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## GJR Volume 35 Number 1 Fall 2012

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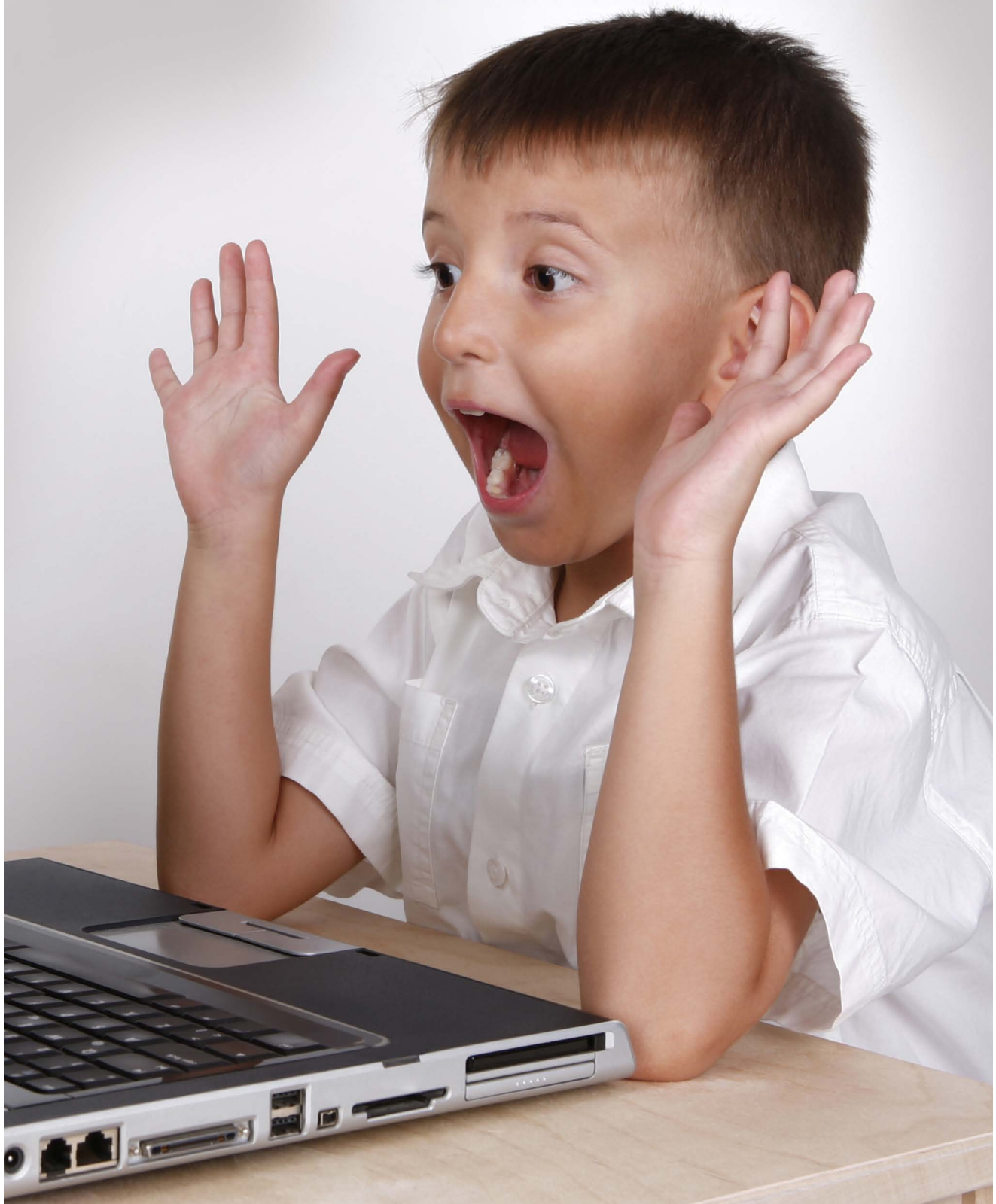
Draper, Christine and Soares, Lina, "GJR Volume 35 Number 1 Fall 2012" (2012). *The Georgia Journal of Reading Archive*. 3.

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# Georgia Journal of READING

Volume 35 Number 1 Fall 2012



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# Message From the Editors

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BY LINA SOARES AND CHRISTINE DRAPER

In this issue, we want to welcome readers to our maiden voyage as Co-Editors of the *Georgia Journal of Reading*. We are committed to continuing the fine work of our predecessors, Drs. Beth Pendergraft and Sheryl Dasinger, whose stewardship has left big shoes to fill. We want to send a big shout out to Beth and Sheryl, and a thank you for their help and professional knowledge that has been provided during this transition.

As educators ourselves, we understand the vital role that literacy plays from pre-school to adulthood. We believe this is the single-most important role we fulfill in the classroom and it must come first. With that said, we invite you to get on board and enjoy this leisurely cruise with good reading in hand.

This edition of the *Georgia Journal of Reading* begins the journey with a belief that literacy transcends all curricula, and thus, our reading takes a look at a variety of sound, research-based literacy practices for both struggling and achieving readers and writers. It is our intention that you walk away from this edition with an even broader understanding of various literacy practices and research that can inform our classrooms on a variety of levels.

In the first article, “Integrating Mathematics and Reading Fluency,” Ryan Nivens, Lori Meier, Michael Brikell, and Edward Dwyer offer a fascinating instructional method for “enhancing both mathematical and literacy competencies.” The four authors share the work they have done with young children using math manipulatives and puppets.

In “Visual Literacy: A Picture Can Be Worth Ten Thousand Words,” Stacy Delacruz shares her work with pre-service teacher candidates who used photography as a form of visual literacy while working with struggling readers in the field. The author informs readers that her intent was to “explore how teacher candidates can use photography to integrate literacy and the content areas,” but she discovered just how motivating photography is for students who struggle in reading.

Following a similar theme, Laura Ely and Jerilou Moore have contributed a very informative article that extends the meaning of literacy beyond reading and writing print texts, to literacy in the 21st century that recognizes multiple forms of electronic and digital technology. In “Using Interactive Whiteboards to Enhance the Writing Process,” the authors offer classroom teachers one more good tool to enhance reading and writing in their own classrooms.

In “Teacher Influence on Book Selection,” Shelia Delony and Katie Hathorn provide an interesting discussion on two approaches to independent reading. This study examined students who were given the opportunity to self-select books for independent reading versus students who chose reading materials based on pre-determined criteria from the classroom teacher. The authors found that students who have more freedom to choose books based on their reading interests have greater levels of self-efficacy.

Joshua Cuevas provides the final article in this journal, “Schema and Scaffolding: Testing Advance Organizers’ Effect on Secondary Students’ Reading Comprehension.” Classroom teachers who already know the merits of graphic organizers will appreciate the results of this study. The author informs readers that “comprehension may be readily addressed via schema activation...”

We hope that these articles strengthen the commitment in realizing that effective literacy programs do not exist in a vacuum and that reading and writing skills must go beyond traditional English, language arts, and reading classrooms. Students need multiple opportunities to learn reading and writing strategies in a variety of class settings and it is through these articles that we encourage you to expand on your current literacy understandings and to use this as a guide for your own possible future journeys.

Dear Georgia Reading Association Members,

I am so excited about our first online edition of the *Georgia Journal of Reading*! I am equally excited about our new partnership with the College of Education at Georgia Southern University to publish the journal. We gladly welcome Lina Soares and Christine Draper as the editors.

GRA held its 2012 Summer Leadership conference in Warner Robins, GA on Saturday, July 14. We appreciate all the council leaders, committee chairs, and Executive Board members who attended. A special thank you goes to Dawn Owens, Dee Elliott, and Sheree Bryant for planning such a great conference.

I hope you were able to attend the GRA Fall Forum in Macon on Monday, September 17, 2012. This year's theme was "Red Carpet Roll-Out ENCORE: Common Core Georgia Performance Standards." It was a very informative and beneficial professional development day studying the Common Core Standards.

Membership in the Georgia Reading Association is a wonderful professional opportunity. From the publications such as the *Georgia Journal of Reading* and *Focus* newsletter to the professional development events such as the Fall Forum, membership in GRA is a great deal. Applications are available on the GRA website ([www.georgiareading.org](http://www.georgiareading.org)). Please share the application with friends and colleagues and invite them to join GRA.

## GRA Membership Application

Fill out the form below and mail it with a check for \$15.00 (\$7.50 for students and retirees), payable to Georgia Reading Association (GRA). Do not send cash.

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# Integrating Mathematics and Reading Fluency Instruction in the Primary Grades

BY RYAN NIVENS, LORI MEIER, MICHAEL BRIKELL AND EDWARD J. DWYER

## Abstract

The focus in this article is on integrating instruction in reading fluency with mathematical concept development in the primary grades. Procedures are described herein for having students engage in hands-on mathematics while reading children's literature. In addition, students produce an audio compact disk and engage in performance reading in a readers' theater format with stick puppets. The strategies presented can be adapted in a variety of leaning environments.

Educators and psychologists have for many years demonstrated the importance of involving learners physically and emotionally, as well as academically, in their learning. Vygotsky (1978) was a pioneer in demonstrating the importance of socialization as a vital component of learning. Vygotsky proposed that there is a zone of proximal development in which the learner is ready to learn but must receive support in both social and academic contexts. Such support is comprehensively described by Rasinski (2010) as scaffolding wherein the learner is led from dependence on the person in the role of leader/teacher to independence.

Following the lead of Vygotsky, the importance of social acceptance and creating a self-image as a successful learner was strongly advocated by Bandura (1997). The work of Vygotsky, Bandura, and many others of like mind provided the foundation for the constructivist movement in education with its emphasis on "hands-on" learning and developing the whole person in schools in addition to learning information and skills.

Parkay and Stanford (2001), based primarily on the work of Swiss biologist and social scientist Jean Piaget, determined that children learn most effectively and efficiently by engaging in physical, social, and academic activity within their environments. Children need to be physically and mentally active rather than passive learners. Piaget's work also



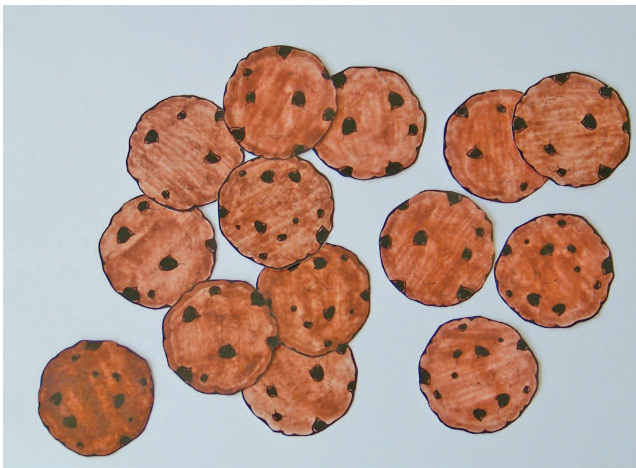
suggested to these researchers that activity is not only physical manipulation but also fosters mental action that transforms into creating new, exciting, and permanent learning. In this light, Csikszentmihalyi (1997) determined that when a child likes what he or she is doing and is encouraged to do it, "focusing the mind becomes effortless" (p.27). Further, Peterson (2006) determined that positive emotional climates foster "broader attention, greater working memory, enhanced verbal fluency, and increased openness to information" (p.58).

Gardner (2004) powerfully demonstrated the need for involving as many modes of intelligence as can be integrated into the learning environment. Gardner persuasively challenged the long held contention that "intelligence is a single entity and people are born with a certain amount of intelligence" (p.29). Gardner further contended that it is essential that educators/leaders, through engaging positive intervention, actually enhance intelligence. Integrating mathematics and readers' theater, in light of Gardner's theory of multiple intelligences, especially encourages linguistic intelligence, "facility in the use of spoken and written language" (p.31). Spatial intelligence and the personal intelligences, intrapersonal and interpersonal, described by Gardner, are also engagingly facilitated through strategies such as integrating mathematics and readers' theater. In addition, Gardner described "naturalist intelligence" as intrinsic and intuitive ability

to discern what is in nature, literature, mathematics, and art (p.36). We believe “naturalist intelligence”, is especially encouraged by production of stick puppets and scenery as an integral part of performance reading. Gardner determined that the different intelligences interact and overlap.

### Mathematics and Literature

Pat Hutchins’ *The Doorbell Rang* (1986) offers a wonderful context in which to get children thinking about division. In this story, Hutchins presents division through the sharing of a batch of cookies. By choosing twelve cookies, an abundant number (i.e., there are a lot of factors for twelve), the story remains interesting and accessible as the pages turn. The National Council of Teachers of Mathematics [NCTM] stated that children in grades PreK– 2 “understand situations that entail multiplication and division, such as equal groupings of objects and sharing equally” (NCTM, 2000, p.78). This story offers just such an opportunity to introduce division to young children.



Photograph 1: Cookies for manipulation

Two types of division problems are discussed in the professional literature, measurement division and partition division (Van de Wall, Karp, & Bay-Williams, 2010). *The Doorbell Rang* encourages children to explore partition division on their own and measurement division through guidance from the teacher.

Teachers are encouraged to provide children manipulative materials to model the situation as the story unfolds. Teachers can provide students with a set of laminated paper cookies. We photocopy a set of 12 chocolate chip cookies on 110lb. cardstock. Beige, sometimes called buff, cardstock is readily available in office supply stores and makes realistic looking cookies. This is much easier than copying on white cardstock and coloring the cookies. We cover the whole page of cookies with a plastic covering such as clear Con-Tact® and then the children cut out the

cookies. Each child’s set of cookies can be kept in a zipper sealed plastic sandwich bag. We also produce hanging nameplates for the characters in *The Doorbell Rang* for later use in readers’ theater.

### Partition Division

As children read the story, they encounter four situations in which the cookies need to be divided. Initially, two children are going to share the 12 cookies. Since the size of the sets is unknown, this is a “partition” problem (Van de Wall et al., 2010, p.155). The remaining three divisions occur in the story, including sharing between four, six, and 12 children. As the children read the story, they are encouraged to physically divide the initial batch of cookies. A frequent strategy is to give each child one cookie at a time since the amount of cookies each child should receive is unknown as the story progresses. As children read this story, they will experience these four situations in which the cookies must be divided (shared) in a realistic context. We use paper plates to make the activity more realistic.

### Measurement Division

As a follow-up, we ask, “How many children could be at the table if each child were to receive exactly 4 cookies?” This is one situation that was not presented in *The Doorbell Rang* where a factor of 12 could be used. This question presents a “measurement” division situation, where the number of children is unknown (Van de Wall et al., 2010, p.155). Since the students know that exactly four cookies should be given to each child, the students can subtract four cookies at a time. This process will allow for three children at the table. This method of division is called measurement, or subtractive, division because the students know exactly how many to subtract, in this case,  $12 - 4 - 4 - 4$ . Having subtracted four a total of three times leaves no more cookies, so, consequently, there are enough cookies for three children.

These two types of division problems, partition and measurement, are important for all of us as teachers to know; however, students need not identify problems as being one or the other. Partition and measurement division are important concepts for us to know as teachers so that we do not only use one form in the problems and exercises we have our students work out. For example, *The Doorbell Rang* presents opportunities for partition division but not for measurement division. Consequently, upon recognizing this limitation, we will present additional questions and story-based situations that require measurement division. Measurement division involves slightly different, but essential, problem solving strategies.

*The Doorbell Rang* offers an opportunity in which



mathematics is presented in such a way that young children can access the operation of division. Older students often have their first memories of division as the long-division problems they encountered in the upper elementary grades. However, the NCTM Standards state that, “Teachers play an important role in the development of students’ problem-solving dispositions by creating and maintaining classroom environments” (NCTM, 2000, p. 53). By using enjoyable stories to involve students in solving a problem, students begin to view mathematics as natural and viable even in the primary grades.

In this light, an extensive review of research led Cartwright (2009) to determine that going beyond domain specific study strategies (i.e. mathematical computation) by integrating other learning domains (i.e. literary experiences) encourages “cognitive flexibility” leading to more powerful learning experiences (p.130). In addition, Cartwright concluded that study across texts fosters development of the “ability to conceptualize a task or situation in multiple ways” leading to greater comprehension and flexibility relative to new reading (p.118).

### CD Production

In addition, we invite the students to produce a CD based on the text of *The Doorbell Rang* (Hutchins, 1985). The text is put into a play format with a narrator and parts for each of the characters. The students practice their parts and when they and their reading coach determine they are ready, they record the script. The reading coach can be an older student, teacher, instructional assistant, or parent volunteer. A digital recorder such as the Olympus WS-311M works very well. We make a professional looking label with the name of the actors in a text box. Label making programs such as the one produced by Memorex are easy to use and inexpensive.



Photograph 2. Students practice reading *The Doorbell Rang*.

In this age of high stakes testing much school time is devoted to test preparation and focus on skills oriented activities that are often dull and tedious (International Reading Association, 1999). On the other hand, we have found reading competencies can be greatly fostered through exciting activities such as recording CDs. As described earlier, this is an issue that goes beyond pedagogy to basic human desires to do interesting and meaningful things. In addition to producing a CD students also engage in performance reading for an audience.

### Performance Reading: The Puppet Play and Readers’ Theatre Production of Stick Puppets

Characters for puppets can be photocopied from the text, *The Doorbell Rang*, or drawn by students. The size of photocopied characters can be easily adjusted using the zoom feature on a copier. Crayons tend to work much better than markers for coloring the figures unless the figure is very small or specific detail is necessary. General production guidelines are presented below and are not limited to working with *The Doorbell Rang*:

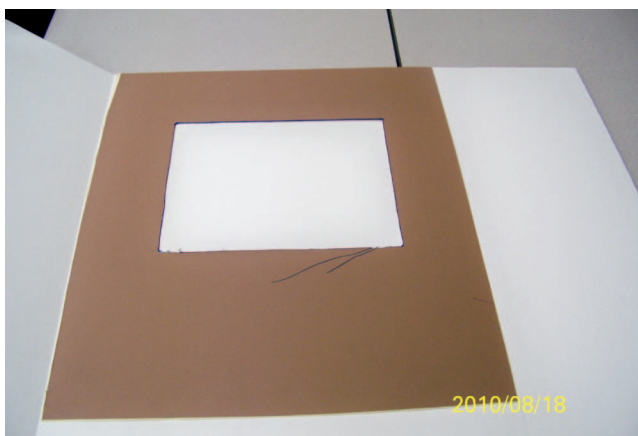
- Use white 110 lb. cover weight paper to photocopy the puppet outlines. Regular copy weight paper is too flimsy. You can get by with 67 lb. paper but it is not as durable. If students are drawing their own puppets, we suggest using regular white drawing or copy paper and then transfer the drawing for the puppet using a glue stick to the 110 lb. paper. This is advisable because students tend to make several attempts before settling on a drawing with which they are satisfied.
- Invite the students to color the figures that will become the puppets. We are perfectly content with multi-colored animals whose colors do not resemble those in the wild. Crayons work much better than markers.
- Cover the figures with clear plastic adhesive such as Con-Tact®. This is not essential but contributes substantially to durability and keeping the puppets clean. Covering the puppets is especially important if we are producing a set of puppets for extensive classroom use.
- Cut out the puppets. Some students leave space around the edges. For example, it might be difficult to cut around the hands on a character. Leaving spaces does not detract from the overall quality of the stick puppets. A light color can be added around the white space to provide texture to the setting.
- Using a glue stick, attach the figure to a large craft stick (6” x .75”). The smaller popsicle size sticks are usually inadequate for holding the puppets unless the puppets are very small. Reinforce the placement of the craft stick by placing a piece of tape over the stick and onto the puppet base. Even though there might be several stick puppets for a

short production, we make it possible for each child to eventually have a copy of the story and all the puppets. Having one set to share does not work well since just about all of the children want the full set of puppets that go with a story. The students frequently report retelling and/or rereading the story at home with the puppets for their parents, siblings, and friends. This rereading is great practice and can be especially helpful for encouraging younger children in the home to appreciate the joys of reading. For example, a parent told us that his daughter made a stage at home using bunk beds and performed many variations of plays using the stick puppets prepared in class. His daughter involved her younger brother and sister in producing the plays. She even made “tickets” for family members and friends to attend performances!

### Production of the Puppet Stage

All great puppets must have an excellent puppet stage! A durable, convenient, and easily stored puppet stage can be made out of a tri-fold display board. These multi-purpose display boards are typically used for science fair presentations. A good size for placing on a table is 40 inches x 28 inches overall. Boards this size will usually have a 20 inch x 28 inch front panel. Production guidelines are presented below:

- On the center section of the display board, measure a centered square about 12 inches x 9 inches. The square can be larger or smaller depending on the size of the display board. We use a template made out of mat board to facilitate designating the area to cut out the window of each puppet stage.



Photograph 3: Template for window for the puppet stage placed on the display board.

- A knife with a retractable blade works well for cutting the square out of the display board and makes smooth cut lines. A knife with a serrated edge or sturdy scissors will also do the job. Do not be concerned about making precise cuts because you

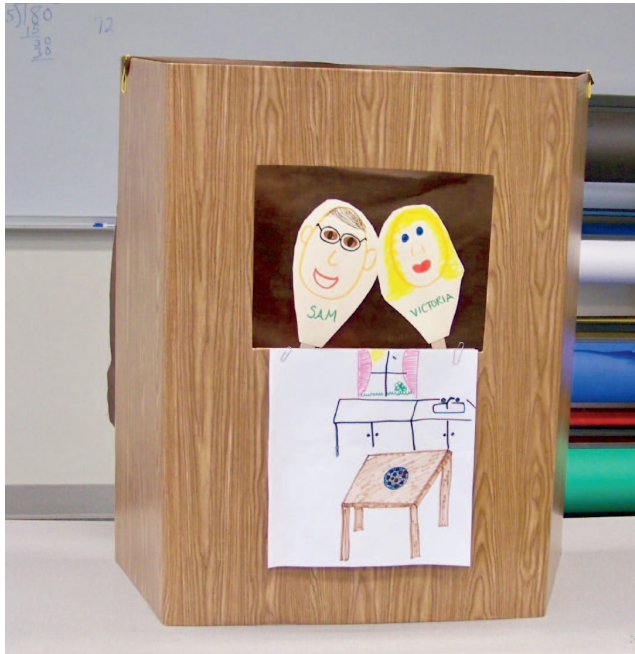
can cover the edges and make them smooth. Be sure to place a piece of scrap mat board under the display board to keep from damaging the surface below the display board.

- Cover the outside of the display board with plastic adhesive such as Con-Tact®. We have found that it is much easier for two people to cover the board with the adhesive than for one person to attempt to do it. Cut two full pieces of Con-Tact® 31 inches long and one piece 31 inches by 9 inches. This will be enough to cover the board. The 9-inch wide piece is half the width of the Con-Tact® roll and, consequently, can be used for part of the covering for another stage. Completely cover the board with Con-Tact® leaving about one inch over the edges. Turn over the board with the Con-Tact® face down. Draw a line from the upper right corner of the window to the lower left corner and from the upper left corner to the lower right corner. This makes lines in the form of an X with four triangles. Cut along the lines and then fold over the triangles onto the edges of the window. This will make a very neat and secure window.
- Fold over the Con-Tact® on the outside edges. Before folding, it is helpful to trim the corners to avoid excessive overlap of Con-Tact® on the corners.
- There is a variety of eye-appealing patterns typically found in the shelf liner section of stores. On the other hand, some teachers simply get a plain colored display board, cut out an opening, and are ready to go on with the show.
- Cut a plain piece of cloth to use as a backdrop so that the puppeteer(s) is not visible. The cloth can be clipped onto the edges of the stage with large paper clips or clothespins. It is very helpful if the cloth is translucent so the puppeteer can make out the outline of the opening but not be visible to the audience.
- Open the sides to stand up the puppet stage. You might need to place objects such as tape dispensers at the lower inside edges to keep the ends from folding in toward the center. The stage is now ready for your puppet performance!

### Performance Reading and Puppet Manipulation

Students are invited to read the scripts with partners. We sometimes have the students, especially struggling readers, retell the story without the script (Kroskinen, Gambrell, & Kapinus, 1993). The partner(s) might be a fellow classmate, a lead reader such as the teacher, the whole class as in choral reading, or with an older more competent reader (Leland & Fitzpatrick, 1994). For example, fourth graders might read and make puppets with second graders. Sometimes we use all of the strategies mentioned above with a group of children. The students then make the puppets as

described above. The puppet production, as one can easily imagine, is a delightful undertaking for the students. Backdrops can be drawn by students to complement the story. The students can clip the background drawings to the front of the puppet stage under the window. Background drawings can be attached to the curtain with paper clips but this can interfere with the puppeteers view and cause the puppets to be more difficult to see.



Photograph 4: Puppet stage.

Once the puppets have been completed, the students are invited to work in teams: one student manipulates the puppets while the other read the story in a readers' theater format. The puppeteer has enough to do without a speaking part and, in addition, it is difficult to hear the puppeteer from behind the stage. We like to practice during the week and have more formal puppet presentations on Friday afternoons. Guests such as the principal, the school librarian, parents, school nurse, and whoever else might be in the area are invited to the presentations. Students enjoy taking their show on the road by visiting other classrooms. This is an advantage in having an easily portable puppet stage. Students switch places so everyone gets to be a reader and a puppeteer. The earlier practice encourages reading fluency. In addition, the students are very motivated to "sound good" when reading the script to their classmates. It is not a drawback that the class hears the same story several times. The activity of the puppeteer and the engaging voice of the readers hold the attention of the audience.

We especially enjoy seeing highly talented students enjoying the opportunity to shine. For example, capable

students can turn a story into a readers' theater script and perform for an audience. In addition, they might write their own version of a story for presentation in a six-o-clock evening news format. They usually would have an anchor, reporter in the field, and characters to interview. The flexibility of readers' theater formats provides opportunities for the weakest of readers but also for the strongest of readers. Provisions for gifted students have been greatly curtailed in many school districts primarily due to economic conditions. Readers' theater, as described herein, provides an opportunity to compensate for special programs for talented students that have been curtailed.

Although we concentrated on division in this article, there are countless opportunities for using *The Doorbell Rang* in reading and mathematics activities. For example, children might determine the measurements in a recipe for making the cookies. On the other hand, characters and stories do not necessarily have to have any mathematical orientation to be useful for integrating mathematics and literature. In this light, the wonderful story *The Paper Bag Princess* (Munsch, 1980) can lend itself to mathematical activities. For example, Princess Elizabeth might have to walk six miles to save Prince Ronald. She stops for a rest after walking two miles. How many more miles does she have to walk to save Prince Ronald? The children could draw a map with a castle and forest and mile designations and, most fun of all, the dragon.

## Conclusions

We feel strongly that the mathematics activities and readers' theater activities described herein present learners with highly positive opportunities for both affective and academic experiences in enhancing both mathematical and literacy competencies. We have completed these activities with hundreds of students. We have observed what Csikszentmihalyi (1998) described as flow, wherein intrinsic motivation is fostered through a state of harmony within the learning environment. Mathematics and artistic activities can be, as Fields, Groth, and Spangler (2004) proposed, authentically related to enhancing reading comprehension and fluency. In addition, students have a product they have played a major part in producing. Tangible products and active engagement are especially important in this, the digital age. In this light, Jackson (2008) determined that there is less and less permanence in the lives of individuals in this, the digital era. We propose that use of manipulative materials in mathematics, the building of puppet stages, creation of puppets and scenery for puppet shows, and readers' theater performances, described herein, provide a sense of anchoring and community within the classroom.

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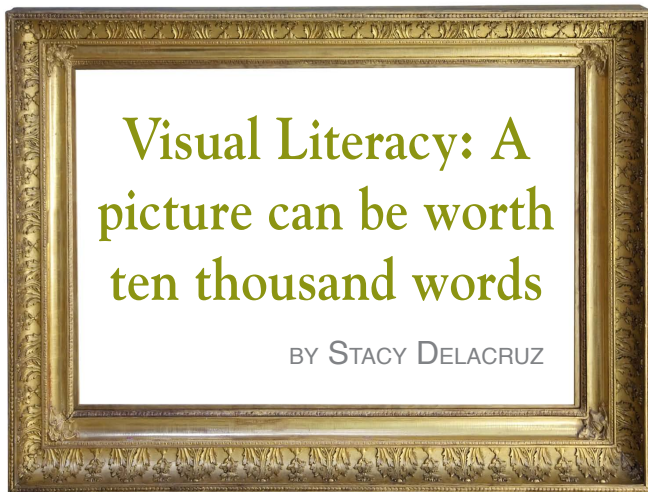
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# FOCUS NEWSLETTER

## *News from members of the GRA*

*Focus* is a format that shares information from and about members and councils across Georgia. This can be reviews of upcoming new books, dates of upcoming meetings, news or exciting happenings about a local council member. What a wonderful way to support the active people in our organization. This is a spot to publish interesting stories or poetry that a talented member or student has written. Send news to Loretta Vail. **Deadlines for *Focus* are September 30, December 15, March 15 and June 15.**

Send articles, thoughts, poems, etc. to:  
Paula Keinert | 4327 LeHaven Circle | Tucker, GA 30084 | pkeinert@bellsouth.net



### Abstract

This article describes a visual literacy project completed by teacher candidates at a Georgia university with students in field placement classrooms in grades 3-5. The purpose of this project was to explore how teachers can use photography to integrate literacy and the content areas. The project was completed during an eight week time period in which each teacher candidate tutored one child in grades 3-5 who struggled in an area of reading. Picture literacy samples indicate that teachers can integrate math with photography and music with photography.

An ancient Chinese proverb once said a picture is worth ten thousand words. Can a picture actually tell a story as well as promote a large amount of descriptive text when a writer writes? Think of this proverb as it relates to the K-5 classroom setting. Can images prompt students to write more reflective, descriptive pieces?

In 1996, the New London Group coined the term, multiliteracies. This theory draws upon a range of ideas about new literacies that have been caused by technological change. One type of new literacy is called visual literacy. Felten (2008) describes visual literacy as "the ability to understand, produce, and use culturally significant images, objects, and visible actions" (p. 60). This definition places an emphasis on one's personal construction of a message from a visual image. A constant in our student's lives in the concept of visual literacy. Visual literacy is all around our students in the world. Different examples of visual literacies include; photography, film, and using pictorial and simple graphic symbols and signs (Alberto, Fredrick, Hughes, McIntosh, & Cihak, 2007). All of these examples can be used in the K-5 classroom to connect content to the lives of our students, and in this particular article, photography was utilized.

As explained by Zenkov and Harmon (2009),

"digital photography has taken a more critical role in our teaching, especially with those students who are reluctant writers" (p. 581). A visual image can spark a student's idea and may allow the student to write more than without picture support. Reluctant writers become motivated by the picture cue and when personal photographs are implemented the assignment becomes more of a text-to-self connection for the writer. Research has shown that visuals assist struggling readers and writers, and English as a Second Language students (Hite & Evans, 2006; Goldenberg, 2008; Sylvester & Greenidge, 2009). In the study conducted by Sylvester and Greenidge (2009), students used photographs as they composed digital stories. "Clip art, photographs, or other graphics may visually compensate for the details that the struggling writer inadvertently omits" (Sylvester & Greenidge, 2009, p. 291). Details that a struggling writer may omit include; figurative language, sensory words, descriptive words. When a photograph is included in the piece, students can go back and revise to add these details.

Researchers agree that visual literacy can assist children in learning to read as well as enjoying reading (Walsh, 2008; Martinez 2010). A study conducted by Walsh in 2008 demonstrates classroom evidence of changed literacy practices involving visual literacy. Her study indicated, "the facilities of digital technology afforded concrete experiences to be used with and transferred into digital texts, as shown in the example of students making figures that were photographed, then developed as a story in a claymation" (Walsh, 2008, 107). Claymation is one type of stop motion animation in which dramatic enactments could aide in visual and kinesthetic learning for younger students.

Emergent readers are learning to read and write while older readers begin to read and write to learn. In writing to learn students do not necessarily go through all the steps of the writing process. Generally students create informal writing that helps them think through key concepts. Much of writing to learn is conducted in third grade and up and is often connected to the content areas.

Content area texts are filled with visual images that support the text. Felten (2008) asserts that images are "becoming central to communication and meaning-making" (p. 60). This is compared to the past when images in texts were used to illustrate and entertain. "The re-envisioned content classroom reflects what we know about how children best learn alongside access to technology" (Flynt & Bronzo, 2010). Teachers in content area classrooms now use Webquests, Glogsters, and Virtual Field Trips to enhance the content area curriculum. All of these multimedia tools

include visual literacy that help students comprehend and clarify as they read and write. Using multimedia tools has a positive impact on collaborative working skills and learner's attitudes (Abbitt & Ophus 2008; Merchant, 2009; Rance-Roney, 2010).

Visual literacy has been found to motivate young readers (Lapp, Flood & Fisher, 1999; Cleaver, 2008). An image can increase motivation by prompting students to connect the photograph to the literacy assignment. Zenkov and Harmon (2009) found that students started off writing explicit questions to photographs but by the end they came up with metaphorical ideas. The content of the writing expanded as higher level questions were asked regarding the photographs.

Visual literacy supports higher levels of thinking such as evaluation and synthesis (Martinez, 2010). Students can be prompted and scaffolded to think deeply about photographs. Kress (1998) poses an important question, "As we move to an increasingly visually-dominated culture where students are expected to code and decode complex messages in a variety of media, shouldn't literacy instruction include visual media as well?" Visual media can be "decoded" as students explore a picture's deeper meaning.

According to Williams (2010), "The shift from the printed text to the visual is obvious in our daily lives, but the concept of visual literacy is still very limited in classroom practice" (p. 635). This article explores ways in which visual literacy can be integrated into content areas within classroom practice. Content literacy was selected as the assignment's focus because, "using visual literacy in the content areas is not purely limited to the creation of stories but is an opportunity for students to expand their knowledge of the world around them" (Williams, 2010, p. 641).

The intent of this assignment was to identify ways visual picture literacy could be integrated into the content areas. Research questions that were involved in this study include; What subject areas can be integrated into visual picture literacy? What were the teacher candidates perceived benefits and challenges of using visual picture literacy in the classroom? How did teacher candidates integrate visual picture literacy into the content areas?

### Context of a Picture Literacy Project

Teacher candidates at a university in Georgia, each tutored one student in grades 3-5 over the course of eight weeks. The student struggled in at least one area of reading, and received fourteen hours of literacy instruction with the teacher candidate. The teacher candidates completed a larger portfolio project in which they conducted interest inventories

and literacy assessments. After conducting these assessments, candidates developed an instructional plan for their student. During this time, this small study resembled action research as the teacher candidates developed a picture literacy lesson plan (based on prior assessments), collected student's picture literacy work samples, took field notes, and assembled observational data about the students.

The students tutored were all from diverse backgrounds. The teacher candidates in this project all participated in an urban cohort and attended classes held at a Professional Development School (PDS). All the schools they had their field experiences at were in an urban part of a large school district. Many of the students came from low socioeconomic backgrounds and some of the students were English Language Learners.

### Picture Literacy used in Multiplication

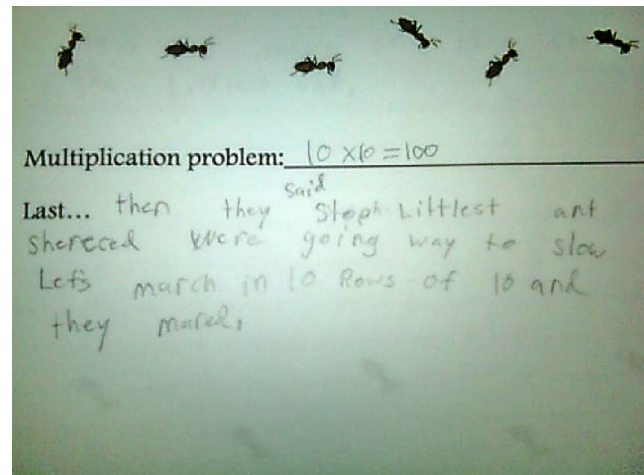


Figure 1.1: Multiplication Picture Literacy Writing

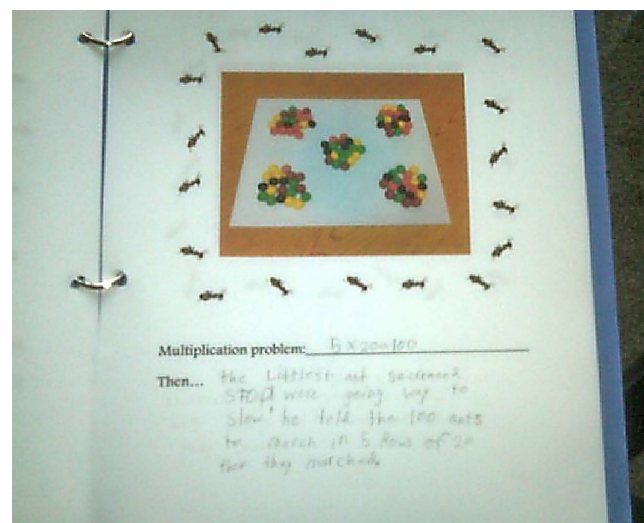


Figure 1.2: Multiplication Picture Literacy Page

Figures 1.1 and 1.2 illustrate book pages from a written retelling of the story *100 Hungry Ants* by Elinor

J. Pinczes. The teacher candidate administered an interest inventory on her fourth grade student. She found that this student enjoyed creating and solving math problems; however they also struggled with multiplication. The teacher candidate wanted to integrate multiplication review with literacy in order to practice for the upcoming achievement tests that would take place.

The teacher candidate read the book to her student who was also an English Language Learner (ELL). Herrell and Jordan (2008) described the Read-Aloud Plus strategy to assist ELLs in their language acquisition. The teacher candidate implemented that strategy by stopping the read-aloud every few pages to have the students model the math problem. The student used jelly beans to represent the groups of ants. As the teacher candidate checked the student's work, she took a picture to keep as a future visual.

The next day the teacher candidate brought the math problem pictures into the tutoring session and had the student retell the story by sorting the pictures according to the sequence in the story. Once the student had sorted the picture math problems correctly, she gave him a page to write the multiplication problem and the story to match the problem. Once each page was complete, the teacher candidate used book rings to bind the book together, read it with the student, and encouraged him to revisit the text by bringing it to future tutoring sessions. The classroom teacher found out about this exciting project and asked to have the copy to place in her classroom library for all the students to read.

### Picture Literacy Used in Estimation

Another teacher candidate decided to extend her student's love of math and incorporate a concept the student was learning about, which was estimation. The book, *Betcha!* by Stuart J. Murphy was read in a tutoring session. In the text, two boys have to estimate how many jelly beans are in a glass jar in order to win tickets to a playoff game. The text explains an estimation strategy that the teacher candidate wanted to try with her student.

After the book was read, the teacher candidate brought in a jar of gumballs for the student to estimate. The student took two pictures of the jar of gumballs. Figure 2.1 was taken looking into the jar from the top, and Figure 2.2 was taken looking at the side of the jar. Using the picture of the top of the jar, the student divided the top of it into four equal sections. Then the student counted the number of gumballs in one section. This number was multiplied by four to estimate the total number of gumballs on the top layer of the jar.

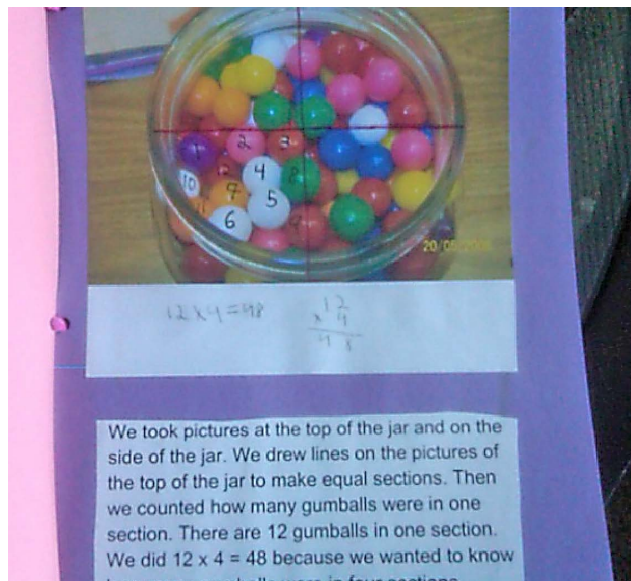


Figure 2.1: Picture Literacy Gumball Estimation

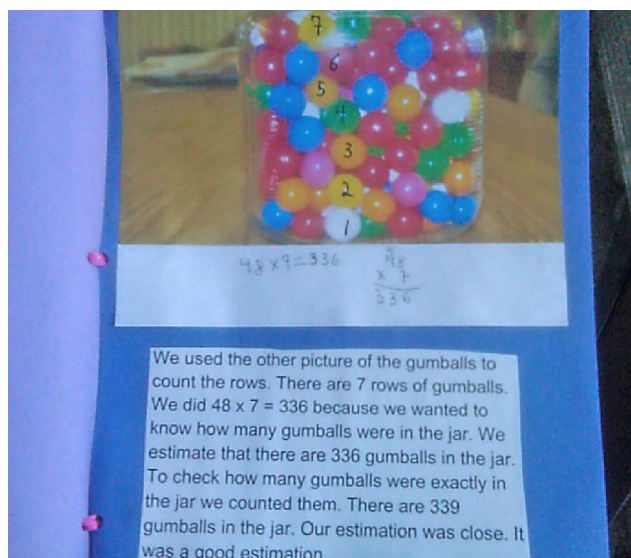


Figure 2.2: Picture Literacy Gumball Actual Count

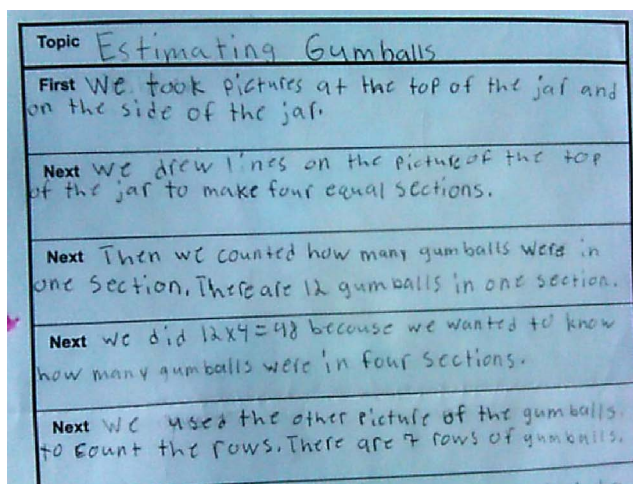


Figure 2.3: Picture Literacy Estimation Sequence

The picture in Figure 2.2 was then taken and used to count the number of layers in the jar. That number was multiplied by the number of gumballs on the top layer. This gave the student an estimate of gumballs in the entire jar. The student's estimate was 336, and the actual number of gumballs was 339. The student had to show her math work beside her pictures as she went along. The sequencing organizer (see Figure 2.3) was used to record each step of the problem. Once the student was finished, the teacher candidate had the student review the sequencing organizer and edit the work. The final product was then typed using the computer and then the student assembled a "How-To" book on estimating gumballs in a jar.

### Picture Literacy in Language Arts and Music

A way to bring Gardner's (1983) musical intelligence theory connected with literacy is to have students design an album. Based on an interest inventory, a teacher candidate found that her tutee enjoyed music. The student also had a class assignment in Language Arts which instructed her to write her autobiography. She struggled to gather ideas and extend upon them. She had the tutee select five songs that connected to major events in her life. The student then wrote "liner notes" for her album describing how each song connected to her life. This project required the student to make text-to-self connections, identify themes, and allow the student to edit her writing.



Figure 3.1: Picture Literacy Liner Notes

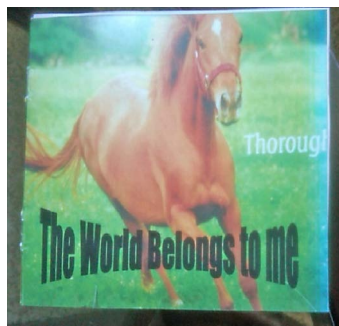


Figure 3.2: Picture Literacy Music Album Cover

To begin the teacher candidate created an organizer on which the student wrote the song title and a description of the connection. The teacher candidate then allowed the child to use Microsoft Word to type up the liner notes (see Figure 3.1). The student worked harder at communicating clear

and detailed ideas while working on the computer. She knew her intended audience would see a published version that resembled a compact disc (see Figure 3.2), so she became motivated to revise and edit her work correctly.

### Discussion

Teacher candidates who took part in this project used the student's interest inventories and literacy assessments to guide their picture literacy project. It is recommended that teachers also use content area assessments to determine student needs in those areas. For example, if a student performs below average on a science pre-test about simple machines, then a teacher could have the student bring in a picture of their bicycle and then label and write about the parts of it that make it a simple machine.

Many students included in the project were reluctant writers. They became engaged in the project, specifically when the teacher candidates allowed them to take a picture or bring in a picture. One teacher candidate explained, "As my student was writing he kept explaining the concept in the picture in greater detail. I was surprised to see him write as much as he did."

Another interesting comment made in the teacher candidate's field notes was how typing on the computer assisted students in the revision and editing process. A teacher candidate discussed, "My student showed a lack of detail in his hand writing. When I had him transfer it to the computer, he realized he needed to add more detail to make the audience fully understand his directions". The student flourished when typing on the computer because he didn't have to worry about neatness in handwriting.

The project assisted ELLs in their revising and editing. One Vietnamese student wrote a "How-To" book about creating origami. "At first, he wrote the directions down like he spoke", one teacher candidate admitted. "I then re-read what he wrote so he could hear someone else read it aloud. This method worked because he actually noted that the grammar was incorrect." This teacher candidate also reflected in a journal that she took the student's sentences from his book and completed syntax surgery on them. Syntax surgery is a method where the teacher identifies grammar errors and lists sentences with those errors on sentence strips. The student cuts out the grammatically incorrect word and replaces it by writing the correct word form in. This method allowed the student to identify the errors first, and then go back to revise and edit his piece.

### Obstacles of Change

Although the picture literacy project was a favorite



among teacher candidates in this course, one consistent obstacle was discussed in reflection. Teacher candidates were afraid and hesitant to use a camera in the classroom in fear of other colleagues labeling them as teachers who did not teach to the standards. "I'm afraid others will view this as a fun picture activity with little meaning or learning", one teacher candidate commented.

To alleviate their fears after the project was completed, the teacher candidates went back and labeled the standards that each project covered. The teacher candidates were surprised that not only did their projects meet a few literacy standards, but it also met cross-disciplinary standards as well. Most of the projects covered either science and literacy or math and literacy, but options were discussed of how to cover social studies and literacy as well.

Another obstacle for change was classroom management. This project was completed with one student. Teacher candidates feared that with a classroom of twenty-five students, it would be very difficult to monitor equipment and control the classroom. This discussion led to helpful recommendations when utilizing picture literacy in a regular size classroom. One idea was to seek out grants in order to purchase disposable cameras that could be sent home with one child for a few days, and then rotated among a small group of 5-6 students. Another idea involved placing the digital camera at a learning station so a smaller number of students would have access to it at one time.

### Conclusion

After the project was completed in the Spring of 2011, the teacher candidates went inside a PDS to meet in a fourth grade classroom for a class. Once inside the K-5 school, teacher candidates commented about the hallway displays. One third grade teacher had displayed student's work on insects where the students had taken real-life photographs and written about the particular insects. Another hallway display showed pictures of fifth graders now in fifth grade, and then when they were just kindergarteners. The students also did some writing about their accomplishments throughout that time.

As the teacher candidates passed through the hallways they were excited to see picture literacy fill the school! The opportunities to incorporate visual literacy in the classroom seemed endless. I was excited as well to know that this type of visual literacy is motivating students to write more and add detail to their writing.

A picture can be interpreted in various ways and is worth many words. Photography can scaffold students in their literacy learning. According to the EnGauge

report on 21st century skills, visual literacy is a key skill for the future. Utilizing photography as part of visual literacy can infuse 21st century skills in our K-5 students.

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## GEORGIA JOURNAL OF READING CALL FOR MANUSCRIPTS

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As editors of the *Georgia Journal of Reading*, a refereed journal of the Georgia Reading Association, we invite those interested in improving reading and language arts instruction at all levels to submit manuscripts for publication in future issues. *The Georgia Journal of Reading* is published twice yearly in Spring and Fall.

We request articles that are grounded in current theory and research, book reviews, or creative teaching strategies that address all levels from elementary to college. Three types of manuscripts are currently being solicited.

### Full-length Articles

These articles should deal with research, current issues, and recent trends in reading or literacy programs. Appropriate topics for the Journal include project descriptions, research or theoretical reports that address pedagogical implications or issues in reading education at the local, state or national level. Preference is given to articles focusing on topics that impact Georgia's students.

### Articles for the Exchange Column

Articles for this column should describe creative teaching ideas and strategies that can be implemented in the classroom. These articles are shorter than full-length and may or may not require references.

### Book and Resource Reviews

Reviews should describe and critique children's books, professional books, or reading resources that are appropriate for use by teachers and reading professionals. Complete bibliographic information, the

address of the publisher, and the cost of the resource should be included.

### Manuscript Guidelines

Manuscripts should be submitted electronically in Microsoft Word, double-spaced, and the format should conform to the guidelines presented in the Publication Manual of the American Psychological Association (6th Ed.). Manuscripts should not exceed twenty double-spaced typed pages. The author's name, full address, telephone number, email address, and school/affiliation, and a brief statement on professional experience should be submitted on a separate cover page. The author's name or any reference that would enable a reviewer to know who the author is should not appear on the manuscript. Manuscripts will not be sent out for peer review until this information is provided. All manuscripts will undergo a blind review by at least two members of the editorial board. Decisions will be made within 8-12 weeks of publication of the journal for which the submission was made. Only electronic submissions will be accepted.

**Please submit all manuscripts to the co-editors:**

**Lina B. Soares and Christine A. Draper**  
**grasubmission@georgiasouthern.edu**

*Lina B. Soares, Co-Editor*  
*Georgia Journal of Reading,*  
*Georgia Southern University*

*Christine A. Draper, Co-Editor*  
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*Georgia Southern University*



# Using Interactive Whiteboards to Enhance the Writing Process

BY LAURA K. ELY AND JERILOU J. MOORE

## Abstract

Gone are the days when reading and writing consisted solely of printed text on paper. Now, electronic text encompasses much of what we read and write on a daily basis. This electronic text is provided to us by the World Wide Web in various forms such as emails, blogs, Wikis, and social networks. It is vital that schools stay up-to-date by incorporating this technology into the classroom and thus developing students' reading and writing abilities. The interactive whiteboard is one such tool that can be used throughout the five stages of the writing process to enhance students' writing.

In today's society, literacy encompasses more than just reading and writing of printed text. It has broadened into the digital world. To be literate in today's society involves reading and interacting with massive amounts of text provided by the World Wide Web, such as blogs, Wikis, texts, emails, search engines, and the many social networks. It is vital that students be able to learn, read, and compose work using digital technologies (Sylvester & Greenidge, 2009). Reading and writing are similar processes that belong together and the digital world provides the natural scaffolding for this.

Reading and writing should not be thought of as individual components but rather as interrelated aspects of literacy instruction. In fact, many believe that

providing daily opportunities for students to participate in "reading like a writer" and "writing like a reader" is what makes an evidence-based reading instructional program complete (Reutzel & Cooter, Jr., 2009). The majority of skills acquired in becoming a good reader will also aid one in becoming an effective writer. How can these skills be taught in a way that enhances both a student's reading and writing abilities?

"According to the National Center for Education Statistics, only about one-third of today's eighth-grade students are proficient writers, and only one-quarter of high school seniors demonstrate an ability to write proficiently" (Kozel, 2010, p. 8). Since students as a whole are clearly not receiving needed writing instruction, now is the time for teachers to think of ways to enhance writing instruction in an innovative way. What better way to do this than by using technology?

The U.S. has quickly become a technologically-driven nation. Students of today are so accustomed to using technology on a daily basis that life without it is unimaginable. However, many students do not receive adequate opportunities to interact with technology during instruction. There could be many reasons for this.

Whether the reason for not utilizing technology is the inability of the teacher to facilitate its use in the classroom or the belief that traditional teaching is the only way to work with students, it is the responsibility of the teacher to stay current and provide the most effective practices available to them. Research from the National Center of Education Statistics shows that in 2009, ninety-seven percent of public schools had one or more computers with ninety-three percent having Internet access. The technology is in the schools but is changing constantly.

Society has changed in the past few decades due to technology. For example, consider video cassette recorders, more popularly known as VCRs. At one point in time, VCRs were insanely popular technological devices, and now they are essentially obsolete due to the invention of the DVD (digital versatile disc) player. Nothing was wrong with VCRs and they can still be used, however the invention of the DVD player made movie watching easier and more exciting. Why should this not apply in the classroom as well? Although traditional teaching practices still work, new and more motivating digital technologies can be more effective.

Technology can motivate, as well as, engage students in learning. In fact, research shows a positive correlation between motivation and interactive technology (Martin, 2007). One type of interactive technology that has strongly motivated and engaged students during reading and writing instruction over the past few years

is the interactive whiteboard. Results from a study done in Turkey which surveyed student attitudes on the use of the interactive whiteboard showed that 62% of the participants concentrated better when an interactive whiteboard was used in lessons, and 63% of participants believed that the use of an interactive whiteboard made it easier to be motivated (Mathews-Aydinli & Elaziz, 2010).

There are numerous appealing reasons to use an interactive whiteboard during reading and writing instruction. One very important reason to use the board is that it accommodates different learning styles (Bell, 2002). Differentiating instruction is one of the top considerations in teachers' instructional planning. Students who are visual learners will benefit from watching the lesson unfold before their eyes on the board. Auditory learners will profit from the high-quality discussions that occur during interactive whiteboard lessons and embedded sounds. Tactile/kinesthetic learners will enjoy coming up to the board and using the pen to draw, write, highlight, and drag items.

Another great advantage of using the interactive whiteboard is that it encourages collaboration among students. The board is a great way to get a large group on task and engaged in the lesson. Students can work in small cooperative groups at the board, by the computer, or participate in whole class discussions related to the activity at hand (Bell, 2002).

The interactive whiteboard seems to be one of the best technology devices available to the classroom teacher for small group and whole-class learning experiences. Since whiteboards can be used with different learning groupings and seem to motivate and enhance learning, the next step is to implement their use within instruction. What are some ways that teachers can use the interactive whiteboard in particular to create high-quality writing experiences for students?

Implementing the use of the whiteboard for instruction with each stage of the writing process is an efficient way for the students to be engaged in learning as each stage of the writing process can be enhanced by the its use. The writing process stages are prewriting, drafting, revising, editing, and publishing. Below are some activities that can be done using the interactive whiteboard at each stage of the writing process.

### **Prewriting**

Prewriting is often the most time consuming stage of the writing process for students since choosing a topic, gathering information, and organizing thoughts can be difficult. The Internet can easily be used as a source of information needed to decide on a topic. The actual search can be projected onto the whiteboard

so students can read, process, and record information gathered. This can be done in small or large group settings. The teacher would make the decision as to whether the whole class works together or is divided into small cooperative groups that have certain jobs that they are responsible for during the writing process. Once the information is gathered and brainstorming is complete, organizing the data is imperative. Prewriting with graphic organizers is a popular and efficient way for students to organize their thoughts on paper. However, these graphic organizers can be even more beneficial to students' prewriting skills when used with technology. Teachers can project a pre-existing or found graphic organizer, create one from scratch, or have students create one on the interactive whiteboard. Once this is complete, the graphic organizer can be enlarged and projected for the whole class to see clearly from their seats within the classroom. Then the teacher and students can discuss as a class, how to fill in the graphic organizer. For example, after reading a story in class, students can fill in a graphic organizer showing the parts of a story: characters, setting, problem, solution, etc. Teachers can have students come up to the front of the room and write or type on the computer a character name, where the story took place, a major conflict in the story, or how it was resolved. Many students enjoy interacting with the whiteboard and sharing what they know with the class.

Students should have an opportunity to use the whiteboard to develop their own graphic organizers at some point. This allows them to be creative in their development of a graphic organizer which represents their own understanding of information rather than the teacher's knowledge of the information (Montelongo and Herter, 2010). When students are permitted to create their own graphic organizers at the whiteboard, they are actively engaged. During this activity, they can practice using the shapes and lines to create a web, and then use the pen to fill in their graphic organizer. Use of the whiteboard makes prewriting more efficient, because of its ease and neatness. Students can simply erase at the click of a button and redraw rather than dealing with pencil smudges and eraser dust. Of course, not all students will be able to stand at the whiteboard at once, so this would be a good time for teachers to implement centers where students work in small groups and take turns at the whiteboard.

### **Drafting**

Drafting is the stage of the writing process where students are encouraged to write until they get their ideas on paper. At this stage, students should not worry about creating a perfect piece of writing, free of errors. They should concentrate on the writing, and not the mechanics, like punctuation, grammar, spelling, etc. The mechanics will be addressed in other stages.

Students will probably write multiple drafts throughout the next two stages, revising and editing.

Because the creation of a rough draft is best accomplished when students are given a pencil and paper and silent sustained writing time (with no distractions), one might ask how the interactive whiteboard can be used at this stage of the writing process. Although students might not use the interactive whiteboard when actually drafting their writing, teachers should still use the board to model the drafting process for the students. It is important for students to see what the transition from prewriting to drafting looks like and learn strategies for getting ideas down quickly and efficiently.

Teachers can start by showing the students a pre-made graphic organizer that has a main idea in the center and at least three supporting ideas branching out from the middle. For example, the main idea might be “Snow days are fun.” The three supporting details could be, “You get to go sledding,” “You can make a snowman,” and “You drink hot chocolate.” The teacher can explain to students that a good piece of writing typically has at least an introduction, three supporting paragraphs, and a conclusion. The teacher, using the interactive whiteboard, can guide the students in how to write a rough draft about snow days. The students will provide supporting details for each of the paragraphs so that the writing becomes vivid and descriptive. The teacher will use the whiteboard pen to write these ideas. Students who are willing, may come forward and draft a line or two, if they feel comfortable doing so.

### Revising

Revising is an important stage of the writing process where students can modify their writing and the writing of others by adding, removing, clarifying, and rearranging information. This stage deals with making changes to the quality of the writing, not stylistic and grammatical changes. Like the other stages discussed thus far, the revising stage of writing can be enhanced using the interactive whiteboard in both whole class and small group settings.

One way for teachers to use the revising stage is to project a student’s writing onto the interactive whiteboard for the whole class to participate in revising. The teacher should be sure to cover up or mark out the name of the student in order to keep anonymity. From here, the teacher will prompt students to discuss the quality of the writing. Some examples of good questions to discuss when revising can be seen in Figure 1. It is important to allow discussion of positive aspects of the writing, as well as, constructive criticism of ways in which the writing could be improved. This will provide the anonymous students the feedback that they need in order to improve their writing for the next stage of the

writing process.

Teachers can directly involve students in the revising process by having them interact with the whiteboard and make these revisions. For example, students can draw an arrow to where a sentence should be moved, use the pen in red to cross out unnecessary sentences, underline in another color unclear words, or use a third color to write in information that is needed. Another idea is to have students use the highlighter on the interactive whiteboard to mark the topic sentence and main supporting details.

Although the revising process using the interactive whiteboard works well in the whole class setting, it can also be used with small groups. The teacher can project a student’s writing onto the board and have his or her group members stand at the board and provide feedback. In this scenario, it is probably more appropriate to reveal the author of the writing since there is a smaller audience and the revising is in a more intimate setting. Again, the teacher should remind the students to provide both positive comments and constructive criticism. Also, the teacher should encourage the group members to discuss revisions that need to be made before marking these revisions on the whiteboard. Students should be reminded that these revisions should only deal with making big changes to the writing, not proofreading changes such as those dealing with spelling or punctuation.

### Figure 1: Prompting Questions for Revising Writing

- Does it have a good topic sentence/thesis?
- Do the details provided support the topic sentence?
- Are the sentences ordered in a meaningful way?
- Does the story flow well?
- Should any information be added? Taken out? Moved?
- Does the introduction capture your attention? If not, how can it be more engaging?
- Does the conclusion do a good job of summarizing what has been written? If not, how should it be written differently?

### Editing

Editing is the stage of the writing process where students proofread their writing. This is the stage where students are able to “clean up” their writing and prepare it for the final stage of being published. For example, corrections are made regarding capitalization, punctuation, subject/verb agreement, spelling, etc.

Teachers can guide students through the editing process using the interactive whiteboard in a similar way that it was used during the revision process. Just like before, teachers can project an anonymous student’s writing onto the board and lead the class in

a discussion as to how this writing should be edited. Students can come up to the whiteboard to make one change at a time. For example, a student can come up to the board and use the interactive whiteboard pen to add a comma where needed, change the first letter at the beginning of a sentence from lowercase to capital, or change the spelling of there dog, Rover to their dog, Rover. A checklist of other things to consider when editing appears in Figure 2. After the student has come up to the board and marked what they believed should be edited, the teacher should address the class and ask what the student did and why this change was made. It is important for students to discuss why each change to the writing is made so that they fully understand the rules for grammar, spelling, and punctuation for the next writing assignment and stay actively engaged.

Using technology is one of the best ways for students to feel engaged and active in the writing process. Students will enjoy writing on the interactive whiteboard during the editing stage because it allows them to experience a hands-on approach to writing as well as gives them the opportunity to take part in the development of their classmates' writing. In addition, students can work in small groups to offer their peers feedback during the editing process. Group members can take turns reading through the text and marking any changes that they feel need to be made. The teacher should remind the students that they should be considerate when providing this feedback and that the author should be accepting of this constructive criticism since writing can be improved through the advice of others.

**Figure 2: Editing Checklist**

- \_\_\_\_\_ Has the author capitalized words at the beginning of a sentence? Proper nouns?
- \_\_\_\_\_ Are commas placed appropriately within the sentences?
- \_\_\_\_\_ Has the author used periods, question marks, and exclamation marks appropriately?
- \_\_\_\_\_ Are there any misspelled words?
- \_\_\_\_\_ Has the author used quotation marks correctly?
- \_\_\_\_\_ Does the text contain any fragments? Run-ons?
- \_\_\_\_\_ Can any shorter, choppy sentences be combined to form one longer sentence?
- \_\_\_\_\_ Are there any words that are used inappropriately?
- \_\_\_\_\_ Does each subject agree with its verb?
- \_\_\_\_\_ Are apostrophes placed in the correct place

within a word?

\_\_\_\_\_ Does each pronoun match the subject to which it refers?

**Publishing**

Publishing is the final and most gratifying stage of the writing process for the students. Once students have received the advice from their peers during the revision and editing processes and made the necessary changes, they are ready to share their work. When students are able to publish their writing online, they take great pride in this, because they become a published author and can share it with many, many people. Another benefit to publishing is that it gives students a sense of ownership over the work they have created and encourages them to do their best work. There are numerous websites that make publishing student work easy. Some of these websites are listed in Figure 3. For safety reasons, it is best to submit the student's first name only, age, and school name (optional). Teachers should remind students that anyone can publish their work online but encourage them to only submit work that they feel is their best.

**Figure 3: Websites for Publishing Student Writing**

- Cyberkids, [www.cyberkids.com/index.html](http://www.cyberkids.com/index.html)
- Scholastic, <http://teacher.scholastic.com/writewit/index.htm>
- Kids Book Shelf, <http://www.kidsbookshelf.com>
- Kid Pub, <http://www.kidpub.com>
- Launch Pad, <http://www.launchpadmag.com>

There are many other uses of the whiteboard to encourage student writing. Figure 4 provides explanations for these ideas. One of the ideas is Digital Storytelling that allows students to use technology and the writing process to make a multimedia presentation. The presentations can be saved and presented to the class or published online. Using the interactive whiteboard will be an enjoyable way for students to present their work, and also more engaging for the students in the audience than a paper-made storybook (DeVries, 2011).

Another idea for using the whiteboard to enhance writing is to use it for vocabulary lessons. It provides the teacher a way to review weekly vocabulary words with students. This activity would be engaging to students as well as allow them to show their creativity in coming up with a sentence of their own.

It is important for students to understand the writing process to be able to produce good writing. The whiteboard can even help with learning and reviewing the writing process. There are several websites that provide review and practice of the writing process. One

of the websites is [www.funbrain.com](http://www.funbrain.com) that provides explanations of the stages of the writing process (DeVries, 2011).

**Figure 4: Other Ideas for Using the Interactive Whiteboard to Improve Writing:**

**Digital Storytelling**

- First, students write a short story and divide that story into scenes/slides
- Next students find graphics online to complement the slides or draw these pictures themselves and scan them onto the computer
- Then, the student records the narration onto the slideshow using a microphone
- Finally, music, slide effects, and transitions can be added
- Allow students to present their digital stories to the class using the interactive whiteboard

**Vocabulary Lessons**

- Create a vocabulary chart that is projected onto the interactive whiteboard at the beginning of reading instruction each day
- Have columns for definition, part of speech, and sentence
- Allow a student to come up to the board and use the interactive whiteboard pen to write the definition, part of speech, and sentence with one of the words

**Writing Process Review**

<http://www.funbrain.com> explains the stages of the writing process

**Concluding Thoughts**

Interactive whiteboards, although relatively new in the world of education, have proven to be extremely beneficial to student learning, particularly in the areas of reading and writing. Research shows that shared writing, interactive writing, and guided writing are all instrumental aspects of a high-quality writing program (Gilbert, 2008). The common core standards section, production and distribution of writing, encourages development and organization, interaction and collaboration, and the use of technology to strengthen writing (Standards, ) (figure 5). Not only do these boards cater to a variety of learning styles, but they also encourage collaboration among students and teachers. This supports what the International Society of Technology Education (ISTE) shares as a vision in the National Educational Technology Standards (NETS) (ISTE, 2009) (figure 6). Furthermore, studies on the use of interactive whiteboards in classrooms have shown that these tools can be both highly motivational as well as engaging to students.

**Figure 5: Production and Distribution of Writing from Common Core Standards**

- **W.4.4.** Produce clear and coherent writing in which the development and organization are appropriate

to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)

- **W.4.5.** With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.
- **W.4.6.** With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting.

**Figure 6: ISTE NETS Standards**

**Excellence in Professional Practice**

Educational Administrators promote an environment of professional learning and innovation that empowers educators to enhance student learning through the infusion of contemporary technologies and digital resources. Educational Administrators:

- a. allocate time, resources, and access to ensure ongoing professional growth in technology fluency and integration.
- b. facilitate and participate in learning communities that stimulate, nurture and support administrators, faculty, and staff in the study and use of technology.
- c. promote and model effective communication and collaboration among stakeholders using digital-age tools.
- d. stay abreast of educational research and emerging trends regarding effective use of technology and encourage evaluation of new technologies for their potential to improve student learning.

Because interactive whiteboards appear to be effective technological devices, it is no surprise that their prevalence in schools across the world is growing at a rapid rate. SMART Technologies, a leader in interactive whiteboard technology, released a statement in January of 2011 stating that roughly 8 percent of the world’s classrooms have an interactive whiteboard and approximately 36 percent of U.S. classrooms have an interactive whiteboard (SMART, 2011). Statistics like these show that while interactive whiteboards still have a ways to go, they are slowly replacing the antiquated blackboard and dry erase board.

The writing process, although highly efficient, is a strategy that has been used for decades in classrooms. It guides students through stages as they produce a manuscript and helps them develop good writing skills. Let’s liven up this process with technology, something that plays a huge role in the lives of youth today. Teachers who have access to these interactive whiteboards should take full advantage of this amazing opportunity to improve students’ reading and writing.

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## Georgia Reading Association GOALS

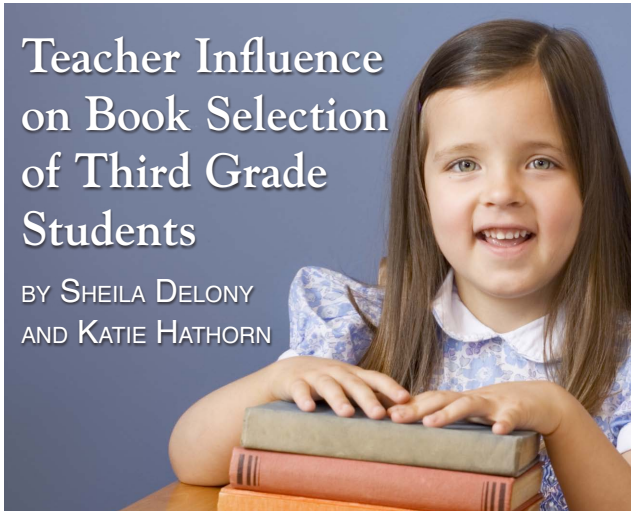
- Empower members of the GRA and local councils to become effective leaders in the field of literacy.
- Provide quality reading education services to all Georgia educators.
- Recognize exemplary individuals, local, and state literacy efforts.
- Achieve maximum involvement of members at the local, state, and international levels to receive maximum benefits.
- Promote the goals and objectives of the International Reading Association of Georgia.





# Teacher Influence on Book Selection of Third Grade Students

BY SHEILA DELONY  
AND KATIE HATHORN



## Abstract

This study explored the ways that two teachers taught their students to select books for independent reading and the ways the students demonstrated their understanding of those lessons. Two teachers and 12 third-grade students participated in this qualitative, comparative case study. Results suggest that students who learned to select books based on personal interests and to judge the book's level of difficulty independently demonstrated higher levels of self-efficacy and intrinsic motivation to read. Conversely, students who learned to use external criteria for choosing books demonstrated an external locus of control and relied on external motivation for reading.

Much emphasis in research and media is placed on reading achievement, yet few people seem to be asking exactly what it is that teachers and their students should be achieving. While it has become cliché for teachers to say that they want their students to become lifelong readers, Graves (2002) cautions that "increased emphasis on testing and its attendant promise of rewards has led school systems to abandon the reading approaches that are more likely to produce lifelong readers" (p. 2). Fountas and Pinnell (2001) suggest that children who become readers collect books, have reading preferences, and read for varying purposes, including enjoyment. It follows then, that for students to become lifelong readers, they must be effective at selecting books for independent reading.

## Motivation and Text Selection

Life-long readers are characterized by attitudes not of obligation, but of enthusiasm and desire towards reading and reading activities. These attitudes are directly affected by a reader's motivation; "even the reader with the strongest cognitive skills may not spend much time reading if he or she is not motivated to read" (Wigfield, Guthrie, Tonks, & Perencevich, 2004, p. 299). Because of its importance, teachers must develop an awareness and understanding of

reading motivation if they sincerely want students to become life-long readers.

Motivation to read takes two forms in the classroom: extrinsic motivation and intrinsic motivation. While extrinsic motivation, including tangible rewards and incentives, can prove to be a powerful force in students' lives (Wigfield et al., 2004), research provides evidence that inconsistencies exist between the goals behind the use of the rewards and the actual outcomes (Biggers; Wigfield et al.). For example, in Accelerated Reader (AR), which is a supplemental reading program, there is heavy reliance on a point system used to motivate readers (<http://www.readingonline.org/critical/topping/rolarD.html>). The use of the AR program may actually have negative effects on the reader's engagement level due to its focus on prizes, not on the intrinsic benefits of reading (McKool 2007; Pavonetti, Brimmer, & Cipielewski, 2002; Melton, Smothers, Anderson, Fulton, Replogle, & Thomas, 2004, p. 20). As the extrinsic incentive for reading is removed, so is the desire to read (McKool; Melton et al.). Furthermore, it has been noted that the program limits readers in their choice of books; if an AR test does not accompany a book, that book oftentimes goes unread.

In contrast, intrinsic motivation comes from within a reader (Wigfield et al., 2004) and includes a reader's interests, self-efficacy, and affective reactions (Cole, 2002). Readers who are intrinsically motivated consider their interests as they select books and tend to do more recreational reading than their peers (Biggers, 2001; Cole; McKool, 2007; Wigfield et al.). Self-efficacy refers to "what we believe we can do with whatever skill we have" (Jinks & Lorschach, 2003, p. 115) and is a powerful indicator of performance (Wigfield et al.). Children with positive self-efficacies try more difficult tasks and persist through difficulties, thus prompting them to engage in increasingly challenging texts (Wigfield et al.).

According to Rosenblatt's (1978) transactional theory of reading, all texts provide cues that prompt the reader to take a predominantly efferent or predominantly aesthetic stance. An efferent stance is reading for the purpose of acquiring information, as in reading to take a test. An aesthetic stance is reading with the purpose of experiencing the text affectively. Intrinsically motivated readers are more likely to choose the appropriate stance with which to read (Cole, 2002). School contexts, however, provide few opportunities for students to read with an aesthetic stance. Instead, students read with the intent of taking information away, regardless of the stance suggested by cues in the text (Sinha & Janisch, 1996). Cole argues that the mismatch of the intended stance and the stance

taken has a direct effect on the affective reactions of readers and can negatively impact their engagement. To be engaged readers, students must select books with attention to personal interests, believe they are capable of reading the books, and take an appropriate stance toward the reading.

Considering the connection between motivation to read and book selection, the purpose of this study was to explore the ways that two teachers explicitly and implicitly taught their students to select books and in what ways the students demonstrated their understanding of those lessons. The focus was to examine the ways that students chose books for independent reading and whether their motivations were intrinsic or extrinsic.

### Methods

A qualitative, comparative case study provided the framework for this inquiry into students' book selection strategies. The participants in this study included two third-grade teachers and twelve third-grade students. One teacher and six of her students were from "Lincoln Elementary," which received an acceptable rating from the state of Texas' accountability rating system for the 2009-2010 school year. The other teacher and six of her students were from "Grand Elementary," which received a recognized rating from the state of Texas' accountability rating system for the 2009-2010 school year. The six students from each school were selected by their teachers and included two on-grade level, two above grade-level and two below grade-level students in reading.

Data was collected over a seven-week period in the spring semester. Data collection included an interview of each teacher and each student as well as three observations at each school during the time of the students' independent book selection in the school library. Informal conversations with the students after each observation were recorded in research logs. Analysis began with open coding (Corbin & Strauss, 2008) to identify recurring themes. Next, the researchers identified patterns and relationships and developed broad categories from which conclusions were drawn.

### Findings

Mrs. Thompson. According to Mrs. Thompson, the focus of her instruction regarding book selection was based on the readers' preferences and on helping them expand their interests. She began the year by getting the students to talk about their interests and what kinds of books they liked to read. As she met with the students in small groups and individually, she challenged them to think about why they were drawn to the books they liked and what it was about particular

authors or genres that was appealing. She believed that these conversations encouraged the students to "see themselves as readers."

From that starting point, Mrs. Thompson began to teach her students about various genres and encouraged them to expand their reading interests. She also taught the students to consider the level of background knowledge that they had about a book and how to determine whether a book was at an independent reading level. All of these strategies were recorded on an anchor chart that remained visible in the room during the fall semester of the year.

Mrs. Thompson assessed her students' book choices by viewing their reading logs and meeting with them in individual reading conferences each week. In general, she was hesitant to restrict the students' book choices. She expressed concern that teachers were sometimes too restrictive and could potentially "ruin the love of reading for kids." There was apparent tension between her desire to allow her students to have free choice and the need she felt to "keep pushing them to grow." As she introduced new genres in her reading lessons, she required students to choose a book representative of that genre in addition to their other book selections. Additionally, if she noticed that a student was consistently checking out books that were too easy or too challenging, she assisted them in selecting more appropriate books. While she encouraged the students to persist with their book choices, she did allow them to abandon a book if they have demonstrated continued frustration or disinterest.

Despite Mrs. Thompson's efforts to teach her students to choose books according to aesthetic preferences, when her students explained what they understood about choosing books, they focused more on the procedural aspects of book selection. Many of the students explained that they could look up books on the computer. They were especially focused on the procedure for determining whether a book was on their independent reading level. All of the students explained that they needed to choose books that were "just right" by using the "five-finger rule," a method for counting the number of unknown words per section of text. Generally, on a page of text, a student should not come across five words that they cannot decode or understand. However, students' explanations of the rule varied. Shelby explained that if you read the back cover of the book and encountered more than five unknown words, it was too hard. Other students suggested that missing one, two, or three words also indicated too much difficulty. There was complete agreement, however, that a "just right" book needed to be one they could read on their own; it should not be

too hard or too easy. Along with variations of the five-finger rule, descriptions of a “just right” book varied. One student explained that if a book is too easy, “you can read it through a breeze” while another stated that in a just right book, there “shouldn’t be small words.” Still another referred to the “big fourth-graders’ books” that they are not supposed to check out.

Despite their inconsistencies in response to how Mrs. Thompson taught them to select books, they did focus on reading preferences when asked how they decided which books to choose. Adrian explained that first he finds a book he is interested in, and then he makes sure it is just right for him. Felicity explained, “if you already read one book, if it’s a series, you could read the next one.” Each of Mrs. Thompson’s students could name their favorite genre, author, and series and used these preferences to choose their books.

When selecting books in the library, Mrs. Thompson’s students seemed to be deliberate in going to the section of the library that shelved the favorite genres or series that they indicated in their interviews. While none of the students were observed holding up fingers to count challenging words, they did examine the covers of books and, in most cases, also flipped through the books before making their selections. In general, they were enthusiastic about the books they selected, showing them to the librarian, Mrs. Thompson, or their peers.

Mrs. Martin. In addition to her literature-based reading instruction, Mrs. Martin implemented the computerized reading program software, Accelerated Reader (AR). The program relies heavily on independent reading practice and utilizes test results from online quizzes to manage student performance and provide feedback to both teachers and students. The program begins with the Standardized Test for Assessment of Reading (STAR), which administers an independent reading level to each student. Students then choose books according to their independent reading levels and take multiple-choice comprehension tests on the book’s content. Depending on their score, the students are rewarded points that may be accumulated throughout the year (<http://www.readingonline.org/critical/topping/rolarD.html>).

Mrs. Martin began her school year by administering the STAR test. She met with her students individually to tell them their reading range and what level she expected them to be on by the middle of the year and by the end of the year. During this time, she also made sure the students understood the color-coding system in the library; each book in the library is labeled with a colored dot indicating its reading level. For the first part of the year, the students were allowed to check

out two books, both of which had to be within the reading level indicated by the STAR test. Eventually, the students could choose five books and one of their choices could be “just for fun,” meaning outside of the suggested range. The STAR test was administered at the beginning, middle, and end of the year. It was also one of the first things Mrs. Martin did when a new student joined her class.

Like Mrs. Thompson, Mrs. Martin also encouraged her students to read books that corresponded with what she was teaching. The class competed in book challenges according to the instructional focus on a particular author or genre. During the challenges, the students were encouraged to read books from that category. Their reading was recorded on a chart and there were “stars and rewards for whoever reads the most and passes the tests.” Mrs. Martin explained that she wanted her students to have positive experiences with books. She stated, “I’m pretty flexible as long as they’re reading and enjoying what they’re reading.”

The students’ reading choices were monitored and assessed using the Accelerated Reader reports. Mrs. Martin regularly checked the reports to make sure the students were “doing well on their tests.” If students were not doing well, 80% or better, on the AR tests, she “pull(ed) those students in to go over the expectations again.” In addition to monitoring the AR reports, Mrs. Martin asked questions of students she was “wondering about”, but did not personally monitor the students in any systematic way.

Mrs. Martin’s students clearly understood the library’s color-coding system. Each of her students accurately explained that they should only choose from the books with the appropriately colored dots. They also articulated understanding that someone else determined what level of books they should read. According to Alexis, “the teachers have meetings to see what books we’re supposed to check out . . . so the meetings control that in the schools.”

In addition to the colored dots and levels, the students expressed an understanding that the levels and tests were related to points that they could earn. Jackson explained that he was supposed to choose “big books” because “they have more AR points.”

When describing their reading preferences, Mrs. Martin’s students could all name at least one favorite book or series, though their explanations were related to external motivators such as AR points or prizes. Although Alexis spoke about her reading preferences, when asked why she chose her current selections, she replied, “By the dot color, of course.” She added that she might also choose a Bluebonnet (Texas award-

winning) book because she could vote and win a prize. Seth stated that he chose his books because he had seen television and movie versions and also because they had “orange dots.” James, an English Language Learner, could not articulate his reading preferences, but pointed to the section of Mercer Meyer books in the library and explained that the teacher told him those were good books for him to read.

When selecting books in the library, Mrs. Martin’s students primarily looked at the spines of the books. Occasionally, they took books off of the shelf to look at the covers but only once did a student open a book before taking it to the circulation desk. The students frequently asked Mrs. Martin if their books selections were okay. In each instance, she asked what color the dot was and either approved or denied their request based on that information. The students spent much of their time pacing in front of the bookshelves or searching the computer database for particular subjects.

### Conclusions

Mrs. Thompson’s approach to the instruction of book selection can be characterized by two interconnected descriptors: student independence and intrinsic motivation. In general, Mrs. Thompson turned over the responsibility for book selection to her students. Mrs. Thompson’s students chose books based on interest and affective responses to prior reading. According to Biggers (2001), intrinsically motivated readers such as Mrs. Thompson’s students, are more likely to do more reading outside of school. While they initially selected books based on aesthetic appeal, they also determined the appropriateness of the book level independently. Even though the students were inconsistent in their explanation of the “five finger rule,” it was clear that they believed strongly in the reliability of the test and in their ability to use it. The strong sense of efficacy they demonstrated suggests that they will continue self-selecting books in the future (Jinks & Lorsback, 2003). In contrast, Mrs. Martin’s approach was extrinsically focused and filled with incongruencies. Mrs. Martin’s students’ selections were dictated by test scores and color-coded labels on books. Assuming the accuracy of the STAR test, Mrs. Martin’s students consistently checked out books within their independent reading range. However, her students did not articulate an ability to recognize features of that level other than the labels on the books. Furthermore, they believed the parameters for selecting books were all dictated by the teacher, the principal, or the librarian. Efficacy for book selection never had the opportunity to develop because decisions of reading level were made externally.

Since Mrs. Thompson’s students were able to make their book selections based primarily on intrinsic

criteria, they were also able to approach their books with the appropriate stance. Texts such as an installment in a mystery series were read with an aesthetic stance while a nonfiction book about horses was read from a primarily efferent stance. The students in Mrs. Thompson’s class were guided by authentic purposes for choosing and reading books. On the other hand, Mrs. Martin’s students were primarily motivated by extrinsic criteria and rewards. As a result, their purposes for reading and subsequent stances were inconsistent. Even when the students chose books based on their interests, they read them for the purpose of remembering enough information to take a test. The contradiction between text and stance (Cole, 2002) was likely perpetuated by the mixed-messages sent by Mrs. Martin. She claimed that her priority was to get the students “enjoying what they’re reading,” but this message was overshadowed by the rewards she offered for accumulating points. Unfortunately, these students are not likely to continue reading independently once the enticements are removed (McKool, 2007; Melton, et al., 2004).

This study explored the ways that two teachers taught their students to select books. In both classrooms, the students understood, at least to some degree, their teachers’ lessons about book selection. One class learned strategies to independently recognize whether a book was on their independent reading level and selected books based on their personal reading preferences. The other class learned to use external criteria to determine whether books were appropriate for them and their books choices were motivated by points and prizes. Ultimately, this study suggests that students who were taught to select books based on personal interests and who were taught to judge the book’s level of difficulty independently demonstrated higher levels of self-efficacy and intrinsic motivation to read. Conversely, students who were taught to use external criteria for choosing books demonstrated an external locus of control and relied on external motivation for reading. It is imperative that teachers consider the long-term implications of the lessons they teach students about reading. If life-long reading is really a goal, teachers must equip their students with the skills and mindsets that will serve them beyond their years in school.

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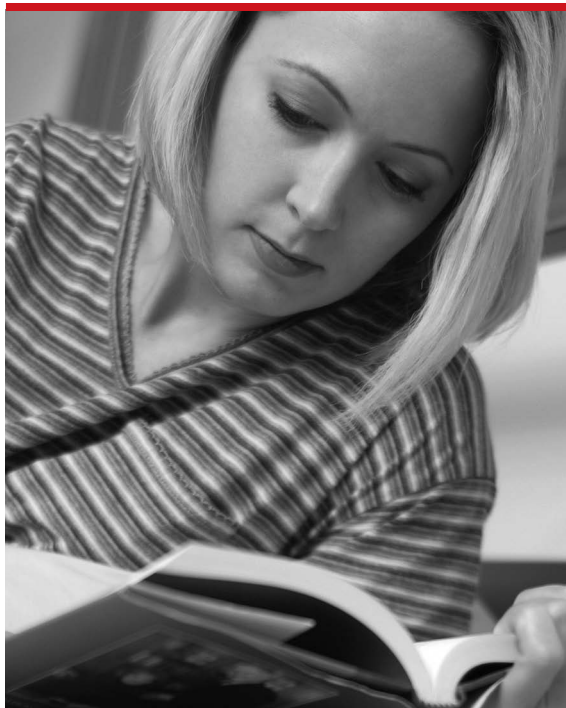
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## Curl up with a good group



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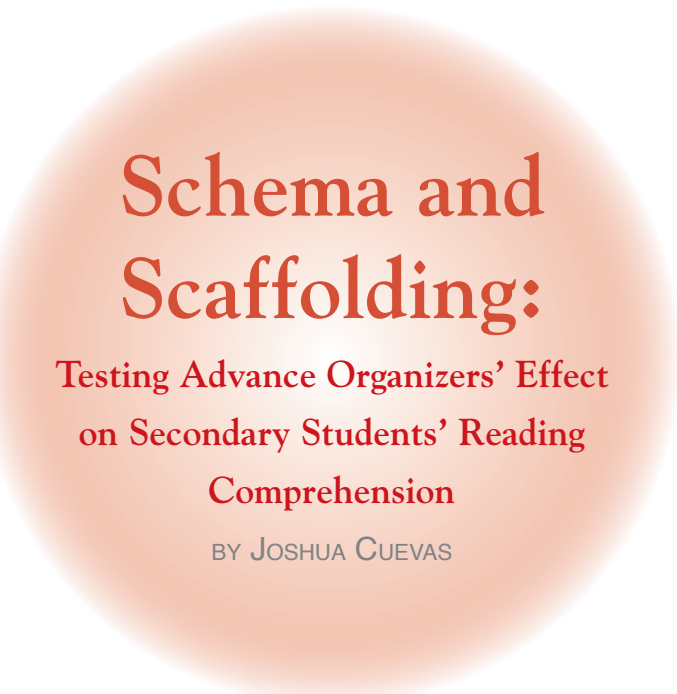
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## Abstract

This study examined an instructional method that combined scaffolding and Schema Theory to address the reading comprehension of 105 urban high school students. Participants in the treatment condition read a pair of advance organizers and were asked to paraphrase them in writing to stimulate durable memory representation prior to reading the main passages. Students were assessed on their comprehension of both a narrative and an essay to measure treatment effects across text genres. Low level readers were expected to show greater benefits. Both high and low level readers from the treatment group benefited from the advance information on both passages. The results suggest that comprehension may be readily addressed via schema activation through advance organizers paired with cognitive strategies designed to assist with the encoding of information into long term memory.

Some experts in the field of literacy argue that there is no literacy crisis in the United States (Gee, 2008), but evidence points to stagnation and should at least be cause for serious concern. Ninety million adults are functionally literate at best, and those individuals comprise nearly half of the adults in the U.S. (Collins, 2006; Hock & Mellard, 2005). Sixty percent of the Americans who fall into this category are between 16 and 55 years old and make up a large portion of the nation's workforce. This trend has been noted by businesses, post-secondary institutions, and both national and international assessments, all of which have determined that recent high school graduates cannot sufficiently comprehend complex written information (Hasselbring & Goin, 2004). According to the United Nations Human Poverty Index, of all the countries in the Western world, the United States has the highest level of poverty and income inequality, and one of the primary determining factors of the Poverty Index is the percentage of adults lacking functional literacy skills (Feng, 2006). The state of literacy in the country and the implications of that condition seem clear and compelling: a great number of Americans today reach only marginal literacy levels and the lack of sufficient literacy skills can limit employment opportunities, leading to greater poverty.

Students are simply not acquiring the necessary reading skills before they leave high school, regardless of whether they drop out or graduate. One estimation is that 20% of all 17-year-olds in America are functionally illiterate and 44% of all high school students are only semi-literate (Hasselbring & Goin, 2004). Another is that by the 10th grade, only one third of U.S. students read proficiently, with nearly half of all 17-year-olds unable to read at the 9th grade level



(Moss, 2005). And while the problem is widespread within regular education, poor literacy levels also fuel the increase in students relegated to special education classrooms, with 80% of the students placed there primarily because they have not learned how to read (Collins, 2006).

## Statement of the Problem

The current literacy situation in the United States provides good reason to study literacy development in public school students. If students cannot read sufficiently, it clearly limits their capacity to learn academic material, if not to develop certain higher order intellectual skills. This, in turn, may limit their ability to function self-sufficiently and productively in modern society. Effective instructional methods and learning models must be developed to address these issues so that students are not limited in their potential due to a lack of reading skills.

The purpose of the current study was to extend prior research by employing scaffolding methods in an attempt to increase students' comprehension in high school language arts classrooms. It measured the effects of combining advance organizers with paraphrasing of the advance information in order to stimulate schema development. The advance organizers were meant to help create schemata, while the paraphrasing was meant to encourage the students to encode that information into long term memory so that it could be accessed during reading. The scaffolding strategy was assessed with both a narrative passage and an essay compilation to test for possible consistency across text genres. For the purposes of this research, the following questions guided this study: The first question was

whether the scaffolding package would have any effect at all with the target population. The next was whether both high level and low level readers would show benefits from the intervention. Finally, there was the question of whether the scaffolding would benefit students on both the narrative passage and the essay compilation. The prediction was that the intervention would indeed assist students in comprehending the material but that the low level readers would benefit to a greater degree than the high level readers, who would show little, if any, advantage from the advance organizers. If the results lacked uniformity, the prediction was that students would benefit less on the narrative, since it was a structure they would be well acquainted with and would therefore need less assistance on, and benefit more on the essay compilation, which would be more abstract in structure.

## **REVIEW OF LITERATURE**

### **Scaffolding**

One common technique that can assist students in developing reading comprehension skill is the use of scaffolding (Vygotsky, 1986) or added layers of cognitive tools to assist in learning. Cognitive tools are defined by a number of functions: they are instruments that enhance cognition, guide cognitive processes, assist in accomplishing complex cognitive tasks, engage the learner, and facilitate critical thinking and higher-order learning (Liu & Bera, 2005). Combining learning strategies in an attempt to create layers of scaffolding has been shown to benefit high school students in their reading comprehension (Alfassi, 2004; Cromley & Azevedo, 2007). The question then becomes, which scaffolding layers and cognitive tools can be employed to assist students in comprehending material that would otherwise be beyond their abilities?

There is broad consensus that prior knowledge and background information are central to comprehension (Cromley & Azevedo, 2007; Guthrie, Wigfield, Metsala, & Cox, 1999; Snapp & Glover, 1990; Thompson, 1997; Thompson, 1998; Tracey & Morrow, 2006; Tyler, Delaney, & Kinnucan, 1983). Background information and prior knowledge are stored in memory in the form of schemata which must be accessed in order for fluid comprehension to take place. Scaffolding tools that can serve to encourage the formation and activation of schemata may be highly beneficial in addressing student literacy issues.

### **Schema Theory**

Schema Theory suggests that knowledge is organized in the brain in sophisticated, interrelated structures, with all knowledge about a given topic being interconnected in a web-like fashion (Merriam, Caffarella, & Baumgartner, 2007; Tracey & Morrow, 2006). Without existing schemata in place, it is more

difficult to learn new material, as the level of abstraction is much greater. The learner has no previous framework on which to anchor the new concepts. In contrast, when students have comprehended text and learning has occurred, it suggests that they have successfully incorporated and attached the new concepts to some existing schemata (Kozminsky & Kozminsky, 2001). Levels of prior knowledge and background information, which function in the form of schemata, have repeatedly been shown to predict and correlate with increased text comprehension (Dinnel & Glover, 1985; Guthrie, et al. 1999; Kozminsky & Kozminsky, 2001; Snapp & Glover, 1990; Tracey & Morrow, 2006).

### **Advance Organizers**

One form of scaffolding that directly influences schema production is the advance organizer. While there is no consensus on the exact structure and makeup of advance organizers, the generally accepted criteria are that they help to supply background knowledge and create schemata by providing a conceptual framework that allows the reader to anchor and organize information cognitively, which in turn makes the information more meaningful (Thompson, 1998). This is particularly important for poor readers who are slower and less efficient at encoding verbal information and who have difficulties in organizing information, filtering out irrelevant information, and isolating the most important elements (Thompson, 1998; Tyler et al., 1983). Advance organizers precede more extensive information and have been shown to be effective in assisting with comprehension in a number of studies at the middle school (Snapp & Glover, 1990) and college levels (Dinnel & Glover, 1985; Tyler et al., 1983).

### **Components**

There is still some question as to what information should be present within an advance organizer to ensure its effectiveness. Since the information within an advance organizer is directly dependent on what information is within the text, there may be no singular answer to this question. However, there is strong support in the literature for a number of constructs which may be essential ingredients of an advance organizer.

Vocabulary is one component that provides obvious benefits and has repeatedly been shown to be strongly related to comprehension (Alfassi, 2004; Cromley & Azevedo, 2007; Leone, Krezmien, Mason, & Meisel, 2005; Ouellette, 2006). A great deal of research has supported the assertion that inferencing and prediction can be highly influential in reading comprehension and development (Alfassi, 2004; Cromley & Azevedo, 2007; Dewitz & Dewitz, 2003; Hock & Mellard, 2005; Klin, Murray, Levine, & Guzman, 1999; Kozminsky & Kozminsky, 2001; Lea, Mulligan, & Walton, 2005).

Likewise, there is also broad support for cognitive and metacognitive strategies such as generating questions, answering questions, summarizing, and paraphrasing (Alfassi, 2004; Cromley & Azevedo, 2007; Dewitz & Dewitz, 2003; Dunlosky & Lipko, 2007; Guthrie, et al., 1999; Hock & Mellard, 2005; Kozminsky & Kozminsky, 2001; Snapp & Glover, 1990). Through the process of self-questioning, paraphrasing, inferencing, and predicting, metacognition is activated; students begin to become aware of what they do and do not know and what they do and do not comprehend. Further, metacognition is believed to be an essential aspect of learning (Thiede, Anderson, & Therriault, 2003; Zabrocky, Agler, & Moore, 2008). All of these components- vocabulary, inferencing, predicting, questioning, and paraphrasing- can be addressed or encouraged with the use of advance organizers.

One caveat is that advance organizers must be learned to be effective, so the information must encode into memory to be accessible to students while they are reading the main passage (Dinnel & Glover, 1985). One method shown to assist subjects in encoding information and constructing a durable memory representation is requiring them to paraphrase that information before moving on to reading the main passage (Dinnel & Glover, 1985; Snapp & Glover, 1990; Thiede, et al., 2003).

To date, the vast majority of empirical research in reading comprehension, particularly with advance organizers, has been conducted on college level, middle school, or elementary subjects, with very few studies being conducted on high school students. High school students present a rather unique dynamic in comparison to the other populations. Their cognitive functions (Merriam, et al., 2007; Tennant, 2002) and reading comprehension levels (Cromley & Azevedo, 2007) resemble adults', but they are engaging in compulsory schooling. This is a very different situation than that of college students who attend school by choice and therefore would logically be more receptive to new material. The dearth of data on high school subjects and their distinctive place in the educational hierarchy speak to the need for research in the area.

## **METHOD**

### **Participants**

This study was conducted at a large urban Title I public high school of approximately 2,400 students located near Atlanta, Georgia. The majority of the students come from working class and lower middle class socioeconomic backgrounds, with 52% of the school's students qualifying for free or reduced meals. The school's graduation rate closely mirrors the state average for graduation. The racial demographics of the school are as follows: 70% African American, 24%

Caucasian, and 6% comprised of Hispanic, Asian, and Multiracial students.

One hundred and five students from four 10th grade American literature courses participated in the study. The students were between 15-17 years of age. The racial and socioeconomic makeup of the classes was the same as the overall school demographics. All classes in this study were officially from the college prep level. However, there are two subgroupings within the college prep category: regular college prep level and advanced college prep level. This study included four classes of students, two of which were at the regular college prep level and two at the advanced college prep level. Students with profound learning disabilities or English language learners were not included in the sample.

The school drew on a relatively large pool of 10th graders, approximately 700 students, and assigned them to various American literature courses within their program of study. The classes were randomly assigned to one condition or the other within the appropriate college prep level. Pretest data were used to test for possible nonequivalence between classes within each prep level.

### **Materials/Measures**

Two reading passages were chosen for the experiment, both taken from the standard textbook for the course, the Holt Elements of Literature Fifth Course, Essentials of American Literature. The first selection was the short story, Dr. Heidegger's Experiment (Hawthorne, 2005). This passage was 3,686 words in length with a Flesch-Kincaid reading grade level of 9.4. The second selection was a compilation of excerpts from three essays, the bulk of which was drawn from Thoreau's Resistance to Civil Government, with shorter sections from Gandhi's On Nonviolent Resistance and King's Letter from a Birmingham City Jail (2005). These combined excerpts totaled 3,948 words in length with a Flesch-Kincaid reading grade level of 9.0.

Prior to reading each passage, all students received one of two possible forms of advance information relating to the text. The treatment groups read an advance organizer consisting of information meant to bolster vocabulary and stimulate schema formation, prediction, and inferencing. In contrast, the control groups read placebo preview information comprised mainly of biographical and historical information similar to the previews normally found in textbooks. The two placebo previews and two advance organizers can be found in Appendixes A through D. The placebo preview information was similar in length to the advance organizers and was meant to ensure that if the treatment groups outperformed the control



groups, it would not be due to the treatment groups simply reading more information.

The advance organizers contained a number of scaffolding devices designed to assist students in comprehending the passages. Key vocabulary words from the text were defined in simple terms. The structure of the passage was previewed for the readers. Situational information regarding the societal environment that influenced the writing of the text was provided to assist with schema development. Questions were asked of the readers to encourage them to focus on information that would be central to the meaning of the text.

Students who received the advance organizers were given a set of open-ended preview questions they were required to answer in writing. These questions asked the students to paraphrase, summarize, or define information from the advance organizer. The purpose of the preview questions was to stimulate metacognition and help students encode the information from the advance organizer into memory so that they could access it and retrieve it later as they read.

All students answered open-ended, open-book, short-answer adjunct questions as they read. These provided a measure of students' comprehension and served as the dependent variable for this study. The adjunct questions were sequentially ordered according to the text, with the answers to the first questions appearing at the beginning of the passages and the answers to the last ones at the end. Writing ability was not assessed. Often a single word or phrase would suffice as the correct answer. The adjunct questions for both passages focused mainly on knowledge and understanding but also included a number of questions requiring students to summarize, paraphrase, interpret, analyze and evaluate.

### **Procedures**

Two interventions were administered to a total of 105 students approximately two weeks apart. There were four groups for each intervention: 1) college prep control group- students (N = 25) read the main passage and placebo advance information 2) college prep treatment group- students (N = 28) read the main passage and advance organizer requiring paraphrasing, 3) advanced control group- students (N = 22) read the main passage and placebo advance information, 4) advanced treatment group- students (N = 25) read the main passage and advance organizer requiring paraphrasing. All groups read the short story in a single class period on the same day, and then read the excerpts from the essays in a single period two weeks later. All groups responded to open book reading comprehension adjunct questions while they

read the passages.

On the day of each intervention, upon entering class, all groups of students had approximately ten minutes to read the previews before beginning the main passages. No discussion or instruction regarding the literature was provided prior to the assignment. The treatment groups were asked to answer the open-ended preview questions while they were in possession of the advance organizers. Both the control groups and the treatment groups were required to turn in their respective preview information after they were done reviewing it, prior to beginning to read the main passages, so they were not able to examine the preview information as they read the main passages. After students had turned in the preview information, they opened their textbooks to the selection and began reading while simultaneously responding to the adjunct questions. Students had the entire 55-minute class period to complete their reading and the comprehension tests.

## **RESULTS**

### **Scoring**

Open-ended reading comprehension assessments served as the dependent variable for this study. Two raters, both doctoral students, were trained to rate the students' answers. The raters were blind in respect to the group membership of the participants. A third rater was used to assess only those items where there was a discrepancy between the two initial raters. The raters were provided with a detailed rubric encompassing a range of common answers they might see, both correct and incorrect. The raters scored on a three point scale with the possible values being full credit, half credit, or no credit. Full credit was awarded for any answer that addressed the question and could be considered a reasonable interpretation of the text. Half credit was given for attempts that were not reasonable interpretations but gave the indication that the student did read, if misunderstood, the text. No credit was given for blank answers or answers that were so implausible that they indicated the student did not read the text and simply offered a random response.

Interrater reliability was found to be relatively strong overall. For the first intervention, the test based on the story, interrater agreement was 0.93. For the second intervention, the test based on the excerpts from the essays, interrater agreement was 0.83. In the case of discrepancies, a third rater viewed the student's answer and scored the item. The score with plurality amongst the raters was determined to be the final score.

### **Analysis**

Before conducting the main analysis, it was first necessary to test for equivalency between the classes

at each level. To test for differences in initial reading ability, all classes were assessed on three prior reading comprehension tests, and the mean scores were compared via two one-way ANOVA analyses. The preassessments were identical in format and similar in content to those used in the two interventions except that they did not include advance information of any sort. The ANOVAs did not reveal a significant difference between either the college prep classes,  $F(1, 53) = .59, p = .45, \text{partial } \eta^2 = .01$ , or the advanced classes,  $F(1, 47) = 2.64, p = .11, \text{partial } \eta^2 = .05$ .

Next a 2 x 2 ANOVA (level x treatment) was conducted for each intervention to measure for differences on the dependent variable. "Level" was defined by whether students were enrolled in the regular college prep level or advanced level program of study. "Treatment" was defined by whether students were in the control group that received the placebo advance information or in the treatment group that received the true advance organizer paired with the preview questions. Students' scores on the adjunct reading comprehension questions served as the dependent variable.

For the first intervention, the passage Dr. Heidegger's Experiment (Hawthorne, 2005), a significant main effect was found for level,  $F(1, 96) = 11.52, p = .001, \text{partial } \eta^2 = .11$ . The advanced level classes significantly outperformed the college prep level classes, as expected. A significant main effect also emerged for treatment,  $F(1, 96) = 4.87, p = .03, \text{partial } \eta^2 = .05$ . At both the college prep and the advanced level, the students who received the true advance organizer with preview questions significantly outperformed the students who received the placebo advance information. However, no significant interaction effect was revealed,  $F(1, 96) = .001, p = .98$ . This suggests that while students at both the college prep and advanced level appeared to have benefited from the treatment package, both low level readers and high level readers benefited from it to a similar degree. This was somewhat of a surprise in that low level readers were expected to benefit more from the treatment and high level readers were expected to show little,

if any, benefit. Means and standard deviations for this intervention can be found in Table 1.

For the second intervention, on the excerpts from the essays of Thoreau, Gandhi, and King, another 2 x 2 ANOVA (level x treatment) analysis was conducted. A significant main effect was again found for level,  $F(1, 95) = 9.95, p = .002, \text{partial } \eta^2 = .10$ , with the advanced level students outperforming the college prep level students. Importantly, a highly significant main effect was revealed for treatment  $F(1, 95) = 12.23, p = .001, \text{partial } \eta^2 = .11$ . Just as in the first intervention, students at both program levels who received the advance organizer with preview questions outperformed their peers in the control groups who received only the placebo information. And once again, no significant interaction effect emerged for this portion of the experiment,  $F(1, 95) = 1.35, p = .25$ . In findings similar to the first intervention, both the low level readers and the high level readers appeared to have benefited from the treatment to a similar degree and showed superior comprehension to those in the control groups. Means and standard deviations for this intervention can be found in Table 2.

### Discussion

The results of this experiment were most surprising in their uniformity. It had been predicted that the use of the advance organizers with the preview questions would stimulate enhanced comprehension to some extent, predominantly in lower level readers, as previous research has indicated (Thompson, 1997; Thompson, 1998; Tyler et al., 1983). Scaffolding was thought to assist lower level readers in closing the gap in background knowledge that exists between low level and high level readers (Kozminsky & Kozminsky, 2001). There was also some question as to whether students would benefit from the treatment on both narrative passages and essays. The findings showed a clear difference in reading comprehension between students in the treatment groups and control groups. Not only did students from the treatment groups outperform those in the control groups on both the narrative passage and the compilation of essays, but

both the college prep level and advanced level students showed superior comprehension to their counterparts in the control groups on each intervention. Essentially, both low level and high level readers appeared to benefit from the treatment package regardless of the reading material.

These findings suggest that the advance organizers were successful in constructing an episodic memory structure that

Table 1 Measures of Central Tendency for Dr. Heidegger's Experiment

Level	Treatment	Mean	Std. Deviation	N
Advanced	Advance Org	94.60	6.60	25
	Control	89.55	11.12	22
	Total	92.23	9.26	47
College Prep	Advance Org	86.79	11.72	28
	Control	81.60	15.12	25
	Total	84.34	13.55	53
Total	Advance Org	90.47	10.34	53
	Control	85.32	13.85	47
	Total	88.05	12.33	100

could be interpreted as being the germination of schemata. They appear to have been successful in assisting students to comprehend the subsequent reading material. By having the students paraphrase the information in the advance organizers, it may have helped the students to encode that information into memory so that they could make use of it later when they read the passages. It is likely that if the students had not been asked to paraphrase the advance information they would have either skimmed over it in a superficial manner or skipped it altogether. Under either of these scenarios the material would not have been devoted to memory, and therefore the advance organizer would have had no effect.

Considering that the cognitive load necessary to comprehend an essay may vary greatly from the load necessary to comprehend narrative text, it is notable that the results indicated similar findings on both the narrative and compilation of essays. Recall that both passages were similar in length and in difficulty, as determined by the Flesch-Kincaid reading grade level: 9.4 for the narrative and 9.0 for the compilation of essays. However, it must be noted that the Flesch-Kincaid Grade Level indicator is determined by a calculation based on word length and sentence length and does not account for background schemata necessary to comprehend the material or for the genre. Essays may be more difficult for students to comprehend than narratives due in large part to their greater level of abstraction.

For instance, with a narrative students can visualize the setting and characters. Students are also acclimated to the chronological and literary structure of a story from a very early age. The fact that students are so accustomed to this structure may serve to mitigate difficulties that arise from increased word length and sentence length, the two features that determine the Flesch-Kincaid Grade Level. When reading a narrative, the readers' cognitive faculties may be freed to concentrate on more subtle and intricate aspects of a story because the structural pattern is

so familiar to them. In contrast, essays vary greatly in their presentation of ideas and are far more abstract. As the readers attempt to navigate new vocabulary, sentence length, and concepts, they must also grapple with a structure that may be unfamiliar to them since the way essays unfold varies widely from author to author. This may cause an increased cognitive load as these sometimes competing hurdles are navigated. Because the readers must divide their attention between interpreting new vocabulary, retaining prior information provided by the author, and attempting to discern the context and direction of the passage simultaneously, an essay with a reading grade level that is equivalent to that of a narrative may in actuality be much more difficult to comprehend.

The abstract philosophical nature of these essays paired with the sophisticated themes of social justice tend to be difficult for students to grasp and somewhat removed from their daily concerns. Given the probable discrepancy in the cognitive demands of the narrative and essay compilation in this research, it is significant that the advance organizers appeared to have similar effects with both types of passage. This would suggest that the treatment had a powerful influence that can transcend literary genres.

Overall, both interventions appeared to be successful in promoting enhanced reading comprehension in both low level and high level readers and with both narrative and essay formats, so this type of treatment has the potential to have a substantial impact on reading education. However, it is important to note that the benefits of advance organizers are dependent on how well they pair with the main passage. If the material does not pair well conceptually with the reading material, it is unlikely that students will benefit. Many textbooks include preview information that publishers may argue would qualify as advance organizers. But more often, that preview information resembles the placebo information that the control groups in this study read, with a heavy reliance on biographical information and abstract literary terms. In

addition, in textbooks there is usually no mechanism in place to encourage the students to read the advance material closely and encode it into memory.

A successful advance organizer should stimulate the formation of new schemata or trigger existing schemata that pertains directly to the conceptual framework of the passage. This would include explaining key terms used within the passage, as opposed to limiting the vocabulary definitions to

Table 2 Measures of Central Tendency for essays of Thoreau, Gandhi, and King

Level	Treatment	Mean	Std. Deviation	N
Advanced	Advance Org	82.19	11.34	27
	Control	70.74	13.36	23
	Total	76.92	13.48	50
College Prep	Advance Org	71.58	12.87	24
	Control	65.84	11.31	25
	Total	68.65	12.31	49
Total	Advance Org	77.20	13.10	51
	Control	68.19	12.45	48
	Total	72.82	13.50	99

more abstract literary terms. Background and historical information can also be helpful, but only if it helps the reader to anchor the specifics of the text to some thematic context in a relatively concrete way. Posing questions to readers and asking them to summarize or paraphrase relevant information may not only assist in encoding but also encourage metacognition and metacomprehension, thus stimulating higher order cognition and increasing learning. Treatments of this sort could be incorporated into standard curricula and possibly help produce widespread gains in student reading comprehension.

### Future Research

Because reading studies on high school students are so rare relative to studies on younger children and college students, there is ample opportunity for more research in the area. Future research should extend the clear and uniform results of this study by testing advance organizers with a wider variety of literature. Subsequent research could explore whether advance organizers work effectively with other genres such as technical documents, informational texts, media sources, etc. Once effective pairings of advance organizers and main passages can be identified, they can be incorporated into curricula and textbooks. Since there is some measure of standardization in the reading selections in public school textbooks, advance organizers that are found to be successful in improving comprehension could find extensive use.

Possibly the most important avenue of research would be to test the long term effects of this type of scaffolding on global reading comprehension. While it appears that advance organizers can affect reading comprehension on passages read immediately following the information, it is less clear what the effects would be over time. For instance, if students were supplied with advance organizers throughout the course of a full year and were able to improve their performance on each individual assignment, would their overall skills develop and would those skills generalize to other reading assignments? Would their reading grade level improve significantly more than students who read the same material without the help of scaffolding? Would the students who used the advance organizers be able to comprehend more sophisticated material later without the having the benefit of the advance organizers on subsequent assignments? These types of questions may be answered with more extensive longitudinal studies.

In order for educators to positively affect reading comprehension levels in adolescents and young adults, which is clearly a vital educational outcome, other successful scaffolding techniques and materials must be identified and find regular use within the

classroom. This research is small step in that direction. For many students, high school is the last time in their lives that they will experience formal, systematic assistance in reading skills. For this reason, we must identify methods that can be successful in improving the literacy skills that will be essential to so many students in their adult lives, yet so many still lack during their last years of formal education.

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## Appendix A

Advance Organizer: Dr. Heidegger's Experiment

Vocabulary:

- venerable- old and well respected
- supernatural- magical, mystical
- rejuvenate- to make grow again, bring back to life
- virtue- good quality, goodness, righteousness
- vice- bad human quality or trait

Information:

The story is a dark, mysterious tale about a scientist, Dr. Heidegger, who conducts an experiment to see if he can bring four deceased friends back to life and make them young again.

These are the four friends:

- Mr. Melbourne, a greedy businessman
- Colonel Killigrew, a partier who liked to drink and chase women
- Mr. Gascogne, a dishonest politician
- Widow Wycherly, an attractive, stuck up woman with a bad reputation regarding men

Widow Wycherly had dated all three men when they were younger (and alive), and the men had fought over her.

Dr. Heidegger conducted his experiment in his laboratory, which was filled with mysterious, spooky, and supernatural objects.

Fifty years earlier something had happened to Dr Heidegger's fiancé, Sylvia Ward, right before they were to be married.

In order for Dr. Heidegger to convince his friends to take part in the experiment, he first had to demonstrate that his potion worked on another object that had once been alive.

Before his friends drank the liquid, Dr. Heidegger tried to make them agree to certain conditions (general rules) that they would be expected to follow if the potion worked.

The potion will have an effect on both the guests' behavior and appearance once they drink it.

The story is an allegory, which means that the characters and events represent moral qualities or ideals. They are meant to send a message about the human condition.

The theme of the story relates to what each guest represents and how they behave. Think about what Dr. Heidegger learns about people from his experiment. What is he actually testing?

Dr. Heidegger's Experiment Preview Questions

- 1) What does supernatural mean?
- 2) What does rejuvenate mean?
- 3) Describe Mr. Melbourne:
- 4) Describe Colonel Killigrew:
- 5) Describe Mr. Gascogne:
- 6) Describe Widow Wycherly:
- 7) What did the three men have in common?
- 8) Who was Sylvia Ward?
- 9) What did Dr. Heidegger want his guests to agree to?

## Appendix B

Placebo Information: Dr. Heidegger's Experiment

Nathaniel Hawthorne lived from 1804 to 1864 and was a major writer of the American Romantic period. He was descended from Puritan ancestors. One of his ancestors was John Hawthorne, a judge who played a minor role in sentencing nineteen people to death in Salem, Massachusetts during the Salem witch trials.

Nathaniel Hawthorne's writing often reflected the dark suspicions of the early Puritans, and he was considered one of the "Dark Romantic" writers, alongside of Edgar Allen Poe. Hawthorne's writing dealt with matters of religion, guilt, spirituality, hypocrisy, conscience,

secret sin, and questions of the human soul. The gloom that made its way into Hawthorne's writing also seemed to cast a shadow over his life, as he lived a melancholy, solitary existence that left him detached and disappointed. It was said he died because he could no longer endure his own solitude.

Hawthorne wrote two very famous novels, *The Scarlet Letter* and *The House of Seven Gables*, as well as the short stories "The Minister's Black Veil" and "Dr. Heidegger's Experiment". "Dr. Heidegger's Experiment" was written by Hawthorne in 1837. It was first published in a book titled *Twice-Told Tales* as part of a collection of short stories. The story is a dark, mysterious tale that serves as an allegory, which means the characters, settings, and events stand for abstract ideas or moral qualities. In the story, Dr. Heidegger is visited in his study, or laboratory, by four friends, Mr. Melbourne, Colonel Killigrew, Mr. Gascogne, and Widow Wycherly. He then conducts an experiment with their help.

## Appendix C

Advance Organizer: Thoreau, Gandhi, MLK Jr.

- Civil- 1) having to do with citizens or government, 2) polite, courteous, civilized
- Disobedience- resistance, defiance, refusal to obey
- Expedient- convenient, to do something because it's easy
- Conscience- a person's sense of right and wrong
- Morality- a person's set of rules for right and wrong
- Satyagraha- to be uncooperative, refusal to cooperate

The following piece, titled *Resistance to Civil Government* and better known as *Civil Disobedience*, is an essay with a story inside. It is an essay because its purpose is to convince the reader of the author's opinion, but a short story is used within it to help communicate the author's message.

The purpose of the essay was to examine both the morality of the individual person and the morality of the government.

- What should a person do if what he or she thinks is right is different than what the government thinks is right?
- What should the person do if the government tries to make them go along with something he or she knows is wrong?
- Should a person do what their conscience tells them or what the government tells them?

These are the questions that the author, Henry David Thoreau, tries to answer.

Thoreau did not agree with the war the U.S. was waging against Mexico at the time because he thought the government was being used as a tool for a small group of people to expand slave territory for their

own monetary and political gain. He didn't think the American people would have agreed to go to war with Mexico if they had known the truth from the beginning. He also believed that people who didn't agree with the war actually still supported it by supporting the government by paying taxes, which went to buy guns and to pay soldiers to fight.

Thoreau also felt that there was a problem with the way the majority always got its wish in our country. As you read, think about why this could be a bad thing in some circumstances.

The story within the essay has to do with what happened to Thoreau when he refused to pay his taxes. He wouldn't pay his taxes because he didn't want to support a government that was conducting an unjust war. He was sent to jail for not paying and the story is about the time he spent in prison and how it changed his views of America.

Mohandas Gandhi and Martin Luther King Jr. read Thoreau's essay and were highly influenced by it. They developed beliefs about civil disobedience that were similar to Thoreau's.

• As you read each man's ideas, think about what they had in common. What are the things they would all agree upon?

Thoreau, Gandhi, MLK Jr. Preview Questions

- 1) What are two different meanings of the word "civil"?
- 2) What does Satyagraha mean?
- 3) Is the piece of literature Resistance to Civil Government as essay or a story?
- 4) List one question Thoreau tried to answer by writing Resistance to Civil Government.
- 5) What was something about the U.S. that Thoreau disagreed with or had a problem with?
- 6) Why was Thoreau put in jail?
- 7) Who were two famous men who were influenced by Thoreau's essay?

## Appendix D

Placebo Information: Thoreau, Gandhi, MLK Jr.

Henry David Thoreau was born in Concord, Massachusetts in 1817. He grew up fishing and hunting in the woods near his home. He later went to Harvard where he never ranked above the middle of his class, but became extremely well read and knowledgeable of

English literature and German philosophers. Thoreau was always a bit eccentric (strange), independent, and driven by conscience. For instance, he always dressed in green to go to church simply because the rules required churchgoers to wear black. He was fired from his job as a teacher because he refused to whip children, which was the traditional and mandatory punishment in schools at the time.

His Harvard education did not ensure Thoreau success. He was not successful as a school teacher, lectures he gave were not inspiring, and he was turned down by a woman he proposed marriage to. Even though he was highly intelligent and a gifted writer, he seemed to only want to stay around his hometown and live a simple life. Many of those around him viewed him as a slacker who lacked ambition. However, today he may be seen as the first hippy, someone who refused to be a part of normal, everyday society and instead chose to live a life determined by his own standards. Thoreau was not motivated by fame or wealth, and chose to live a solitary life contemplating the ideal society and the right way to live.

Thoreau was a friend of Ralph Waldo Emerson, who wrote Nature and Self-Reliance. Since Emerson was older, he became something of a mentor and teacher to Thoreau. But while Emerson lived a relatively affluent lifestyle and wrote his poetry and philosophy in comfort of his nice home, Thoreau tried to live the way his philosophy led him to- poor, alone, in a small house in the woods he built himself from scratch. Thoreau was a strong opponent of slavery and the war that the U.S. was waging against Mexico. He refused to pay his taxes because he thought that by doing so, he would be supporting slavery and the Mexican war. He was jailed for not paying his taxes and wrote the essay Resistance to Civil Government in response to his experience there.

Two very famous men, Mohandas Gandhi and Martin Luther King Jr. read Thoreau's essay Resistance to Civil Government and were highly influenced to use his ideas in their own lives. Gandhi developed a philosophy similar to Thoreau's when he was helping his fellow citizens in India to gain independence from England. Martin Luther King Jr. used a philosophy similar to Thoreau's when he protested for racial equality in the U.S. and led the civil rights movement.

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*Once you learn to read,  
you will be forever free.*

—FREDERICK DOUGLASS

