

WRITE SOURCE[®] ONLINE

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A Research-based Approach to Writing

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Write Source Online: A 21st Century Writing Program

Introduction

Today's students live in a digital world. Recent studies reveal that students spend over 10 hours a day using multimedia devices, such as mobile phones, mp3 players, and computers, with one to one-and-a-half hours of this time spent online using the Internet (Rideout, Foehr, & Roberts, 2010). This dramatic shift to digital interactions has led to a changing educational landscape that requires educators to integrate new and emerging technologies into instruction. It is imperative that students engage successfully in this technology-driven, digitally enhanced era where jobs, personal and financial transactions, and interactions with the global economy utilize and depend on mastery of these skills. According to Trilling and Fadel (2009), students now need instruction not only in academic subjects like reading, writing, and arithmetic but also in other abilities such as digital learning, information gathering and management, and media awareness and usage, in order to develop relevant life and career skills.

One of the most dramatic changes that this digital revolution has prompted is a transformation in how students write and communicate (Herrington, Hodgson, & Moran, 2009). Not only are students expected to write more traditional communications such as research reports and persuasive essays, but students are also commonly exposed to new digital forms of writing. Electronic mail (e-mail), blogs, social networking posts, message boards, and other types of online communication have distinct forms, functions, and structures. Today's students need to know how to analyze and use traditional and online written works *and* be able to create both types of written communications (Trilling & Fadel, 2009; Richardson, 2006).

Writing effectively is a critical skill that students need to master to be successful throughout their education and later when they enter the workforce. Recently, the Common Core State Standards for English Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects outlined rigorous writing standards to ensure that students have the knowledge and abilities to produce coherent, written works of various length, style, and purpose (Common Core State Standards Initiative, 2010). Integrating these technologies and writing forms into instruction is an integral part of the Common Core standards. Students must have the ability to use technology and the Internet to perform research, to produce and publish their writing, and to collaborate with others in the production of written work. Writing instruction

pairing traditional writing skills with new, digital forms and multiple uses of written communication provides students with the comprehensive instruction necessary to become proficient writers in the modern world.

The new Great Source *Write Source Online* program was created to provide students with the writing instruction they need to become proficient and effective writers in the 21st century. This web-based writing program includes complete instruction in traditional and digital writing styles and forms to ensure that students acquire the writing skills needed to be competent writers. *Write Source Online* encompasses all of the activities and components of the research-based print version of the program in a fun and user-friendly virtual environment that students and teachers can easily navigate. Enhanced features of *Write Source Online* such as **Net-text** and **Interactive Whiteboard Lessons** incorporate personalized writing instruction that both students and teachers can utilize.

As research indicates, students need educational opportunities integrating academic knowledge and subsequent life skills. *Write Source Online* was built to give students the writing instruction they need to be effective writers while, simultaneously, developing their ability to learn and use information and practice effective use of new media and technology. In this document, we review the academic research that informed the creation of *Write Source Online* to demonstrate that the program is a scientifically, research-based educational program.

Write Source Online: Elements of Effective Writing Instruction

Research that Informed the Development of *Write Source Online*

Writing is a complex process that involves many skills, processes, and strategies. Knowledgeable educators agree that writing should be taught as a process (e.g., Ruddell, 2002; Tompkins, 2000). Early in their educational careers, students should be exposed to the elements of the writing process, such as brainstorming, writing, and revising, so that they can learn how to craft coherent written works. Research suggests that when writing is taught as a process, students write more thoughtful and effective communications and student writing achievement significantly improves (De La Paz & Graham, 2002; Graham & Perin, 2007; Hillocks, 1987; Holdzkom, Reed, Porter, & Rubin, 1982). The process approach to writing is embedded in the Common Core State Standards for English Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects (Common Core State Standards Initiative, 2010).

Student writing improves, not surprisingly, when given multiple opportunities to write (U.S. Department of Education Office of the Secretary, 2001). When students are given the chance to write on a regular basis, they become more effective writers (Calkins, 1994; Graves, 1991; Pressley, Mohan, Fingeret, Reffitt, & Raphael-Bogaert, 2007). As Connor-Greene and Murdoch (2000) reported, regular writing not only improves students' writing and understanding of course content, but it also increases students' critical-thinking skills, which can be applied to other tasks. Educators understand the importance of showing students how to think and write in all disciplines (Atwell, 1989). While students are not equally familiar with all modes of writing, such as expository and persuasive writing, students need instruction in the various forms of writing and how they are organized for real-world application (Downing, 1995; Lenski & Johns, 2000). To address this, the Common Core State Standards for English Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects detail that instruction in varied modes of writing across the content areas is essential for students at all grade levels (Common Core State Standards Initiative, 2010).

While having students write on a regular basis improves overall writing ability, instruction in the varied elements of quality writing, such as grammar and punctuation, spelling, and usage, must be mastered if students are going to be competent and effective communicators. Researchers find that such instruction is more beneficial and effective when presented within writing assignments and activities that are meaningful to students (Hillocks, 1986; Weaver, 1997).

Other researchers have reported that instruction in writing conventions is enhanced and improves the quality of students' writing when taught in the context of the students' own writing (Calkins, 1994; Spandel, 2001). Students that are taught proper grammar and writing functions when working on a specific piece of writing show a greater ability to apply these techniques than when students are taught grammar as a separate activity. Other conventions, such as teaching sentence combining in the context of students' own writing, have been shown to significantly improve students' ability to write effectively (Graham & Perin, 2007).

Part of the writing process includes having students revise their work. In *Write Source Online*, students are taught how to evaluate their own work using the Six-Trait Approach to Writing Assessment (Spandel, 2001). These traits—ideas, organization, voice, word choice, sentence fluency, conventions, and presentation—provide a structured framework for the regular

assessment of student writing. The Six Traits help students see the strengths in their writing while helping pinpoint areas for improvement – empowering students with the skills and confidence to grow as writers. Six-Trait writing instruction has been shown to improve student writing ability, increase writing test scores, and create more confident writers (Jarmer, Kozol, Nelson, & Salsberry, 2000; Smith, 2003). Furthermore, when students evaluate their own writing in this way, they strengthen their self-assessment and metacognitive skills (Bransford, Brown, & Cocking, 2000; Strickland & Strickland, 1998; Stiggins, 1996).

Putting Research into Practice in *Write Source Online*

As in the print version of the program, the pedagogy of *Write Source Online* includes explicit instruction on the writing process. When students enter *Write Source Online* and begin using **Net-text** and the **Student eBook**, they receive step-by-step instruction and practice in each step of the writing process. These interactive experiences provide students with essential knowledge necessary to employ the process during their daily writing. Empirical evidence indicates that presenting models of writing improves students' ability to write similar types of communications (Grahm & Perin, 2007; Knudson, 1989); thus, instruction in *Write Source Online* includes models and sample papers for a variety of different styles of writing. Using the interactive features in **Net-text**, students can view sample papers and use editable graphic organizers to assist in prewriting and drafting stages of the writing process. Once their work is completed, students can use **the ePortfolio** to publish and share their work with other students, including allowing peers to give feedback and suggestions for revision.

In *Write Source Online*, students engage in multiple writing exercises with the goal of improving their ability to write multiple types of written communications. Being able to produce various types of writing is a key criteria of the Common Core Standards for English Language Arts and Literacy (Common Core State Standards Initiative, 2010), and the lessons and activities in *Write Source Online* are organized around these types of written works (e.g., narrative writing, personal essays, creative writing, including plays and poems, etc.) at all grade levels. Within each type of writing, using and applying the writing process to that specific form of writing is presented.

To ensure that students master the mechanics and skills necessary to produce complete written works, *Write Source Online* includes integrated grammar instruction within the editing

process. In **Net-text**, students can complete grammar skill activities to strengthen their understanding and usage of grammar, mechanics, and sentence structure in writing. Additional support and instruction during the writing process is available in the fully interactive **GrammarSnap** feature, an engaging multimedia application that further develops students' grammar, usage, and mechanics skills. This unique component includes interactive mini-lessons, downloadable video podcasts, and various grammar games to assist students. In **GrammarSnap**, trackable assignments are available for students struggling with parts of speech, mechanics, and sentence construction, so that teachers can monitor student performance. This also helps students see how they are doing and gives them extra practice to build essential skills while working on their own written pieces, increasing the likelihood they will apply learned skills to future assignments

Editing and revising are important steps of the writing process. Throughout *Write Source Online*, students receive instruction how on to use the Six Traits (Spandel, 2001), and they have numerous opportunities to practice and apply each trait to their own writing. Explicit instruction and models are presented for each genre of writing so that students can apply these traits to different types of writing.

The features of *Write Source Online* were designed to provide teachers with tools and capabilities they need to deliver comprehensive writing instruction. The write-along feature allows teachers to create point-of-use instructional exemplars for key exercises and activities—exemplars that students can access at any time. Teachers can also collaborate with students to evaluate sample papers and review multiple drafts of written works created within the program. Furthermore, teachers can follow along with their students as they implement the Six Traits to revise their work via the **Net-text** student management feature. This targeted collaboration provides the structured guidance students need when revising their writing.

The **Teacher's eEdition** provides teachers with lesson and instructional support as they help students master the writing process. Effective instructional practices and additional differentiated instructional strategies are presented in the **Teacher's eEdition**. Classroom instruction can be further enhanced when teachers make use of the **Interactive Whiteboard Lessons** to present each form of writing. These interactive lessons include dynamic student-centered instruction on the different writing forms, and harness the functionality of whiteboards to provide rich, detailed, fully customizable presentations that target the specific needs of each

class. In the **Virtual File Cabinet**, teachers can search, locate, and assign activities for instruction, practice, and remediation. Lessons are organized by topics, grade levels, and Common Core Standards. Teachers can personalize this space to improve efficiency and preference. Classroom management tools in *Write Source Online* give teachers the ability to assign and manage assignments, indentify students who are completing work on time, and contact and provide feedback to those who are falling behind.

Write Source Online: A Digital Design to Enhance Student Writing

Research that Informed the Development of *Write Source Online*

In this new digital age, schools and teachers are increasingly utilizing information technologies such as computers, multimedia presentations, and high-speed Internet access for educational purposes (Gray & Lewis, 2009). It is necessary for students to have access to these technologies in every discipline to complete the required assignments, activities, and research needed. As Belden, Russonello, and Stewart (2007) pointed out, with the increased use of technology and computers in education, teaching students how to use these technologies is an integral part of any writing program. This infusion of technology into education has increased the occurrence of “multimedia learning.” According to Mayer’s Theory of Cognitive Multimedia Learning (2001), combining text with audio, pictures, and/or video increases the pathways from which information can be absorbed by students, leading to greater retention. Multiple studies have demonstrated that learning is increased when this multimedia learning approach is undertaken (for a review see Mayer, 2005) with a growing body of evidence indicating that incorporating technology will improve the writing performance of all students, including average-achieving writers (Reece & Cummings, 1996), at-risk students (Howell, Erickson, Stanger, & Wheaton, 2000), and learning-disabled students (MacArthur, Graham, Hayes, & De La Paz, 1996).

As it pertains to writing instruction, the most obvious benefit of increased technology is student access to word processing. Perhaps because students can type text more neatly, add, delete, and move text around more easily, and check spelling quickly, word processing has been shown to enhance the written products of all students, and particularly of low achievers (Graham & Perin, 2007; Goldberg, Russell, & Cook, 2003; Russell & Plati, 2001). Greater access to computers in general has been found to improve student writing, as students have the ability to

independently use computers to create and edit written works (Lowther, Ross, & Morrison, 2003).

Access to technology and computers not only increases students' cognitive skills, but it also positively impacts their motivation and enthusiasm for learning (Abdoolatiff & Narod, 2009). Part of this engagement may be due to the active learning encouraged by technology-rich environments (Rosen & Salomon, 2007). Such engagement can be increased when students have more control over the elements of their learning experience. For instance, allowing students the ability to create their own unique "avatar," an on-screen computer representation of the student, is associated with more positive attitudes toward learning, engagement in the social and communicative aspects of learning, and improved student performance (Annetta & Holmes, 2006; Annetta, Klesath, & Holmes, 2008; Lee & Hoadley, 2007; Richardson & Swan, 2003). Personalization helps students take ownership of their learning and gives them a role in that learning. *Write Source Online* allows students to work at their own pace and level with practice and remediation activities via **Net-text** and **GrammarSnap**, while the ePortfolio gives students a place to showcase their work and be recognized.

While utilizing technology for multimedia learning is essential, it is understood that teachers play a critical and vital role in establishing the proper balance between traditional instruction and the various digital activities available in computer-based instruction. A recent meta-analysis performed by Means and colleagues (2009) indicated that educational programs that included a mix of digital and multimedia instruction with face-to-face traditional instruction lead to significantly greater student achievement than programs solely using one of these approaches. The most effective curriculums were found to be those in which the digital, computer-based materials covered different aspects or included different elements than the face-to-face instruction. These successful programs allow students to direct the computer instruction while continuing to have teachers control the instruction occurring in a traditional classroom setting. Other researchers, too, have found that when students have control over the pace and selection of activities in multimedia learning environments, learning is significantly improved (Mayer, Dow, & Mayer, 2003).

Programs using this approach need to not only provide students with the digital tools to maximize learning, but also offer teachers the technology to enhance traditional forms of lecture-based instruction. One instructional tool that has been found to lead to significantly greater

student achievement is the interactive whiteboard. Marzano and Haystead (2009) compared student achievement in cases in which teachers utilized interactive whiteboards to teach a lesson to cases where teachers taught the same lesson without using the whiteboard. The results of the study revealed that students in the experimental whiteboard learning group experienced a 16 percentile point gain in student achievement compared to students who did not experience instruction with the device. Additional studies show that students' attitudes toward writing are positively impacted when teachers use interactive whiteboards during writing instruction (Bell, 2002), and instruction using interactive whiteboards improves students' abilities to write coherently and revise their own work (Fortuna, 2007; Gilbert, 2008). Marzano (2009) found: "Interactive whiteboards have great potential as a tool to enhance pedagogical practices in the classroom and ultimately improve student achievement." When teachers use interactive whiteboards, not only does student achievement improve, but students also become more engaged in the material, which increases their motivation and ability to interact with the content being taught (Kitchen, Finch, & Sinclair, 2007; Northcote, Mildenhall, Marshall, & Swan, 2010; Somekh et al., 2007).

Use of interactive whiteboards has a host of positive outcomes for teachers as well, including relieving stress and anxiety (Fraser, Garofalo, & Juersivich, in press) and reducing the time it takes to plan and deliver lessons (Kitchen et al., 2007; Wood & Ashfield, 2008). Using interactive whiteboards increases teachers' incorporation of other technologies in the classroom and enhances their whole-class instruction (Somekh et al., 2007). According to Wood and Ashfield (2008), interactive whiteboards assist teachers' instruction by aiding them in explaining and modeling concepts. Furthermore, instruction using interactive whiteboards provides teachers with an interactive, visual modality of presenting the various lessons necessary for writing, including using graphic organizers, reviewing sample papers, and going over robust vocabulary lessons (Gilbert, 2008).

Technology is changing our notions of literacy. Writing is no longer simply putting words to a page. Instead, with new technologies, students can easily link images and sounds, instantly transmit their writing to peers in the class and outside into the larger online community, and create links to other texts and sources of information. Learning extends beyond the classroom and access to reliable information, resources, and tools is important for creating a quality learning environment. *Write Source Online* enables students to access an online

dictionary and other tools to enhance their writing, and provides teachers with links to professional development, online essay scoring and plagiarism prevention tools (Grades 6-12), and additional resources that enhance the classroom.

Students need direct instruction on how to apply the writing process to different forms of writing and how to effectively use resources for communication. According to Belden, et al. (2007), teachers report that having students complete written works such as web pages, blogs, and emails as part of their normal writing instruction is necessary and contributes “positively to their growth as writers” (p. 4). Completing these various digitally based communications is associated with other positive outcomes. For example, when writing blogs, writers engage in a highly personalized process of thinking and writing, promoting improved writing ability as well as increased analytical and critical-thinking skills and creativity (Eide & Eide, 2005). Furthermore, students report greater motivation to write well and complete writing assignments when they know their work will be published for others to view (Karchmer, 2001). In *Write Source Online*, collaboration tools allow for the power of peer-to-peer editing to be harnessed easily. With *Write Source Online* ePortfolio publication, students are motivated to produce high quality writing that others can view. It is quite clear that to provide students with the skills necessary to be competitive in the 21st century, educational programs need to ensure that all students develop fluency and competence in writing in varied technologies (Herrington et al., 2009) and providing motivation and the right tools to help students master these skills is key to succeeding.

Putting Research into Practice in *Write Source Online*

The *Write Source Online* program was designed to provide teachers and students with the blended educational environment that research has shown is the most effective way to learn (Means et al., 2009). When logged into *Write Source Online*, students see the **Student Dashboard**, an easy-to-navigate virtual portal that gives student access to the components of the online program. Students’ motivation and engagement are increased as they are given control of the platform, including customizing the appearance of the space and creating individual avatars. Students can personalize their avatars by manipulating facial features and clothing. This level of personalization has been shown to increase learning and promote positive attitudes toward working virtually (e.g., Annetta et al., 2008). The simple-to-use **Student Dashboard** was designed so that students can easily navigate between the different features and components. The

platform is designed so that students can simultaneously access **Net-text**, **GrammarSnap**, and other features, as well as complete different exercises and activities.

In the **Student Dashboard**, personalized learning is maximized with ebooks that allow highlighting and notetaking, activities for building and practicing skills, and links to resources to enhance writing skills. The pedagogy of the program is built around students' application of the writing process to a variety of writing formats. Students proceed through each step of the writing process and have access to support exercises and additional instruction in **Net-text** and **GrammarSnap** as they learn to create effective written works, such as argumentative essays and narrative responses. Students can start where they previously left off, review previous work, contact their teacher for support, collaborate with their peers, get feedback from others, or complete a number of varied writing exercises. *Write Source Online* also allows students to access tools and components for differentiated learning. Students progress through the program at their own pace and can track their accomplishments and view assignment due dates and related activities. This level of flexibility and control has been shown to significantly improve student learning when working in digital environments (Mayer et al., 2003; Means et al., 2008).

Furthermore, the exercises and experiences in the program include a mix of print and audio/video formats to enhance retention of learned material and the application of writing instruction to other assignments (Mayer, 2001). *Write Source Online* harnesses the power of the Internet and technology to provide 21st century writing instruction using a variety of approaches and methods that lead to improvement in writing. For instance, in the online worktext **Net-text**, students can view narrated and animated lessons that provide instruction in the writing process, use of writing forms, and grammar. Students can control the online presentation of these lessons so that they progress at their preferred pace. For students who prefer a more traditional approach to learning, the **Student eBook** allows them to work directly from the book at school or at home without having to carry around the actual book. Students complete writing prompts, grammar questions, and activities in the **Net-text** worktext, but also have the ability to reinforce and enhance their understanding of the material by reviewing interactive lessons that they can control by watching remedial videos and practicing skills by working through activities and games offered in **GrammarSnap**.

In this digital world, adolescents are spending more time using multimedia devices and searching the Internet (Rideout et al., 2010). *Write Source Online* was created to be a stand-alone

virtual writing and grammar program with instruction aligned to all language arts and writing standards outlined in the Common Core Standards. This online program includes all of the educational experiences and instructional practices found in the research-proven print version of *Write Source*, with advanced interactive features utilizing cutting-edge technology and new digital tools, including **Net-text**, **GrammarSnap**, and the **Interactive Whiteboard Lessons**. While research has demonstrated that writing is improved when students have access to computers for word processing (e.g., Graham & Perrin, 2007), with *Write Source Online*, the benefits of using a computer for writing instruction have been enhanced. The program contains a built-in online writing application in which students have point-and-click text-editing features and tools. In this application, students have access to editable graphic organizers that can be saved and reused for future assignments. With **Net-text**, students can share their work with teachers and fellow students as they produce drafts. The program allows students to communicate directly with their peers and teacher to get feedback, collaborate, and post multiple essays in their virtual **ePortfolio**. The **ePortfolio** allows teachers and students to tap into the power of publishing by providing an online platform where writing can be shared and enhanced. These digital tools make it easy for students to complete their writing assignments, receive feedback, make edits and revisions, and publish their work, all within one system that gives them the ability to create, review, store, and track. This ease-of-use and efficiency enables students to focus on learning and mastering the content, using digital resources effectively, and building real-world readiness skills. According to Richardson (2006), posting writing assignments online in a digital space allows students to organize their work and workspace, increasing student collaboration and constructive feedback, and improving the editing and revision process.

As the concepts of literacy change (Belden et al., 2007), writing programs need to adapt to ensure that students have the knowledge and skills necessary to produce effective written works. To that end, *Write Source Online* not only provides instruction in how to write for new digital forms, such as blogs and web pages, but also in utilizing digital tools and technologies, such as the Internet, mobile computing and handheld devices, laptops, and computers, so that students can acquire the real-world writing skills necessary for effective communication in the 21st century (Herrington et al., 2009; Trilling & Fadel, 2009). While navigating the digital space, students learn how to use the Internet to perform research, and teachers can provide direction and instruction on how to evaluate online sources and appropriately use digital tools to create

different forms of communication. Students can utilize familiar features, such as communicating with peers and posting written works using their **ePortfolio**. These types of online, social media experiences are powerful learning opportunities for students to practice digital citizenship. More importantly, using the *Write Source Online* program builds students' mastery of modern digital devices and communication while improving other skills, such as their critical-thinking skills and creativity (Trilling & Fadel, 2009).

Write Source Online was developed to help teachers deliver effective writing instruction using technology and digital tools and to take learning to a higher level of engagement and achievement. The program provides teachers with a host of resources that complement and extend student instruction. Teachers can track each student's use of the components through the **Teacher Dashboard**. While students can be given control and can progress through the lessons presented in **Net-text**, teachers have the ability to review students' progress and assign additional help in **GrammarSnap**, or have students redo assignments or repeat lessons. This ability to monitor students and offer them targeted remediation allows teachers to personalize instruction for each student. Teachers can view current active assignments across all the different components of *Write Source Online*. Teachers can quickly identify students who are not completing tasks on time and can easily assign additional work for students progressing through the program at a faster pace. The **Assignment and Notifications Manager** aggregates student information for teachers so that groups of students performing at different proficiency levels can be identified. Teachers can assign additional work to these groups or students and post notifications to the individual **Student Dashboard** to remind students of work to be done or provide them encouragement and feedback when assignments are completed.

Teachers are able to harness the components of *Write Source Online* to provide complementary face-to-face instruction. The lesson plans presented in the **Teacher's eEdition** support and extend student learning by giving teachers unique and specific instructional strategies to present material to optimize student learning. The online system allows teachers to access and utilize online resources for lesson planning, delivering instruction, and managing student data quickly, which increases teacher effectiveness and efficiency (Kitchen et al., 2007). Teachers can focus on teaching, providing individual support, and connecting with the students, instead of spending time and effort on managing workloads. *Write Source Online* includes a **Virtual File Cabinet**, an easy-to-use, searchable online resource bank for teachers, with

hundreds of additional practice sheets and activities for instruction, practice, and remediation. The customizable **Virtual File Cabinet** lets teachers restructure and organize their personal resources to maximize efficiency, including arranging icons and components to meet their individual teaching styles. In this digital space, teachers can search for instructional components by Common Core Standard, grade level, language, topic, or type of activity. This convenient resource gives teachers the flexibility to provide dynamic instruction in all areas of the language arts, including building vocabulary, spelling and handwriting, and grammar support.

Unique to *Write Source Online* are the cutting-edge **Interactive Whiteboard Lessons**, tied directly to each form of writing taught in the Student eBook. These engaging lessons were created so that teachers could provide robust instruction using dynamic, multimedia presentations. Researchers have demonstrated that student learning is significantly improved when teachers use interactive whiteboards for instruction (Marzano & Haystead, 2009). Each interactive lesson in *Write Source Online* is fully customizable and teachers can alter the content and structure of these lessons to produce pertinent and memorable lessons that improve their students' writing skills. Also, classroom studies find that students become more motivated and active participants when their teachers use interactive whiteboards for instruction (Northcote et al., 2010). The **Interactive Whiteboard Lessons** in the program are student-centered and designed to motivate students to actively participate in whole-class instruction and discussions. Using the interactive technology, teachers can make writing come alive with meaningful demonstrations, interesting topic discussions, and fun activities to stimulate students since it provides a medium for visual presentation and interactive engagement (Gilbert, 2008; Wood & Ashfield, 2008). Not only does using interactive whiteboards increase student achievement, but using these tools also improves teacher practices. Teachers report that using interactive whiteboards increases efficiency, as they can spend more time doing other activities (Smoeckh et al., 2007). The lessons included in *Write Source Online* were designed so that teachers could spend more time instructing and assisting students in their writing activities and less time planning their daily instructional routines. Providing **Interactive Whiteboard Lessons** and other technology-based, instructionally rich support to teachers leads to higher quality instruction, a better learning experience, and overall improved performance and achievement for students.

Write Source Online: Online Safety in a Digital Age

The proliferation of online learning has led to a growing concern among educators to ensure that students' learning experiences occurring on the Internet are conducted in a safe manner. As more students are using the Internet, there is an increased risk that students could be exposed to computer viruses, identity theft, and other crimes perpetrated via online interactions. As Endicott-Popovsky (2009) advised, there are several precautions teachers should take to ensure student safety while online, such as confirming that the curriculum teachers deliver is safe and that they are teaching students about Internet safety. This is why the *Write Source Online* network is a controlled, teacher-centered environment that provides students a safe forum to share and discuss the writing created within the *Write Source* program. Teachers control all network involvement, and they expand or limit their class network by creating partnerships with other classes or hiding their presence on the *Write Source* network. Teachers are also given the freedom to remove network partnerships at any time.

Teachers can also customize and control their student's network and commenting privileges by reviewing and approving comments before they are visible to recipient students, disabling network access for individual students or groups of students (e.g., for disciplinary reasons or at the request of a student's parent or guardian), locking or clearing student-entered personal profile content for an individual student or group of students, and receiving alerts if their students' personal profiles are flagged for containing inappropriate material.

While teachers control the parameters of their class networks, students are also given control over how they interact with peers when using *Write Source Online*. Student interaction on the *Write Source Online* network was designed so that students experience a safe, focused educational environment. Students can interact with classmates by

- providing peer-to-peer comments on in-process writing as directed by their teacher and on published portfolio pieces,
- viewing and commenting on writing posted in their public portfolios, and
- flagging comments from another student if they feel the comment is inappropriate, thus alerting the student's teacher.

When creating *Write Source Online*, ensuring student privacy and safety was an upmost concern; therefore, each student's online presence is represented by an avatar, rather than a photograph. Also, students control the content of their portfolio by selecting which finished

pieces of writing to make public (i.e., visible to others on the network) and by deciding which comments from other students to make public. Students can interact with selected students in partner classes by viewing and commenting on writing posted in their public portfolios, and can flag inappropriate comments, an action that automatically alerts the teacher. Teachers can react to such situations by disabling network access or by locking or clearing student-entered personal profile content to prevent inappropriate messages or access to potentially harmful materials. These controls provide students with autonomy as they navigate online, while allowing teachers the opportunity to teach them about using the Internet in a safe manner. When students are provided such safety measures they are able to utilize online resources properly without any detriment to their learning (Yan, 2009). Thus, *Write Source Online* provides a safe, online network that protects students' privacy, while giving them the power to use the Internet to learn how to write.

Unfortunately, students can also misuse the Internet when gathering information, and numerous reports have shown that increased use of online resources is associated with greater incidence of cheating, in particular, plagiarism (e.g., Ma, Wan, & Lu, 2008). To combat the negative effects of plagiarism, *Write Source Online* has partnered with an online document checking system at Grades 6-12 to help teachers detect- and students avoid- plagiarism. This resource provides teachers with the tools necessary to identify potentially plagiarized paper sections and assignments. The system compares submitted papers to a large database of over 130 million student papers and 13.5 billion web pages to prevent plagiarism and provides feedback to students. These anti-plagiarism tools have been shown to be an effective means of reducing student cheating (e.g., Kakkonen & Mozgovoy, 2010). In many instances, students do not understand why what they have done is considered cheating, and they need guidance and support to use and cite Internet sources properly in order to recognize and avoid further plagiarism (Snow, 2006). Students can submit their papers and essays into the system at different stages of their writing to check for originality and inadvertent plagiarism issues before submitting the final papers to their teachers. By using *Write Source Online*, teachers have the means to ensure that their students are appropriately using the Internet for research, and they are provided with instructional resources necessary to teach students how to use technology effectively and properly when creating future assignments and written works.

Write Source Online was built to give students the writing instruction they need to be effective writers while simultaneously developing their ability to learn and use information gathered via new media and technology. Based on effective writing instruction research, *Write Source Online* puts research into practice by harnessing the power of digital technology to enhance student writing. *Write Source Online* provides an interactive, personalized online environment to help teachers build, develop, motivate, and inspire students to become better writers and communicators in the 21st century.

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