic setting by utilizing the text for writing activities.

An important component of guided oral reading is assessment. Teachers observe and listen as students read. According to Tompkins (2001) teachers assess students' reading fluency by listening to

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them read aloud. The teacher assesses fluency according to four factors: speed, phrasing, prosody, and automaticity. During this time, the teacher charts student fluency through running records and anecdotal records as the student attempts to identify words and use strategies to solve reading problems. Guided oral reading helps the teacher to determine whether the children are reading at the appropriate instructional level and whether they are progressing to more difficult levels of books.

**Readers' theater.** Struggling readers at all levels need highly motivating opportunities to engage in reading on a daily basis. Readers' theater scripts are play-like scripts that provide practice in oral reading, fluent delivery and correct expression through characterization. By using readers' theater scripts, teachers encourage students to read with expression and to practice important fluency attributes, such as pausing, inflection, and intonation. Martinez, Roser, and Strecker (1999) found that using readers' theater scripts results in significant improvement in second graders' reading fluency.

Readers' theater allows a small group of students to perform a text. Students sit in front of the class, and after a great deal of rereading, read and perform the script. Readers' theater motivates reluctant readers and provides fluent readers with the opportunity to delve into genre and characterization. It does this by allowing challenged readers to rehearse their lines before presenting their part to the class. A successful performance leads to increased self-confidence and a boost in motivation to read. The Readers' theater strategy focuses on developing reading fluency, improving comprehension through interpretive reading, and enhancing motivation to read. Scripts can be teacher-made, student-generated or found on the Internet. To find Internet sites for scripts, go to Google's website and enter the keyword, "readers' theater" ([www.google.com](http://www.google.com)). You may go directly to Aaron Shepard's Home Page for *Stories on Stage*, scripts for Readers' theater performances ([www.aaronshp.com](http://www.aaronshp.com)). Another valuable website is the Readers Theater/Language Arts for Teachers Home Page ([http://members.aol.com/\\_ht\\_a/rcswallow/](http://members.aol.com/_ht_a/rcswallow/)). This site contains over 30 free scripts to use at the elementary level. For step-by-step directions on how students can create their own readers theater scripts, log on to Reader's Theatre Basics website (<http://bms.westport.k12.ct.us/mccormick/rt/RTHOME.htm>).

## Assistive Technologies

Assistive technology is an interactive, educational, and motivating tool that is used for developing fluency across the grade levels. It is a multisensory tool and strategy that can help a person accomplish a task that would be difficult or impossible to complete. Opportunities for students to practice reading for automaticity and comprehension include captioned television, the Internet, and educational software programs.

**Captioned television.** Reading captioned television programs provide students with opportunities for reading practice that is entertaining and self-correcting. On captioned television programs, sentences corresponding to the words spoken on the video are printed on the screen, much like the subtitles on foreign films (Tompkins, 2003). Captioning allows viewers to read the TV program's dialogue or other information. It displays up to four lines of script strategically placed on a television screen so as not to interfere with other parts of the picture. Captions are especially useful for hearing-impaired viewers but now have an important instructional function: screen reading (Koskinen, Wilson, & Jensema, 1985). Koskinen and her colleagues taught 35 second through sixth graders as part of a summer reading clinic to use close captioned television to practice short pieces of script. The researchers provided anecdotal evidence suggesting that less fluent readers and bilingual students become more motivated when they use captioned television and video and researchers felt this strategy improved learners' reading fluency.



Also, innovative approach enables ESL students and hearing impaired students an opportunity to participate in mainstreamed content area classes while developing their own language skills.

**The Internet.** The Internet is another valuable tool for developing and improving fluency. Research suggests that teacher modeling and read aloud improve the reading fluency of students (Eldredge & Quinn, 1988; Reitsma, 1988) and the Internet can provide the reading practice needed to help improve fluency. Typically fluent reading is modeled by a teacher, parent, older sibling or friend; however, if no one is available, technology steps in. Technology has often proven helpful to both special needs learners as well as English as-a-second language learners because there are many resources on the web that allow students to progress at an individual pace. Another reason is that specific sites allow learners to reread stories and passages that are vocalized through Internet access. Students can imitate the intonation and flow of language by listening as fluent readers model appropriate reading behaviors.

There are many engaging and interactive Internets sites students can use to improve their reading fluency. Internet sites like The Amazing Adventure Series contain classic children's stories and poetry in read-along format that offers learners an opportunity to listen to stories and follow along with the text (<http://www.amazingadventure.com>). Rasinski (1990) documented improvement in children's fluency skills when students practiced oral reading while listening to the text being read simultaneously. Students can practice reading orally just slightly behind the synthesized voice like a shadow or an echo until they gradually improve over time.

Another untapped multisensory-strategy that can be accessed on the Internet for developing reading fluency is Karaoke. Karaoke is music played in the background as the words to the song are printed on the screen. Karaoke sound tracks allow the lyrics to scroll across the screen of a standard television or they can be accessed on the Internet and viewed on a computer.

Children often learn by hearing information set to music. Students' interest and ability in music, complemented by their emotional response to the lyrics, potentially increases prosody and comprehension as they begin to make personal connections to the words in the song. Karaoke requires students to recognize words at first sight, automatically, as they are set to music. As students sing the lyrics to their favorite songs, they need to read with speed and expression as the words appear on the screen. Beyond decoding the words, readers group the words into meaningful phrases and use their voices to express the words on the screen. Therefore, reading with proper phrasing and expression helps readers construct meaning from the text.

Students can create their own lyrics set to music or create their own choral performance for the class. This strategy provides a motivational way for children to practice and reread a text to improve fluency and comprehension. By using Karaoke to develop fluency, students become familiar reading or interpreting a refrain or lyric while reacting to the mood or feeling of the words.

Students can sing the song in unison, have different parts, or join in at the refrain. For example, at the site of Mightybook readers can develop their fluency skills by accessing one of the sixty read-alouds, electronic books, music videos or Karaoke songs organized by age group and reading level (<http://www.mightybook.com>). On this site, students can sing Karaoke songs and follow along with the words as they are read aloud and highlighted. For example, when a student clicks on the option "When a Baboon's Not," and selects the Karaoke option, a catchy tune is played and the words are highlighted so children can follow along. Children can replay these entertaining songs, at different reading levels, as often as they like. The repetitive and engaging nature of these songs, provide successful skill reinforcement at their independent level and practice on their instructional reading level.



The Internet can also be used to access interactive storybook collections for young children. Childrenstory.com provides another valuable resource to help students track words as they read along with the story (<http://www.childrenstory.com/tales/index.html>). This site offers a collection of many of the most popular fairy tales such as *Sleeping Beauty* and *Snow White*. It includes an option to have the story read aloud using REAL player. Another resource, Room 108 is a site for K-12 children that have stories containing sound and animation (<http://netrover.com/~kingskid/108.html>). This site provides songs with lyrics for following along and includes a group of animated books based on the Dolch sight word list that allows children to hear the correct pronunciation. The voice on the computer reads a passage to the listener as words appear on the screen so the child can follow along. Another advantage is that the students are listening to a fluent rendition of the text as the storyteller is modeling smooth reading.

**Software.** Although many quality Internet sites offer programs that can be downloaded or readily accessed on the World Wide Web, many quality software programs can be purchased from software companies. Software offers yet another method of improving student's reading fluency. For example, Mercer Meyer's, *Just Grandma and Me* (2004) by The Learning Company and distributed by Broderbund, allows lower elementary school aged children to read along with the highlighted text. (Summaries of Mercer Mayer's animated stories can be found at [http://www.kidsclick.com/descrip/justme\\_grandma.htm](http://www.kidsclick.com/descrip/justme_grandma.htm)). This software package not only facilitates fluency, but teaches children about directionality, uses pictorial clues, and features repeated readings. Uniquely, this software can be read in many languages including Spanish, French, German and Japanese. This feature is especially useful for students whose first language is not English because it allows them to follow the story in their primary language and build confidence as they develop reading fluency. Students can also highlight words that are confusing and that might slow down their reading. In addition, children can click on particular words to hear them read aloud. Time is given between each page so that the children can begin reading silently at first. Then, the child may decide to join in chorally with the reader.

Electronic books also have the potential to use to improve fluency skills for both mainstream and learning disabled students. Electronic books, or eBooks, are innovative resources that can be downloaded by using the Internet or can be purchased as software programs. They are cutting-edge digitized versions of books that can be read on a computer.

eBooks offer many specialized applications that are valuable to the development of fluency skills. Many are enhanced with music, external links, simulations and sound effects that keep students interested in the topic and in reading. Several offer additional features such as the ability to highlight text, bookmark a page, or look up an unfamiliar word in a dictionary. These features can prove useful for students with fluency problems because they can keep track of their progress and return to sections that they may have struggled with earlier. Additionally, teachers can customize their own e-books to meet the specific reading needs of their students. In this way, readers can practice specific words or phrases to develop their fluency.

With eBooks, the teacher or the student can adjust font size and page colors to support the needs or preferences of their students. eBooks let students search the text quickly for specific words or phrases that cause difficulty so that during the next reading, their word identification skills improve. More advanced eBooks include hyperlinks and other reading options that promote active learning. These options include quick and easy reference tools like dictionaries and synonym features that broaden vocabulary. Reading progress is tracked and stored by the computer over time so teachers can have easy access to progress reports and can readily adapt instruction to meet their students' changing needs.

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When using eBooks, teachers can customize the text to address the reading needs of diverse students. For example, text can then be scanned into the computer and the optical character reader can translate it into a digital format so that it can be read and edited. Once the text is pasted into the Talking Word Processor, the teacher may decide to edit the text by eliminating parts that may be too difficult for the reader to decode. The teacher can also magnify the font (1 to 16 times) to make reading easier, or opt to have the text read aloud. (For a free, online demonstration of an eBook, log on to <http://www.magickeys.com/ebooks/demo.html>).

Talking Word Processors (TWP) can be purchased separately from eBooks or can be used as part of a package. With TWPs, students can invent their own creative stories or listen to narratives read to them on Talking Word Processors (TWP). “Computers, especially those equipped with devices that produce artificial speech, may provide an effective means for increasing decoding skills and reading fluency (Reinking, 1995).” Software programs for TWPs are now available that provide artificial speech feedback. As the student writes, each letter is echoed as it is typed and each word is vocalized as the spacebar is pressed. Many of these inexpensive programs, typically used to assist with writing, also incorporate powerful tools for reading. Students with reading difficulties can create and edit a story that they’ve written and have it imported into a TWP. After it has been imported, the text can be read aloud to the student.

These TWP programs offer other adjustments such as enlarging the size of the text and changing the foreground or background color and highlighting text to assist students in following along. Also, TWP programs offer a variety of reading voices from which to choose. Many features can be adjusted to accommodate students’ varying reading rates while maintaining speech flow and inflection. Another program feature that helps with editing and comprehending information is the software’s ability to re-read the text word by word, sentence by sentence or by the total page, as often as the students want. These features allow students more control over their learning process as they develop and refine their fluency skills.

There are several methods for inputting text into the talking word processor. New information can be imported into a talking word processor by typing directly into a file, copying text from another file or electronic resource and then pasting it into the word processor. This converts printed text into a digital format. Once text is in digital format it can be accessed and manipulated in a variety of ways.

Kurzweil Educational System software (<http://www.kurzweiledu.com/>) sells software that helps disabled learners read more fluently by improving students’ reading speed and comprehension. This is done by highlighting the text as it is spoken aloud. Users can read along, take notes, and highlight right on the computer screen. In this version, words are highlighted in a contrasting color making tracking easier. This multisensory approach helps improve fluency and increase comprehension for struggling students.

## **Conclusion**

In the past, fluency has been identified as the neglected area of reading instruction. Now, it is regarded as an essential component of an effective reading program. For children to develop into confident, fluent readers, they must be exposed to a variety of meaningful strategies that provide plenty of successful reading practice. Along with more traditional approaches to improve fluency, such as choral reading, rereading, or practice during independent reading (such as during sustained silent reading), teachers can complement their instruction with more innovative approaches to fluency development by integrating technology into the curriculum. These innovative, multisensory approaches to fluency



development may encourage struggling and resistant readers to improve their fluency through the use of a medium that many students find engaging and entertaining.

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## Improving Children's Writing: A Model for Parent Participation

*E. Francine Guastello and Claire Lenz*

### ABSTRACT

This study examined the effects of parental training on students' writing scores. Six classes of fourth grade students from three schools were randomly assigned to three experimental and three control groups. Parents of the students in the experimental group attended training sessions and received instruction in the stages of the writing process and criteria used in an evaluation rubric. Through the five phases of the study, students in the experimental group received significantly higher writing scores ( $p < .05$ ) than those in the control group as indicated by the criteria for passing on the New York State Standards. In addition, within the experimental group, significant incremental improvement ( $p < .05$ ) was indicated through writing sample 1, 2, and 3.

### AUTHOR BIOGRAPHY

E. Francine Guastello, Ed.D.

- Assistant Professor of Literacy, Coordinator of the Graduate Literacy Program at St. John's University in New York, Chair of The School of Education's Curriculum Committee and Supervisor of the Graduate Practicum Program
- She is also a Fellow in the Academy of Orton Gillingham Educators and Practitioners teaching children with dyslexia.

Claire R. Lenz, Ed.D.

- Assistant Professor of Child Study at St. Joseph's College in Patchogue, NY.
- Adjunct Assistant Professor of Literacy at St. John's University, Jamaica, NY.
- President of Phi Delta Kappa, St. John's Chapter.

The purpose of this paper is to describe a study that looked at the effects of parental training on students' writing scores. Long before children engage in formal instruction in reading and writing, parents begin the process of helping them become literate human beings. As the first teachers, parents have a highly influential role in preparing their children for school through language and literacy-related activities in the home (Moll, 1992). This sentiment was endorsed by a former Secretary of Education, William Bennett, who stated, "The single best way to improve elementary education is to strengthen the parents' role in it." (U.S. Dept. of Education, 1986). There is a considerable body of research to support Bennett's statement that points to the connection between parental involvement and students' achievement (Coleman, 1987; Epstein, 1991; Henderson & Berla, 1994). Walberg (1984) contended that parental involvement and home factors were more important than student characteristics, instructional strategies, environmental factors, and increased time on academic learning. The home environment is one of the major influences on student learning (Bloom, 1986; Shockley, 1994; Walberg, 1984). There is also a strong positive correlation between parents communicating their expectations to the child and the grades the child attains in school (Duke, 1992; Gyles, 1990).



Parental involvement and encouragement in the literacy life of their children can certainly make a difference. Bloom (1980) insisted that, "If we are convinced that a good education is necessary for all who live in a modern society, then we must search for the alterable variables which can make a difference in the learning of children." One such variable is the influence of parental participation on a child's motivation and achievement in school (DeBaryshe, 1996).

### **Parental Participation vs. Parental Involvement**

Gill Potter (1989) argued that parents should be participants, more than just interested parties, in their children's schooling. Examples of *parental involvement* are: attendance at home-school or parent meetings and parent-teacher conferences and responses to printed materials distributed by the school or individual teachers. *Parent participation*, however, involves parents actively engaged in their child's learning. For example, parents participate in workshops, much like the in-service training for teachers, and use the skills and techniques with their children at home to support their child's learning experiences. Several researchers have documented the positive effect upon language skills when parents perform the role of home instructor (Becker & Epstein, 1982; Bermudez & Padron, 1988; Chavkin & Williams, 1988; McLaughlin & Shield, 1987). Parental participation in school-related learning activities is a key factor in children's motivation and academic achievement (Bloom, 1986; Morrow, 1995; Muller, 1993).

Parents, regardless of economic status or cultural background, care about their children's education and provide substantial support if given specific opportunities and knowledge (Fruchter, Galletta, & White, 1992; Egoff, 1994). Research indicates that parents' participation improves students' learning (Coleman, 1982; Edwards, McMillion, Turner, & Laier, 2001; Epstein, 1991). Without the school's assistance however, parents' knowledge and approaches toward helping their children are heavily dependent on their social class or education (Epstein, 1995). The ability to help their children often comes from knowing what is expected in terms of evaluation.

The introduction and implementation of the English language arts standards in New York and nationwide gave schools the opportunity to invite parents to become part of the process. Questions could be answered and the schools' expectations would be shared at school-sponsored meetings. In fact, the questions posed by parents to school personnel was shared with the researchers and subsequently became the framework for the parent workshops as inspired by Edwards, Pleasants & Franklin (1999).

### **Parental Inquiry**

In 1999, New York State instituted the English Language Arts exams for the fourth and eighth grades students. When the results of the fourth grade tests were made public in June of 2000, they indicated how deficient students were in their writing ability. Sixty-seven percent of the fourth grade students in New York City Public Schools failed to meet the State Standards. These results raised concerns within the entire learning community, particularly among parents.

As the standards continued to be implemented in schools, many parents wanted to become more knowledgeable about the expectations placed upon their children's learning experiences. Parents often ask, "How can we help our children make better progress in school?" But more recently, they were asking, "How can we help our children to enjoy writing, foster their creativity, and enable them to communicate more effectively? How can we support the school's efforts to help our children succeed with state and district standards so our children can achieve the benchmark competencies necessary for promotion and graduation?" (Gratz, 2000; Main, 2000).

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Parents were especially interested in assisting their children to improve their writing skills by: (1) understanding the developmental steps in the writing process; (2) developing an awareness of the new standards; and (3) becoming acquainted with the specific writing rubric. The critical need to improve literacy skills was shown in the results of the English Language Arts exams. It was the contention of the researchers that helping parents to understand and set high expectations with their children in writing will improve written expressive language and achievement.

## **The Goals of the State Standards**

At least five of the English language arts standards expect students to communicate effectively through writing, create research and discuss text, and use a variety of sources to gather and share information (National Council of English Teachers and International Reading Association, 1996).

Content and performance standards promoted by the national professional organizations and the various state departments of education grew out of the national forum focusing on improving the academic performance of students in the nation's schools. While most states have developed testing programs to measure student performance with content standards (Editorial Projects in Education, 1999), rubrics or scoring scales have also become very popular local tools. The purpose of the rubric is to make students aware of varying levels of quality, from excellent to poor that will be related to a specific task or assignment, such as an essay, narrative, or report (Andrade, 2000).

Writing is a skill and a process used to communicate meaning, personal feelings and emotions. It requires the thinking skills of analysis, inference, evaluation, problem solving and reading comprehension (Burns, Roe, & Ross, 1999). Writing encourages risk taking, provides opportunities for reflections and promotes the development of language competencies (Routman, 2000). It is an important daily activity where students can pursue their own topics, work by themselves or with their classmates, and where they might continue on a writing piece or begin new topics based on their own interests and experiences (Tompkins, 2000). Hillocks (1987) and Isaacson (1989) regard writing as one of the most complex human activities. Writing is a highly complex process that writers ultimately apply independently (Kameenui & Carnine, 1998).

## **Rationale for our Research Study**

The researchers conducted this study to address two major issues: a) the parents' concerns regarding their children's writing abilities, and b) the lack of significant research focusing on the role of parents and their direct influence on their children's writing. Parents are often unaware of the stages in the writing process and the writing rubric used to evaluate their children's writing assignments. It is the contention of these researchers that when parents gain an understanding of the process and are involved in helping their children meet writing standards, greater achievement in written expression will be possible. Although the positive effects of parental influence upon reading achievement have been documented (Clark, 1988; Rowe, 1991; Rowe & Rowe, 1992; Slaughter, 1987), there is insufficient research on the role of the parent in students' acquisition of writing skills.

## **Purpose of the Study**

The purpose of the research was to analyze the effects of in-servicing parents as an aid to improving the writing skills of fourth grade students based upon their understanding of the writing process, their interaction with their child and knowledge of a specific writing rubric. The researchers

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sought an answer to the question: Does in-servicing parents in the writing process and the use of a writing rubric improve the writing ability of their children? In others words, when the parent is aware of the expectations in writing and shares these expectations with the student, will the child strive to meet the criteria?

## **Method**

### **Participants: Students, Parents, Raters and Teachers**

Fourth grade was selected since these students were in the first group to be assessed by the New York State English Language Arts Standards. The researchers' contention was that the earlier the intervention, the greater the impact. Participants consisted of 167 fourth-grade students in six classes attending various elementary schools. Students were enrolled in one of three schools: (1) two classes from an affluent suburban school on the south shore of Nassau County, NY (2) two classes in a low socioeconomic multi-ethnic school located in Brooklyn, NY and (3) two classes in a middle-class school in Queens, NY. According to the annual school census report, students from the affluent suburban school had a 95% stability rate with 1% eligible for free or reduced lunch. The ethnic composition was 95% Caucasian and 5% other. The middle-class school census revealed a 90% stability rate with 5% qualifying for free or reduced lunch. The ethnic composition included 75% Caucasian, 10% Hispanic, 10% Asian, and 5% other. In the lower socio-economic school, there was a 75% stability rate with 98% of the students meeting the guidelines for free of reduced lunch. The ethnic composition consisted of 75% Hispanic, 20% African-American, and 5% other. Classes within each school were randomly assigned to either the experimental or control group. The experimental group consisted of 97 students, 50 female and 47 male. The control group contained 70 students, 34 female and 36 male. It is important to note that all student participants in this study had been formally instructed in the steps of the writing process that they used with their previous writing experiences.

The parent participants were defined as biological parents or caregivers who were directly involved in assisting and/or supervising the child's homework and school-related tasks. The parents and caregivers included mothers and fathers, parents from single-parent families and in a few instance, grandparents. At each of the two workshops, attendance was taken. An average of 85% of the parents from the affluent school attended each workshop; 90% from the middle-class school, and 98% from the low socio-economic school.

Three independent raters were involved in the study. Each rater had at least 10 years experience teaching language arts in the elementary school. They were familiar with evaluating writing samples using holistic rubrics. For the purpose of this study, the three raters were trained by the researchers in the use of the English Language Arts (ELA) rubric, using over 100 writing samples prior to the study (See Appendix A). The interrater reliability was .92.

All six teachers had at least three years experience as teachers of Language Arts. In addition, they had received training in the New York State ELA Standards and holistic scoring procedures. However, the teachers in the control group did not give their students direct instruction in the use of the scoring rubric. This task was undertaken by the researchers. None of the teachers served as raters.

## **Materials**

The topics selected for writing for this study were taken from discontinued fifth grade writing competency tests for assurance of content validity. The scoring rubric was developed by the Reading



Department of St. John's University and is consistent with the English Language Arts Standards. The rubric contains six components: topic focus, organization, content, sentence structure, language, and mechanics. Students' writing samples were evaluated in each area using a scale from 1 (low) to 4 (high), based upon descriptions of the type of writing that reflects each component at each level of proficiency. The parents were taught the steps in the writing process as follows: (1) Pre-writing, (2) First draft, (3) Revising, (4) Editing, (5) Second draft and final revision, and (6) Publication. Parents were shown samples of students' writing at each of the stages in the process. Activities for each step will be discussed in the procedure section.

## **Procedures**

The students were given three writing samples that were designated in five phases. These phases were instituted two months apart. The development of each phase is depicted in Figure 1. For each aspect of the writing rubric, a different writing sample was analyzed by students and the teacher during the student and parent training sessions.

### **Phase One:**

All students in the study were given the first topic, *A Time When I Felt Special*, to write over a period of two weeks. This writing piece served as a baseline score for the study. Each day, students developed their composition, engaging in the steps of the writing process. However, none of the students in the experimental or control groups was exposed to the writing rubric, nor were they given any formal instruction as to how to use the rubric to improve their writing. At the end of the two weeks, the writing samples were scored by the two raters using the ELA writing rubric (Appendix A.). A third rater was available in the event that there was a .5 discrepancy between the two raters. The scores were recorded for analysis.

### **Phase Two:**

Two months later, Phase 2 was initiated. Both groups were given the second topic, *My Hero*, to develop. Before the students in the experimental group began to write, they received the treatment of formal instruction on the criteria and the use of the writing rubric by the researchers. Over the course of two weeks, the students were given a separate piece of writing for each component of the rubric. As a class and with the teacher's guidance, the students analyzed and evaluated the writing sample. For the first writing sample, the students were asked to determine whether the author developed the assigned topic in an interesting and imaginative way. After discussing the piece with each other and their teacher, the students scored the writing sample in **topic focus** on a scale of 1 to 4 with 4 as the highest. As each component of the rubric was introduced, it was discussed and analyzed until students came to consensus on the score within a .5 range.

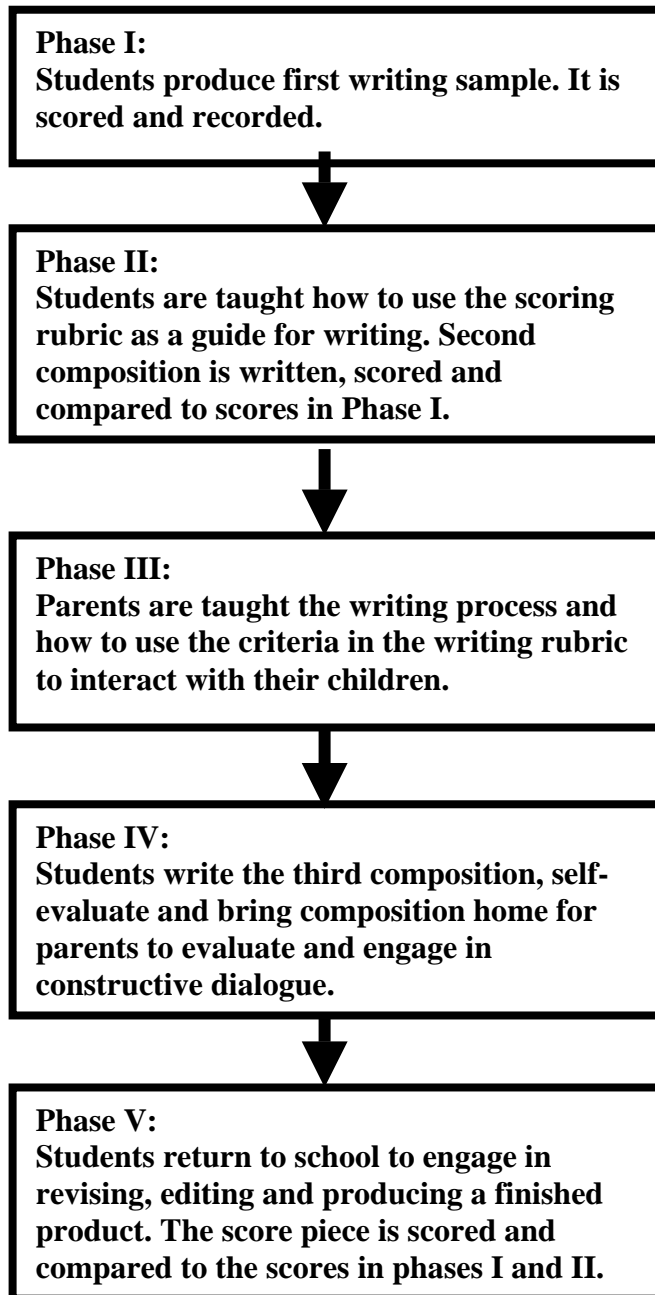
The second writing sample focused on **organization**. Students were asked to determine if the piece had a logical plan of organization and coherence in the development of ideas. Again, the students discussed, analyzed, and scored the writing sample on the same scale.

The third writing piece was subsequently examined for **content**. Did the author use supportive material that was relevant and appropriate for the purpose and audience?



The fourth aspect of the rubric, **sentence structure**, focused on the skillful use of sentence variety. Students specifically noted the length and kinds of sentences that were used in the writing sample. The next writing piece challenged students to determine the evidence of specific and vivid **language**.

**Figure 1: Flowchart of the implementation of the writing project**



The last writing sample called upon the students' editing skills. Students examined the piece for errors in **mechanics**, which included punctuation and capitalization. Their rating was based on whether these errors interfered with the communication of ideas from the author to the reader. The students added



their ratings of the six components of the rubric and divided the total by six, which yielded a holistic score. As the students progressed through this process, the teachers listened to their rationale for the scores and felt the students grasped the idea of what qualities of writing warranted a score of 4 and what needed to be improved when a paper received a score of 3, 2, or a 1.

After this period of formal instruction, the students were asked to score the writing sample based on all six aspects of the writing rubric. Now having learned the criteria for evaluation, they were ready to use the rubric as a guide for their second writing assignment. They self-evaluated their writing piece based on the rubric. The control group students were also given the second topic, *My Hero*, and proceeded to develop their writing piece following the same procedures as in phase one without knowledge of the criteria for evaluation. The students' writing samples were scored by the same two raters and recorded for analysis.

### **Phase Three:**

Approximately two months after the second writing sample was administered, the parents of the students in the experimental group were invited to attend first two-hour workshop session. First, parents were instructed in the New York State English Language Arts Standards and how these standards were incorporated into the steps of the writing process. The writing process is an approach to teaching writing that allows students to take charge of their own writing and learning (Calkins, 1986; Graves, 1983, 1991; Hillocks, 1987). It involves five steps (1) pre-writing or selecting the topic; (2) drafting or composing; (3) revising; (4) editing or proofreading; and (5) publishing. This procedure was intended to enable parents to understand that writing is a gradual process that develops in stages from pre-writing to publication.

The second workshop, a week later, involved the same procedures that were used with the children to teach them all six components of the writing rubric and how to arrive at a holistic score. Parents were provided with sample compositions that focused on specific components of the writing rubric. Having read a composition, parents engaged in discussion as they rated a specific aspect of the rubric. For example, when parents were given a writing piece to examine organization, they were asked to rate it based on the criteria 1(lowest) through 4(highest) for logical sequence and coherence of ideas. The purpose of this activity was to provide parents with the opportunity to share their rationale for the score they assigned. This sharing with the researchers and each other helped parents arrive at a consensus for rating each component of the rubric. Finally, they were given a sample and were asked to score it on all six criteria. The researchers were surprised at how quickly parents came to a consensus on the scores that were similar to the raters. Parents were also shown how to use the guide questions (Appendix B) as a means of helping their children reflect on their writing. It was explained to parents that their child would be coming home in the next few days with a composition for them to score

### **Phase Four:**

The students wrote their third composition, *Making Something That I Enjoyed*, and used their scoring rubric to self-evaluate their writing piece. The writing sample was taken home where parent and student discussed the sample based on the criteria of the rubric. After parents scored the writing piece, they discussed with their child the areas of strengths and those needing improvement on the writing sample using the guide questions. No additional writing or corrections were to take place at home.



**Phase Five:**

The child returned to school the next day and began to revise the composition. After the students completed the revisions on their compositions, the two raters scored the third writing piece and recorded the data for analysis.

The control group also received the third writing assignment, however, unlike the experimental group, they did not have instruction in the use of the writing rubric, nor was there any parental involvement. These students had knowledge of the writing process, and revised and edited their work accordingly.

**Results**

In order to assess rater reliability, a Pearson Product Moment Correlation was computed to assess the degree of correlation between raters in each phase of the study. The Pearson Product Moment Correlations between raters for writing sample one was .85, for writing sample two, it was .88, and for writing sample three, .92. Therefore, it was appropriate to average the two raters' ratings for each sample to form composite scores.

In order to assess whether there were differential increases in performance for each sample for each group, a two-factor repeated measure analysis of variance was performed. The first factor treatment involved between-subject factor with two levels: an experimental group and a control group. The experimental group had 97 students and the control group had 70 students. The within-subjects factor was "Writing Sample" consisting of three samples. The means of the groups within each sample are presented in Table 1.

**Table 1. Means and Standard Deviations for Writing Samples**

<b>Group</b>		<b>Writing Sample 1</b>	<b>Writing Sample 2</b>	<b>Writing Sample 3</b>
<b>Experimental (N=97)</b>	<b>Mean (SD)</b>	2.45 (.42)	2.76 (.36)	3.22 (.37)
<b>Control (N=70)</b>	<b>Mean (SD)</b>	2.45 (.28)	2.37 (.21)	2.47 (.30)
<b>Total (N=167)</b>	<b>Mean (SD)</b>	2.45 (.37)	2.60 (.39)	2.91 (.51)

Table 1 shows that the means for both the control group (2.45) and experimental group (2.44) began at the same approximate baseline for Phase One. However, after Sample Two, the experimental group had an increase to 2.76 while the control group actually had a reduction in its mean to 2.37. It was at this point that the students in the experimental group wrote their composition using the writing rubric as a guide. In Phase five, after the parents received their training and they interacted with the students, the results were even more striking with the experimental group realizing a mean of 3.23; however, the control still remained close to its baseline mean with 2.47.

Mauchly's Test of Sphericity indicated that sphericity assumptions could not be retained. Therefore, the tests were adjusted for violation of sphericity through the use of the Huynh-Feldt corrections. Mauchly's Test examines the form of the common covariance matrix. Table 2 presents the results of the analysis of variance. As can be seen in Table 2, there were significant main effects for



sample, a significant main effect for group, and most important, significant main effect for group by sample interaction. The partial Eta squared or correlation ratio was computed, indicating a strong effect (.27). Any correlation over a .25 is considered a strong effect.

Table 2. ANOVA of Test Scores by Experimental Group and Writing Sample

Test of Between-Subject Effects\*

Factor	Sum of Squares	Df	MS	F	Sig	Eta squared
Group	17.96	1	17.96	60.24	.000	.267
Error	49.21	165	.30			

Test of Within-Subject Effects\*

Writing Sample	13.59	1.89	7.20	181.84	.000	.52
Writing Samples by Group	11.97	1.89	6.34	160.12	.000	.49
Error	12.33	311.46	3.96			

\*Huynh-Feldt  $p < .05$

In order to further examine the statistical significance of group by sample interaction, simple main effect tests were computed. There were two such sets of tests. The first set of tests compared groups within each sample. As can be seen in Table 3, there were no significant differences between the experimental group and the control group within the baseline writing sample 1. However, there were significant differences between the groups from writing sample 2 to writing sample 3.

Table 3. Simple Main Effects Tests for Groups within Instructional Phase

Writing Samples	GROUP	GROUP	Mean Difference	Sig.
1	Control	Experimental	6.47	.911
2	Control	Experimental	-.397	.000
3	Control	Experimental	-.760	.000

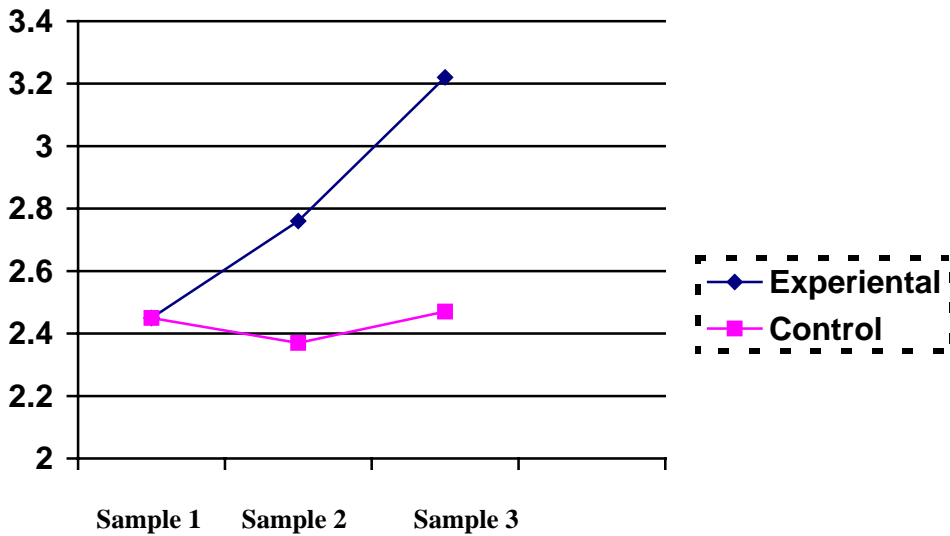
\* $p < .05$

Within the experimental and control groups, there was a significant change from sample to sample. However, it should be noted that in the experimental group, there was continuous improvement. In the control group, there was a slight decrement in the second sample from the baseline score and then a slight improvement from Writing Sample Two to Writing Sample Three.

A graph of the means can be seen in Figure 2. It illustrates that there is no significant difference from Writing Sample One to Writing Sample Three for the control group. This group remained close to the baseline score. However, the experimental group improved with each writing sample.



Figure 2. Estimated Marginal Means of Measure



The hypothesis comparing scores by socioeconomic status was tested. Table 4 reports the Means and Standard Deviations for each school (SES). While the results indicate that all three subgroups of the experimental group improved their writing scores, the students in the more suburban affluent school scored higher than their counterparts in the urban schools.

Table 4. Means and Standard Deviations Each School (SES)

School (SES)		Writing Sample 1	Writing Sample 2	Writing Sample 3
<b>Nassau (N=30)</b>	<b>Mean (SD)</b>	2.41 (.48)	2.67 (.45)	3.18 (.37)
<b>Brooklyn (N=54)</b>	<b>Mean (SD)</b>	2.44 (.39)	2.60 (.39)	2.88 (.53)
<b>Queens (N=81)</b>	<b>Mean (SD)</b>	2.46 (.31)	2.57 (.37)	2.84 (.51)
<b>Total (N=167)</b>	<b>Mean (SD)</b>	2.44 (.37)	2.60 (.39)	2.91 (.51)

A simple main effect test revealed that there were significant differences within the subgroups of the experimental group from writing sample to writing sample as noted in Table 5.



Table 5. ANOVA of Test Scores by Writing Sample and School (SES)

**Test of Between-Subject Effects\***

Factor	Sum of Squares	Df	MS	F	Sig	Eta squared
School (SES)	1.99	3	.67	1.66	.177	.030
Error	65.18	163	.40			

**Test of Within-Subject Effects\***

Writing Sample	2.26	1.50	1.51	16.58	.000	.09
Writing Samples by SES	2.08	4.49	.46	5.08	.000	.09
Error	22.22	244.12	9.10			

\*Huynh-Feldt  $p < .001$

Further analysis compared scores by gender. There was no significant difference between the scores of the males and females in either the experimental and control groups within or between phases.

**Discussion**

The findings of this study are presented in relation to the three original research questions: (a) Will an incremental improvement for each writing sample occur after each phase for the experimental group? (b) Will there be a significant positive effect upon the writing scores of fourth grade students in the experimental group who have received parental follow-up at home with the writing rubric? (c) Will there be a significant difference in the writing scores based upon socioeconomic status?

Although all the students had been developing the stages of the writing process in their writing since first grade, at the time of the study, they did not have knowledge of a writing rubric that was systematically and directly taught. Nor did they know how to use the rubric as a means of improving the quality of their writing. Prior to this study, some students were exposed to subject-specific rubrics developed by individual teachers.

During Phase Two, the students in the experimental group interacted with the trainers and with each other when evaluating separate writing pieces based on the criteria in the rubric. When scoring a sample, each student had to justify the score thus explaining the significance of the score. Students commented that now that they knew the criteria used in evaluating their writing; they could use the rubric to help them develop each of the six components listed in the rubric. The data indicated that there was indeed an improvement in their scores from writing sample to writing sample. The difference from the first writing sample to the second writing appeared to be based upon their understanding and use of the writing rubric. Coupled with the interaction with their parents, students' scores improved again from Writing Sample Two to Writing Sample Three.

In response to the question, "How can I help my child with writing?" parents became aware of two major aspects of writing: (a) the stages in the writing process and (b) the criteria used to evaluate their



child's writing ability. Questions from parents revealed that many did not have knowledge of writing as a linear and recursive process prior to the in-service sessions. The concepts of brainstorming or providing the child with experiences to incorporate into their writing were aspects of pre-writing where parents admittedly fell short. While most parents focused on mechanics when evaluating their child's work, learning about topic focus, content, organization, and sentence structure enabled parents to obtain a more holistic view of writing.

At the conclusion of the study, the parents were invited to a feedback session about their experiences. Their comments indicated that they had a better understanding of the writing task and the school's expectations for their child's writing. From their responses to scoring their child's writing sample, it seemed that many were able to recognize the elements of quality writing. Parents also indicated by their interaction with the trainers that they felt they now had an effective tool for assisting their child with writing. They expressed their desire to involve their children in more activities to nurture ideas for writing. In the context of this research, parents learned how to provide their children with meaningful feedback; critiquing their children's writing, not their children. This finding confirms the work of Howard and LeMahieu (1995) and Howard (1996) that when parents have an understanding of what is expected of their children and have the means to help them, their children are more likely to succeed in school. In addition, many parents mentioned that their own writing ability improved as they became more involved in their child's writing experiences. Furthermore, they felt that they were better role models for their children in the area of written expression as they developed greater self-confidence in their own ability as writers. This input was consistent throughout all socioeconomic levels.

Students commented that now that their parents were aware of the writing process and the criteria for evaluation, their discussions about the writing were more directed and constructive. Students seemed to enjoy the interaction with their parents. The interaction between the parents and the students motivated most students to take greater responsibility for their writing and to engage in the recursive process of writing to improve upon quality.

Within the experimental group, there were three subgroups. The experimental group consisted of students from affluent, middle, and low-socioeconomic families. The analysis of data revealed that although all students in the experimental group improved their scores as a result of the treatment, the students from the affluent suburban school had a greater increase in their scores. This finding substantiates previous research on SES and student achievement (Walberg, 1984; Coleman, 1988; Comer, 1988). One can speculate on the reasons for these differences. Several factors may be considered: (a) the educational background and professional experiences of the parents; (b) the ability to understand completely the criteria presented in the training sessions; (c) the amount of time and quality of interaction with the child; and (d) language differences or limitations of parents in families where English is not the primary language. Additional training or a different type of training session may need to be developed for parents of bilingual backgrounds. But the fact remains, that despite these factors, the potential for improvement exists.

The results of this study point to the success of a writing process approach with the use of a rubric as the theoretical basis for a school's writing program. The findings clearly reveal the importance of including parents as active participants in the writing program. Schools need to select a writing rubric that can be used and understood by all students and their parents.

Although this study was conducted with elementary school students in urban and suburban schools in the northeast, it is suggested that follow-up studies should be initiated in sites in other parts of the country to determine if the results can be replicated. It is recommended that the training of the parents



should include several follow-up sessions with more comprehensive feedback, and that the procedures of Phase Three be repeated over a prolonged period of time to monitor improvement. This study can be replicated for any grade level and perhaps, the earlier the better.

Writing is a means to enable students to synthesize their learning in all curriculum areas (Atwell, 1998). These results are indicative of the power of connecting the school and home to create more proficient writers.

NOTE: The model for this study is currently being implemented in a (K to 8) program in 10 elementary schools in Brooklyn and Queens funded for three years by “No Child Left Behind.”

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**Appendix A**

**CRITERIA FOR RATING STUDENT REPOSNSSES**

<b>Score</b>	<b>Level 4</b>	<b>Level 3</b>	<b>Level 2</b>	<b>Level 1</b>
<b>Topic Focus =</b> _____	Develops the assigned topic in an interesting & imaginative way.	Develops the assigned topic in an acceptable but unimaginative way.	Attempts to develop the assigned topic but includes digressions.	Minimally addresses the assigned topic.
<b>Organization =</b> _____	Demonstrates a logical plan of organization & coherence in the development of ideas.	Has a plan of organization a satisfactory development of ideas.	Demonstrates weakness in organization & the development of ideas.	Shows lack of organization & development of ideas.
<b>Content =</b> _____	Uses support material that is relevant & appropriate for purpose & audience.	Uses adequate support material.	Uses little support material.	Uses no support material or irrelevant material.
<b>Sentence =</b> _____ <b>Structure</b>	Shows skillful use of sentence variety.	Uses some sentence variety.	Demonstrates sentence sense but has little sentence sense or variety.	Demonstrates a lack of sentence sense
<b>Language Use =</b> _____	Uses specific, vivid language.	Uses appropriate language.	Uses trite &/or imprecise language	Uses immature &/or inappropriate language.
<b>Mechanics =</b> _____	Makes few or no errors	Makes errors which do not interfere with communication.	Makes errors which interfere with communication.	Errors seriously interfere with communication.

**Total Holistic Score** \_\_\_\_\_ **Divided by Six =** \_\_\_\_\_

**Passing (3.0-4.0)**



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**Appendix B**

**Questions parents might ask to help their child with writing task.**

- Topic Focus:** Did you write about the topic in an interesting & imaginative way?  
What would make someone want to read your composition?  
Did you stay on the topic?  
Will the reader understand what you have written?  
Have you left out information that belongs with your topic?  
Did you include information that **does not** belong with your topic?
- Organization:** Do the events in your composition follow in the right or logical order?  
Have you arranged your ideas so that they can be followed from one step to another?  
Do you have a strong beginning, an interesting middle, and good ending?  
Have you used a new paragraph as you wrote the beginning, middle, and end of your story?
- Content:** Have you written your composition with your purpose in mind?  
Have you written your composition with your audience in mind?  
Did you include enough information in your composition?  
Do you have enough details to support your topic or main idea?
- Sentence Structure:** Look at your sentences. Have you tried to use different kinds of sentences? (Interrogative? Imperative. Exclamatory! Declarative.)  
Have you used sentences that include dialogue? (“Quotation Marks”)  
Are your sentences long enough...or are they too long to understand?
- Language Use:** Look at the words you have used.  
Have you used the same words too many times?  
Did you use interesting words, replacing the ordinary with more colorful and descriptive words?  
Did you use words that could paint a picture in the mind of the reader?  
Did you use a thesaurus to replace ordinary words?  
Were the words you used appropriate for your audience? Will they understand The words?  
Did you proofread to determine if your verb tenses were in agreement and consistent?
- Mechanics:** Did you proofread for errors in spelling, punctuation, and capitalization?  
Did you indent your paragraphs?  
Did you begin every sentence with a capital letter?  
Did you use quotation marks correctly?



## **Thinking about the Brain to Balance Classroom Literacy Programs**

*Steven A. Nathanson and Marsha L. Nathanson*

### **ABSTRACT**

In this paper, we discuss the link between effective literacy practices recommended by the International Reading Association and current research on how the brain learns derived from MRI and PET scan studies begun in the 1990's. Five key areas of brain-based research discussed include time and attention, emotion, the nature of memory, the learning environment, and differentiation. The purpose of this article is to provide classroom practitioners a new lens by which to view the most important and effective literacy practices, and shape their language arts programs.

### **AUTHOR BIOGRAPHY**

Steven Nathanson, Ed.D. is an adjunct professor in the Department of Special Education and Literacy at CW Post Center of Long Island University and an administrator in the Plainview-Old Bethpage School District in New York. He has been a career educator whose 33 years experience includes teaching, central office and building administration. Currently, Dr. Nathanson enjoys being an educational consultant and presenter at educational conferences.

Marsha Nathanson is a reading specialist and lead language arts teacher at Hewlett Elementary School, in New York. In her thirty years as a teacher-researcher, Marsha has taught language arts, reading and writing to students from age 6 to 18. Currently, she enjoys mentoring new teachers and leading inservice workshops.

You are walking down the hall in the fifth-grade wing of a middle school. You peek into one classroom; students are seated in rows, performing a comma-editing task on worksheets while the teacher is seated at her desk at the front of the room. Students are individually and silently completing the task. Take a closer look. Their eyes are half closed, faces expressionless. Continuing down the corridor, you hear noise coming from another fifth-grade room. You look in and ask yourself, "Where is the teacher?" and then you find her, sitting amongst a group of students who do not notice your entrance. You observe different configurations of groups, even individual students, engaged in a project, the construction of original books about the rainforest. It is evident from the classroom environment that this is an ongoing project. The classroom includes texts, trade books, colorful photos, wall charts, and bulletin boards. In the corner, there are interest centers for observing biomes and camouflaging techniques in nature. Although the overarching theme is the rainforest, no two projects look alike. There is intense conversation and movement. At times, students run to consult texts as models for their book captions or layout. Several other students are conferring and getting feedback from peers. These students are also reviewing a rubric and a checklist for project components. The teacher hardly notices you as she is interacting with the groups and circulating among them. Some children have already finished and are helping others with their projects. Still others are recording observations about the live insect display at the far end of the classroom. A pair of students is seated at the computer, searching a website to double check information. It's obvious in which classroom the students are more engaged and challenged to grow as learners. The question is: why?



The teacher in classroom one is involved in a skill and drill approach, influenced, perhaps by a well-intentioned but narrow view of preparing students for high-stakes educational testing. The classroom teacher may be influenced by what she has discovered through years of practice and observation. However, she, too, may not be aware of why her practices have been successful.

Recent state mandates and federal No Child Left Behind legislation have focused on raising the literacy bar for all and measuring progress in a relentless sequence of high-stakes standardized tests. The linchpin of these mandates is evidence-based literacy instruction. In response, the International Reading Association issued a position paper (2002) which suggested that practices, not programs, have been verified by scientific research. The IRA stated, "There is no single instructional program or method that is effective in teaching all children to read" (IRA, 2002). As support for their conclusion, the IRA cited a list of 10 research-based literacy instructional practices developed by Gambrell, Morrow, Neuman & Pressley (1999) which represent "an effective template for understanding best literacy practice" (IRA, 2002).

In this article, the authors present additional support for Gambrell and her colleagues' ten literacy instructional practices. This support is offered by what neuroscientific research is beginning to reveal about how the brain learns. This body of research dramatically expanded in the 1990's, the so-called "Decade of the Brain" (Sousa, 2000). At that time, scientists began utilizing non-invasive techniques of positive emission tomography (PET scans) and magnetic resonance imaging (MRI) for the purposes of mapping the structures and physiology of the human brain. The new technologies permit scientists to observe the human brain in action, make hypotheses, and design experiments to examine normal and abnormal brain functioning. Current research has emerged from the overlapping of three disciplines: neuroscience, cognitive psychology and education. The purpose of this article is to provide classroom practitioners with a new lens by which to view the most important and effective literacy practices, and to shape their language arts programs, keeping the brain in mind.

In reflecting upon classroom literacy practices, what should teachers know about the brain? The work of Caine and Caine (1991), Sylwester (1995), Jensen (1995, 1997), Sousa (2000), Sprenger (2000), Kovalik and Olsen (2002) and others have provided educators with numerous examples of how to integrate research about the brain with effective classroom practice. It is our belief that effective literacy practice aligns with brain research when teachers: (1) consider how to best use time and natural attention cycles for learning; (2) recognize the uniqueness of memory-making in each learner and providing ways to access diverse memory pathways; (3) create an enriched learning environment; (4) understand the difference between challenge and stress; and (5) provide opportunities to facilitate a body-mind connection for learning. These five principles are the underpinnings of the IRA's list of ten best literacy practices.

### **Practice #1: Teach reading for authentic meaning-making literacy experiences: for pleasure, to be informed, and to perform a task.**

Why is it important for the teacher to provide more authentic meaning-making literacy experiences? By providing interactive, hands-on simulation activities or role plays, the teacher embeds sense and meaning for the learner. Sousa (2000) stated, "Two necessary conditions for learning are 'Does it make sense?' and 'Does it have meaning?'" (p.46). (e.g., Do I understand this, and is it relevant to me?) As the learner becomes engaged, the reading activates pleasure, stimulates the mind and introduces new information which is more likely to be stored in memory and accessed for future use." Sprenger's (1998) work on memory pathways in the classroom shows that when a teacher uses



simulation, role play and more authentic, interactive tasks, students are more likely to access one or more of the five memory pathways (episodic, semantic, procedural, automatic and emotional memory) in order to retrieve information from prior learning.

Smith and Wilhelm's work (2001) suggested that teaching literature for authentic tasks help the reader reach Vygotsky's "Zone of Proximal Development." In an interview study of over two dozen adolescent males and their literacy habits, and by studying two different classrooms, Smith and Wilhelm noted a "striking contrast between a classroom that was not engaging students in activity and one that was" (p. 103). In the non-engaged class, students were busy following along with recorded performances of Shakespeare and performing translation and paraphrase tasks. Wilhelm noted many students refusing to read the text and using "get by strategies" such as canned notes. The teacher spent class time reviewing and helping the students understand the previous night's assignment. In the second class, the students were reading and preparing various scenes from *Romeo & Juliet*, exploring and discussing issues such as family feuds and the concept of dueling. In this class, all students were engaged in dramatic activity, performance, or videography. Students made personal connections such as inter-cultural conflicts and beliefs. From observing these activities and interviewing the students, Smith and Wilhelm concluded that stronger long-term memories and personal connections were built, as well as a heightened understanding of Shakespeare's plot and universal themes.

The co-author of this article had a classroom experience that validated Wilhelm's observations about the importance of engagement in more authentic and purposeful reading and writing tasks. She conducted a series of lessons on reading and writing book reviews. The desire to empower students to be proactive in both the selection and recommendation of books is what guided these lessons. Students studied the genre by reading actual reviews and then developed their own criteria and structure for writing reviews. When students read and wrote for authentic purposes and real audiences, they became more motivated and engaged. Then, the project culminated in their publishing a book review magazine entitled, "By Kids for Kids," which was distributed to other classrooms for peer use. Another positive by-product of this task was an increase in student self-image as a critical reader, and their increased time spent in independent reading.

## **Practice #2: Use high-quality literature.**

What are the attributes of "high-quality literature" and how does its use facilitate the thought-making processes? Descriptors of high-quality literature include: (1) rich story content; (2) imagery and metaphor to create a mental picture; (3) character development; and (4) strong thematic content which force making connections and applications to real life. Thus, Cullinan (1989) called literature "both a window and a mirror to the world." Fisher, Flood and Lapp (2001) suggested that high quality literature should be used for the following reasons: (1) modeling language structure; (2) accessing prior knowledge; and (3) motivating through emotional connections. In summarizing how brain research should guide instruction, Caine and Caine (1991) wrote that brain-based teaching involves: "(1) designing and orchestrating lifelike, enriching, and appropriate experiences for students; and (2) ensuring that students process experience in such a way as to increase the extraction of meaning" (p. 8). They described the tendency of the brain to create "maps" to organize information in either spatial as well as in thematic ways, such as personal relationships or political behavior. Thus, Caine and Caine wrote: "Our natural mental maps, therefore, seem to be at the heart of thematic teaching. Memory maps are created through stories, metaphors, celebrations, imagery and music, all of which are powerful tools for brain-based learning" (p. 42). Caine and Caine recommended literature as a vehicle to engage the senses,



stimulate thought and self-identification, and encourage pupils to make connections. Elias et. al. (1997) pointed out that “Great literature deals with themes that are universal such as friendship, courage, duty, and loss” (p. 61). High quality literature provides opportunities for teachers to design lessons that ask students to “relate these themes to their own lives” (p. 61), while at the same time, promoting divergent thinking.

In a Yale study of the meaning of intelligence, Sternberg (1997) concluded that at any grade level and in any subject, we must teach students in four ways: recall of what happened, analysis and comparison/ contrast; creation, imagination or hypothesizing; and finally, putting the event into some practical use. Experienced language arts teachers develop lessons to help students understand great literature using these four processes. Successful teachers often implement activities that harness the power of emotion to increase retention, implicitly adhering to Cahill’s (Wolfe, 2000) belief that “anything you do that engages students emotional and motivational interest...will result in stronger memories” (p. 108). Neurological research suggests that the emotional interest is the hook that helps the brain transfer information to long-term storage (LeDoux, 1995; Sylwester, 1995; Sousa, 2000). Literature rich in story content and imagery, that also displays character strong character and thematic development, challenges and engages the reader in the thought-making process.

An example of the power of high-quality literature was evident in a series of culminating lessons for Katherine Paterson’s *Bridge to Terabithia* conducted by the co-author of this article with a fifth-grade class. A simulation of a funeral for Leslie, one of the two main characters of the book, was planned with the students. The teacher introduced the class to a variety of eulogies which were used as models for original tributes to Leslie written through the point of view of the other main character, Jess. The class then planned and implemented a memorial service for Leslie. The students dressed in appropriate formal clothing and invited the parents to attend the service. Parents signed a visitor’s book. Classical music was played to help increase the solemn mood. The classroom was converted into a funeral home with flowers, a podium, and an enlarged photograph of Leslie. Each child went to the microphone and delivered his or her eulogy to the audience. Later on, students commented on the powerful emotional experience of learning about, then writing and performing eulogies. Students felt that having this experience would help them in the future when facing real-life tragedies. Lessons drawn from good literature can have application in later life.

### **Practice #3: Integrate a comprehensive word study/phonics program into reading/writing instruction.**

While there is no one consistent vision or one specific method of teaching phonics, there is a prevailing view, reflected in the IRA’s best literacy practices list, that phonics and word study skills enable the beginning reader to get out of the starting gate on his or her way to processing text for meaning. Sousa’s information processing model provides a useful theoretical base that enables us to understand how increased phonic and word recognition skills enables the reader to process text fluently and focus attention on constructing meaning. Sousa’s model includes a short-term memory worktable upon which information is temporarily placed. This “working memory” has a limited storage capacity and duration. Sousa compares it to “a clipboard where we put information briefly until we make a decision on how to dispose of it” (Sousa, 2000, p. 41). The limited capacity refers to a specific number of “chunks”, or pieces, of information. Chunking occurs when working memory perceives a set of data as a single item, which “allows us to deal with a few large blocks of information rather than small fragments.” (Sousa, 2000). The ability to chunk information, in Sousa’s view, is more a function of the



expert's knowledge base and experience than perceptual ability. Extending this concept to reading, Sousa points out that the teaching of reading should begin with a recognition that spoken words must be broken into sounds represented by letters, and then flow to vocabulary, meaning, context and syntax (Sousa, 2000).

Therefore, it is not an efficient strategy to process 44 separate phonemes of the English language by adding together individual bits during reading. Phonics/word study instruction includes strategies for chunking using language structure clues, such as onset and rime, word families, syllables, meaningful word parts, and spelling. This, in our view, is a necessary prerequisite to what Samuels (1979) called automaticity. Samuels argues that readers who recognize words effortlessly can bypass the limitations of working memory and attain greater speed and accuracy. Slowing down to "sound out" a word, decreases reading rate dramatically (DeVries, 2004, p. 248). Automatic or fluent readers expend less cognitive energy on word recognition and more time on sense and meaning. When explicit phonics instruction is integrated into instruction with authentic text, novice readers develop the skills needed to streamline their working memory and become proficient readers. Finally, as Sousa points out, "the key for beginning readers and writers is the right mix of phonemic awareness and interesting, developmentally appropriate literature" (Sousa, 2000, p. 186).

#### **Practice #4: Use multiple texts that link and expand concepts.**

How does the use of multiple texts help the brain learn? Caine and Caine (1991) pointed out that the brain is a pattern-detecting organism. When the brain's natural capacity to integrate information is acknowledged and invoked in teaching, then vast amounts of initially unrelated or seemingly random information can be assimilated (Caine & Caine, 1991). Wolfe (2001) stated: "One of the most effective ways to make information meaningful is to associate, or compare, a new concept with a known concept to hook the unfamiliar with something familiar" (p. 205). Typically, teachers attempt to relate new concepts to prior learnings through such techniques as metaphor-making, journal writing (Sousa, 2000), or differentiated texts and literature circles. (King-Shaver & Hunter, 2003). The use of multiple texts as well as multiple contexts, helps students to connect new learning to prior experience. In the classroom, teachers often link social studies or scientific concepts with literature. When introducing a new historical period, the social studies teacher often uses historical fiction as a read-aloud to help build background information and associations. For example, Collier's *My Brother Sam is Dead*, is a literary work frequently used to build schema and develop a deeper understanding of the Revolutionary War time period. Through discussion, parallels are drawn between the experiences of characters and setting in the text that bring reality to abstract concepts and information as presented in their textbooks. Middle school language arts teachers frequently use genre studies and literature circles to parallel social studies or science units. During their study of the Holocaust, for example, eighth-grade language arts students are involved in literature circles reading three or four different novels related to that study. Thus, teachers have accomplished curriculum integration in the form of thematic, inter- or multi-discipline centered units that are enhanced through the use of multiple texts (Hackman & Petzko, 2002).

Another example of how using multiple texts can facilitate the brain's pattern detection mechanism is the practice of engaging in "author studies," focusing on more than one text written by the same author. This practice enables students to study author's crafts and helps to build higher-order thinking skills, such as the ability to compare and contrast. For example, picture books, such as those by Leo Lionni, can be used to build the same process in visual, verbal and artistic areas. This pattern



recognition can also inform the writer. Thus, after studying Joanne Ryder's creative informational books, students were encouraged to write original animal books using Ryder's works as mentor texts.

At best, schools can only simulate real-life experiences; the more connections made by students, the greater the possibility for memory-making and application and transfer of learning to new situations. As Kowalik and Olsen (2002) pointed out, life-long learners constantly connect (i.e., scaffold) new learning with concrete or vicarious experiences. Through immersion and training, the meaning-making process and connections are accelerated.

### **Practice #5: Balance teacher and student-led discussion.**

In recommending that effective instruction provide a balance between teacher and student led discussion, the IRA recognizes the mutually supportive role of mentoring and peer-directed learning. The careful application of both of these would appear to address several important principles about learning and the brain: (a) learning is a social activity; and (b) the brain has a natural capacity for change and adaptation to its environment, a concept known as neuroplasticity. Diamond's (1985) pioneering research on the effect of environment on rats suggested that a stimulating environment, copious food, and space made a significant difference in the quantity and quality of neural connections and the overall thickness of the cerebral cortex. However, Diamond also found that when mature rats were placed with younger rats in an enriched environment, the older rats played with toys and were stimulated by the environment, but the younger rats were not.

Sylwester (1995) extended Diamond's research implications to the classroom, where the teacher dominates discussion, initiates all the questioning, and determines the evaluative activities. Sylwester concluded: "It isn't enough for students to be in a stimulating environment, they have to help create it and directly interact with it" (Sylwester, p. 131). Werner and Smith's (1995) forty-year longitudinal study of 200 at-risk children on the Hawaiian island of Kauai, found that about one-third of these children were "resilient" and became happy and successful adults. One of the key factors distinguishing the resilient group from the problem group was that "they had family and non-family mentors" (p.137) who encouraged them by exposure to curiosities and hobbies. These mentors also assigned them tasks and family responsibilities which provided opportunities for students to have a role in their own development. In an interview case study of adolescent males, Smith and Wilhelm (2001) concluded that literacies grew out of relationships between students and students and teachers. In reviewing social conditions essential to literacy learning, Cambourne (2002) suggested that engagement with text is enhanced by discussion in small groups. Potential learners must engage with [teacher] demonstrations if they are to learn from them. It is difficult to rehearse demonstrations in a whole-class setting; however, in small groups novices can try out developing skills, and more expert students can provide feedback and further modeling. A variety of grouping models such as interest grouping, focus grouping, direct instruction grouping and mixed-ability grouping can move focus away from the teacher at the front of the room and put it on the interaction of learners in a social setting. Such practices such as those based on Adler's Great Books Program bridge the gap between teacher-led and student-led discussion because students are trained to engage in whole-class discussion. Here the teacher takes the role of facilitator and uses the Socratic method of open-ended questioning, and students learn to generate their own questions and make new connections with the literary work. Thus, by varying types of discussion frameworks, the teacher maintains an environment that stimulates learning, and promotes long-term understanding.



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**Practice #6: Build a whole-class community that emphasizes important concepts and builds background knowledge.**

A classroom community is an environment in which learners function as an interdependent and emotionally supportive ecosystem. Neuroscientific evidence supports the idea that an emotionally, as well as physically safe environment, is essential to learning. McLean (1985) developed the “triune brain” model, which showed that the areas involved with survival and emotional well-being affect cognition. Caine and Caine (1993) stated that learning is enhanced by challenge and inhibited by threat, a finding supported by Sylwester (1995), Jensen (1998), and Wolfe (2000). Sousa (2000) pointed out that the brain gives priority first to incoming information related to safety and survival, followed by emotional learning, and then finally, factual information. Bender (2001) noted that physical safety in the classroom is not enough; a positive emotional climate between learners and teacher and among learners, must be present for effective learning. Overly critical or unsympathetic teachers or teachers who do not address social problems in the classroom can also be a serious deterrent to learning. To address such social problems, schools have instituted character education, social skills training, peer mediation groups, programs on social tolerance, anti-bullying initiatives, and cooperative learning.

In recommending that literacy professionals build a whole-class community that emphasizes important concepts and builds background knowledge, IRA recognizes the brain’s need for enrichment, inquiry and challenge in a communal setting. Kowalik and Olsen (2002) found that the typical classroom contains 90% teacher-directed instruction involving secondhand and symbolic activities such as reading and mathematical computation, and 10% involving hands-on learning. They recommend that the teacher restructure and enrich the environment through: (a) field trips; (b) immersion and simulation activities in the real world; (c) hands-on representation of real world items; and (d) guest speakers, mentors, and adult experts who interact with children. Typical strategies that can build background knowledge and concepts include brainstorming, graphic organizers, KWL charts, reciprocal teaching. To build a community atmosphere teachers plan celebrations in the classroom, parents as reading partners, community demonstrations, performances, guest speakers, group projects and cooperative learning activities. Such community activities minimize the element of competitiveness and threat, boost student self-esteem and enhance the idea that working towards a common goal as a team is the way of the workplace. In a low-stress environment students are encouraged to ask for and give help to others as well as to share in celebrations. A learning community is built on the strengths and needs of everyone.

**Practice #7: Work with students in small groups while other students read and write about what they have read.**

By working with students in an arrangement of short-term, and flexibly-arrayed sub-groups within the whole class, the teacher provides temporary “mini-environments” for immediate feedback which can enhance literacy learning. As Jensen (1998) stated, “the brain is exquisitely designed to operate on feedback...our whole brain is self-referencing. It decides what to do based on what has just been done” (p. 33). He suggested that, as a general rule, students should receive some form of feedback once every half hour. Feedback may come from the teachers, other adults, or fellow students, but it is most effective when it is prompt, specific, multi-modal and comes from differing people, including oneself.

Whether a teacher organizes children by ability, interest, or short term needs, the small group setting allows for more effective immediate assessment of students and informs the teacher’s immediate instructional decisions. In addition, feedback given in a small group reduces student uncertainty and



anxiety as compared to that given in a large group structure. Small groups provide a learning-safe environment where individuals feel more valued and cared for, as well as an ideal venue for constructive criticism (Caine & Caine, 1993; Wolfe, 2001; Kowalik, 2001). A flexible grouping structure maximizes feedback opportunities for all students.

Teachers often find it necessary to re-teach or provide focused instruction for a small group of learners while the others are engaged in other literacy activities. Thus, short-term, specific grouping strategies enable the teacher to capitalize on what Sousa (2001) calls the Primacy-Recency Effect. The brain's attentional structures tend to divide any lesson activity into three phases. Sousa calls these "prime-time 1," "prime-time 2", and "downtime." Prime-time one is approximately 50% of the activity, prime-time 2, the final 20% of the activity, and downtime, the middle 30% of the activity. While others are getting individual practice during down-time, the teacher can give provide explicit guided practice to those students who need it or who are not ready to work independently. This additional teacher-supported time enables students to re-enter the whole class during prime-time 2, the summary or closure phase of the lesson.

Another benefit of arranging for small group instruction is that it affords all students opportunities to engage in more independent literacy activities. Thus, students are able to exercise a certain degree of choice and control over their own learning. By providing access to structures within the classroom such as writing centers, differentiated readings, journaling activities, or enrichment project centers, teachers are fostering the brain-compatible concepts of individuality and independence.

### **Practice #8: Give students plenty of time to read in class.**

In suggesting that effective literacy practitioners provide time for reading, IRA is telling us independent reading time is an important component to fostering literacy. Brain research has offered three perspectives on the benefits of reading time: (1) allowing learners to exercise control over their own learning; (2) permitting students to discover and explore their own interests and learning strengths; and (3) allowing teachers to observe and learn from and about students.

Caine and Caine (1991) suggested that, when a teacher provides an element of choice or "orchestrated immersion" in the reading experience, the learner's natural curiosity state, or relaxed alertness, is activated. During such orchestrated activities as reading time, a condition of "orderliness," or mutually valued behaviors is practiced by all students in a communal setting (Caine & Caine, 1991, p. 141). Jensen (1995) noted that providing freedom of choice in an activity enriches the learning environment. As students are given the opportunity to exercise control over their learning, the classroom becomes a safe haven for discovery and pursuit of new challenge. Furthermore, Jensen (1995) has called choice the key to motivation. When students feel empowered to select and read what is meaningful to them, they will be more likely to take risks to explore and exercise their intellectual curiosity. This, in turn, can help to develop individual expertise through immersion. Dickmann and Stanford-Blair (2002) stated that classroom conditions which remove stress and the locus of control from the teacher, and transfer it to the student, are more likely to induce behavioral change in the learner. Finally, Erlauer (2003, p. 59) summarized the benefits of providing choice: "content relevance is increased, their [students'] interest is heightened, stress is reduced, learning styles and ability levels are better accounted for, and both motivation and effort are enhanced."

In addition to promoting long term behavior and motivational change, allowing reading time accomplishes another benefit derived from research on the brain: the opportunity to support individual differences. Tomlinson (1999) described the differentiated classroom as one that has a wide range of



activities providing for individual learning. Such an environment respects students as unique learners with different strengths and multiple intelligences. Armstrong suggested (2003) that reading time can also be used to help students explore their specific strengths and intelligences: “Books can involve much more than just words; increasingly, non-traditional books that combine words with tactile, physical or kinesthetic possibilities are being published” (Armstrong, 2003, p. 35). For example, a student whose basic strengths involve bodily and kinesthetic abilities might enjoy a book on jumping rope rhymes or modeling with clay. These books exemplify a direct relationship between reading and doing since they often come packaged with jump ropes or modeling clay. Similarly, a student whose strength is in visual-spatial intelligence might enjoy a pop-up book on dinosaurs or a wordless book. Armstrong recommends that the teacher develop a library of varied literacy materials to help students integrate visual information in different ways consistent with such multiple intelligences.

Finally, reading time provides opportunities for teachers to observe and conference with individual students, to learn from the students and about them. As the teacher circulates, he or she is modeling active listening, showing empathy, discussing individual interests, or utilizing this personalized feedback session to suggest other books for the reader. These strategies help the teacher build and foster a community of readers. Lyons (2003) pointed out that teachers familiar with students’ interests and concerns are more likely to create a safe, caring and supportive learning climate. Since emotional factors are at the heart of learning, she recommends that teachers know what engages students and how to use those interests to engage children’s emotions as well as minds (Lyons, 2003).

### **Practice #9: Give students direct instruction in decoding and comprehension strategies that promote independent reading, balanced with guided instruction and independent learning.**

The IRA’s suggestion for balancing different structures for learning recognizes the importance of combining direct instruction in decoding and comprehension strategies with guided, monitored practice and independent rehearsal opportunities. Current research about the brain’s attention cycles, memory making, and varied learning styles support the notion of balancing direct and guided instruction with practice on the road to achieving independence in reading and learning.

Jensen pointed out that attentional cycles of learners continually alternate between focused and diffused attention. He stated: “the brain does poorly at continuous high-level attention. In fact, genuine ‘external’ attention can be sustained at a high and constant level for only a short time, generally 10 minutes or less” (Jensen, 1997, p. 45). Much of what the learner is receiving during focused attention needs processing time which is an internal process in the learning brain. Thus, after each explicit teaching experience, the learner needs time for the learning to imprint or solidify through small group discussion, guided practice, or individual reflection and writing. Jensen cautioned: “Processing time depends on the difficulty of the material and the background of the learner” (Jensen, p. 47). Applying this notion and Sousa’s primacy-recency effect noted earlier, the teacher can make use of the alternating attentional cycles through explicit teaching, followed with student-centered guided instruction and practice, and finally, closure activities.

Sprenger’s (1999) work on the different memory pathways also supports the need for balancing learning structures. According to Sprenger, there are five distinct memory processes or pathways in the brain: semantic, episodic, emotional, automatic, and procedural. Semantic memory is information derived from words, and includes most classroom instruction, especially from lectures and textbooks. Of



all the memory pathways, it is the most difficult to access because it requires the most imprinting or repetition. “It [semantic] memory has to be stimulated by associations, comparisons and similarities. Because “semantic memory can fail us in many ways,” (Sprenger, p. 51) it must be supported by repetition and activities to permit connections with other memory lanes. When students read, write, discuss or reflect, they are taking time to transfer and imprint this information in long-term memory. Similarly, Marzano, Pickering and Pollock (2001) concluded that: (1) mastering a skill takes a fair amount of focused practice; (2) while practicing, students should adapt and shape what they learned through discussion or structured reflection; and (3) the teacher should design “focused practice” assignments, especially when students are practicing a complex, multi-step skill or process.

A third brain-based rationale for flexible learning structures comes from research into individual learning styles and preferences. According to Sousa (2001), approximately 46% of students are visual learners who process information first through visual means; 35% of learners are primarily kinesthetic or tactile learners; and 19% of learners are primarily auditory learners. Sousa concluded that teachers need to address these differences by utilizing varied teaching styles including explicit direct teaching and modeling a behavior or complex skill, providing adequate time for reflection and processing activities that address the child’s preferred learning style. Informal, classroom based assessment can reveal a need to adjust time for student processing or to provide additional explicit teaching.

A classroom is a cross section of learners whose brains operate in unique ways. Striking a balance means that the teacher needs to provide a variety of structures to maximize memory-making. It does not, however, mean that equal time needs to be given to direct instruction and guided and independent practice. The teacher may determine that a specific comprehension or decoding strategy needs to be made explicit to the entire class, a small group of students, or even an individual student. Direct strategy instruction is then followed by guided and independent practice. Ongoing assessment informs the flow of these stages and teachers should re-group flexibly based on learner feedback. Then, the teacher can provide opportunities for application in authentic literacy contexts or provide additional explicit instruction if necessary as he or she monitors each individual student’s progress.

### **Practice #10: Use a variety of assessment techniques to inform instruction.**

Despite today’s emphasis on standards and formal high-stakes testing, most educators agree that multi-layered assessment is a better reflection of students’ authentic performances and abilities. Brain-based research generally supports the IRA’s view about using multiple assessments to: (a) satisfy the learning brain’s need for specific and on-going feedback; (b) provide appropriate assessment practices to reduce stress; and (c) respect individual differences by providing a range of assessments for all learners.

The body and the brain are designed to operate on feedback, thus appropriate assessment has to be specific and ongoing. Jensen (1995) stated that feedback informs and directs our efforts, helps us set goals and helps us plan. The most effective feedback is specific, immediate and comes from more than one source (e.g., peers and teacher). Erlauer (2003) recommended that informal observation by the teacher be part of his or her own feedback loop. To Erlauer, informal observation can yield valuable information about what students know, how students work with one another, and how well they are applying new concepts. These data, in turn, should inform instruction. Similarly, Tileston (2002) characterized assessment as a multi-layered, continuous process that is part of instruction, not separate from it, having been introduced just before or simultaneously with the material.

Using a variety of assessment techniques, as suggested by the IRA, has an additional brain-related advantage: it reduces the negative effects of stress associated with high-stakes testing, a form of



assessment typically used by school systems. Caine and Caine (1991) stated such school assessment practice is fundamentally incompatible with how the brain learns and can actually induce a feeling of stress-induced helplessness called cognitive downshifting. In reviewing considerable literature on the negative effects of stress on student achievement, Jensen (1995) suggested that the assessment system is one variable of stress that the teacher should try to control as much as possible. Thus, he recommends that teachers reduce stress which emanates from threats in and outside of class, threats from other students, and threats from the teacher him/herself. To address the issue of stress as it relates to assessment, Jensen suggests: (a) the creation of rubrics to help a student know what is expected of him or her; (b) the elimination of surprise quizzes or tests as punishments; and (c) the implementation of multiple forms of assessment including projects and demonstrations. Sprenger (2002) pointed out that matching the form of assessment to the educational objective builds a sense of predictability that helps students feel more in control and less anxious. For example, an appropriate method of assessing a student's ability to communicate effectively in oral speaking would be to have students create a speech. However, before doing the project, the teacher should immerse them in models of good speeches, and then engage them in creating a rubric to describe the characteristics of a good speech. Chappuis and Stiggins (2002) recommended that the teacher help students to envision the goal or end product at the onset of instruction. In this manner, the student knows what is expected of him and the assessment becomes another learning experience rather than a stressful judgment day. Also, Schenk (2002) suggested that assessments must be closely linked to the practice and rehearsal done in the classroom because of the complex nature of memory pathways. To Schenk, assessment should parallel how a subject is taught. Therefore, pen and paper tests might suffice for simple skills or facts. However, demonstration or performance-based assessment would be more appropriate to complex tasks or projects.

Armstrong (1994) referred to Gardner's multiple intelligences to suggest that there are multiple ways to teach students, as well as to assess them. MI theory expands the assessment arena to include a wide range of possible contexts within which a student can express competence. He offers seven ways in which students can show their knowledge about specific topics using any one or more of the following intelligences: linguistic, logical-mathematical, spatial, bodily-kinesthetic, musical, interpersonal and intrapersonal. Thus, a linguistically oriented learner might give an oral interpretation of a key scene or character from a play or novel, a logic-mathematically oriented learner might present a sequential cause and effect graphic organizer mapping a character's development throughout the novel; a spatial-artistically inclined learner may present a series of sketches showing the rise and fall of the novel's main character. Finally, Armstrong makes a strong case for the development and use of student portfolios. They offer the widest possible opportunity to help students demonstrate, celebrate and reflect upon their unique work. In addition, portfolios can be an effective tool for communicating progress to parents and other members of the learning community.

### **Putting it All Together**

As we close, we would like to take our readers back to those two classrooms we described early in this article. Neither skill and drill nor small group projects alone will effectively meet the needs of learners. Rather than making judgments based on mental snapshots, we hope that teachers will plan and deliver instruction based on the five key areas of alignment between literacy practice and brain research: (1) use of learning cycles and time; (2) uniqueness of memory-making; (3) enrichment in the learning environment; (4) creation of positive challenge and elimination of negative stress; and (5) connection of body and mind. Armed with new information, reflective practice, and an openness to feedback, teachers



will be able to apply a balanced approach in their classrooms. In presenting a list of sound literacy instructional practices, the International Reading Association (2000) emphasized that practices, not programs, are the key to balancing your literacy program. These practices are not a curriculum, nor are they a set of quick fixes. However, they “may be used to frame questions that will be useful when considering whether there is a good fit between the program or approach under examination for a particular school or classroom setting” (p. 235).

Somewhere in the intersection of the practitioner’s past experience, the needs of students in his or her current class setting, and the information about literacy and the brain, lies a powerful tool for change. We offer the linkage between the IRA’s literacy practices and how the brain learns in the hope that literacy practitioners will accept the challenge of becoming classroom researchers and therefore contribute to the growing body of knowledge that places the focus on the learner, not on the curriculum.

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**Table 1: The relationship between the IRA’s suggested ten best literacy instructional practices and principles of brain-based research**

<b>BEST PRACTICES for literacy instruction</b>	<b>Underlying principle (s) of brain-based learning</b>	<b>Correlating brain-based research studies</b>
Teach reading for authentic meaning-making literacy experience.	Memory-making and learning include an emotional component; long term memory is governed by “does it make sense” and “does it have relevance to me?”	LeDoux (1996) Sylwester (1995) Jensen (1998) Sousa (2000)
Use high-quality literature.	Neuron growth and brain cell enrichment are linked to the perception and interpretation of experience including story telling and literature	Caine & Caine (1991) Elias (1997)
Integrate a comprehensive word study/ phonics program into reading and writing instruction.	The brain is a pattern detecting organism which simultaneously stores information in specialized parts of the brain; discrete bits of information are given sense and meaning through contextualized learning activities	Caine & Caine (1991) Gazzaniga (1994) Sousa (2000)
Use multiple texts that link and expand concepts.	The brain is a pattern detecting organism which needs to connect prior learning to new experiences	Caine & Caine (1991) Wolfe (2001)
Balance teacher-led and student-led discussion.	The brain is a social learner; the brain is a novelty seeker	Vygotsky (1978) Sprenger (2000) Wolfe (2001)
Build a whole-class community that emphasizes background information and builds important concepts.	Learning is enhanced in an environment of group inquiry, and intellectual challenge; learning enhanced in an environment of safety, inhibited in an environment of threat	Caine & Caine (1991) Sylwester (1995) Sousa (2002) Erlauer (2003)
Work with students in small groups while other students read and write about what they have read	Immediate feedback in the context of a stress-reduced environment facilitates learning; independent practice and reflection promotes long-term memory	Caine & Caine (1991) Jensen (1998) Sousa (2002)
Give students plenty of time to read in class.	Independent practice alters the neural landscape; independent practice breaks down patterns of negative behaviors and promotes engagement by giving students choice and control over learning	Caine & Caine (1991) Jensen (1995 and 1998) Dickman & Standford-Blair (2000) Erlauer (2003)
Give students direct instruction in decoding and comprehension strategies that promote independent reading. Balance direct instruction, guided instruction and independent learning.	Learning and memory-making take place via multiple memory pathways in the brain; each brain is unique in terms of types of memory pathways and efficiency and speed of the pathways; the brain’s window for storing new information balanced by its need for “down time and reflection”	Jensen (1998) Sprenger (1999) Wolfe (2000) Sousa (2002) Erlauer (2003)
Use a variety of assessment techniques to inform instruction.	Authentic, contextualized assessment lowers stress and improves student performance	Campbell (2000) Tileston (2000) Chappuis & Stiggins (2002)



## A Review of Students' Text Selections in Sustained Silent Reading

*Michael P. French and Karen Rumschlag*

### ABSTRACT

The purpose of the present investigation was to sample the range of texts selected by 21 students in sustained silent reading in a single fourth-grade classroom. Using a sampling technique developed by French and Foster (1992), single pages from sampled texts were evaluated. The evaluation found that most students were reading fiction (n=14), with some reading information texts (n=4) and comic anthologies (n=3). We found the range of reading levels spanned the grade levels from 1.3 to 11.5. Further analysis indicated boys and girls were distributed evenly across all categories. However, we also identified that the students, especially girls, did not read books commensurate with their levels of reading ability. Implications for classroom implementation of sustained silent reading are offered.

### AUTHOR BIOGRAPHY

Michael P. French is an associate professor at Bowling Green State University. Former director of the reading center there, his interests include reading assessment and intervention.

Karen Rumschlag teaches grade six at Hopewell-Loudon Elementary School in Bascom, Ohio. Her interests include vocabulary assessment and independent reading strategies.

Since its beginning as a classroom strategy, a student's self-selected-reading choice has been a critical element in sustained silent reading (SSR) (McCracken, 1969; McCracken, 1971; McCracken & McCracken, 1978). Students spend time reading selected texts for a certain period of the time scheduled by the teacher in order to begin the promotion of a life-long recreational reading habit (Routman, 1991). More recently, SSR has been included as a method for the development of fluency in reading studied by the National Reading Panel (2000). In this context, the assumption is made that regular practice in silent reading of appropriate texts should promote fluency in reading. However, the recommendations of the National Reading Panel as well as the Center for the Improvement of Early Reading Achievement do not support SSR as a primary method to foster fluency as compared to direct instruction. According to Armbruster, Lehr, and Osborn (2001), "although silent, independent reading may be a way to increase fluency and reading achievement, it should not be used in place of direct instruction in reading (p. 29). Although the NRP recommendations have been challenged by some (Krashen, 2001), it is important to note that the inclusion of SSR in the National Reading Panel in itself demonstrates the importance of the practice as a point of research and study.

SSR is different from free reading in that students are required to read during this allocated time (Au, Carroll, & Scheu, 1997). Implicit in SSR is the notion that students will select texts of interest to them, that they will read silently at the independent level, and that they will access a wide range of selections (Brozo & Simpson, 1999). According to Krashen (2001), the key elements of successful SSR programs include allowing students to read from a variety of books, using intrinsic motivators rather than grades or points, and making silent sustained reading a daily practice.



In this regard, the first purpose of this paper is to present the results of a brief investigation in which we sampled the texts one group of fourth grade students selected for sustained silent reading. Specifically, we wished to find out what books were read, whether able readers choose books at levels different than less-able readers, and what types of books were selected by boys versus girls. Secondly, we hoped to offer suggestions for classroom guidelines relative to the selection of appropriate materials during SSR.

The context of the study was the development of a school/community literacy center in this elementary school. The literacy center is the focus of a university reading center/school collaboration funded by a state literacy grant. As part of this school-wide initiative teachers have been encouraged to include self-selected recreational reading activities as part of their school day. Many have chosen to implement SSR during their daily schedule of activities. While exploring SSR in this setting we hoped to determine:

1. The range of selections. What types of books/texts did the students select?
2. The level of difficulty of the texts selected. How great was the range of readability levels of the texts selected?
3. The lexical complexity of the selected texts. For the purpose of this paper, we evaluated the number of words on a selected page, as well as the average length of these words. We used a single-page artifact technique that has been used in a study of clinical portfolios at the affiliated university reading center (French & Foster, 1992).
4. Reading level. Did children of different reading ability levels choose instructional level texts as suggested by Brozo and Simpson (1999)?
5. Gender preferences. Did girls seem to choose different books than boys?

## Method

At the end of a single SSR period, we asked each child in the class (n=21) to mark the last page he/she had read. Using the spell check tool in MS Word, readability levels were calculated for each page. The use of the reading ease score as well as the Flesch-Kincaid reading grade level, provided by the MS Word program, is acknowledged by Fry (2002) as one means of differentiating between texts.

Following this collection of SSR artifacts, we compiled information on the readers from their school files. Specifically, we coded the pages with each student's Gates-MacGinitie comprehension score. We used grade equivalent scores to divide the students in to three levels: above level, at level, and below level. Grade equivalents of 6 and higher were considered above level, those 4 and 5 were considered at level, and those below 4 were considered below level. In this classroom, three students were considered above level, seven were considered at level, and eleven were found to be reading below level.

Pages were also coded as to the gender of the student. In this class there were thirteen girls and eight boys.

Table 1 was created to illustrate the range of books read by the students.



**Table 1. Review of the texts selected by the 21 fourth grade students.**

<b>Book #</b>	<b>Title</b>	<b>Type</b>	<b>Words</b>	<b>Wds./ Sent.</b>	<b>Reading Ease</b>	<b>Flesch/ Kincaid</b>
1	<i>Harry Potter and the Prisoner of Azkaban</i>	Fantasy Fiction- Juvenile	302	13.2	76.1	5.9
2	<i>Captain Underpants and the Attack of the Talking Toilets</i>	School Fiction- Humorous	68	11.3	78.3	5.1
3	<i>The Secrets of Droon – The Golden Wasp</i>	Chapter Book Science Fiction	102	5.6	77.5	3.8
4	<i>Halloween Treats</i>	Halloween-Juvenile Fiction	102	5.6	77.5	3.8
5	<i>Junie B. Jones is Captain Field Day</i>	Stepping Stone Book- School Fiction	92	6.1	81.9	3.3
6	<i>A Year Down Yonder</i>	Juvenile Fiction- Newbery Honor Book	249	8.0	83.8	3.5
7	<i>Mary Kate and Ashley Sweet 16-The Perfect Summer</i>	Juvenile Fiction-Series	216	13.5	72.1	6.5
8	<i>The Adventures of Captain Underpants</i>	Chapter Book Fantasy	92	10.2	69.5	6.0
9	<i>Ripley’s Believe It or Not! – World’s Weirdest Critters</i>	Information text	125	19.0	64.3	9.0
10	<i>On My Honor</i>	GK Hall large print book series	180	8.5	78.2	4.4
11	<i>Garfield at large</i>	Comic anthology	34	2.6	84.7	2.0
12	<i>Amber Brown is Feeling Blue</i>	Juvenile fiction	149	8.2	79.1	4.2
13	<i>My Dog, My Hero</i>	Fiction anthology	195	10.8	92.1	3.0
14	<i>Rose’s Journal – The Story of a Girl in the Great Depression</i>	Diary genre: Historical fiction	276	15.0	77.6	6.1
15	<i>The 8<sup>th</sup> Garfield Treasury</i>	Comic anthology	83	5.3	76.3	3.9
16	<i>Animal Smarts</i>	Information text	275	14.3	72.3	6.7
17	<i>The Ninth Garfield Treasury</i>	Comic	30	5.0	94.6	1.3
18	<i>Snow White and the Seven Dwarfs</i>	Fairy Tale	312	22.2	80.6	7.5
19	<i>B is for Buckeye</i>	Information text/History	205	20.5	49.0	11.5
20	<i>First World War</i>	Information text/History	284	21.6	52.9	10.5
21	<i>The Lorax</i>	Stories in rhyme	38	19.0	80.6	6.7



**Results**

The first question we sought to address was the range of texts selected by the students. We found that 14 students were reading works of fiction. Four were reading information texts. Three were reading Garfield comic anthologies. The fiction selections ranged from best sellers (Harry Potter) and award winning titles (Richard Peck’s *A Year Down Yonder*) to leveled chapter books (Junie B. Jones) and popular comedy series (Captain Underpants). The information text topics included animals (*Animal Smarts* and *Ripley*) and history (Ohio history and World War I). One student was reading a diary genre title.

Of further interest was the range of readability levels in the texts selected by the boys and girls in the class. These levels are summarized in Table 2.

**Table 2. Summary of Reading Levels According to Text**

<i>Refer to Table 1 for titles.</i>	Text below grade level (<4)	Text at grade level (4-5)	Text above grade level (6>)	Total
Fiction texts	3, (4), (5), (6), (13)	(1), 2, 10, (12)	(7), 8, (14), (18), 21	14
Information texts			(9), (16), (19), 20	4
Comic anthologies	11, 15, (17)			3
Total	8	4	9	21

Note: (#) = girls.

As illustrated in Table 2, approximately half (n=9) of the students in the class were reading texts with readability levels above grade five. Eight were reading texts assessed to be below grade level. Only four students were reading texts that we defined as at level (4-5).

When viewed by type, we noted that the fiction selected included texts below level, at level, and above level. Whereas all three of the comic anthologies were below the grade level, all four of the information texts were above.

When reflecting on the gender of the students reading the texts we noted that boys and girls were mixed in each category. That is, there does not appear to be a cluster of one gender in any cell. Girls were just as likely as boys to be reading any of the types of text identified.

The third item of interest was the linguistic complexity of the copied pages. The number of words on the pages ranged from 30 to 312. The average number was 162 words per page. The average number of words per sentence was 11.6 or 12 words. The most difficult texts had over 20 words per sentence, where as the easiest texts had as few as five words per sentence.

The next item of analysis was the relationship of the child’s reading ability and the text being read. As previously stated, existing data (Gates-MacGinite Reading Comprehension grade equivalents) were used to sort the students into three categories. Students were considered below level is their GE was



below 4. They were considered at level if their GE was 4 or 5. Those with a GE greater than 5 were considered above level. Table 3 illustrates the relationship between reading levels and texts being read.

**Table 3. Comparing Selections by Ability of Reader and Gender**

<i>Refer to Table 1 for titles.</i>	Text below grade level (<4)	Text at grade level (4-5)	Text above grade level (6>)	Total
Student Scores on Gates = 6>	11	2, 10		3
Student Scores on Gates = 4-5	3, (4), (6), (13)	(1), (12)	21	7
Student Scores on Gates = 2-3	(5), 15, (17)		(7), 8, (9), (14), (16), (18), (19), 20	11
Total	8	4	9	21

Note: (#) = girls.

The relationship between ability of reader and text being read provides interesting insights into the SSR process. First, one might assume students would read texts at their level of ability. This is not seen in our data. Of the three students reading above level, two were reading texts at the 4-5 level and one was reading a text below level. There were seven students whose comprehension GE was at the 4-5 level. Of these, four were reading texts below level, two at level, and one above. The most striking finding, however, was the texts selected by the less-able readers. Eleven children in this class had a comprehension score below 4. Of these, three selected texts below grade 4, but eight students were reading texts above grade 5—at least two full grade levels above their assessed reading ability.

With regard to gender, we noted the same distribution as before. However, of the eight children whose reading level was below 4, and who were reading texts above grade 5, six of the eight were girls.

**Discussion**

The selection of reading material in Sustained Silent Reading is of concern to those using SSR as a regular classroom practice. From the beginning, SSR programs have relied on the student’s ability to self select. This view is well stated by classroom guidelines provided by Greene (2004).

Students in my classes typically begin or end the class period with a 10-20 block of uninterrupted silent reading time. There are no restrictions on what students choose to read, as long as it's appropriate for the school environment. There is no assigned reading in SSR, no quizzes, no strategy lessons, no grading, no book reports, and little or no record keeping. It is simply an official, scheduled acknowledgment of the research showing that reading achievement is more highly correlated with independent reading than with any other single factor. (Green, 1999-2003, Sustained Silent Reading section, para.1)



The “right” of students to choose their own reading material has been voiced by Pennac (1999). Among his ten rights all readers should have is the “right to read anything.” In their continuing investigation of these rights as perceived by students in grade six, Matthews and colleagues (2001), found that students feel strongest about the right to choose not to read a particular text, and to read anything during pleasure reading.

Greene further notes improvement in students’ reading achievement and attitude toward reading. Further, there is evidence that SSR extends to positive reading behaviors in older readers (Tunnel & Jacobs, 1989).

However, where SSR programs are used in evaluation of students’ reading as recommended by the National Reading Panel, selections that are deemed inappropriate can lead to unreliable evaluations. This is seen in the changing definition of SSR relative to self-selection. Routman (2002) differentiates between selection of texts in SSR programs and Independent Reading (IR) programs. In SSR, students select books without teacher guidance, the books may be of any level, and there is no instructional follow-up. This is consistent with the original idea that there should be no “accountability” in SSR. In IR, students select books with teacher guidance. This guidance can include the teacher and student negotiating purpose for reading or the teacher directing the purpose for reading. Books selected for independent reading should be at the child’s instructional level. Following the reading period, instructional support may include oral conferences, retellings, journal writing, or directed questioning by teachers. Based on the results of these instructional activities, additional goals for reading may be set.

A recent review of SSR practices by Nagy, Campenni, and Shaw (2000) sheds additional light on this topic. Reviewing SSR programs from over 30 school systems, they found that one in five schools prescribed what could be read during SSR. In these schools, students could only read materials from approved lists. In over 35% of the schools, reading materials were recommended. These lists, compiled by teachers, reading specialists, and librarians, were made available from which students selected books. Sixty-nine percent of the responding schools reported the censorship of certain types of materials—comics, textbooks, newspapers, and of course pornographic materials.

Although we were initially impressed by the wide range of texts the students were reading—from Harry Potter to Captain Underpants—and from Snow White to the Ashley twins, we could see the discrepancies in the appropriateness of these choices. In the present case, if the SSR experience was to be counted as an instructional activity, guidelines for selection of texts were needed. Therefore, based on our exploratory analysis of SSR, we recommend the following guidelines when implementing SSR in your classroom:

1. Define the reading activity well. If the time reading is viewed as free time, students may not take the task as seriously as if the time is viewed as an extension of reading class time. The SSR period is an excellent time for teachers to model appropriate book selection processes while at the same time reinforcing the student’s right to self-select.
2. Help students to develop appropriate purposes for reading. By modeling purpose setting in reading, teachers can help students to better select texts for different purposes. This can take place during shared reading lessons as well as during the actual silent reading period. For example, students may choose easy texts to practice oral reading expression, and they may choose more challenging texts to work on discerning vocabulary meanings from context.



3. Help students to learn that different types of texts are read for different purposes. For example, many programs limit the use of comic books in SSR programs. However, if students come to know that comics are a specific genre read differently from novels, or information books, their inclusion may be appropriate. Likewise, reading non-fiction texts during SSR (many frilled by pictures and captions) may be appropriate if the purpose is to find information. Novels, chapter books, and picture books, may be good selections if the purpose is to practice comprehension strategies, develop vocabulary, or in the case of historic fiction, extend content learning. As previously stated, the texts selected in SSR will be varied. However, this variation may be appropriate when students can discern the different purposes for the selection of texts.
4. Help students to know that discussing what we read is what good readers do. In many cities and towns across America, single books are being read by the whole community. People from diverse occupations and roles come together to discuss what they have read. In schools, the discussion of books read has been found to increase ownership and empowerment for reading (Corno, 1992; Hunt, 1996/1997). Although SSR does not promote the use of more format ‘accountability’ measures to ensure student reading, having students discuss what they are reading can help the teacher determine whether students are selecting texts they can understand.
5. Help students to know when books are too easy or too hard. The five-finger method has been proposed as one method for helping students to recognize books that are too difficult. Another method we have used is a “private read aloud.” Students are encouraged to orally read a passage from the book to themselves. In presenting this method, students are told their reading should be smooth, and without stops. If during this oral reading exercise, the student hears himself/herself stop often, then the book is probably too difficult.
6. Encourage students to recommend books to their classmates. We forget that students are aware of each other’s abilities and likes. In this regard, we can foster a community of care by encouraging students to recommend appropriate books to their classmates. Much like the popular feature on Reading Rainbow, students should be given the opportunity to share their books with the whole class.
7. Provide varied ways to respond to texts read in SSR and independent reading. Not every reading act should be evaluated by questions. In responding to texts read in SSR, activities such as dialogues, book talks, and drawn illustrations can replace test questions. Once again, such methods can be used to gauge students’ comprehension.
8. Help students to know when it is appropriate to start over or select new reading material. Students should be taught that it is acceptable to put aside a text and select another one, if their initial choice does not coincide with their abilities or interests (Johnson & Howard, 2003). Students should be encouraged to select new texts if they feel a disconnect in the text they have selected.
9. Help student to know what a good read feels like. When a book fits, there should be a general feeling of well being with the text. The students should feel comfortable with the book and have no anxiety about reading. The teacher can model several factors that the student can use to determine whether a particular book is a good fit.
10. Move up. When students make appropriate text selections, they will be more likely to read more.



A great deal more information is needed if we are to address the concerns of the NRP regarding the appropriateness of SSR as a classroom method for fluency or vocabulary development. Central to this investigation should be the matter of text selection. Obviously, the individual choosing the text to be read will be the critical focus of future studies.

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## A Summer Literacy Approach Yields Success for Inner-City Children

*Richard Sinatra*

### ABSTRACT

This report describes the organizational structure, a literacy approach called the 6Rs, and theme – related components that occurred over three summers at CampUs. Thousands of inner-city children from housing development sites located in New York City’s five boroughs were bused to a metropolitan university. During 10-day cycles, children read trade books related to themes, used concept maps to help reason through and retell/reconstruct the readings, wrote and revised papers, and did multi-media computer projects related to the themes. Informal evaluations of children’s writings revealed both improvements in writing and awareness of the CampUs theme messages.

### AUTHOR BIOGRAPHY

Richard Sinatra is Professor of Literacy, department chair, and project director of CampUs at St. John’s University in New York City. He is author of *Word Recognition and Vocabulary Understanding Strategies for Literacy Success* (2003) published by Christopher-Gordon and co-author of *K-8 Instructional Methods: A Literacy Perspective* (2005) Allvn & Bacon/Pearson

How does one provide an appealing but educationally sound out-of-school program for thousands of inner-city children during the off-school-time of summer? That was the challenge I faced as project director in developing the CampUs Program held just two weeks for each cycle of roughly 500 children bused to a university campus from the five boroughs of New York City during the last three summers. Fortunately four major program sponsors and partners provided the financial, facility, and resource support to create a motivational and nurturing learning environment. The program methodology described in this paper may assist other practitioners and providers in New York State and elsewhere in developing out-of-school programs that support state standards while serving deserving children and youth.

Program developers may also wish to become aware of the greater out-of-school movement to learn of funding and program opportunities. Public and private organizations and community-based agencies are becoming increasingly aware of the need to provide safety, supervision, and academic support for children and youth in our modern era when many parents must work. This notion about safety was reflected in a paper by 11-year old Julian who wrote,

“I like the program at CampUs because there is not violence here and there are no drugs. At class my teacher reads us a book about drugs and what happens after you do drugs. Here the environment is clean....If I hadn’t come, I wouldn’t have learned all the things my teacher said. This way I will stay smart and believe in myself. Here at CampUs they teach you things that will stay in your mind for next year.”

After-school funding was authorized by Congress in 1994 under the 21<sup>st</sup> Century Community Learning Center Program to allow schools to remain open longer for more extensive use by their local communities. Later in 1998, after-school times were expanded to include weekends, holidays, and summers, and grant applications had to include provisions for academic work. Presently 21<sup>st</sup> century



funding supports after-school programs in roughly 7,500 rural and inner-city public schools in more than 1,400 communities (U.S. Department of Education, 2003). Some web sites are provided at the end of this paper to assist developers in their quest for funding and program information.

### **The CampUs Partners**

Besides 21<sup>st</sup> Century funding, one needs to look to more local sponsors and partners for resource possibilities and consider such issues as the times and location of the program, the depth and breadth of the program offerings, and the staff needed to implement the program successfully. In the case of the CampUs Program, the major funding partner was the New York City Housing Authority (NYCHA), a federally funded government agency. The Authority supplies affordable and safe housing for over 174,000 families with a mean income of \$15,685.00 living in its 346 housing development sites located throughout the city's five boroughs. Secondary funding and management services were provided by the New York Chapter of the Inner City Games Foundation (ICG), recently renamed the After-School All-Stars (ASAS), and chaired at the national level by Mr. Arnold Schwarzenegger.

The major contributions of the two other partners – St. John's University and the New York City Department of Education – made the program happen on a daily basis. The university contributed its classrooms, athletic facilities and fields, swimming pool, three computer labs, and tennis courts on a full-time exclusive basis while the CampUs children were in attendance. The transportation and food services division of the NYC Ed Department contributed the busing from the five boroughs and the breakfast and lunch for roughly 500 children per day over 20 days. A sense of common mission to provide a high quality program for inner-city, economically disadvantaged children who would not normally experience such a program is what made the partners cooperate successfully.

### **Considerations of Program Development**

There were three major considerations that influenced the design and structure of the CampUs Program. This first was to support the Authority's goal to provide educational, cultural, and recreational programs during off-school times so as to counter the potential ills of inner-city life. Risk factors that limit youth from reaching their full potential and entering into healthy relationships to achieve productive adult lives had been identified as poverty, availability of drugs, family conflict, academic failure, peers who engage in socially deviant behavior, and the inability to achieve positive attention and reinforcement from human relationships (Hawkins, Catalano, & Milker, 1992; Office of Juvenile Justice and Delinquency Prevention, 1998; & Viadero, 2000).

The second consideration was to enhance the gains in literacy learning made by children during the regular school year and hopefully provide them with a boost in reading and writing development when they returned to school in the fall. Evidence had shown that children from low-income families tend to lose academic and learning gains during the summer months when compared to their more economically privileged peers (Viadero, 2000). Thus, claim Entwistle, Alexander, and Olson (2001), the resources of schooling are "turned off" for poor children during the summer months, while the learning faucet is "turned on" for more privileged children through other summer athletic, cultural, and traveling experiences.

Some summer school programs have indicated that the "summer slide" in closing achievement gaps while meeting state standards can be achieved (Borman, 2001; King & Kobak, 2000). While economically disadvantaged children involved in summer programs need to read more, they also need to



experience other activities that they ordinarily would not experience in their home and community environments. Such activities should include a good amount of physical activity for boys and girls through those sports which have clear rules to learn and in which children can assume different roles (Entwisle, Alexander, & Olson, 2001). Others note that the best programs should include a wide range of options, provide hands-on activities related to a thematic interest, and have an academic focus aligned with the work being done in the classroom (Pardini, 2001).

Meeting state standards with their accompanying benchmark requirements in the English Language Arts was another major issue of concern. City students at 4<sup>th</sup> and 8<sup>th</sup> grade levels had to write acceptable papers, in large part, based on interpretations and reactions to textual readings. This integrated reading/writing act was evaluated by the use of rubrics or scoring scales ranging from a level “1” as being inadequate writing to a level “4”, defined as being advanced writing proficiency. At “3” met acceptable standards for writing. For differing writing tasks, students had to address the writing criteria of meaning, organization, development, language use, and mechanics. New York City students performed quite poorly over the three years with 67%, 58%, and 56% of its 4<sup>th</sup> grade students achieving below acceptable writing standards (a level “2” or below). Eighth graders performed even more poorly with 65%, 67%, and 67% achieving below writing competency in the three-year span. The state commissioner of education had urged that all middle school classes concentrate on reading and writing with students reading at least 25 books a year and writing at least 1,000 words a month. (New York State Education Department, 2001). Ten-year old Rubin’s comments reveal that we were attaining this goal. He wrote, “Since my experience at St. John I haven’t read as many books as I have now so I thank St John for all the work and knowledge I have now.”

## **The Children Participants**

Children in the age range of seven to thirteen and who lived in the many housing development sites operated by the Authority (NYCHA) were eligible to participate in the program each summer. Younger children needed to have completed first grade. The NYCHA staff rotated the housing development sites each year so that one-quarter to one-third of the children had been in attendance in a previous year’s program.

During the summer of 2000, 1028 children from 25 housing project sites attended some or all of the 10 days of the two cycles; in 2001, 1094 children from 27 sites attended; and in 2002, 1078 from 24 sites attended the program. Each year from 110 to 249 children were bilingual in the Spanish language; from 112 to 140 children were in or had been in special education settings during the regular school year; from 55 to 76 children would enter second grade; and from 35 to 50 children would enter eighth grade. The majority; or roughly two-thirds, of each summer’s students were African American and would enter grades three to seven in the fall of the year.

## **The CampUs Organizational Structure**

Half a traditional school day, or three 45-minute periods, were devoted to literacy experiences while the second half of the day was spent in athletic and other learning activities such as swimming, soccer, tennis, basketball, and chess. In the nurturing climate of a university setting, NYCHA children were directly taught, coached, and mentored by pre-service teachers from the undergraduate programs of The School of Education and by student athletes enrolled in other university programs. Many of these undergraduates were eligible for federally provided work-study funds. This additional funding source



allowed the program developers to recruit more adults to serve as teachers and coaches so that small group configurations could be achieved in the classroom and on the playing fields. Additionally, the undergraduates served as important role models since many come from the same communities and neighborhoods as the children, and they exemplified how college life could become a reality for those who are economically disadvantaged but strive to do well in school.

Eight practicing teachers with advanced degrees in reading/literacy education and three certified computer teachers made up the key professional development and supervisory literacy staff. These teachers had served the project through a number of consecutive summers and were quite knowledgeable in training others to implement the program's approach. The teachers met in planning sessions from April to June of the year and refreshed themselves with the project books, reviewed new books related to the CampUs themes, selected and planned for software programs, and developed initial training lessons.

The 40 to 45 pre-service teachers recruited from the School of Education each year were trained a full two weeks prior to the children's arrival in classroom management techniques, conflict resolution, behavior management, and lesson preparation. They spent two days learning the children's software programs and four days with the veteran reading/literacy teachers. They previewed the books to be used by children, saw demonstrations of and practiced model lessons, planned concept and story map usage with particular readings, and learned how to assist children with written development by focusing on the qualities of writing indicated on the New York State writing rubric.

Each pre-service teacher, in turn, was assigned two groups of children with six to eight children in each group. During the morning block, they worked with a group in the 10 to 13-year-old range and in the afternoon time block they had a group in the 7 to 9-year-old range. Five pre-service teachers were also assigned to one reading/literacy teacher who acted as a coach and mentor during each project day. The veteran teachers circulated among their groups of five and observed the steps of lesson development, assisted with feedback, conducted model lessons for particular pre-service teachers needing assistance, and, at times, actually worked with a smaller set of children or a single child during the writing process.

## **The CampUs Literacy Plan**

To serve the mission interests of the four major partners and to provide guidance in helping children overcome the influences of inner-city risk factors we focused on three socially relevant themes. These themes asked children to become aware of the dangers of substance abuse (say NO to drugs, alcohol, and cigarettes), be a good person (be of good character at home, at school, and on the playing fields), and to show respect for the environment and community (don't litter and pollute).

In the children's literature selected to be used, we followed what Rudman (1995) likened to an "issues approach," in which problem situations found in stories mirror what actually occurs for people in society. Often known as the practice of "bibliotherapy," an issues approach offers a way to provide guidance and protection through story reading. Such a thematic focus helps teachers and students think about meaning while promoting positive attitudes towards the very acts of reading and writing (Burns, Roe, & Ross, 1999). Eight-year old Elissa wrote, "On the first day of classes I learned so much. Not to take drugs, and be respectful to each other, and to follow rules in other classes. I even learned to put effort into your work, and to try your best on everything."

While engaging in the themes, we also sought to support the State Commissioner's request regarding increased reading and writing interactions while assisting children with strategies that would help them in the formal arena of schooling in the fall. Our approach became known as the 6Rs – Read, Reason, Retell/Reconstruct, Rubric, (w)Rite, and Revise. The approach coordinated the efforts of the



veteran and pre-service teachers while supporting the messages of the three program themes. It was based on a series of six interconnecting, cumulative steps aimed at promoting development in the four domains of the language arts and visual representation. It supported the New York State Performance Standards in that children read a number of books, read about issues or topics in which they had to produce evidence of understandings, wrote responses to literary works and learned to use narrative procedures, and created a multimedia computer project in which they had to write, format, gather, and organize information (Board of Education of the City of New York, 1997, 2001).

The 6Rs steps integrated many of the components of a balanced literacy framework in that viewing, listening, speaking, reading, and writing were featured as children and teachers engaged in shared reading/shared writing and guided reading/guided writing as they worked through differing text styles (Fountas & Pennell, 1996, 2001). Furthermore, vocabulary developed out of the textual readings, and students had many opportunities to practice and apply their new word knowledge in active ways through writing activities of both the narrative and informational styles (Rupley, Logan, & Nichols, 1999). Ten-year old Andrew expressed his belief about becoming a better reader by writing “My reading got better because I read books with bigger and more challenging words.”

The literacy work was accomplished in two settings. One was a traditional school setting in which the small groups of children were taught and mentored by the pre-service teachers during a 90-minute block each day. The second was held in one of three computer labs for an additional 45-minute period. Here children completed individually generated computer projects under the supervision of the computer teacher, lab assistants, and the pre-service teachers who accompanied their small groups to the larger lab.

## **The 6Rs Steps**

**Read:** Reading – The first “R” in the approach – was managed by the use of small collections of trade books, often known as text sets, and were strategically used by teachers as they reinforced the three major themes of the program. Research has shown that addition of trade books in a language arts program, helps in the development of oral language and reading ability, assists in vocabulary acquisition, and increases children’s motivation to read in school settings and at home (Galda & Cullinan, 1991). Trade books are also packaged in attractive formats, which make them easy and “user friendly” to offer children in a summer educational climate.

We used fiction and non-fiction trade books on a daily basis as the “magnifying glass” vehicle to enlarge and enhance the children’s interactions with the messages of the three themes (Vacca & Vacca, 2002). Of the 34 books previewed and selected to be used as small group text sets, 22 related to the character development theme, 6 to the substance abuse theme, and 6 to the respecting the environment theme. The veteran teachers further categorized the books by those appropriate by reading level and content for younger children (7 to 9 year olds), older (10 to 13 year olds), and for students from other cultures learning a second language. The character development books were all children’s literature and picture books in the narrative, story tradition while informational books as well as storybooks were found in the other two groupings. Because many of the children were still beginning readers such as those who had just completed first grade, were English language learners, had been or were in special education settings, a read aloud was generally accomplished first, followed by a second, shared oral reading before they were lead through the text reasoning and reconstruction processes.

Wide and varied readings became a major way to increase the children’s meaning and reading vocabularies (Gunning, 2002; Ryder & Graves, 2003). Because each book offered a rich source of words, new words were added each day to growing lists of theme words. The new words were most often printed



on five by eight cards and mounted on a “word wall” under the appropriate theme heading. Both the thematic book readings and vocabulary reinforcements were aimed at organizing the children’s knowledge of concepts and to help them see the relevance of information so that they would gain what Gunning calls, “principled understandings” (2003). Twelve-year old Brice expressed these knowledge connections in the following way,

My favorite experice at Campus is being in the classroom. In the classroom we get to read. We don’t read about anything. We read about important things. For example the Enviornment and how to keep it clean. Staying drug free, and good character. Also when reading I learn new Campus vocabulary words.

In the classroom we also write. During writing we use the vocabulary words that we learn in readings. To help us plan our writing we use maps. This we do as a class. After we write we do a project based on the story. I really like the classroom because it helps me to explore and expand my mind. This all happens with the help of my teacher & classmates.

**Reason.** During reasoning, teachers engaged children in thinking and feeling about the text and its message. Questioning and verbal discussion occurring during and after the reading made this step very lively. Children interacted freely with the text, the teacher, and one another as they talked about book ideas, new vocabulary, the relationship to the theme, and their personal reactions to meaning. Here we applied the three levels of thinking about a reading-experiencing, connecting, and extending - as noted by Finders and Hynds (2003). They experienced the reading through the pictures, words, and images aroused by the text; they connected the reading to impressions in their lives regarding substance abuse, what makes a good person, and the local environment issues of littering and pollution; and they began to think about how they would extend the text reading into a graphic map format, a writing, an artistic project, or in a computer project.

**Retell/Reconstruct.** The thinking and reasoning processes involved in the “retelling” and “reconstructing” aspects of the plan made use of the visual representation of ideas through “maps.” Concept and story maps, also known as semantic maps, webs, clusters, and graphic organizers, served as a major program strategy to help children formulate and organize their ideas after reading and before and during writing. Teachers moved students smoothly into retellings and reconstructions of stories and informational readings by verbally engaging students in map construction. Information based on the reading was written within the graphic figures either by the teacher who elicited this information during verbal discussion or by the children themselves as they puzzled out the sequence of events or the concepts and ideas of the text and wrote them into the figures on the map.

Researchers have reported that students with and without learning problems have improved in reading comprehension and planning for writing when they have been shown how text ideas are organized in narrative and expository readings and when they have been provided with visual models of text organization (Davis, 1994; Swanson & DeLaPaz, 1998; Vallecorsa & deBettencourt, 1997; Wong, 1997). Many of the studies in the literature also reported positive effects of concept map use for vocabulary and reading comprehension development when small groups of children and youth were taught in controlled settings (Boyle 1996; Englert & Mariage 1991). Furthermore, providing writers with visual frameworks of text organization gives them a framework for producing, organizing, and editing compositions and has a positive influence on report writing (Englert, Raphael, Anderson, Anthony, & Stevens, 1991; Wong, 1997).

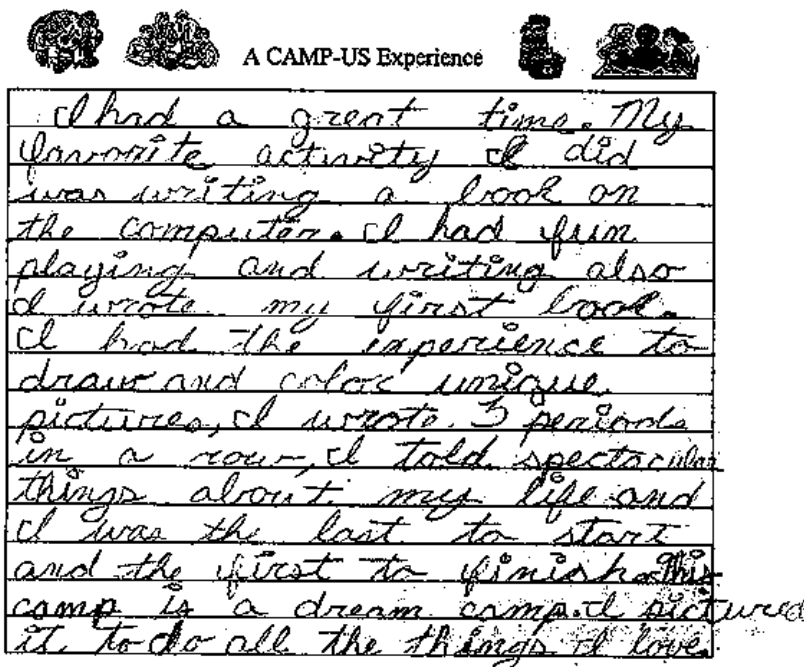
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Teachers used differing map structures that represented how various reading and writings were organized. The maps used with literature or story readings reflected the common story grammar features of character(s), plot, setting, problems faced by the main character, outcomes or consequences, resolution, and theme. These maps generated a retelling of a story’s events as sequencing and causal interactions were the notations that children wrote down. The maps used with expository, informational readings reflected cause and effect, sequential, compare and contrast, and topic development text patterns and had been used successfully in other large-scale literacy projects to boost reading and writing achievement (Cronin, Barkley, & Sinatra, 1992; Cronin, Meadows, & Sinatra, 1990; Sinatra, 2000; Sinatra & Pizzo, 1992). These maps helped children reconstruct information from a textual reading by allowing them to see the connections among ideas and concepts and by relating details and new vocabulary appropriately.

**Rubric.** The mapping step was followed by a discussion about writing and how reading can provide a number of ideas to develop in writing. Children were then presented with the qualities of writing and the four-point weighting scale of the state rubric scoring system. The components of the rubric were written in a more “user friendly” way for children, and 20 large copies of the children’s rubric were made and hung in each of the project’s classrooms. Teachers and students discussed what features of writing would make a good paper as they viewed the rubric, and children would return to look at the rubric as they engaged in the on-going writing or revision processes.

**(w)Rite.** Writing and planning for writing after reading and mapping became a central feature of the 6Rs approach. We believed that the benchmark standard of writing an acceptable paper and thinking deeply about a topic was a task of worth and value. The ability to write well has long-term significance in school, career, and professional life. Wolf and White (2000) likened such a benchmark performance as the writing of a report to a “valued” performance, which does not attempt to address meeting each and every individual standard but represents a rich performance based on in-depth learning that occurs over time. The richness achieved through writing is best reflected in 9-year-old Waakeema’s paper:





Children wrote their own individual papers while viewing either a group-constructed map or their own filled-in map as they were reminded of the qualities of writing noted in the displayed rubric. Project teachers interacted freely with the children as they wrote often answering questions posed by the children about their writing, such as “Does it sound good?” or “Is this correct?” After teacher interaction and revision suggestions, a rewriting was accomplished. Nine-year old Alicia showed what she felt about writing as she wrote:

My Reading and writing got a lot better, and I cant believe only in 2 weeks. I fixed my writing mistakes, and spelled words correctly. I also read a lot so I practiced the words I could not read. Thank you St. Johns.

**Revise.** The rewriting was, more often than not, accomplished by a highly motivating, visual and artistic activity that connected to the meaning of the book. For instance, with the book *Playing Right Field* (Welch, 2000) aligned to our character development theme, young children constructed a “pop-up book.” On the accordion panels of a folded strip of paper to which a paper ball was attached on one end and a paper baseball glove on the other, children wrote their episodes of the right fielder’s story. For older children, the culminating writing activity of completing the 6Rs steps with the fiction book *The Other Side* (Woodson, 2001) was rewriting the story on panels on a cut-out picket fence. The fence represented the divide between a black and white neighborhood, and the setting where two young girls of different races overcome the barriers set by the segregation climate of the times. For *The Great Kapok Tree* (Cherry, 2000), children wrote their version of what the animals told the young man about the dangers of deforesting on tree leaves and then hung their “leaves” on a drawing of a large tree constructed on chart paper.

Once revision and editing were completed, children would share their reading with a buddy or the whole group with the paper finally becoming displayed on the classroom wall under the appropriate theme title. Children completed from four to seven papers based on the readings of differing trade books and the use of the differing map organizational plans. Young children and level 1 writers would generally produce a paragraph-length paper but teachers worked on elaborating content details, on how to expand sentences and transform phrases and clauses to achieve sentence variety, and on the construction of good “topic sentences” that would introduce paragraphs. The reading, mapping, and writing process of the 6Rs steps supported and built upon one another. The literacy engagement was cumulative and recursive in that written products were visible outcomes of each trade book reading and the cycle began again with the new offering of a trade book related to another theme. With this approach, children’s expectations were that reading, reconstructing, writing, and revision, were connected as one unifying event. As noted by Piazza (2003) a “routine” was established that writers became accustomed to in their expectations and requirements.

**Computer Project.** This expectation and routine continued in the computer lab, where children worked on a multi-media project using either the HyperStudio or the KidWorks Deluxe software programs. Each of these programs allowed children to author, to use visuals and illustrations, to link to Internet informational resources, and to accomplish appealing page/screen lay-outs. A four-point scoring rubric was generated to evaluate each child’s computer project with a focus on the five qualities of project completeness in exemplifying a CampUs theme, organization and structure, originality, graphical presentation, and written presentation. Nine-year old Marvin wrote,



My favorite experience was when I went to computer class. Mr. Dan asked me to pick a topic. Either Environment, choices or character. I picked Environment. My topics were recycling, Drugs, cigarettes, and what happens to alcoholics and ending species. When I finished my topics, I went on to the internet to support my topics. After I supported my topics, I drew pictures that went with my topics. Then after that, I went over my work, and gave it better vocabulary. After that, I read it one more time just in case and I gave it better font. Finally I saved it on my floppy disc and I finished and Mr. Dan gave me my disc.

To help children accomplish a more thoughtful and rich project in the short period of time, computer teachers found it wise to initiate the project with a two-page planning worksheet that supported the 6Rs steps. The worksheet helped students integrate their prior knowledge, plan where they were going, and guided them with the composing steps of the writing process. After a teacher-lead discussion of the meaning of each of the themes and how they might be addressed, children followed these planning steps: (1) they selected an aspect of a theme to investigate; (2) they generated an idea web or concept map of the components of the theme idea that were known at the present time; (3) they constructed an outline of how screens might be planned based on the number of concept ideas shown on the map; (4) they linked the outline to Internet sites related to the three themes provided by the teacher and began to gain information and take notes; and (5) they wrote their initial scripts for each screen or card, incorporating their notes and possible ideas of visuals that would complement the text.

### **Program Effectiveness**

We wished to determine if both the 6Rs approach and the selection of readings affected the children's abilities and attitudes. We accomplished this informal evaluation: (1) by comparing the results of two papers on the topic of telling about a favorite experience written at the beginning and end of each program cycle; (2) by determining whether children actually used a map prior to writing their exit paper and if they did use a map, did the map express the reasoning, the logic of the paper they wrote; (3) by determining whether the writing score on their computer project rubric correlated with the overall writing score on their exit paper; and (4) by evaluating the written responses made by children to five questions as they exited each cycle.

Prior to the project in May 2000, the literacy teachers participated in training sessions regarding the scoring of student papers using the comprehensive, five quality scoring rubric. Then papers were collected from nearby community schools of students from grades two through eight. All students wrote on the same topic – to tell about a favorite experience. Through a procedure of multiple correlation among all teacher-raters, an overall inter-scorer phi-coefficient of .860 was established (Anastasi, 1988). This rather high correlation of inter-rater reliability meant that the veteran teachers who would score children's papers in the CampUs program were of a close mindset as they evaluated the qualities of writing from similar grade-level students.

Many children were able to improve their writing scores when the initial and exiting papers were analyzed. Over the three-year period we found that from 58 to 63 percent of the children improved with a .26 to .30 gain in writing ( $p < .000$ ), that from 14 to 17 percent duplicated both scores, and from 21 to 28 percent decreased in writing as evaluated by the four-point scale. Results for Spanish bilinguals and children identified as those needing special education services were most heartening as significant increases in writing occurred. The 478 Hispanic children increased in a range from .33 to .40 points, and the 287 children receiving special education services increased by .23 to .40 rubric points in the three-year



period. These comparison results were not based on a control group rationale but on expected levels of achievement found in historic patterns or standards of reasonableness. According to Pogrow (1999) consistency of gains and achievement provide a much more relevant, fairer, and practical way for practitioners to predict whether a particular program approach is likely to produce consistent gains in their educational settings.

When asked to do so before writing their exit papers, from 92 to 98 percent of the children planned how to write their papers by using one of the project maps. Of these percentages, the literacy teachers felt that from 68 to 79 percent of the maps selected to be used to plan for writing were appropriate in matching children's organizational plans of their written papers.

The scores on the computer projects revealed a general tendency that as children increased in grade level their projects indicated more completeness, organizational structure, artistic and written presentation, and originality. For instance, for the 2002 year, 21 second graders had an average rubric score of 2.69 while 22 eighth graders had a mean score of 3.80. When the children's exit writing results were compared against the written presentation component on the computer rubric, a significant correlation was observed for each year. While the observed coefficients were small, it does appear that a relationship exists by engaging in writing by computer and writing with paper and pencil.

An analysis of the children's written responses to questions asked at the end of each cycle indicated that they internalized many of the major objectives of the program and were able to express these in writing. For instance when asked to "tell about some of the things they learned," 536 children wrote that they learned about the dangers of drugs, alcohol, and smoking; 231 learned how to use computers; 228 learned about how to keep the environment clean; 252 learned how to write better; 192 learned how to read better; 149 learned how to use maps; and 258 learned about respect and teamwork. When asked to tell about "how their writing got better", 499 children indicated that they wrote and practiced writing a lot; 235 learned to use maps and to organize; 135 learned new vocabulary; 425 learned grammar, spelling, and how to write neatly; and 88 learned to add details. When asked if "mapping helped them plan to write a better paper", 435 wrote that mapping helped them organize their ideas and writing; 281 said mapping gave them ideas to think about before writing; and 104 said that they could understand what they were writing about. Yet when asked "what activities did you like the best," swimming achieved a 971 score and computers a 380 score while reading scored 154 and writing 123.

## **Discussion and Conclusion**

The use of story and concept mapping was a key strategy for the organization of textual ideas and was supported by the verbal and map-building interaction in the small grouping patterns. The pre-service teachers guided students to translate narrative structure and concepts from readings into visual graphic arrays thereby creating blueprint plans of the reading to be followed by a written retelling, reconstruction, or summary. Use of such maps in which readers construct mental representations of print ideas supports three of the seven National Reading Panel's (2000) recommendations to improve reading comprehension: (1) by mapping graphic representations of the material being read; (2) by learning the structure of stories as a means of remembering story content, and (3) by summarizing to integrate and generalize ideas gained from text.

We also found that the mapping and note taking steps off computer to be extremely important in the overall success of each child's multi-media project because a mind set was provided for each individual student of where he or she is going with the project. For instance, sixth grade Jose selecting the good character theme, included these major idea topics on his concept map to be developed in



forthcoming “cards,” “respecting others, helping people, listening to show respect, controlling anger, no bullying, and finding peaceful solutions to problems.”

Children also reported in their writing that they learned from the short but intensive program. They indicated they did read, map, write, used computers, and learned about the dangers of drugs, alcohol, and smoking. They indicated that their writing became stronger because they practiced it a lot and that they used maps to organize their ideas gained from reading before they write. The significant correlation between the ability to construct an appropriate map and improvement in the quality of the overall written essay supports a view of writing as a cognitive act. That is, as children integrated and connected their ideas, their written products improved across all dimension of the qualities of writing as indicated on the rubric.

We strongly believed, as do others, that when students write, they learn the “big ideas” and “enduring understandings” which connect broad bands of knowledge and processes and, which can live on the mind to be applied in future learning (Kameenui & Carnine, 1998; Wiggins & McTighe, 1998). Furthermore, because reading and writing were connected in tandem in the 6Rs steps, the bond established between both influenced learning in ways not possible when either one was used alone (Vacca & Vacca, 2002). Yet we questioned whether the children would actually use the “6Rs” plan when they returned to school in the fall of the year and whether they would apply the underlying messages of the program themes. Would they transfer the procedure of mapping to writing to revising after the reading of a story or informational text as a strategic thinking activity by themselves? With knowledge about mapping is an aid to help them understand text, would they readily seek out their teachers’ help in their respective schools knowing that such practice may help them write better as well? Moreover, would reading and writing themselves be viewed as valuable mental activities? While we felt very positive about the children’s literacy achievements in the two-week period and believed that we educated them about the dangers of substance abuse, we could see the benefits of a longer time period and follow-up during the regular school year to determine if our plan and methodology become internalized to make a difference in their lives.

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### **Web Sites for After-School Information**

- [www.afterschoolalliance.org](http://www.afterschoolalliance.org)  
[www.afterschoolallstars.org](http://www.afterschoolallstars.org)  
<http://www.publicengagement.com/AfterschoolSummit/>  
[www.tascorp.org](http://www.tascorp.org)

### **Web Sites for Software Programs**

- [www.hyperstudio.com](http://www.hyperstudio.com)  
[www.education.com/teachspace/schoolsoftware.jsp](http://www.education.com/teachspace/schoolsoftware.jsp)



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## “The Dog Project:” Implications For Instruction

*Joanne Marie Robertson*

### ABSTRACT

In this photo essay, I examine the social contexts of literacy development through an exploration of a unique organization called “The Dog Project.” In this descriptive narrative, I document the ways children’s interactions with their peers, the instructors, and the dogs in the project fostered their sense of self-efficacy, their sustained engagement with texts, and their motivation to read and write. I draw implications for the establishment of kind, empathetic, and familiar learning environments in the early years of instruction.

### AUTHOR BIOGRAPHY

Dr. Joanne Robertson is an Assistant Professor in the Literacy Department, Graduate School of Education, at St. John’s University. She teaches the *Language Acquisition and Emergent Literacy* and *Teaching Literacy through Literature* courses. Dr. Robertson’s research agenda over the last several years has revolved around the concept of optimal learning environments for all children.

### AUTHOR’ NOTE

Photographs are taken by Richard Atkins, doctoral candidate, St. John’s University.



**Brooke sits on top of his favorite book.**

### Introduction

Contemporary learning theory supports the notion that literacy development occurs within sociocultural, dialogic, and participatory frameworks that support and extend apprentice learners’ initiatives (Rogoff, 1990; Vygotsky, 1978). We understand that all learning is “situated” (Lave & Wenger,



1991), or context-specific, and that it is inherently social in nature. We know that motivation facilitates children's engagement with literacy tasks (Mathewson, 1994), and students' perceptions of "self-efficacy" (Bandura, 1997). We acknowledge the critical role of the teacher in creating a context that facilitates these "can do" attitudes (McCabe, 2003) through social interaction, positive feedback, and challenging opportunities that promote critical literacy development (Comber, 2001).<sup>1</sup> We realize that teaching and learning are all about relationships. McDermott (cited in Murphy, 1999) writes, "Learning does not belong to individual persons, but to the various conversations of which they are a part" (p. 17). The following photo-essay represents my conversations, understandings, and reflections about the ways dogs can motivate children to read, and show their teachers how to foster positive attitudes towards reading and writing in their classrooms.

## Beginnings

I heard about "The Dog Project" through a friend.<sup>2</sup> I was eager to visit this extraordinary site for I am passionate about dogs and keenly interested in learning about environments that facilitate children's literacy development. I make an appointment to speak with Robert Berens, who conceptualized and brought to fruition the Project. Later, I will observe a read-aloud with the children and the dogs.

"Don't you wish we had this when we were growing up?" Berens asks. I nod in agreement. The Dog Project is his brainchild, but he immediately clarifies that it is not an original idea. Inspired by an article he read in a newspaper about an innovative program using therapy dogs to help children with "reading problems,"<sup>3</sup> Berens envisioned ways to extend the concept to the general student population. Through participation in project activities, he hopes to promote the humane care and treatment of "people, animals, and the planet." Using dogs to motivate children to read appears to be a growing phenomenon.<sup>4</sup>

"The teachers helped us," Berens tells me. In the beginning, ten schools agreed to participate in the project. "They suggested books that would be appropriate," he continues. As I review the literature selections, it is obvious that careful attention has been paid to creating a library with broad appeal across grade levels. "We thought we'd bring in one child at a time to read to the dogs," he says. "Then, the teachers told us that kids like observing other kids reading and that five or six children in a multiage group would be better." Berens also talks about the ways The Dog Project has extended the established curriculum for many of the teachers. One teacher, he shares, used her trip to the Project as a "hands-on culminating activity" for her literature unit on *Shiloh*.

## Welcome to "The Dog Project!"

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<sup>1</sup> Critical literacy is defined by Comber as "people using language to exercise power, to enhance everyday life in schools and communities, and to question practices of privilege and injustice" (p. 1).

<sup>2</sup> The Dog Project is "an all volunteer, private, and non-profit organization of humans and dogs, supported by tax deductible contributions," located on the Sands Point Preserve on Long Island, New York. Robert Berens, its founder, writes "The purpose of The Dog Project is for people and dogs to share good times and help each other reach our goal of having only as many dogs as there are good homes for them." He consented to the publication of this article, and can be reached at [www.dogproject.org](http://www.dogproject.org).

<sup>3</sup> Information about "Dog Day Afternoons," a program using therapy dogs established by Sandi Martin in Salt Lake City Utah, can be retrieved from [http://www.therapyanimals.org/read/ose\\_03252000.html](http://www.therapyanimals.org/read/ose_03252000.html).

<sup>4</sup> Information about "The Paws that Remediate," a program in the Martin County (Florida) Library System intended to boost the literacy skills and confidence of struggling young readers using therapy dogs, can be located in *American Libraries*, August 2001, Vol. 32 (7). Information about "See Spot Read" a program developed for public libraries using therapy dogs can be located in *Public Libraries*, Nov-Dec 2002, Vol. 41 (6).



I am met at the front door by a boisterous sable collie named “Timmy,” with gloriously long eye lashes. He’s holding a fuzzy toy in his mouth, which he playfully shakes back and forth as if in greeting. Though happy to see me, he is clearly anticipating someone else. He sits by the door waiting for them. A second collie, “Brooke,” is more reserved. After allowing me to stroke his head, he heads into the adjoining reading room. Once inside “The Project,” I notice the attention paid to every detail of the facility. The entry room serves as a reception area, in which the children can browse through the materials and learn about pet care. I am given a colorful dog bone and paw print name tag. I write “Joanne” on it, and begin to introduce myself to the volunteers at the project. One of them is wearing *101 Dalmatians* earrings.



**Timmy lets me borrow his award for this publication.**

To Timmy’s delight the school buses finally arrive, and the children bound gleefully into The Project. The director gives them a brief overview of the morning’s activities. Afterwards, he reads a picture book and engages them in a conversation about the “Golden Rule.” The children discuss “treating people the way they want to be treated.” An atmosphere of respect is established early on, especially regarding the dogs. Afterwards, the children are dispersed to different locations on the nature preserve. Some visit the museum to learn about the artifacts displayed there, others take a nature walk on the beach with an obliging golden retriever, while the last group of students read to the dogs. The youngsters



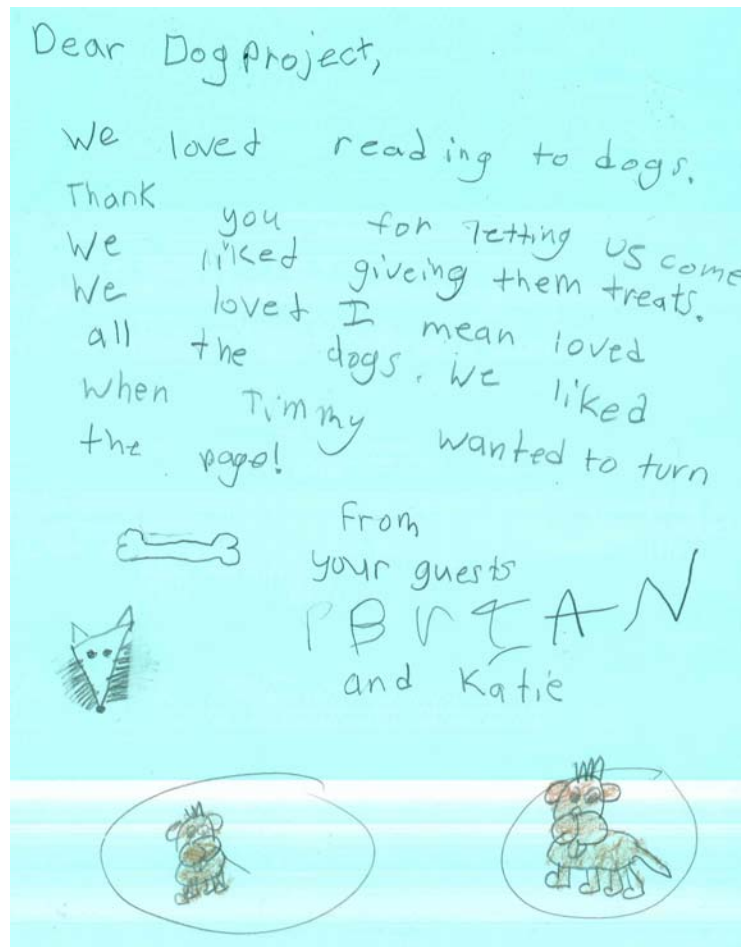
alternate between these activities until everyone has had a turn to be with the dogs. They finish the visit with a picnic lunch.

I choose to join the readers. When I enter the “reading” room, I notice the comprehensive library of books that have been donated to the project by benefactors. I recognize some favorite titles, like *Clifford* and the *McDuff* stories, but see others that I am not familiar with, like the *Dogtionary*. I find dog and cat picture books, alphabet books, pop-up books, and informational texts. It is a lovely selection of non-leveled, high-interest texts that are thematically arranged. Even the oversized pillows the children sit upon are shaped like dog bones. The children are delighted with everything they see in the room. I hear *Who Let the Dogs Out?* playing softly in the background.

## Unconditional Support

The children sprawl out upon overstuffed cushions on the floor. Grouped in twos and threes, they are eager to read to the dogs. The owner of the collies, Janet, gives them biscuits and instructions for the read aloud. “After you read three pages you may give the dogs *one* biscuit,” she tells them. Janet whispers to me, “I think the dogs have learned to count! After three pages they start to paw the children for their treat.” Indeed, this seems to be the case. The collies appear to have adjusted to the routine, and to the children. They make no demands upon them (except for biscuits), accept all overtures of companionship, and seem content to sit, listen, and be petted. The children are motivated to read, and are eager to select a story they believe the dogs will like. I watch as they review the books in the “dog library,” scanning the illustrations and texts, until they find one that strikes their fancy. I notice how they mimic the story telling techniques of their teachers, holding the books up for the dogs to see, and pointing to particular aspects of the pictures. They strive to make the dogs attend to the story. They take turns reading, helping each other with unknown words. They paraphrase parts they can’t read. They explain the pictures to the dogs. No one tells them to do these things.





**The children “love, I mean love” the dogs, as demonstrated in this illustrated letter. They refer to themselves as “guests,” reflecting their sense of The Dog Project as a home.**

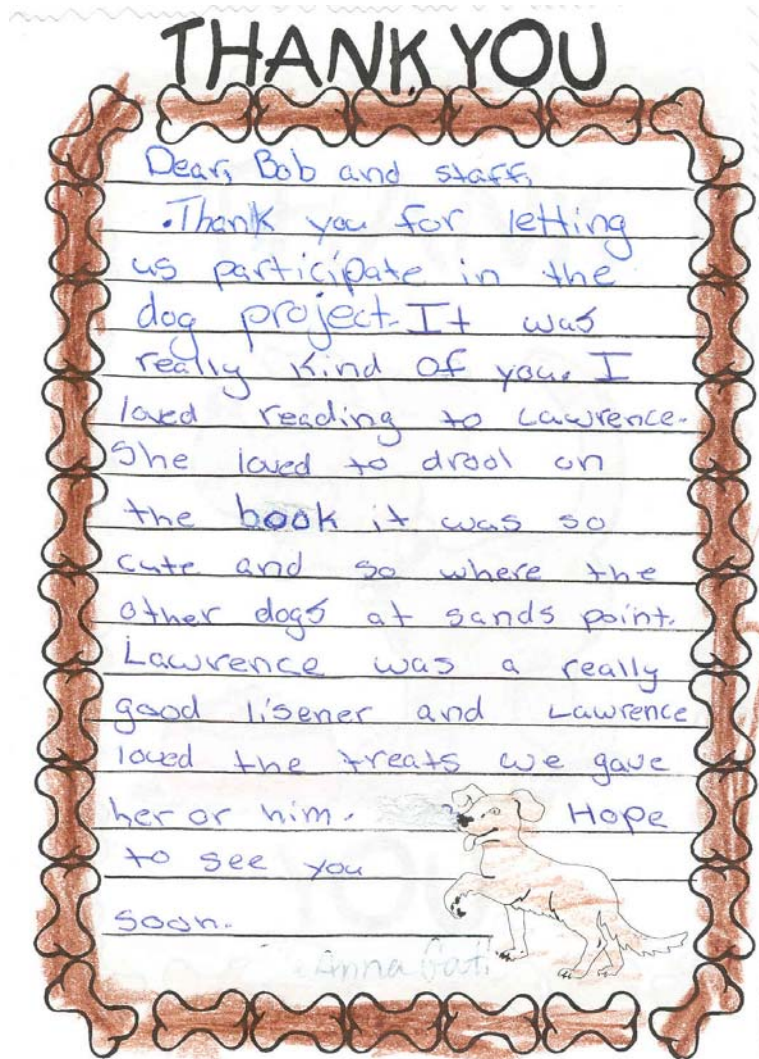
It also appears that the dogs want to please the children. The volunteers explain that they are all “rescue dogs,” adopted from organizations that specialize in their breeds. One dog is classified as a “therapy” dog, and I’m told she regularly visits residents in a local nursing home. None of the dogs leave their places unless directed to do so by their owners. They take turns being read to, or run on the beach with the children.

### **Empathy and Respect**

One child, Olivia, is fearful. The size of the collies intimidates her. She asks if she can sit on a chair so as to have the height advantage. She says she does not want to read to the dogs. Her wishes are respected. Her teacher tells me she’s usually “quiet.” She is given a dog biscuit. But gradually, the black and white collie, Brooke, wins her over. First, she tosses him a biscuit. Soon after, she delicately slides off the chair and moves toward the cushion in the floor. She asks to touch Brooke’s fur, and sits down to listen to the story. I notice that the collie appears to be attending more to the story, and the little girl is using him as an armrest. Janet, his owner, tells me that Brooke is particularly sensitive and empathetic to the children’s needs. “We had one child who was deaf and blind who came to visit,” she shares. “Do you



know that he [Brooke] walked her all the way back to the school bus when it was time to leave? She was crying and didn't want to leave. They got her on the bus because of Brooke. He didn't leave her side."



### Children's Understandings

A fourth grader is reading Cynthia Rylant's "Dog Heaven" to Timmy and his friend. "I'll read, and then you'll read," they say. They begin to relate the story to their own lives. "Long, long ago my grandma had two dogs," he says. "But they went away." He strokes Timmy's head as he speaks. "I think he understands," says his classmate. They decide to give him an extra biscuit. I notice that Brooke has fallen asleep on his pillow next to the little girl, but the group is still reading. It would appear, that the dogs have now become ancillary to the reading event.



**Timmy poses for the camera.**

“You stay and listen,” the fourth grader tells Timmy. He is reading *Spot’s Big Lift-the-Flap Book*. “Do you think he is really listening?” another child asks. “No,” he replies, but continues reading. “He doesn’t like this book,” a kindergarten child tells him. This group is composed of older and younger children. They put the book aside. “You have to read to feed,” reminds the volunteer. “Let’s try something funny,” the older boy suggests. They decide to read *Go Dog Go!* They read some, stop some, pet some, and feed some of the biscuit to Timmy. “I believe he’s paying attention now,” the kindergartener says. “Well, he’s certainly looking more,” the fourth grader states. After a few pages, the kindergarten builds up her courage to read a page by herself. I notice her “miscues.” She reads “dig” for “big,” but looks at the pictures and corrects herself. When she is unsure of a word, the older children help her sound it out. Could it be that this homelike, multi-age environment facilitates engagement with literature and self-directed learning?

### **Implications for Instruction**

Our students can be our teachers, if we allow them to. As I review the stacks of letters and pictures Robert Berens shares with me, I gain insights into the children’s perceptions of their experiences and participation in The Dog Project.

“We loved the dogs. They were sweet and kind to us,” Natalia and Sarah write. “I liked reading *Go Dog Go*,” Jonathan prints in big letters across the page.

“Thank you for teaching us how to treat humans and animals the way we would like to be treated,” Maria and Sandra scribe.

“My class and I learned so much about friendship and dogs,” Kelly writes.



The children's letters resound with a common theme, best articulated by Ashley and Lauren, "We liked reading to the dogs. We had a blast with you guys!"

If a learning environment is free of censure and disapproval, and if children are respected as competent, responsible, and independent readers, they can and will direct their own learning. I think back to my own childhood experiences, and remember reading aloud to my dolls. No one had to motivate or convince me that this was important. It seemed natural, or what we now describe as an authentic or "real world" literacy task. I felt that I was a good reader, and that my dolls were enjoying the stories. This experience is no different for the children who read to the dogs at The Dog Project. They feel that the dogs value their attention.

We should note that the dogs take their cues from the children. They are nondirective. They don't care if the little ones read the books upside down. They listen. They enjoy their company. Good teachers do the same.



**Brooke takes a little break, but the reading continues!**

I spend two hours at "The Dog Project," oblivious to time. I have enjoyed myself. The children have enjoyed themselves. So, what does this all mean for teaching and learning? As I look through my field notes, I see a note scrawled in bold letters across the top of the last page. "The key is kindness," it says. "Kindness!" The Dog Project is a kind and caring place for the children and the animals. The volunteers love their work, and I believe that the dogs do too. "They know what they're here for," one of the volunteers says. "They don't do it for the treats." In reality, none of us do.



**Laurie and Timmy listening to stories.**

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# Rediscovering Problem Solving In The Early Childhood Curriculum

*Heather Bridge*

## ABSTRACT

Questionnaire responses suggest although educators know the learning value of problem solving, they rarely use it. Twenty-one educators were introduced to learning through problem solving. They were read a story and asked to overcome an associated problem. The questionnaire assessed children's literacy learning through problem solving, and educators' frequency of using it. Educators recognized that learning was stimulated. However, few of them regularly used it. Reported reasons for this were organizational problems and pressure of State Learning Standards. To increase problem solving, it is recommended educators attend professional development workshops that focus on learning theory, problem-solving activity and meeting State Learning Standards.

## AUTHOR BIOGRAPHY

Heather Bridge is an Assistant Professor teaching Early Childhood courses to student teachers. Her Early Childhood experience is grounded in running her own nursery in the UK. Her professional interests include Early Childhood curriculum development, student teachers' Practicum experiences and professional development workshops for cooperating teachers.

## Introduction

Problem solving is recognized as a valuable teaching and learning strategy that can be used with children of all ages and across content areas in the elementary curriculum (Krulik, 1998; Williams & Hmelo, 1998). This paper is primarily aimed at early childhood educators, who as they observe young children, are likely to see examples of their problem-solving ability. Many children between the ages of 3 and 8 years are able to solve complex problems in play. In this paper, the results of a questionnaire given to a group of early childhood educators about the use of story to promote problem-solving activities for children are presented. The results suggested that even when educators knew of the value of problem solving activity, few used it regularly. The reasons appeared to be related to their initial training that affected their perceptions of children's problem solving ability; organizational difficulties in their settings; lack of time; insufficient resources; safety issues, and the perceived pressure of State Learning Standards.

### *Definition of problem solving activities*

Problem-solving activity is defined by Catherwood (1995) as: "Using cognitive processes to combine or associate information towards the achievement of some goal or solution to a problem, as in logical deduction, or finding a novel solution to a problem, as in reasoning or thought" (p.40). In this paper, problem-solving activity is reading a problem-based story to a group of early childhood educators and asking them to work out ways to solve the problem in the story. The story that was read to the educators and the associated activity that they attempted could be carried out with children aged 4 to 5 years. Story telling is only one of many possible ways to create problem-solving activities in the early childhood curriculum.

***The literature on children's problem solving***

One underlying learning theory has suggested to educators that children's problem-solving abilities are affected by context, language and socialization. Vygotsky's (1978) theory of social constructivism has influenced the ways in which early childhood educators understand how context has an impact on young children's problem-solving ability and on their own teaching. Vygotsky viewed children's problem solving as a social and emotional activity that best took place through interaction with peers and educators. Vygotsky's concept of a Zone of Proximal Development drew attention to the importance of maximizing children's problem-solving ability by aiming not at what they do alone but by what they can do with the assistance of others. However, if the quality of social interaction in early childhood settings is central to young children's effective problem solving, then the nature of that social interaction has to be made explicit. Bruner (1980) suggested that educators interact with children by scaffolding their activity so that supplementing, orchestrating and highlighting critical features help children to achieve what they otherwise would not be able to do. Such scaffolding is dependent upon educators modeling desired actions and high quality conversations between children and educators, which do not occur as often as they should.

Rogoff & Watsch (1984) further developed Vygotsky's theory of social constructivism by emphasizing not only the social but also the cultural dimension of children's problem-solving ability. She suggested that through "guided participation" with educators and peers, children are more able to engage in problem solving. The impact of culture on children's learning is evident. However, in order for early childhood educators to best understand how culture can affect children's problem-solving ability, it is necessary for them to regularly communicate with children's families. As increasing numbers of young children's family members work, the opportunities for educators to have regular and direct contact with them is reduced.

Paley (1990) extended educators' understanding of the theory of social constructivism in the early childhood curriculum. She observed how young children attempted to solve real classroom problems in their socio-dramatic fantasy play. Paley observed a problem concerning children not clearing up after their play. When Paley discussed the problem with the children, they suggested that tunnels and trap doors would catch those children who tried to avoid clearing up. Although Paley tried to bring the children and the problem back to reality, they persisted in their perception of the problem and of the solution. Paley's observation demonstrates how young children's problem solving, social construction, fantasy play and perception is connected and therefore has important implications for the ways in which children learn. However, opportunities for play-based intellectual development could currently be at risk, in early childhood settings where demonstrated learning outcomes for even the youngest children are now demanded.

Problem solving is known to be a successful teaching and learning approach throughout the early childhood curriculum. Conezio and French (2002) described how social interaction during small-group science investigations stimulated children's questioning and language development. The science investigations enabled children to overcome real problems that were relevant to their everyday experiences. Although such problem-solving activities offer children challenging learning opportunities, the effectiveness of them depends upon early childhood educators who have sound scientific knowledge themselves. It is reported that many early childhood educators who also are predominantly women, are not confident in their scientific knowledge (Browne & Ross, 1991). As a result, they may be reluctant to teach science or use science-based problem solving strategies in the early childhood curriculum. However, not all problem-solving activities need be science-based. Problem solving also includes a



creative element both in the ways teachers plan such activity and in the ways children respond to it. This creativity enables educators and children to use their imagination in the early childhood curriculum. Cooper and Denver (2001) reported how socio-dramatic play that involved children creating a card shop presented them with problem-solving opportunities for card design, composing messages and devising displays that supported their general literacy skills, especially their emergent reading and writing. Neeley (2001) explained how music times presented children with problem-solving opportunities to make up their own music and have “musical conversations” that supported their listening, musical composition skills and language development.

Isenberg and Jalongo (2000) stated that teaching young children through problem-solving activity is a highly skilled and creative process. They cited four criteria for effective problem-solving activity in the early childhood curriculum: (1) the activity must allow children’s self-expression; (2) the problem must be relevant to children’s interests; (3) educators have to be open to children’s ideas, and; (4) educators have to allow non-traditional approaches to problem solving. These criteria suggest that educators should work permissively with children during problem-solving activities, enabling them to think up their own original and diverse solutions. Although such permissive approaches may be best for children’s learning, they can require that educators relinquish their control over children’s learning because they will not know the outcomes ahead of time. Although an open-ended approach to children’s problem-solving is likely to have support among those early childhood educators who use “developmentally appropriate” practices, it may be under threat because of State Learning Standards that call for more exact and measurable learning outcomes.

### ***The Conference***

This paper is based on a workshop presented at a National Association for the Education of Young Children (NAEYC) conference. The theme of the conference was: *"Children and Creativity"* and was aimed at increasing early childhood educators’ awareness of children’s creativity in the early childhood curriculum, particularly at a time when more formal academic learning is often emphasized. The educators worked in a variety of private, community, state and federal settings in a local city and in neighboring rural counties. The workshop had two aims: (1) to enable early childhood educators to participate in a story-based problem-solving activity, and, (2) to ask the educators to complete a questionnaire about using problem-solving activities in their settings.

## **Survey of Early Childhood Educators**

### ***The Pre-school Educators***

Twenty-one female early childhood educators attended the workshop. Their questionnaire responses revealed that they had worked in settings for varying lengths of time: under 1 year (4); 2-5 years (7); 6-10 years (8); 11-15 years (2). The educators held a variety of qualifications for their jobs as educators that included: high school diploma (10); associates degree (6); associates degree in early childhood education (3); bachelor’s degree (1); bachelor’s degree in early childhood education (1). Around 50% of educators had not gone on to higher education nor had they received training that was specific to early childhood education. The other 50% had received higher education. Only about 25% of all educators had early childhood qualifications. This data suggested that few of the early childhood educators were specifically trained for the age range with which they worked. The educators worked in a number of different positions in early childhood settings: teacher (4); assistant teacher (5); classroom aide

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(9); carer (3). The more highly qualified educators, including those specifically trained in early childhood education, had teacher roles. Conversely, unqualified educators were more likely to work as aides or as carers in early childhood settings.

The educators worked in a variety of early childhood settings: day care (2); preschool (6); private kindergarten (1); pre-k (7); nursery school (2); home (3). All these settings cared for children between the ages of 3 and 5 years. Some early childhood settings provided full-day care whereas others provided half-day care. The settings were funded in different ways: through fees; federal; State and “not for profit” funding. The more highly qualified educators tended to work with 4 year-old children in State funded pre-k programs, whereas less-qualified educators tended to work with younger children in private and federal programs.

### ***Research approach***

In view of the literature review findings that suggested that problem-solving activity was an effective way to support young children’s learning, the aim of this study was to carry out an exploratory study that gathered the responses from a small group of early childhood educators about their use of problem-solving activity in their settings.

The educators listened to the problem-based story "*The Lighthouse Keeper's Lunch*" by Rhonda and David Armitage. Mr Grinling, the lighthouse keeper, faced a problem. Each lunch time, Mr Grinling waited for his lunch-basket to arrive. But as the lunch basket came across on a wire from his cottage to the lighthouse, seagulls descended on it. When Mr Grinling got the lunch basket, the food had been eaten by seagulls. Mr Grinling wracked his brains for ideas that would prevent the seagulls from eating his lunch.

### ***The problem-solving activity***

The educators were asked to work in groups of 4 or 5 to think up ways to solve the problem in the story. The groups of educators used a range of materials to prepare lunch baskets and make them seagull-proof. Upon completion of the problem-solving activity, the educators placed their problem-solving artifacts on a diorama that was set up in the workshop room. The artifacts included: a lunch basket with a fishbowl placed on top of it so that the seagulls could eat the fish instead of the lunchbox; a lunchbox that was disguised as a seagull; a lunchbox with spikes sticking out over it preventing the seagulls from landing on it; a lunchbox covered in tin foil that reflected the sun into the seagulls’ eyes to prevent them from seeing properly; and, a lunchbox that had a cat sitting in an attached basket that would frighten them away. The diorama was created so that the different artifacts could be compared by educators and considered for implications on teaching.

### ***Results of the Questionnaire: educators views of story-based problem solving activity***

All twenty-one educators said they would be prepared to use a story to promote children’s problem solving in their classrooms. The educators mentioned many ways that story-based problem solving could promote early childhood children’s learning:

1. **Stimulation of children's cognitive development.** Educators said that children would have to understand the story in order to decide what a deterrent is. Children would have to consider cause and effect to plan for a deterrent that worked. They could solve problems by drawing on their own knowledge of deterrents, but they could also think up fantasy ideas. Educators thought that children would have to make decisions about the use of materials they would need for the



deterrent. The activity encouraged children to be divergent thinkers, brainstorming as many possible solutions could work. They would have to reason and predict what might happen based on their understanding of the problem. Educators thought that problem solving would encourage children's concentration and persistence.

2. Promotion of children's social development. Educators said that the problem-solving activity would enable children to have extended interaction in groups. They thought that when children worked together opportunity existed for them to hear each other's ideas and to have a group identity. By having to work cooperatively in groups and share materials, children would learn to compromise.
3. Provision for children's emotional development. Children would be able to feel confident about their input to the group. Educators liked how children's self-expression would be fostered, and they mentioned the importance of honoring children's independence during activities.
4. Support for children's language development. Educators thought that problem-solving activities would give rise to "quality talk" amongst children. Such talk included children asking questions and expressing ideas to overcome the problem. The opportunity for children to listen to each other would be crucial to the development of language and comprehension. This was seen as particularly valuable for children with delayed language and for those who spoke English as a second language.
5. Development of children's creativity. Their imaginations would be fired by the story and by having a choice of materials to choose to work with. Children working in a group would have the opportunity to invent something as a group effort. Educators thought that a "hands-on" experimental approach would enable children to predict how well their solution worked.
6. Development of children's physical skills. As children manipulated materials and tools, educators thought that their fine motor skills would be developed.

### ***Results of the questionnaire: educators' roles***

When asked what part educators played in story-based problem-solving activities, they identified a number of professional roles including supporters, talkers, assessors, and supervisors. These roles are described in more detail below.

1. Supporter of children's learning was thought most important. This took the form of re-reading the story to children, being participants in groups, providing encouragement and guidance to children, and providing resources. Although educators saw themselves as part of the group, they did not see themselves actually doing the activity with children.
  2. Talkers. The educators said they would ask children to explain what they were doing in the activity and how they were solving the problem. The asking of "open-ended" questions that invited children to respond in many possible ways was seen as important.
  3. Assessors. Some educators said that they would observe children during the activity. They would evaluate how well they perceived and responded to the problem. They also said they would listen to children as evidence of their thinking during the problem-solving activity.
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4. Supervisor. A small number of educators saw their role as supervisor, when they would be directing children's behavior. Educators did not identify a traditional teaching role such as instructing or leading the activity.

### ***Results of the questionnaire: frequency of problem-solving activity***

The educators were asked how often they organized problem-solving activities in their settings. They chose from three possible alternatives: often - once a month; occasionally - once a semester, and; rarely - once a year. Although all the educators had said that they would be willing to use problem-solving activities in their classrooms, few in the sample regularly did. It is possible, but unlikely that the educators were unfamiliar with problem-solving activities.

There was a relationship between the training of the educators and their frequency of using problem-solving activity. The four educators who used problem-solving activities often (not necessarily always story-based) were the one teacher with a bachelor's degree in early childhood education and the three assistant teachers with associate degrees in early childhood education. Two of these educators had worked in early childhood education for 11-15 years and the other two had worked between 2-5 years. From these findings, early childhood educators' early childhood training and what type of setting they worked in appeared to be factors that may explain their frequent use of problem-solving activities in their settings. The length of time they worked in settings may also be important but not as influential as their training. However, further research would be required to validate these claims. Three of these educators worked in State funded Pre-K classrooms and one was an assistant teacher in a nursery school. Early childhood educators who used problem-solving activities frequently were all specifically trained in early childhood education and all but one of them worked in state funded Pre-K classrooms with 4 year-old children where State Early Literacy standards were included in the curriculum.

The seven educators who said they used problem-solving activities occasionally tended to have higher educational qualifications, but were not in early childhood education (in subjects, such as mathematics, psychology and criminology.) These educators worked as teacher, assistant teachers and carers in a variety of privately funded settings. This suggests that these educators may not have had the specific early childhood education training necessary to understand how early childhood children best learn. As a result, their teaching approaches may have been restricted.

Around half of educators rarely used problem-solving activities. These educators had more modest educational qualifications and tended not to go on to higher education. Their qualifications were not specific to early childhood education, suggesting that they were not specifically trained for the job they did. Many of them had worked in early childhood settings between 6 to 10 years suggesting that they were experienced educators, but not well trained. These educators worked as classroom aides and assistant teachers in all types of early childhood settings. They often worked in classrooms with 3 year-old children. The reasons why educators organized problem-solving activities with the frequency they did are described below.

### ***Educators who used problem-solving activities "often"***

All the educators who used problem-solving activities "often" thought that it was a beneficial learning strategy for all children, irrespective of ability. They all commented that problem-solving activities encouraged children's free-thinking and decision making in play. Some made the point that pictures in the book, rather than the words of the story would help children understand the problem more clearly and think up solutions (Newton, 1994). One felt that children's concentration was developed by



these activities. These educators thought the early childhood curriculum was enriched and made more challenging through problem-solving activities. Some of these educators mentioned that problem-solving activities created good opportunities for child observation and assessment. These educators did not always use a story as a starting point for problem-solving activities but instead used socio-dramatic play and the acting out of conflict resolution.

### ***Occasional users***

The educators who said that they used problem-solving activities occasionally thought that, although it was a valuable approach to children's learning, not all children were able to attempt it. Some of these educators said that they considered supporting children's problem solving in their own free-play to be more appropriate than problem-solving activities that were planned by educators. Others thought that some children were too young or inexperienced to understand problem solving, and were not able to come up with solutions of their own. Another factor that was mentioned by many of the "occasional" users was that problem-solving activities were unrelated to Early Literacy State Learning Standards. These educators felt under pressure to concentrate more on structured literacy activities, in the form of phonics and alphabet recognition that they thought prepared children for Pre-Kindergarten and Kindergarten classes. Although the "occasional" users saw reading stories as very important to the development of children's literacy, they did not see using stories to stimulate children's problem-solving skills as part of that literacy development. It appeared that the occasional users who did not have specific early childhood training may not have had sufficient professional understanding of the Early Literacy State Standards and how they can be used appropriately in early childhood settings.

### ***Rare Users***

All the educators who rarely used problem-solving activities recognized its learning potential, but they did not organize such activity because it required too much preparation time on top of what they already had to do. The lack of long, unbroken blocks of time during early childhood sessions was identified as another constraint. Many thought that children's restless behavior and poor concentration were reasons for not using problem-solving activities. Others were concerned about safety issues regarding children's handling of tools and materials. They said that scarce materials made it difficult to work in this way. Many of these educators also said that they felt academics, particularly "reading" to be more important in the early childhood curriculum. They also mentioned getting children ready for Kindergarten by taking account of State Learning Standards for literacy even though they did not have to. Again, inadequate early childhood training may account for the educators' lack of professional understanding about how State Literacy Learning Standards can be used in ways that benefit children's literacy development.

## **Discussion**

### ***Limitations***

Although this exploratory study presented a picture of a group of early childhood educators' problem solving practices, care must be taken in the interpretation of the findings. On account of its design, the study had limitations because of the small number of early childhood educators who participated and because only one of them was a certified early childhood teacher. The findings could be quite different if the study included a larger and more highly qualified group of early childhood educators.

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Also, the study took place in one city in a rural area of New York State and findings represent this particular group in this area at this time. Findings could be very different in other locations. Although the study revealed some useful insights into the thinking and practices of a group of early childhood educators, generalizations about early childhood educators and their practices must not be made from this study.

### ***Educators' perceptions about the early childhood curriculum***

All the early childhood educators in the study were aware of the value of problem-solving activities for children's development and learning. With some reservations, the educators approved of the materials and tools that children would handle during this activity. They were clear about their own roles in the activity. Despite these positive attitudes, most educators did not often use story-based, problem-solving activities in their settings, although it is possible that they may have used other forms of problem-solving activities. This suggested that although some early childhood educators knew problem solving to be beneficial for children's learning, they did not use it in their practice. One reason for this appeared to be connected to some early childhood educators' initial training (Spodek & Saracho, 1990). Those educators with early childhood training appeared confident about using problem-solving activities more often than those educators who were less specifically trained in early childhood education. In contrast, the educators whose initial training was not in early childhood education used problem-solving activities only occasionally. They tended to view children in more negative ways, emphasizing what they could not do. These educators' perceptions may change if they were to model successful problem-solving strategies to children and support their growth within the Zone of Proximal Development.

### ***Promoting Problem solving in Early Childhood Education***

Both structured and unstructured problem-solving activities can effectively support young children's all-round development, including their literacy development. The opportunities that young children have to support their early literacy development are known to have important implications for their later literacy development (Pelligrini & Galda, 1982; Jacob, 1984; Morrow, O'Connor, & Smith, 1990; Morrow & Rand, 1991; Pelligrini & Galda, 1993; Christie, 1994). Publications can help early childhood educators plan successful problem-solving activity in their classrooms (Katz & Chard, 1989; Britz & Richard, 1992; Isenberg, & Jalonga, 2001.) These writers encourage early childhood educators to develop positive dispositions towards children's problem-solving abilities and perceive them as capable problem solvers. For instance, educators can develop a "critical stance" in their teaching so that they intentionally plan for problem solving in their classrooms. They can recognize suitable scenarios and know how to turn them into problem-solving activities for children. Also, educators can plan for problem-based conversations so that children regularly pose investigative questions and state their opinions. Children's own ideas can be incorporated into problem-solving activity so that purpose is shared and made meaningful to them. Children also can solve problems in their own ways and at a variety of levels to reflect diversity in their thinking. A workshop environment that enables children to successfully attempt problem-solving activity can be created in settings. In addition, a relaxed approach to time management is recommended so that children have large blocks of time that enable them to play and continue working on their problem-solving strategies from day to day. The workshop environment can allow children adequate space to play out and create their problem-solving strategies. Adequate space for them to work on the floor and to store their problem solving artifacts is important. The workshop environment thereby provides children with a wide range of open-ended materials that enable them to represent their unique

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ideas. Materials and tools should be clean, safe, accessible and in sufficient quantity. Children should be able to move and combine materials in ways that fulfill their problem-solving purposes.

### ***Using Children's Literature for Problem Solving***

Children's literature can be used as an effective starting point for problem-solving activity by both educators and children. Nursery rhymes and traditional fairy tales can create good problem-solving activity for young children. Educators can refer to the Miami University Digital Resource: Children's Picture Book Database at [www.lib.muohio.edu](http://www.lib.muohio.edu) for children's literature that lends itself to viable problem-solving activity. In addition, the story by Pfister (2000) *The Rainbow Fish* enables children to suggest ways the loveliest but loneliest fish in the ocean can make friends. Armitage (1998) *The Lighthouse Keeper's Catastrophe* gives children the opportunity to devise ways to recover a lost key. Butterworth's (2003) *After the Storm* enables children to create new homes for animals that were destroyed in a storm. Oran and Partis (2003) in *The Good Mood Hunt* give children the chance to collect items that put them in good moods to create a perfect day. Such books enable educators to create problem-solving activity that is developmentally appropriate for young children (Cline, 2001), benefits their literacy development (Steinberg, 2001), and effectively supports New York State English Language Arts Standard 3: Students will read, write, speak and listen for critical analysis and evaluation.

### **Conclusion**

This small-scale exploratory study suggested that the sample of educators who attended the NEAYC Creativity workshop and filled in the questionnaire recognized the value of story-based problem solving activities in the early childhood curriculum. However, few of them often used problem solving in their settings. This was due to a number of factors that influenced their practice in early childhood settings including the quality of their initial training that affected their knowledge of children's learning and how state literacy standards for children in Pre-kindergarten – grade 3 could be effectively used in their settings.

Most educators, parents and policy-makers want the highest standards in all areas, rather than in particular areas of the early childhood curriculum. However, how state standards are met and why some subject areas are emphasized over others has to be questioned. It would appear that many young children do not always get the early childhood educators that they need and deserve. Many in the study did not have sufficient training to fully envisage children's learning, to effectively meet State standards for English Language Arts or to use problem solving to promote children's literacy development. As a result, there is a need for more funded professional development opportunities for early childhood educators who are not well trained but work in settings now. With secure early childhood training, educators are more likely to implement an early childhood curriculum that features creative problem-solving activity and meets State Learning Standards appropriately. The early childhood education community can then be optimistic that children's early learning is well supported by skilled and knowledgeable professional educators.

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### **Appendix 1: Questionnaire to Educators**

#### The Lighthouse Keeper's Lunch: Problem-solving Activity

1. How long have you taught in settings? (check one)  
Under 1 year; 2-5 years; 6-10 years; 11-15 years; 20+ years
2. What qualifications do you have to work in settings? (check one)  
High school diploma; associates degree; associates degree in E.C.E.; bachelor's degree;  
Bachelor's degree in E.C.E.
3. What is your job in the early childhood? (check one)  
Teacher; associate teacher; classroom aide; carer
4. What sort of early childhood setting do you work in? (check one)  
Day care; early childhood; private kindergarten; pre-K; nursery; home.
5. Would you use a problem-solving activity in your classroom? Yes/ No
6. What type of classroom do you work in?
7. Do you think problem-solving activities help children's learning? Yes/ No  
Explain your answer.
8. What skills did you use in this problem-solving activity?
9. What did you think about in order to solve the problem?
10. What other resources would you have liked to do the problem-solving activity?
11. What part would you, as the educator play during this problem-solving activity?
12. How often do you use problem-solving activities in your classroom?
  - o Often – once a month
  - o Occasionally – once a semester
  - o Rarely – once a year
13. Explain your frequency of using problem-solving activities?



## **“It’s the fieldwork”: A Reflective View of Supervised Fieldwork in a Graduate Literacy Program**

*Reva Cowan and Erin McCloskey*

### **ABSTRACT**

This article presents views of course-embedded fieldwork as a structure to facilitate connections between research and practice for teacher candidates in a graduate literacy program. Four major categories emerged from the group interview with the graduate students. Teacher candidates related that course-embedded fieldwork was valuable because it allowed them to apply research to practice, approach learning as an active endeavor, have the opportunity to learn from peers by seeing them at work, and have the opportunity to plan together. The data were collected in an emergent literacy class, but the implications for scaffolding teachers and collegial relationships range across the educational landscape.

### **AUTHOR BIOGRAPHY**

Reva Cowan is an assistant professor in the Division of Education at Mount Saint Mary College and a former reading specialist in the Poughkeepsie City School District.

Erin McCloskey is an adjunct professor at Mount Saint Mary College, a special education teacher in the Kingston City School District, and a doctoral student at the University at Albany, State University of New York.

Can graduate literacy programs make connections between theory and practice so that the ivory tower and the chalkboard work together to develop knowledgeable teachers who understand both the how and the why of effective instruction in literacy? How can incorporating course-embedded fieldwork be a structure that supports the development of effective literacy teachers? Does modeling effective practices help teachers develop instructional knowledge? We wondered about these questions as we planned for a graduate emergent literacy course prior to the semester beginning. As teacher educators and elementary school teachers, we wanted to support the theory-practice connections as we planned and taught the course. In this article we will explore some of the issues about course-embedded supervised fieldwork that emerged as significant while we reflected with students after the course ended.

There is a recognized need to incorporate research findings into teacher practice at the preservice level so that acknowledged research forms the bridge to, or grounds effective teacher practice (Darling-Hammond, 1998; Smylie & Kahan, 1997). However, at the master’s level, which is mandatory in our state for professional teacher certification, there is an even greater need for connecting theory and practice. Requisite fieldwork and/or a practicum at the graduate level are often ways that colleges help teachers refine their practice and make connections to theory. There are typically two ways this work with pupils takes place. One model is to have graduate students fulfill fieldwork requirements independently of the graduate class, with the final practicum being the only supervised experience. An alternative model is to have supervised fieldwork embedded into the courses leading to a final supervised practicum. The second model of course-embedded supervised fieldwork is the one followed at the college where we work. The emergent literacy course we taught was one of many required classes with course-embedded fieldwork leading to the final supervised practicum. Thus, students in this program complete many hours of supervised fieldwork before taking the capstone practicum class.



Many teachers have reported that one of their primary sources for instructional knowledge comes from their own lived experiences with children (Borko & Niles, 1982; Cowan, 1999; Guskey, 1986; Scharer & Detwiler, 1992). One finding of importance in the literature is that teachers are more likely to change practices and beliefs about literacy instruction if the research presented to them is accompanied by valid practices. Modeling suitable research-based practices for implementation with students supports teachers' change in practices (Cowan, 1999; Guskey, 1986; Morrow, 2003; Richardson, Anders, Tidwell, & Lloyd, 1991; Scharer & Detwiler, 1992). However, once teachers leave the questioning context of the undergraduate college classroom, they rely more heavily on lived experiences as the source of knowledge rather than the research literature (Hargreaves, 1993; Lortie, 1975). It is therefore vital for colleges to foster teacher knowledge and reflection about practice in graduate literacy programs (Anders, Hoffman, & Duffy, 2000). In addition, colleges should try to develop teachers' understanding of the benefits of supportive teaching communities to combat the tendency toward isolation in the classroom (Hargreaves, 1993; Morrow, 2003). Other studies have shown that improved pupil learning supports teacher changes in knowledge when new practices prove to be effective with children (Guskey, 1986; Scharer & Detwiler, 1992).

## Study Background

The data for this study were gathered during the 2002-2003 school year. Graduate level students in two sections of an emergent literacy course were the study informants. The authors of this article were the instructors. The graduate courses met at a magnet school featuring bilingual classes at each grade level. Additionally, a significant part of the pupil population comes to the school from the nearby inner-city. This setting provided the graduate students an opportunity to work with a diverse group of children.

During the class, supervised fieldwork was the focus of the first hour. The tutorials took place in a very large cafeteria in which there were forty long trestle tables. Thus, there was room for graduate students to work near one another, or to work separately from each other.

Parents return the children to school for a weekly enrichment program. Every week, when the tutorials began, graduate students greeted the assigned emergent literacy learner and his/her parent or caregiver who brought the child for the tutorial session. The pupils were either in kindergarten or first grade. Some graduate students were paired one-to-one with a pupil, while others worked in pairs, and sometimes triplets. The remainder of the class was a seminar type discussion that focused on the graduate students' tutoring, a discussion of the weekly assigned readings, and the modeling of appropriate emergent literacy strategies.

On the first and last days of class, the graduate students filled out a questionnaire that asked if they would be interested in further discussing their experiences at a follow-up meeting when the course was completed. Eight students, approximately 20% of the students in the classes, met with us three months after the semester ended for a group discussion. The tape recordings of the group discussion were transcribed, coded, and analyzed for categories and trends in the data (Strauss & Corbin, 1990).

Originally we coded the data into the following eight categories: comparisons to undergraduate studies and experiences, collaborating as a professional need, negotiating while working with peers, working and planning with other teachers, working in school communities, learning from peers, comparing classes without fieldwork, and transitioning from supervised fieldwork to the classroom. Then we collapsed the original eight categories into four major categories. The four categories were: applying research into practice, the importance of active learning, the advantage of seeing peers at work, and the opportunity to plan and work with peers.



Although graduate students began the course with a visceral, almost gestalt understanding of emergent readers, the students were not familiar with specific knowledge or supporting practices relating to areas such as phonemic awareness (Yopp, 1992), concepts about print knowledge (Clay, 2002), developmental writing (Dyson, 1995), or interactive writing (Fountas & Pinnell, 1999). These concepts were part of the assigned readings, and were also addressed in class discussions. Additionally, sustaining practices were modeled during fieldwork and in class.

## **What We Learned**

While we believed at the outset that there are advantages to course-embedded supervised fieldwork, we were unsure of how graduate students would evaluate the experience. The follow-up interview session offered the opportunity to gauge reactions from a variety of students in a collegial discussion. Since the class had concluded and course grades had been given more than three months previous to the meeting, students were encouraged to speak honestly and not respond in ways they believed we might want to hear. The forum was an open discussion between the graduate students with the instructors acting as facilitators.

We were interested in how the graduate students spoke about the fieldwork experience and how, or if, it translated to their professional and personal lives. Approximately half of the graduate students were already teaching in full time jobs including classroom teachers, special education teachers, and inclusion teachers. Others were substitute teachers and full time students. Those who were teaching taught a variety of grade levels from kindergarten through high school. The following sections represent excerpts from our discussion and present the reflective views of the graduate students regarding this supervised fieldwork. Pseudonyms represent each graduate student and their tutees throughout this article.

### ***Applying Research to Practice***

Our own lived experiences had offered us a chance to understand good practices from the viewpoint of teachers, as well as academics. We hoped to share that enthusiasm for the bond between research knowledge and the classroom with the teachers enrolled in the course.

We wondered if supervised fieldwork would help our students make connection between research and their own practice. An example of the graduate students reflecting on their learning was evidenced by Martha. Martha was a first grade teacher who enthused about the new practices she was learning to support her understanding of phonemic awareness. One of Martha's comments spoke to the importance of connecting research to practice, and to the positive effect on teacher learning when students react affirmatively. She discussed learning about segmenting sounds with the strategy described to pupils as rubber-banding (Yopp, 1992).

I would go back after class and say, 'OK, guys I learned something new.' And their [first grade students] favorite thing was rubber-banding a word [stretching the sounds]. We did every word. They thought that was the best and I would take the quick little things that I was learning in class and bring it back to first grade. It was great to see that it would get an immediate reaction from the kids.

We encouraged the graduate students to use practices learned and modeled in our classes in their work with the emergent literacy learners in the fieldwork. For example, Marisol, a fourth grade teacher,

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found the concept of phonemic awareness new to her. Marisol reflected on learning about phonemic awareness and supporting practices. She said, "It worked differently for me because I [teach] fourth grade and emergent literacy was new for me. It gave me hands on [experience] because Dashawn [tutee] was in kindergarten and was not a very good reader. He was having a very difficult time. So I really had to go back and try to figure out what I was going to do with him to get him into phonemic awareness because he was really having a hard time even recognizing his letters that we had been working on, and working on, and working on. He did not know alliteration and he had a hard time rhyming. It was a great learning tool for me."

Kelly summed up the discussion of connecting research to practice by saying, "I think fieldwork gives you the opportunity to then apply what you were taught by both our professors and the book. I feel that without it, I might know it and it might be in my head, but I haven't had the opportunity to do it myself, to critique it myself. I feel like without the fieldwork and without the opportunity to apply what I was learning, it would almost be like teaching to the test, or learning it for the course, learning it for the final grade."

### ***Active Learning***

Active participation was highly relevant to teacher learning, as well as to pupil learning. Carole further emphasized the role of course-embedded fieldwork in her learning when she contrasted it to a class she was currently taking that involved observing pupils, but not providing instruction to pupils through fieldwork. She stated, "It just isn't the same. I mean it's good to actually see them in action [in a classroom], it's a little easier to learn by doing."

Naomi, a full time student, supported the concept of active participation when she said, "Like children need manipulatives and hands-on experience, it's just the same for us in fieldwork. We need to work with children and have those experiences, actually visualizing it. Especially for me because I just know that a lot of you have the experience all day long."

Meg, another graduate student who was not a full time teacher, suggested that supervised fieldwork helped make the modeled strategies more accessible to the graduate students because of the opportunity to use the strategies. She stated, "I felt in class time, maybe because you did [modeled in class] a lot of these things that we talked about and seeing that, it's much clearer than just hearing about them."

### ***Seeing Peers at Work***

Graduate students commented about the opportunity to see their peers at work and to learn from each other as well as from the professors. Learning for adults presented as a social construct that was as important to the graduate students as it is for children (Vygotsky, 1978). The following exchange highlights the ascribed benefits of these opportunities. It begins with us trying to recap the comments that had been offered.

Reva said, "So if I'm hearing you, then what you're saying is, you have this ready-made peer group who..."

Marisol, "interact and support one another."

Kimberly added, "Or even just to see it [a colleague's practice], even across the room. Wow, look at that over there, how am I going to use it? And say [to yourself], Look over there, see what they're using."



Marisol continued, "How many times would we slide over and look at something and say, 'Ooh, that's really great, where did you get that idea?' It really worked, it was fun, and it was a nice way of supporting one another. It was a good learning experience."

Martha related fieldwork to working in a school setting. She stated that seeing some of her fieldwork peers teaching inspired her own practice when she said, "Plus, it's kind of like a real-life situation. When you're in a school setting, there are other faculty members that you can bounce ideas off of. And another teacher you can say to, 'Have you tried this with this kid? You had him last year. What can I do to get through to him?'"

Marisol further commented on comparing fieldwork to actual school situations by saying, "Bouncing ideas off of your co-workers is a great way to get information without having to wait all year to figure something out."

While we knew graduate students would gain knowledge from the class, we underestimated the opportunity provided by seeing other teachers at work. The students welcomed the opportunity to develop practices by observing their colleagues and by adopting and adapting observed instructional practices.

### ***Opportunity to Plan and Work with Peers***

The class structure supported a short period of time when the graduate students were encouraged to reflect and plan with each other (Hargreaves, 1993). There was a brief period of time at the end of fieldwork and before the formal class began when graduate students could confer with each other. We discussed the option of working and planning with a peer in fieldwork. Marisol commented on this time by saying, "The peer interaction before, during, and afterward was a real part of it [course learning] too. Because of that time that you would meet afterwards, right before we would get together to continue instruction when we were at the table discussing everything, we would say, 'And what happened? And what are you going to do next time?'" And I'd get an idea, and we would come up with [our plan for the next session]. So, you know, groups would help each other. Not just with support, but with ideas. So, that peer interaction was really great also."

Kelly, a special education teacher, indicated her awareness of the trends toward inclusion and teaming in classrooms by stating, "I think it's important for teachers, new teachers, to get used to working with one another. That's where education is going right now with all of these inclusion classrooms and everything else. You need to have that rapport with two teachers. It's so important."

Martha further compared the collaborative stance in fieldwork to the actual classroom by responding, "You're not working by yourself, you have teachers coming in and out of the classroom like for special ed, you know they're in and out, you have to work together."

While the opportunity to work with a peer in fieldwork was an option, Kelly suggested perhaps it should be mandatory if it is to be like the world of schools as she has experienced it. Kelly commented, "But I also think you're almost forced to work with these other people, whether you like to or not. That's why it might be important, or more realistic, for the professors of the class to pair people together. Rather than people picking because if I could pick my related services people, wow, what a team we would have. But, in a sense, that's just not how it works. You have to learn to get along with one another, and you have to somehow learn how to work with one another."



## Reflecting on our Findings

The trends that emerged from the reflective group interview indicated that the graduate students found value in connecting course knowledge to actual practice, in using strategies that were modeled in class, in the opportunity to see colleagues at work, and in the chance to plan and work with peers.

Our findings about the importance of planning, working, and reflecting with teaching colleagues are similar to the revised New York State teacher certification requirements as described in the mandated mentored experience for first year teachers. The regulations enable more experienced teachers to scaffold beginning teachers through activities which include "...modeling instruction for the new teacher, observing instruction, instructional planning with the new teacher, peer coaching, and time management methodology..." (New York State Education Department, 2003). Our conclusions and the new regulations are almost concurrent and seem to support one another.

Of course, a possible concern is that despite our efforts to hold this reflective discussion long after course grades had been received, our informants were students and we were professors. We attempted to resolve this issue of power by timing and the informal nature of the discussions. Our impressions are that the informants were being candid in their views. Further, this small group may be representative of people who enjoyed supervised fieldwork, or may not be representative of the classes.

Reflecting on the overall positive and negative aspects of supervised fieldwork in a graduate program, the overwhelmingly positive relationship forged between the college and the community and the children receiving supportive literacy instruction far outweigh the negative aspects. Further, as described, our informants state that their professional learning is enhanced by supervised course-embedded fieldwork.

Well prepared teachers lead to well instructed children. It is our belief that supervised fieldwork fosters this important knowledge and development of skills.

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## Book Review

### *Valuing Language Study: Inquiry into Language for Elementary and Middle Schools.*

*Elizabeth Yanoff*

#### ABSTRACT

Yetta M. Goodman's recent book *Valuing language study: Inquiry into language for elementary and middle schools* connects theory, research, and practical examples to demonstrate an engaging approach to the study of language in school. Through critical-moment teaching, strategy lessons, and theme cycles, teachers and students can thoughtfully and critically study language and learn how to better use and understand language in their lives.

#### AUTHOR BIOGRAPHY

Elizabeth Yanoff is a doctoral student in Reading at the University at Albany. She has taught both preschool and elementary school, and her current research interests center on young children's literacy in families and schools.

*Valuing language study: Inquiry into language for elementary and middle schools.*

Yetta M. Goodman, 2003. Urbana, Illinois: National Council of Teachers of English. 283 pp. Paperback. SBN 0-8141-5626-6. \$35.95 (\$26.95 members).

Every day we read, write, speak, and listen to many written and oral texts. As I sit at my computer composing this book review, I draw on professional books and articles, book reviews written by colleagues, a baby monitor, a telephone answering machine, a computer dictionary and thesaurus, a word processing program, and comments from my writers' group. These texts and more make up my literacy environment, and I have learned how to coordinate them to complete my work, this book review.

As English language arts teachers, we are charged with developing our students' language skills so they can accomplish their own tasks from book reviews to preparing for a job interview to designing a web page. Teacher-researcher Karen Gallas (2003) writes, "As a teacher, I cling firmly to the belief that every student who walks into my classroom should be offered the opportunity to deeply engage in the subject matter of every discipline. In other words, I want each student I teach to begin acquiring the many different discourses that will make him or her successful in school, and in life" (p. 16). Language is central to the discourses of school and life, and it is essential that students understand and be able to negotiate multiple languages and literacies. In *Valuing Language Study: Inquiry into Language for Elementary and Middle Schools*, Yetta M. Goodman uses a blend of theory, research, and practical examples to demonstrate for the reader an exciting approach to the study of language that fosters this kind of critical literacy.

Yetta M. Goodman, Regents Professor in the Department of Language, Reading, and Culture at the University of Arizona, draws on her experiences as a teacher, literacy researcher, and teacher educator in writing this book. Goodman's work has focused on teachers' and children's reading and writing processes including miscue analysis, and Goodman is often referenced for developing the term "kidwatching" to describe teachers' active observation and reflection about children and their learning. I was first introduced to Goodman's work as a college student when learning about the philosophy of



whole language, and Goodman continues to advocate for holistic approaches to language and literacy learning.

I was drawn to this book because of my interest in young children's literacy and inquiry approaches to education (see for example, Berghoff, Egawa, Harste, & Hoonan, 2000; Lindfors, 1999; Wells, 1999, 2001). Writing about this approach, Gordon Wells (1999) describes a "social-constructivist model of learning and teaching" in which teachers and students develop a "classroom community which shares a commitment to caring, collaboration, and a dialogic mode of meaning making" (p. 335). Communities of inquiry take different forms, but central to community life is an expectation that teachers and students are learning and teaching together. Respecting and engaging student and teacher ideas is important in guiding the learning/teaching activities within a community of inquiry, and in reading this book, I wanted to learn how Goodman viewed the study of language within this setting.

As I hoped, Goodman illustrates inquiry into language from her own and others teaching in diverse regular, special education, and English as a Second Language classrooms from elementary to middle school. This aspect of the book—multiple examples from varied sites—is a challenge to the reader looking for a scope and sequence for language study. Goodman writes, "Each chapter provides suggestions and examples that serve as a framework for teachers" (p. 45-46), but she suggests that classroom practices should be based upon the interests and needs of each classroom community. Readers, both experienced and new to the inquiry approach, might find it helpful to read this book with colleagues so the teaching ideas can be discussed and practiced with knowledgeable others. The extensive electronic and print resources in the book that Goodman suggests for further reading also provide support for teachers as they try the ideas in the book.

Goodman encourages dialogue and inquiry for students *and* teachers, and her voice is clear throughout the book. Borrowing from Emily Dickinson, Goodman says of *Valuing Language Study*, "This is my letter to the world", and Goodman asks readers to respond to the book by contacting her and sharing their experiences (pp. x-xi). As I read, I felt like Goodman was sharing with me her decades of experience and challenging me to look towards new ideas for teaching and learning. As I found myself "talking back" to her through my notes and this review, I gained knowledge about inquiry, children's literacy learning, and my own teaching.

### **Why study language through inquiry?**

In the first section of the book, Goodman explains why language should be studied and the importance of building on students' inquiries, their questions and interests. Writing of education and inquiry, Jerome Harste (2001) suggests, "Since we don't have the answers to the problems future generations will face, I don't think we can afford to 'train' children in the name of education. We need to give them tools with which they can outgrow us and yet help themselves" (p. 1). Goodman's book proceeds in this spirit. She views language study as a way of developing the "tools" students need to be successful consumers and producers of language. Goodman concludes, "Language study lets all students in on the possibilities of language use and analysis and allows them to understand their own power as language users in a democratic society" (p. 247).

In the first chapter, after a brief review of other language study curricula, Goodman proposes four "principles for a language study curriculum".

- Principle 1: Language is a powerful tool with which to think, to communicate with others, and to explore the universe.



- Principle 2: Language is best understood when it is examined in the context of human language events that occur in the real world.
- Principle 3: It is legitimate to use appropriate linguistic terminology when talking about and studying language.
- Principle 4: Language study needs to include the latest knowledge and questions that linguists raise about how language works and how it is learned (p. 9).

In this section and elsewhere, Goodman clearly defines the terms she uses and gives the reader resources to learn more. Here she describes the principles and how they should inform classroom practices before turning to how she has designed her language study curriculum. Building from current knowledge about language and education, Goodman suggests teachers engage in critical-moment teaching, strategy lessons, and theme cycles as they study language in the classroom.

Goodman provides general information in the second chapter about how lessons might cycle through perceiving, ideating, and presenting phases as teachers and students work together to become more aware of language. Inquiry, students' questions and interests, should guide the language study curriculum. Goodman writes, "Scientists' burning questions drive their investigations and lie at the heart of their inquiry. When students follow their own questions into an inquiry study with similar passion, they add dramatically to their learning about language" (p. 40). Goodman describes how teachers can use "kidwatching" (p. 43) and authentic assessments to learn about students' questions and understandings of language.

In the first two chapters, Goodman summarizes a lot of information about whole language philosophy and inquiry approaches to education. Readers new to these topics might find these ideas make more sense after reading the practical examples later in the book or after pursuing one of the resources for further reading that Goodman suggests. Readers more comfortable with this information will find themselves skimming these chapters and moving quickly forward to the next two sections of the book that focus on teaching and learning in classrooms.

### **How might you study language in elementary and middle schools?**

Goodman organizes language study into three kinds of teaching and learning experiences: critical-moment teaching, strategy lessons, and theme cycles. While she describes these experiences separately in the book, she sees them as interrelated and occurring throughout the study of language. As Goodman suggests, the book need not be read from cover to cover; teachers can read chapters as they seem relevant to the needs of the class. I read the book once for the "big" ideas, and then went back to certain sections for another reading and more information.

Goodman values critical-moment teaching and provides several examples of how teachers can be aware of and build upon students' interests in their instruction. She writes, "Critical-moment teaching is predicated on teachers listening attentively to their students and tuning into their questions and concerns, their wonderings and fears, their tentative beliefs, and the issues they raise" (p. 51). Goodman describes an example of critical-moment teaching when a third grade student, Bill Patton, told his teacher "'You know, Mrs. North, I need a sad mark to write about my pet. Remember my dog got run over on Halloween night in front of the school?'" (p. 56). Instead of telling Bill that no "sad" punctuation existed and moving on, Mrs. North replied, "'Bill, I don't think there are any sad marks, but maybe you could make one up'" (p. 56). Critical teaching moments may be brief or they may grow into strategy lessons and theme cycles. Bill went on to make up the "sadlamation point" and his interest caught on with his



peers causing the whole class to explore punctuation further (pp. 56-57). As a teacher, I've relished opportunities to listen to my students and their inquiries. I know that through this listening I have a better understanding of my students' thinking and how our teaching and learning should move forward. In this chapter, Goodman describes many more helpful opportunities and ideas for listening to and building upon student inquiries into language.

The goal of strategy lessons is to help students become more explicitly aware of language as the teacher guides the students to new understandings about language and how it works. For example, fifth grade teacher, Eliana Winston, plans a series of strategy lessons to help her students understand the role of reading and writing in their every day lives. First, Winston points to the very different kinds of reading and writing experiences students might engage in--from making a list to reading a novel. Next, she asks the students to write down everything they read and write for two days, one school day and one weekend day. Then the class combines and categorizes their literacy activities, and this information is used for varied strategy lessons that explore the importance and purpose for print in our lives (pp. 86-87). Strategy lessons are an opportunity for teachers to extend students' knowledge about language, and they may occur as a result of critical-moment teaching or may lead to or be a part of a longer study of language called a theme cycle. Goodman provides several examples of strategy lessons as well as resources for further study, and I will find myself returning to this chapter as I think about how to incorporate specific language lessons into units of study.

In the final section of the book, Goodman presents theme cycles for language study. Theme cycles are extended projects, which often begin with students' inquiries and build from students' experiences with language at school and in their communities. In theme cycles, students and teachers authentically research, use, and share their knowledge about language. Goodman provides examples of theme cycles focusing on language and linguistics, language and literature, and language as power.

As one example of focusing on language and linguistics, we are introduced to the seventh graders in Tracy Smiles' class who engage in studying language as a part of their social world, examining how they talk to each other in different situations and extending their research into their own lives by designing inquiry projects about their own language interests (pp. 153-156). In another example, focusing on language as power, Goodman describes Carol Crozwell's bilingual, Spanish and English, students "sidewalk safari." The primary students walked around their neighborhood in Tucson with clipboards and cameras examining the use of Spanish and English on environmental print. Students discussed the ways the two languages were used and discovered some discriminatory uses of language in their community (pp. 220-221). As with other sections of the book, Goodman presents many examples and resources for further study, and I found myself enthusiastic and ready to begin a theme cycle after reading these chapters.

## **Valuing Language Study**

Goodman's first principle of language study, that "Language is a powerful tool with which to think, to communicate with others, and to explore the universe" (p. 9), reminds us of the importance of language in our lives. Studying language through inquiry involves teachers and students in unlocking the mysteries of language and allows us to be more effective language users. Helen Cuffaro (1995) writes, "Inquiry is a means for coping with dilemmas in a manner informed by intelligence and imagination, a creative intelligence, which enables and empowers the person in living" (p. 66). Inquiry into language can "enable and empower" teachers and students.



After reading this book, I better understand what inquiry into language can be and how I can go about inquiring with elementary and middle school students. Read alone or with a group, *Valuing Language Study* presents enough practical examples for you to try language study in your classroom right away, and it also provides support for you to explore the study of language over time. I would recommend this book as a place to begin and to continue your own inquiry into language and language arts instruction.

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# Book Banter

Spring 2004

## 2004 Children's Literature Committee

Esther Berkowitz, Suzanne Cecil, Faye Cohen, Debbie Dermady,  
Tom Havens, Linda La Rou,  
Alice Sample (Chairperson)

### Primary

Children from 2 to 5 will enjoy the pull-tabs and sturdy pages of **Tails** (Harcourt, 2003) by Matthew van Fleet. The pages are filled with textured examples of animal tails such as a colorful peacock and a scaly pangolin—all meant to be touched. This interactive book will be read many times. Its use of animals from around the world will encourage children and parents to find out more about these unique animals, and so about the world, and its diversity.

Meet the mice of Mousapolis in **Dogzilla** (Holiday House, 2002), a delightful story by Dav Pilkey. Dogzilla has terrible doggy breath that can be smelled throughout the whole of Mousapolis. What are the mice to do? Their annual cook-off is going on and the wonderful aromas emanating from all the delicious foods are being ruined by Dogzilla's breath! This humorous tale will entertain readers (especially dog-owners) from 7 to 70!

**The Story of Kites** (Holiday House, 2003) by Ying Chang Compestine is a wonderful and informative book with lessons on how to make and fly a kite, along with hints on kite safety. And there is a story embedded in the book as well: The Kang brothers are workers in rice fields in China. Their job is to chase away birds. Each day they get exhausted doing this, and so dream up the idea of making wings so they can fly over the fields instead of running through them. Yong Sheng Xuan's illustrations add to the joy of reading this humorous book, created for readers from preschool to the middle grades.

"Busy" is the word used by Irene Kelly to best describe the little creature in her picture book **It's a Hummingbird's Life** (Holiday House, 2003). Of the 343 different types of 'hummers' which exist the author chose to follow the widely-admired ruby-throated bird. Nest-building and mating season for this species occur in the spring. Hatching the eggs and frantic feeding occupy the summer, and in early fall the long migration to Mexico or South and Central America begins. Winter is spent eating and getting ready for the trip back to the North for the spring and summer. This non-fiction book for elementary readers is filled with interesting facts and great pictures of the ruby-throated hummingbird.

**The Wild Wombat** (North-South Books, 2001) is a beautifully illustrated double-page book by Udo Weigelt about a new animal expected to arrive at a zoo. When zookeepers are overheard discussing the anticipated arrival of the wombat from Australia, the animals misinterpret the information and become terrified. They are so upset that no one comes out to meet the Wombat—who is actually a reclusive, sensitive little animal. Since this interactive book encourages children to guess what is being imagined in



the other animals' minds, illustrator Anne-Katrin Piepenbrink uses partial page flaps to help them discover the reality. An important theme implicit in the story is the foolishness—and the unfairness—of pre-judging others. Children from pre-school to third grade will enjoy manipulating the illustrations, and reinterpreting the misinformation overheard by the animals.

Author Diana Reynolds Roome teams with illustrator Jude Daly in **The Elephant's Pillow** (Farrar, Straus & Giroux, 2003), a tale from the Far East. A rich boy discovers that ever since the Emperor died, the Imperial Elephant has had trouble sleeping. With help from his servant, the boy goes to the elephant's keeper who gives him a riddle. The solution of the riddle brings comfort and happiness to both the elephant and the boy. Children up to third grade will enjoy reading this tale and sharing in the riddle; they will also enjoy learning that helping others can, in itself, bring happiness.

Perseverance as the key to achievement is the theme in **Not Just Tutus** (G. P. Putnam's Sons, 2002) by Rachel Isadora. Second through fourth graders will enjoy the pen and ink drawings that illustrate the hard work and slowly developing accomplishments of beginning ballet dancers. Ms. Isadora takes the reader through lessons, practice, back-stage work, and public performances, using poetry to tell this story in a humorous but realistic way.

William Steig appeals to young and old with his silly pictures and funny stories. **Potch and Polly** (Farrar, Straus & Giroux, 2002) is a wonderful example of Steig at his best. Potch was born with a smile on his face and goes through life a truly happy fellow. His happiness is heightened still more however when he meets Polly. Through many antics, some leading (of course!) to catastrophe, Potch finally is matched at his own tricks and succeeds in winning Polly, or does she win him? As in Not Just Tutus, the theme of persistence—of never giving up short of one's goal—is emphasized in this very funny tale, geared to kindergarten through third grade.

Another book by William Steig, **CDC?** (Farrar, Straus & Giroux, 2003), first appeared in 1984 with black and white pictures. This new color version, painted by Steig, is even more appealing. The book consists of 57 word puzzles the reader is challenged to decipher. At first the messages aren't always clear—C U N 10-S-E (= "See you in Tennessee"); but the clever pictures accompanying each one help solve the puzzle. Some are easy, some hard, but all are great fun—and especially enjoyed, once decoded. (Happily, there *is* a list of solutions at the end of the book.) First graders to adults will enjoy playing with Mr. Steig and his word puzzles.

Let's switch from word puzzles to **Math Appeal : Mind-Stretching Math Riddles** (Scholastic, 2003) by Greg Tang. In this book each clever riddle poses a numerical or reasoning problem, and offers a clue to the solution. Children look for patterns to help them solve the riddle and in the process build problem-solving skills. Harry Briggs's illustrations are vivid and appealing—each frog in *Frog-Gone!*, for example, is sketched to reflect his own individual personality. **Math Appeal** will "appeal" to readers in the 4 to 8 age group.

## Re-tellings for All Ages!

**Aesop's Fables** (Dial, 2003) have a whole new look in this elegant picture book by Brad Sneed. The original's animal characters, painted here in delicate watercolors, are depicted as always with human traits; but Sneed's offbeat conceptions are unique, bizarre—and fun. (Lazy grasshopper, for example, is shown sipping on a drink as he stretches out reading on a chaise lounge—which is a flower petal!) Aesop has never looked like this before! Each of the fifteen fables included is complete on facing pages. The lion in *Lion and the Mouse* looks so forlorn that the reader is tempted to reach out and feel his soft snout. Congratulations to Brad Sneed for this wittily updated "Aesop for all ages."

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**The Adventures of Pinocchio** (Dial, 2003), illustrated by Graham Philpot, is an authentic retelling of Carlo Collodi's original (1898). Philpot's puppet is so life-like the reader forgets he is wooden—so maybe Pinocchio has finally achieved his wish to become a real boy! This is an enchanting hard-covered book, appropriate for anyone past toddler-hood.

**Mother Goose** (Philomel, 2003) by Will Moses is an anthology of over sixty Mother Goose rhymes. The author's vivid folk art sketches accompany each rhyme, then those same sketches reappear in a dozen full two-page paintings. Children will find it fun to search out the individual characters in the big pictures. There is a brief article in the end of the book entitled 'Just who was Mother Goose?' along with a bibliography, and an index of first lines to make location of a favorite rhyme easy. Will Moses was taught painting by his grandfather, who learned from his mother, Anna Mary Robertson, better known as Grandma Moses.

## Middle School

**Chief** (Orchard, 2003) is the biography of firefighter Peter J. Guanaco, written by his son Chris Ganci. Peter died in New York City during the events of 9/11, trying to save those caught in the fires at the Twin Towers. Chris Ganci reminisces about his father's love for his job and about the men and women who served under him as firefighters. This is a very moving picture book, appropriate for any age elementary student.

Look Out! It's a Bird! No a Plane!! No, It's Souperchicken!

**Souperchicken** (Holiday House, 2003) is an endearing new tale by Mary Jane and Herm Auch. Henrietta is the only chicken in the coop who can read. Luckily she is able to read about where her aunts are being taken, on vacation. They think they are about to have the time of their lives, but are being sent to the Souper Soup Company. Henrietta does everything in her power to find them and get them out of being brewed in the souper soup. While on the way to save her aunts she, through the power of her ability to read, is able to save other animals as well. Read to discover if Henrietta is in time to save her family. In the end—after this episode—what do you suppose Henrietta becomes? Might it be a reading teacher?! The illustrations will keep you laughing, and then on the last page there are hilarious twists on familiar book titles. *And of course interwoven throughout (though in a fun way) is the critical importance of literacy skills.*

Often teachers and parents must remind our youth how important it is to learn from and appreciate who we are and where we come from. **Spaghetti Park** (Holiday House, 2002) by Anne DiSalvo is the story of a neighborhood that has become disfigured by littering and graffiti. Tony and his Grandfather dedicate themselves to bringing the community together to make their neighborhood once again a place in which to be proud of. The people of the neighborhood become closer as they work together. They learn about the diverse backgrounds of their various neighbors, and gradually, together, build a sense of community. This is a great story for primary and intermediate grades; it teaches respect, responsibility, the acceptance of others and the importance of "belonging"—of becoming part of a community; of establishing "roots."

**Outlaw Princess of Sherwood** (Philomel Books, 2003), by Nancy Springer, is the third in her *Tales of Rowan Hood*. In a previous tale Princess Ettarde angered her father by running off to Rowan Hood's band of misfit teens in order to escape an arranged marriage. In this tale Ettarde's mother plays a key role since she is being used as bait by Ettarde's father to lure his daughter back. It would be a great class project also to re-read Robin Hood, and compare his experiences with those in Nancy Springer's *Tales*, which similarly take place in Sherwood Forest!

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## Middle and High School

**What A Great Idea! *Inventions That Changed The World*** (Scholastic, 2003) by Stephen M. Tomecek shows how much change technology has brought to the world, and offers real-life examples to inspire others to conceive new inventions. Forty-five key inventions are described and illustrated—everything from the spear and axle to photography, plastics, antibiotics, and the laser. The author presents a problem, sketches who the innovator was and how the solution came about, and traces the subsequent impact of the invention on the world. This book will appeal to intermediate readers above fourth grade, and could easily be adapted also for high school. Dan Stuckenschneider's illustrations and graphics on each page are attractive, informative, and engaging. The book's last three pages contain an up-to-date list of inventor contests readers can enter, and web sites where creative ideas can be discussed with others.

This is a great non-fiction addition to any classroom or library.

**In Defense of Liberty *The Story of America's Bill of Rights*** (Holiday House, 2003) is Russell Freedman's newest release that will surely become essential reading for every young American. Freedman describes the origins of each of the First 10 Amendments, and recounts the story of how those amendments eventually became part of our Constitution. He then goes on to describe some of the subsequent challenges to the amendments, using photographs or drawings that bring history alive for children in middle and high school. His index, bibliography and extensive notes at the end of the book make this a great resource for further study. Mr. Freedman's **Give Me Liberty! *The Story of the Declaration of Independence*** was reviewed earlier this year in *Reading Scene*, attracting similarly high praise.

A new *Young American Voices Book* by Marissa Moss became available in March 2003: **Rose's Journal—*The Story of a Girl in the Great Depression*** (Harcourt). Eleven-year-old Rose begins her journal January 1, 1935 and makes her last entry on June 16<sup>th</sup> of the same year. She relates the trials of living on a farm during the Depression in the Great Dust Bowl. She shares the pain of seeing animals she has cared for and loved die for lack of food and water. She compares her happier life on the farm before the drought came that caused Kansas and Oklahoma to become part of the Dust Bowl, and the new reality now of never having enough to eat or drink. This "journal" is indeed presented as a journal, in hand-written script, with after-thoughts jotted in the margins—all of which heightens its air of authenticity. It's also packed with historical information, drawings and period photographs, making the book as informative as it is appealing to read. The reader has the impression of sharing Rose's life and times in this excellent and thought-provoking novel.

## Young Adult

Cynthia DeFelice's story **Under the Same Sky** (Farrar, Straus & Giroux 2003) is the story of a 14 year-old boy who for his birthday would like to have a motorbike which costs a thousand dollars. His parents, owners of a farm, tell Randy that he can work on the farm for the summer and earn the money for the bike. Randy has never before paid any attention to or involved himself in any of the work associated with his family's farm. His past summers have been spent having fun, hanging out with his friends. Now Randy discovers that farm chores are indeed hard work. Initially his only interest is the motorbike, but as time goes on he starts to show concern also for the Mexican migrant workers that arrive for the planting and harvest seasons. He becomes aware of the discrimination against Mexicans who work for his family. He discovers that INS officers searching for people in the US illegally are not always fair or humane in



their treatment of the workers. He sees boys his own age who are working hard to support their families in Mexico. Randy also discovers that some of his own former friends are *not* reliable—not as reliable as he now has become; and by story’s end the motorbike is no longer his main interest in life. He is not the same young boy as at the beginning of the summer. He has acquired a sense of responsibility through his work on the farm; and he has discovered in himself compassion toward others, and the concept of social fairness.

The setting for this complex, fast-moving book is western New York (just south of Lake Ontario), making it of particular interest for those living in or studying New York State. The themes emphasized in the book however are universal, and socially attractive. This is a great “coming of age” book, which would be a well-selected read for any Young Adult.

### ***Books to read between Harry Potter novels!***

Those kids (and adults) who enjoy Harry Potter books will also savor the fantasy worlds created in **Inkheart** (Chicken House, 2003) by Cornelia Funke. In this suspenseful story twelve-year-old Meggie discovers that fictional characters can come to life. Not only do they jump into the living room, they bring their entire world with them. Meggie becomes entangled in an adventure when Capricorn, an evil ruler, escapes from the book her father is reading. Readers ten and up will enjoy this very imaginative adventure.

This is Ms. Funke’s second book; **The Thief Lord**, also a good read, was her first. ***She is the third most popular children’s book author in Germany, after J.K. Rowling and R.L. Stine.***

Suspense and adventure abound in **Gregor The Overlander** (Scholastic, 2003) by Suzanne Collins. Eleven-year-old Gregor follows his little sister through a grate in the laundry room of their New York City apartment. They fall into the Underland beneath the city. Humans and giant spiders, cockroaches, and rats live together in an uneasy peace which is about to fall apart. All Gregor wants is to go home but he gets drawn into the conflict. Gregor is a very endearing character who of course eventually comes home safely, and who may turn out to be the linchpin for future novels by Collins.

**The Divide** (Chicken House, 2003) by Elizabeth Kay is another ‘other world’ novel, filled with lots of action and intrigue. Character names are definitely unique—Milklegs, Snowdrift, Woodsmoke, and Helvella are a few. Other names include River-fatty for hippopotamus, No-horn for horse, and Humungally for elephant. Snakeweed (the bad guy) does not finally prevail over Felix, who is able to conjure up a little magic in his own defense; but guess what?—Snakeweed is still out there! Will there be a sequel? The jacket on this book has a particularly interesting design. It’s made to open in the middle of the front cover so that the word Divide is broken in half. (And the right half becomes a great bookmark!)

Cats and dogs rule in 1420 Spain! **Three Swords for Granada** (Holiday House, 2002) by William Dean Myers is almost a “three musketeer-story,” with cats in the role of the musketeers. The ruling *Fidorean* Guards is a pack of vicious dogs, trying to take over the kingdom of Granada. Sword fights, rats, nasty dogs, prison, and of course sympathetic cats are all ingredients that add up to a great adventure for young adult readers.

### **These books celebrating America would make great companions in any library**

**I Am America** (Scholastic, 2003) by Charles R. Smith Jr. is a picture book with vibrant photographs of a variety of children’s faces. The wonderful theme of the rhyming text is I am proud, I am diverse, I am America and America is me. This book could launch a social studies unit at any grade level,

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and should be in every library.

**We Are Americans** (Scholastic, 2003) by Dorothy and Thomas Hoobler is a non-fiction history of immigration to America, ranging from speculation about the earliest immigrants to documentation of immigration in the present day. The stories of immigrants are told in their own words using original letters, diaries, oral histories and biographies. The immigrants describe their schooling, social and religious practices, and their transitions to new food and customs. People from all over the world have made lasting contributions to the culture of the United States, and have made it extensively richer.

The inclusive index and the 'list for further reading' found on page 188 make this an excellent research tool for middle and high school students. During the 1994-97 period the same Hooblers created a series called *The American Family Albums*, which included historical portraits of the African American, Chinese American, Jewish American, Scandinavian American (and many others)—still an informative group of texts for those who would like more detail about a specific nationality.

Book-generated, child-initiated conversation is a powerful learning tool. It makes better *readers*, better *thinkers*, better *communicators*. **Thank you**, publishers, for giving us such wonderful new conversation starters!

Please come visit our web page at [nysreading.org](http://nysreading.org) (click on the **BookBanter** link) to find past editions of **BookBanter**, and an inclusive database of books that have been reviewed by the *Children's Literature Committee* since 1999.



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## Bring Independent Reading to the Middle School AIS Classroom: Book by Book

*Elizabeth Mascia*

### AUTHOR BIOGRAPHY

Elizabeth Mascia teaches Grade 8 language arts and is Chairperson of the Language Arts Department at Jamesville-DeWitt Middle School, Jamesville, New York. She is a doctoral student in the Reading and Language Arts Department at Syracuse University.

"Your students are voracious readers!" So read the hand-written note left by my substitute, a retired teacher, who had spent the day in reading workshop with my six classes of seventh and eighth students. Those words would gratify any language arts teacher. One of our largest goals for our students is that they will read widely and well to experience the joy of reading as well as the academic benefits that we know derive from it. That my students were all AIS (Academic Intervention Services) students who came to me for one period every other day for remedial support made my satisfaction all the greater.

On the other hand, I knew that, in this case, appearances had been deceptive and did not match reality. The truth was that the majority of my students could be indifferent, inattentive, resistant readers. "I hate reading," "Reading is boring," "I don't read unless it's a really good book," "Why do we have to read?" were not uncommon laments among my students. Nevertheless, my substitute's words stayed with me. They became a catalyst for observation and reflection. What had made it possible for her to see my remedial reading students as "voracious readers"? In seeking an answer to that question, I reconfirmed my belief in the importance of independent reading and in the fact that reluctant, resistant readers, even my AIS students, can be engaged readers if they are reading a book matched to their individual interests and learning needs and if they are provided with time to read. In addition, I discovered the importance of a school's systemic support for these efforts.

When I began teaching AIS classes for the first time this year, I incorporated the same independent reading practices that had been part of my instruction in the regular language arts classroom. I encouraged students to select their own books and scheduled class time to read them. The benefits of such practices have been widely acknowledged. They have been correlated with increases in motivation (Allen, 2003; Guthrie, 1996; Ivey & Broadhus, 2001; Timion, 1992), and competence (Fielding, Wilson & Anderson, 1984; Williams, 2001). I believed that, with such benefits, independent reading merited a central place in a remedial reading program.

Yet those of us who work with struggling readers know that the rewards of independent reading can elude them. More often than not, our students are unable to choose independently books that interest them and that are consistent with their ability. Absent an appropriate book, our students squander class time allotted for independent reading and are unlikely to read outside of school. If struggling readers are to experience the pleasure and growth that accrue to independent reading, our experiences indicate that they need support in selecting texts. The books that were holding my students' interest when my substitute observed them were ones we had discovered together, beginning with our first class when we started discussing students' interests, reading habits and histories. Because having an independent reading book underway and in hand remained a priority throughout the year and every third class was devoted to silent reading, book selection became part of our regular class agenda. One student



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or another was always finishing a book and needing to begin another so individual reading preferences, books savored and books abandoned, became some part of our conversation nearly every class.

As the year progressed, many students became increasingly competent in choosing their own books. They began to tap the resources successful readers use when making their selections. Some got into a series or stuck with one author for a while. We often turned to *What Do Children and Young Adults Read Next?*, and a handful of students came to use it on their own. A few took to using subject and author links on the school's on-line catalog to track down a new book. Students would sometimes arrive to class intrigued by a title introduced by their regular language arts teacher or mentioned by a classmate there. Happily, I witnessed spontaneous conversations about books grow more common in our classroom, and I heard students sharing recommendations with each other and making offers to lend each other books. None of these occurrences happened every day or for all students, but I hoped that, cumulatively, they signaled an environment that was fostering independence. If my students were to develop into mature, skilled readers, such independence was essential; I needed to recede as the primary source of book choices. My greatest satisfaction came, therefore, on those occasions when one of my students succeeded in selecting a book on his or her own. It would be misleading, however, for me not to acknowledge that facilitating book selections continued to be a significant part of my work with my students throughout the year. "I need a new book" remained a common salutation as students entered our classroom.

While my commitment to independent reading and the support I provided in book selection were critical to inducing most of my students to read regularly, I came to realize they were not sufficient to making this happen. Another important factor was also at work. My students' language arts teachers shared my belief in the importance of regular reading and, therefore, required that they read for two and one-half hours each week for homework. Students were expected to read in a book of their choice and record their reading on a weekly log (title, page numbers, and time) that would be signed by an adult who verified the record. This reading assignment was figured into each quarter's final grade. In addition to the required homework reading, in-class reading time was provided in all language arts classes at some point during the week. This week-in-and-week-out expectation that all students would have an independent reading book and would be reading it became a significant extrinsic motivator that kept my students looking for good books.

For me, the image of a ladder came to represent the systemic relationship between the work I did with my students and the role of independent reading in their regular language arts classroom. In my thinking, the vertical sideboards that stabilize a ladder represented the weekly reading requirement that legitimated independent reading for my students. Completing the two and one-half hours of required independent reading was part of every student's weekly regimen, and it was a task that "counted." The rungs on the ladder were the efforts we made in AIS to discover and read successive books that were well matched to their interests and ability and, therefore, had a good chance of being enjoyed. Just as rungs must be affixed to a ladder's sideboards, our AIS work had import for my students because it was connected to a key academic assignment. The classroom teachers and I agreed that the independent reading students did in AIS could be put toward their two and one-half hour goal. AIS and the regular language arts program thus became integrated and mutually supportive. Instructional practice in both settings reflected a systemic commitment to independent reading as an important part of the literacy curriculum.

The ongoing quest for books that would be just right for each of my students ultimately yielded scores of titles. Several stand out, however, because they proved successful in meeting a particular student need. Some bear quite current copyrights while others stretch back decades. Nevertheless, each, in its



turn, served to remind me of the power of the well-told story. Each held in its thrall an avowed bibliophobe (or, at least, a very reluctant reader). Each evoked the query, "Do you have any more books like this?" Each of the following books has a well-earned place in my AIS classroom.

**Gardiner, J.R. (1980). *Stone Fox*. New York: Harper Trophy.**

A book's length is a common concern among my students. A hefty book can be daunting. Even the typical young adult novel's typical two hundred- or- so pages were off putting to one of my grade 8 boys early in the year. (At year's end, he is reading 2003 Batchelder Award winner *The Thief Lord*, by Cornelia Caro Funke.) He insisted he hated books, would never like reading, and had never finished a book because they were all too long. He was adamant that if he were going to read a book, it would have to be short. *Stone Fox* proved to be the right combination of brevity and compelling plot to get him started. Although books like *Stone Fox*, which are typically read in the intermediate grades, tell stories that are usually too young for an eighth-grader, this tale of a young boy and his beloved dog competing in a dogsled race to win enough money to save the family farm from the tax collector manages to transcend the age issue.

**Haddix, M.P. (1996). *Don't You Dare Read This, Mrs. Dunphrey*. New York: SimonPulse.**

The realistic "problem" novel is a staple among young adult readers, especially girls. Laurie Halse Anderson's *Speak* remains a popular read in our school, and many of my students attempted it but found it too difficult. This book, an ALA Best Book for Young Adults, proved a handy alternative. It is especially accessible because of its relative brevity, journal format, and its narrator's straightforward voice. The plot unfolds through successive journal entries written by Tish Bonner, the main character, as homework for her English class. With the option of instructing her teacher not to read selected entries, Tish gradually reveals the shocking secret that she and her younger brother are struggling to live on their own after their mother has abandoned them. The conversational tone of the entries makes for easy reading while the details of the siblings' stark ordeal are engrossing. At year's end, most of the students who enjoyed this novel months earlier are still fans of the problem novel. A current favorite being passed among some of them is Cherie Bennett's *Life in the Fat Lane*, the story of a popular high school beauty pageant queen whose life changes when she mysteriously begins to gain great amounts of weight.

**Flake, S.G. (2001). *Money Hungry*. New York: Hyperion Books for Children. Flake, S.G. (2003). *Begging for Change*. New York: Hyperion Books for Children.**

These novels are two more possible choices for students who prefer realistic fiction. Raspberry Hill, the main character in both, is hard to resist. Determined to move her mother and herself out of the projects, she is obsessed with earning enough money to make the move. As frightening as the projects are, memories of being homeless are worse, and they fuel Raspberry's frenzy. She'll toil at any odd job for pay, hawks pencils and old candy to her classmates for extortionate prices, and, finally, even steals from her best friend. When readers finish *Money Hungry*, a Coretta Scott King Honor Book, they are eager for the sequel, hungry themselves to know Raspberry's fate.

**Horowitz, A. (2000). *Stormbreaker*. New York: Philomel Books. Horowitz, A. (2001). *Point Blank*. New York: Scholastic, Inc. Horowitz, A. (2003). *Skeleton Key*. New York: Philomel Books.**

These three books constituting the Alex Rider series proved to be among the hottest titles in my classroom this year. Students put their names on a reserve list in the library in order to get their chance to read them. Alex Rider, the main character in all of them, is a fourteen-year old James Bond. M-I-6, the British intelligence service, enlists him as a spy upon the mysterious demise of his uncle and guardian.



Life-threatening adventures in exotic settings ensue. Alex survives intact thanks to some Bond-like gizmos especially designed for a teenager. The run on this series among my students began when one student who had fallen under the Harry Potter spell finished that series. Hoping to capitalize on that positive experience, I suggested other fantasy titles with no success. I finally struck gold, however, when I stopped thinking in terms of genre and tried to find a similar protagonist. Both Alex and Harry are clever risk-takers, Davids against Goliaths, who struggle to victory with the aid of some pretty snazzy devices. My single concern about the series is the casting of the villain in *Stormbreaker* as a disaffected Egyptian bent on destroying British society by disabling its national computer network. I think this choice may feed an unfortunate negative stereotyping of the Arab community that we, as educators, must be sensitive to in light of current world events.

**Wartski, M.W. (1981). *The Lake is on Fire*. Philadelphia: The Westminster Press.**

This book is, unfortunately, out of print. I have a single hardcover copy that I treasure because of its appeal for students, mostly boys, who are looking for a good outdoor adventure. It is well written and emotionally charged but more accessible than other well-known books in this sub-genre, such as Gary Paulsen's *Hatchet* and Will Hobbs's *Down River*. It tells the story of a teenage boy who has been blinded in an accident and struggles to cope with his new disability, including accepting his need for a seeing-eye dog. The conflict reaches its peak as the two fight to escape from a forest fire that surrounds them during a trip to New Hampshire's White Mountains. The book may be in some school or public libraries. It is a title worth keeping in mind as you prowl around garage sales or thrift shops.

**Morey, W. (1972). *Canyon Winter*. New York: Puffin Books.**

While some books are notable because they manage to lure students into reading, this one became special to me because it kept a student reading. A passionate hunter and fisherman, the student agreed to open a book in September only if he could read about hunting or fishing. He eschewed non-fiction. Once he got started reading, he made his way through all of Gary Paulsen. I dreaded the day when there were no more Paulsen novels left to read. I vainly hoped he would then relent and entertain the possibility of expanding his interests. Turning to our library's reference work *What Do Young Adults Read Next?*, we discovered *Canyon Winter*. The story begins remarkably like *Hatchet*, but takes a different turn when a young boy, stranded in the wilderness after a plane crash, comes upon an elderly recluse who shelters him until spring. With *Hatchet* and its sequels so popular among struggling readers, *Canyon Winter* is a find because it provides an opportunity for these students to extend their reading in a similar, well-crafted story.

**DiCamillo, K. (2003). *The Tale of Despereaux: Being the Story of a Mouse, a Princess, Some Soup, and a Spool of Thread*. Cambridge, MA: Candlewick Press.**

This extended fairy tale, which won the Newbery Award this year, is exquisite. A measure of its quality is perhaps the broad mix of my grade 7 students who have enjoyed it. I began the story as a read aloud, but a number of students could not wait for such a slow unfolding of the plot. They acquired the book on their own or borrowed my copy overnight and on weekends to finish it more quickly. The tale has multiple layers of meaning, but at its most basic, it tells of Despereaux Tilling, a mouse extraordinary for his large ears and his capacity to love story and music. He falls in love with a human princess and, for that, is vilified and imprisoned by his own rodent kind. Like a true hero, he battles evil, a band of dungeon rats, and finally finds happiness with his beloved. The book has appealed to both males and females and has once again reminded me of the enduring charm fairy tales hold for middle school students.

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**Gantos, J. (1998). *Joey Pigza Swallowed the Key*. New York: Harper Collins.**

*Joey Pigza* addresses the serious subject of Attention Deficit with Hyperactivity Disorder and for that reason alone would engage many students who themselves suffer from ADHD. They can find themselves in Joey, who admits he is "wired" and whose life seems to be one big time-out. This novel and its sequels have a special charm, however, in being touched with humor. More than a few students requested a "funny" book during the year. The *Joey Pigza* books filled the bill. In no way are Joey's medical problems ridiculed. Nor are these stories slapstick. Rather, the juxtaposition of Joey's innocent intentions and their disastrous outcomes generates the humor. That same juxtaposition evokes sympathy for Joey. Privy to the goings-on in Joey's brain, the reader knows he is a great kid and aches for this endearing, bright, big-hearted character to be able to get things right.

**Zindel, P. (1994). *Loch*. New York: Hyperion Books for Children. Zindel, P. (1998). *Raptor*. New York: Hyperion Books for Children. Zindel, P. (1998). *Reef of Death*. New York: Harper Collins.**

A handful of my students this year fell into what I call the "post-Stine, pre-King" category. They had enjoyed R.L.Stine's *Goosebumps* series for its horror and easy readability, but needed to move beyond it if they were to grow as readers. In fact, most of them had become bored with the *Goosebumps* books but didn't know what else to read. They did know they wanted scary, gory stories. The sheer size of Stephen King's novels daunted them, as would their sophistication if they had attempted them. Zindel's somewhat formulaic novels proved to be a solution to this problem. In each of them, a young boy, usually a scientist's son, discovers a prehistoric creature that has mysteriously survived in a remote locale while the rest of its species has become extinct. The boy tries to save the creature from opportunists or researchers who would remove it from its habitat and almost certainly doom it. Before the conflict is resolved, the creature manages to shred enough human flesh and crush a sufficient number of skulls to satisfy my students' appetite for gore. Although these books are not a series, students usually decide to read all of them and, thus, the challenge of finding a new book is easily met for a while.

Did these captivating books and others like them transform my students, all struggling readers, into devoted, "voracious" readers? I cannot make that claim. I can only say that my students did read regularly throughout the year and, in so doing, had the opportunity to derive the many benefits that sustained engagement with text affords. They broadened their grade-level vocabularies; they became familiar with new and varied text structures; they acquired comprehension strategies such as rereading; they enjoyed stories and talked about them with others. In short, they became more experienced readers, if not voracious ones.

My work this year in the AIS classroom has affirmed for me that independent reading has a central place in a remedial reading program. Although other experiences such as read alouds and guided readings were also a regular and important part of our classes, independent reading afforded students the greatest exposure to text in terms of time and volume. As literacy educators continue to search for effective means to help all students become successful readers, I believe we must work to identify and implement the practices that will make independent reading and its significant benefits accessible to those struggling readers whom we meet in our AIS classrooms.

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