



Using Interactive Whiteboards to Enhance the Writing Process

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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
- 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 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.

