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How can the use of Technology enhance writing in the classroom?

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How can the use of Technology enhance writing in the classroom?

Abstract
The purpose of this study was to demonstrate how technology enhances writing in the classroom. After conducting my research and analyzing my data I believe that word processors should be part of every classroom to support students, especially those who have motor skills issues, because the findings of my research indicate that students are more apt to write because the physical act is less difficult. The research required me to observe, interview, and survey teachers and students as they incorporated technology into writing. The results indicated that technology allows students to enhance their writing by adding more precise detail into their writing pieces and it initiates self revisions. By looking at all the data that was collected in my research I have made a conclusion that it is highly important to incorporate technology into the classroom while learning to write and while creating essays.

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How can the use of technology enhance writing in the classroom?

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Abstract

The purpose of this study was to demonstrate how technology enhances writing in the classroom. After conducting my research and analyzing my data I believe that word processors should be part of every classroom to support students, especially those who have motor skills issues, because the findings of my research indicate that students are more apt to write because the physical act is less difficult. The research required me to observe, interview, and survey teachers and students as they incorporated technology into writing. The results indicated that technology allows students to enhance their writing by adding more precise detail into their writing pieces and it initiates self revisions. By looking at all the data that was collected in my research I have made a conclusion that it is highly important to incorporate technology into the classroom while learning to write and while creating essays.
Introduction

One component of literacy is writing. Writing is used on an everyday basis to communicate what one thinks and feels. In this particular study, I researched how the use of technology enhances writing abilities in the classroom. New forms of technology are being created each day and it is important for educators to incorporate these technologies into the classroom. By integrated technology, educators are providing more opportunities and strategies to increase their students’ abilities to write more detailed and grammatically correct essays.

According to Heath, “a literacy event is any occasion in which a piece of writing is integral to the nature of the participants’ interactions and their interpretative process” (1982). While students create their writings, they should be able to be active participants and team players during writing time. Peer interaction and one to one conferences with the teacher are crucial for the students to become skilled writers while using technology.

The main focus of my research is to determine how technology enhances the one’s writing ability. In my experience with the current position that I hold, I have seen tremendous outcomes while allowing the students to incorporate the word processor into their writing program. There are so many students that do not care for writing. Many of them think that it is a waste of time. My goal for these students is to show them that writing can be a fun process by giving them the right tools and strategies to use while writing. Since using technology, such as Facebook or Blogging is a popular trend in the present time, I want to show the students how to incorporate technology into their every day writing assignments for school. After conducting my research and analyzing my data I believe that word processors should be part of every classroom to support students, especially those who have motor skills issues, because the
findings of my research indicate that students are more apt to write because the physical act is less difficult.

Theoretical Framework

When defining literacy, the definition comes in many different forms. According to the United Nations Educational, Scientific and Cultural Organization (2006), literacy is defined as “the ability to identify, understand, interpret, create, communicate, and compute using printed and written materials associated with varying contexts.” Although many people believe that literacy is the way that we speak and write, it goes much further. “Literacy is understood as a social action through language use that develops us as agents inside a larger culture, while critical literacy is understood as ‘learning to read and write as part of the process of becoming conscious of one’s experience as historically constructed within specific power relations’” (Anderson and Irvine, 1993). By “becoming or being literate means learning to effectively, efficiently, and simultaneously control the linguistic, cognitive, sociocultural, and developmental dimensions of written language in a transactive fashion” (Kucer, 2005). By doing this, children need to learn how to be literate by the use of different strategies such as the use of technology to enhance and support their learning.

Language and literacy surrounds each and every one of us every day. “Language consists of four major dimensions: the sound system (phonology), the system of meaning (semantics), the rules of word formation (morphology), and the rules of sentence formation (syntax)” (Rice, 1989). Literacy is in our conversations, the book that we read and listen to, and the signs that point us in the right direction. Children, once they are born, come into the world rich with language and literacy. From day one, children are acquiring the sounds that come out of the mouths of their parents, family members, doctors, and nurses. “All of us, through our ‘primary
socialization’ early in life in our home and peer group, acquire (at least) one initial Discourse. The initial Discourse, which is our primary Discourse, is the one we first use to make sense of the world and interact with others” (Gee, 1989). As children grow physically and mentally, they acquire and learn language. They acquire language by just being involved in their everyday environment. According to Gee (1989), “it is not just how you say it, but what you are and do when you say it. They learn language through their educational career and the adults that are apart of each of their lives. New technology is being introduced everyday and by having students interact with it, should increase their literacy abilities.

Literacy surrounds each one of us on a daily basis. The use of technology to support the learning and understanding of language to students is essential because writing students tend to need proof of skills that they are learning. Literacy is learned through acquisition, but additional supports may be needed in order to attain the explicit knowledge named by the NRP. According to Rice, “language development is a primary educational objective for preschoolers. The best way to encourage development of language is to provide many opportunities for a child to interact with objects and events and other children” (1989), therefore technology may be an appropriate strategy for support struggling writers. Literacy development does not evolve within the course of a day. It evolves throughout the course of an individual’s life time. “Being a reader or writer is not a state of grace that one arrives at. Rather, being readers and writers is about continuously learning, becoming, and experiencing literacy across time and space” (Prentiss, 1998). As new technology is being introduced, teachers have more opportunities to share strategies and techniques that help those who do struggle with writing.
Research Question

How can the use of technology enhance writing in the classroom? Technology is evolving into the society on a regular basis. Having tools such as the internet and the word processor only encourages students to become more involved in writing assignments and increases both motor and cognitive skills.

Synthesis of the literature

After reading various scholarly articles about technology and writing, there were many central relationships between them all. They focused on how the use of technology, especially the internet encourages students to engage in writing activities. Many of the articles focused on how peer involvement was crucial because it allows students to interact with one another and learn from each other. The articles also discussed the pros and the cons of using a word processor while writing as well as how important it is for school districts to hold professional developments for their staff when new technology is introduced.

Authentic Purpose and Motivation

In recent research, studies show that the use of integrating technology, such as the internet, enhances and improves students’ overall writing abilities. According to Malloy and Gambrell (2006) “the internet exemplifies a growing literacy that engages readers of all ages and abilities.” To engage students to become independent writers, Kara-Soteriou, Zawilinski, and Henry (2007) provide teachers with a list of resources on the internet to encourage students to become better writers as they are completing their work. By using websites such as kidspiration.com and eatshootsandleaves.com students can form ideas by creating graphic organizers and visual cues to inspire them to create essays and then they can visit easshootandleaves.com to practice with punctuation.
Using the internet is not a grown up task anymore as Malloy and Gambrell (2006) report. “It is important for teachers of elementary students to realize that leisure-time use of the Internet is no longer the sole realm of teenagers and adults; many elementary students are already adept to searching and surfing” (p. 482). More and more of our younger students are exploring the internet, there have been more writing tools that are being provided on the internet. Scott and Mouza (2007) report that writing skills are critical no matter what age level one may be. There have been numerous amounts of studies that show students have an easier time expressing themselves when they are able to write their thoughts and feelings down on the computer. By having the ability to access and utilize Wikis, Blogs, and Kajour chats allows students to express their feelings without having to be apprehensive about what others may think or say aloud in class. Having these resources for our students increases their abilities to write meaningful text. The “use of blogs and wikis have increasingly provided an expanded motivation to write”…

According to the National Commission on Writing (2006), they “urged teachers to build on students’ fascination with “blogging” and “instant messaging” to help develop writing competence” (Scott & Mouza, 2007). Using the internet for blogging or wiking not only increases the ability to write, but it also supports social interaction and community building. The National Commission on Writing (2006) states that the “use of blogs and wikis has increasingly provided an expanded motivation to write. All those people who said they hate writing and can’t write and don’t want to write, can write and do want to write” (Scott and Mouza, 2007).

Although technology is a powerful tool and in most cases increases writing skills, David, Keaton, Morris, Murphy, and Stapley (2008) reported that “instructional needs must drive the arrangement of technology” (p.15). Teachers must remember that many students are familiar with technology and are sometimes more capable navigating the internet than most adults, but
there are a select few that are not computer savvy and need instruction before completing an assigned task. Halsey (2007) understands that technology may not be the best solution for all students, but states that when students know there is a purpose behind their writing, publishing their work on the internet, their motivation tends to increase because now they know that there is a “real” audience who will be reading their work.

Studies drawn from Van Leeuwen and Gabriel (2007) indicate that “attitudes toward the writing they did in their classroom were positive… They were enthusiastic writers both on and off the computer” (p. 423). Van Leeuwen & Gabriel (2007), Gatzke & LeDrew (2008), Halsey (2007), Kinzer & Verhoeven, Martin (2008), David, Keaton, Morris, Murphy, Stapley (2008), Scott & Mouza (2007), Kara-Soteriou, Zailinski, and Henry (2007), and Malloy & Gambrell (2006) all agree that when students use the computer in the classroom, it is an enjoyable experience. The physical act of using the technology is what makes the experience enjoyable. Van Leeuwen and Gabriel (2007) also point out that there were still some students who enjoyed writing with paper and pencil. When interviewed, these students said that typing on the computer took too long, so they preferred writing their work on paper.

As mentioned above, students tend to be more motivated to write to a purpose. Halsey (2007) said that “students’ motivation to produce quality work increased when they knew it would be published on Internet” (p. 102). Puckett, Judge, and Brozo (2009) write about how technology increases reading and writing scores in the classroom. They stated that “participants experienced the greatest improvements in the three following AT (assistive technology) applications: a) computer technology to support reading, b) technology to support student writing process in planning and idea generation, and c) general accessibility options in Window and Mac” (p. 30). The ease of using cut and paste in a word processing program allows students to
feel that it is not such a chore to edit and revise their work. Having this technology only motivates them to make their corrections. Students can finally become more independent while learning how to write. In the article written by David, Keaton, Morris, Murphey, and Stapley (2008) told the story of an adult writing student who was put into a computerized writing class. This student was not computer savvy and she turned her first few essays in that were written on paper. The essays were fairly basic with few revisions and edits made. The instructor encouraged her to write essay again, but this time using the computer. The student did. As she got more familiar with the word processing program, her writing became stronger and more grammatically correct. The student soon realized that the computer was nothing to be afraid of and saw that it was beneficial and it uplifted her spirits about taking this particular course.

*Word Processor*

Bromely (2005), Martin (2008), Kinzer & Verhoeven (2008), Halsey (2007), Lee & O’Rourke (2006), and Van Leeuwen & Gabriel (2007) claim that technology has affected both what is written and how it is written and continues by claiming that because technology has made it easier to compose and revise, student are becoming better writers and readers. Cramer and Smith (2002) researched two groups of middle school students, one group followed a traditional style curriculum for writing while the other followed a technologically rich writing curriculum and synthesized that in order to improve students writing an educator cannot simply rely on the use of a technologically rich curriculum.

Not only does the use of the word processor help students with motor skills, it also focuses on cognitive and social skills. “Sociocultural theories of literacy recognizes and acknowledge the importance of the social context along with the background experience and skills of students” (Bruner, 1996; Vygotsky, 1978). Van Leeuwen and Gabriel (2007) report that
the use of a word processor facilitates meaning to students of today’s technologically advanced world. Being able to use a word processor makes writing an enjoyable task for most students. Many students view writing as a long and tedious task when the only tools they have are paper and pencil. When using a word processor, it makes the students more engaged in their work because instead of doing the traditional edits and revisions, now they can insert and delete with a press of a button. Scott and Mouza (2007) claim that “the rapid evolution of new technologies in the last two decades, however, has transformed the ways in which people communicate, collaborate, read, and write and offers new possibilities for supporting and improving student writing. Word processors have introduced new ways of generating, organizing, and editing text, thereby making tedious revisions tasks easier” (p. 230).

In the Van Leeuwen and Gabriel (2007) article, Woods claims “a computer with word processing software – to complete a task traditionally completed with pencil and paper introduces a new realm of possible differences in attitudes, interactions, instructional strategies, and written products” (p. 421). Sternberg, Kaplan, and Borck (2007) agrees that when one uses a word processor on a day to day basis it allows students to be more efficient, organized, accurate, and thoughtful in their writing. On the other hand, the three authors mentioned above also express that teachers fear that students are going to become lazy with their writing and too reliant on grammar and spell check. Gatzke and LeDrew (2008) interviewed children after completing an assignment on writing a book on the computer. The majority of the children informed them that they “loved using the computer to write their books. It made the writing, spelling, and changing (revising) easier” (p. 290). When using the word processor, students are taking some of the motor and cognitive load off their back due to the grammar and spell check on the word processing program.
Teacher Methods & Professional Development

Research shows that a teacher cannot jump into using technology in the classroom. Just like any lesson, one must model how to use or complete a task before expecting the student(s) to produce quality work. When implementing technology into the classroom, the teacher must encourage student – faculty contact, encourage cooperation among students, encourage active learning, give prompt feedback, encourage time on task, and respect diverse talents and ways of learning (David, Keaton, Morris, Murphey, and Stapley 2008). Mini-lessons usually take place in writers’ workshop, so mini-lessons should be provided when instructing the students to use technology in the classroom according to Kara-Soteriou, Zawilinski, and Henry (2007).

Martin (2008) indicates that technology is central to how our students think and act in the world and that literacy is central to education. By using different modalities to learn we are allowing our teachers to give students the chance to understand pedagogical approaches that better integrate new literacies. Due to how fast technology is developing it is important that professional developments are available to educate teachers so students can continue to increase their motivation and abilities to use technology to improve their writing. “As Leu (2000) argues, we already know these technologies will have an impact on our children’s success at life opportunities’ (p. 762) so perhaps research time and energy could be better applied to understanding teachers’ desires and abilities to envision new uses for emerging technologies in literacy learning” (Halsey 2007; p. 105). Sternberg also agrees with Halsey that professional developments should be an ongoing procedure in the schools and it “is essential for all educators in creating a successful school literacy culture” (p. 419).

On the other end of the spectrum, Hansen (2008) expressed different factors that can inhibit early childhood educators. He simply indicated that there is a “lack of time and expertise
to explore and understand the software, narrow definitions of literacy held by teachers, and lack of understanding about the capabilities of new technologies and the confidence to use them effectively within literacy instruction” (p. 110). When implications arise in the classroom when it comes to technology, teachers should consider the following: “develop realistic expectations when implementing a word-processing component in the process writing program, plan to adjust current instructional strategies, schedule feedback times for students, be prepared for students to focus on the computer, not on a lesson, in the computer lab, and teach students skills in working collaboratively” (Van Leeuwen and Gabriel 2007).

According to Lee and O’Rourke (2006) teachers must engage reluctant learners and when they are introducing new topics they must gain attention and motivation from these students. Once teachers have done this, they then can encourage independence and responsibility. Lee and O’Rourke (2006) found that when introducing technology into the classroom, teachers most often began teaching basic computer skills, such as keyboarding, using the mouse and printer. Once they got into the lesson, they soon realized that letting the students experiment with the computer, the students were gaining more trust in themselves. While students are working on their writing at the computer, Van Leeuwen and Gabriel (2007) state that the teacher is responsible for “encouraging students to continue their efforts, helping students focus on the important details, and supporting students as they developed problem-solving strategies” (p. 423).

The research indicates that the use of technology gives students the encouragement needed to enhance their writing abilities by giving them the opportunities, such as peer involvement, to make it and enjoyable experience. Given what my research question is, the next section describes how I applied what I learned to my teaching.
Methods

Context

Learning Center A (a pseudonym) in Webster, New York is a privately operated learning center, which is owned by a corporation. Learning Center A believes in mastery learning. This is where a teacher teaches a skill and does not move onto the next skill until the student fully understands the skill that they are on. Students come to Learning Center A to receive the support needed to be successful in school. Currently, the age ranges of attendants that come to the center are from the age of five to twenty-two. There are a total of eighty students who currently attend. Forty-four of them are females and thirty-six are males.

Walking into Learning Center A, you will enter our waiting room that seats eight people and two large windows. There are three offices in the center. The first office that you walk into is used for enrollment meetings and conferences. The second office is used for testing and the third office is shared by the two directors of education. The office shared by the directors has a large window in it so the directors are able to keep a close eye on instruction. In the general instructional area, there are nine horseshoe tables with a total of four chairs, one being for the teacher. The ratio to students and teachers is three to one. Off of the general instructional area, there is a teachers’ room, a testing room with one table and a computer station, and a large room with windows that is used for the SAT and ACT classes. In this room there are three tables that are put together to make one large conference table. In the far back corner of the center there is one bathroom. The majority of the population at Learning Center A are Caucasian middle class families due to the tuition cost of the programs that are provided.
Participant

Shane (a pseudonym) is a nine year old boy and is currently in the fourth grade at Flower Elementary. Shane has attended Learning Center A since December 5, 2009. When Shane was first assessed at Learning Center A, his vocabulary was at a grade equivalency of 2.6, which is in the 16 percentile and his comprehension score was at a 2.3 grade equivalency which made him place in the 12th percentile of students his age. After completing the Gray Oral Reading Test 3, Shane read at a rate of 4.4, his accuracy was a 3.3, and his comprehension was a 5.2. The long term goals established for Shane are to build his sight vocabulary through review and repetition, improve and apply phonic skills, learn how word structure affects meaning, develop a larger working vocabulary for reading, and practice strategies for analyzing unknown words. In comprehension we want Shane to apply literal and critical thinking skills to comprehend text and learn how reading factual text differs from reading fiction. The goal for Shane's writing program is for him to not feel stressed while completing a writing assignment and develop a structured essay.

Researcher Stance

My current position at Learning Center A is the Director of Education. With my position, I assess the students when they first sign up to get an understanding of their individual strengths and weaknesses. Once the students are assessed, then I develop the curriculum that is best going to suit their personal needs. Every twelve hours of instruction of each student, I conference with their parents and share what the student has been learning at Learning Center A and to get feedback on what the parents and school teacher(s) are seeing outside of Learning Center A. As the Director of Education of the Webster center, I attend school meetings, such as CSEs and
parent-teacher conferences, and communicate with our students’ teachers to get feedback and observations on what the school teachers are noticing in the classroom.

Method

To understand how the use of technology enhances writing in the classroom, I observed Shane as he goes through the writing program with the use of a word processor. Shane attends Sylvan once a week for the writing program, so my goal is to observe him two to three times. Each observation will be for an hour. The teaching methods that are going to be utilized are; first I am going to take a look at what Shane produces without the use of a word processor and then I am going to compare it the work he produces with the use of a word processor. After working with Shane I will look at the length and the complexity of the sentences along with grammar and spelling. When teaching Shane, he will be in a small group with no more than three students.

To ensure credibility I will be able to handle the challenges that myself or Shane run into while producing his writing According to Mills, “The credibility of the study refers to the researcher's ability to take into account the complexities that present themselves in a study and to deal with patterns that are not easily explained” (2007). Guba's (1981) “second criteria of transferability refers to qualitative researchers' beliefs that everything they study is context bound and that the goal of their work is not to develop "truth" statements that can be generalized to larger groups of people. To facilitate the development of descriptive, context-relevant statements.” Shane will be able to take the tools and strategies that he learns at Learning Center A into his current and future classroom. During conferences with Shane’s parents, I will ask them to provide writing assignments that were done at school and I will communicate with his teacher. When writing about dependability, I will keep track of all the documentation that I collect and keep track of what worked and what did not work during my research. I will be using
Learning Center A’s writing rubric and notes that are taken after Shane writes each essay. Doing this action research on Shane, I am hoping to prove that the use of technology only enhances and motivates student to write more precise and more detailed essays.

Data Collection

While completing my action research, I observed Shane and his writing to see how he had developed as a writer over the course of 2 months. Observing Shane, I looked at the attitude he portrayed during his writing hour along with the actual documentation of his writings. While observing his attitude, I noticed his facial expressions as well as his physical demeanor. I also observed a first grade classroom in the Great Central School district whose teacher is integrating technology into her classroom during their writing block. In the classroom at Great, I took field notes of the actions the students took while using the computer during their writing time. Also I interviewed the classroom teacher and asked her what changes she has seen in her students’ writing since the computer was introduced to them. I took field notes during observations and interview. My goal is to perform three interviews. The interviews will take place with Shane, one on the Sylvan teacher who works with Shane each week, and the faculty member from Great Elementary School. I analyzed a questionnaire that will be given to my students in grades eighth through twelve at Learning Center A. While collecting the data, I will protect the right of all my participants by keeping the name anonymous and that identifying marks will be removed from all documents as well as getting permission from the students whose work I use in the research.

Findings and Discussion

While conducting my research, I looked at not only the students work, but also their motivation and behaviors while completing writing assignments. Technology is incorporated into most classrooms in this day of age. Whether the technology is just a desktop computer or a
Smartboard, all of the participants in my research were familiar with technology. During the course of time, I looked at the motivation and behaviors of students across the spectrum. The students ranged from first to twelfth grade. Each student gave the same positive reinforcement that I was looking for to answer my question of whether or not technology enhances writing. The research showed the physical ease of writing, revising, and editing one’s work. It also showed the students’ interest in initiating their own revisions before the teacher graded their work and it increased engagement and length of the students’ writing pieces.

First Grade at Great Elementary

At my visit to Great Elementary School I observed many great activities. The staff and students were polite, yet curious to why I was there. After explaining to the twenty first graders who I was and why I was visiting there classroom the teacher began her writing lesson. Before entering the classroom, the teacher informed me that this was the first day that the students were going to be introduced to the Word program even though the teacher uses Word and the Inter Write Board for morning message and incorporating math lessons. From the beginning of the school year up to date, technology has been used for playing games and school support. Also prior to my visit, the teacher informed me that out of twenty of her students, four are not above grade level. Just recently three out of the four were removed from Reading Recovery, which is a reading support program in the Great Central School District.

To start the lesson, the teacher asked the students how everyday people incorporate the computer in their lives. The students responded by saying “taxes, Sears (how much something cost), do dad’s job on the computer, research to buy a new house, learn, email, Google, Facebook, search for a vacation, and find out when businesses are open” (Great Students, 2010). Once the students gave their answers, the teacher then asked for each one to take a laptop off of
the back table very carefully. After each student received a laptop, the teacher modeled how to log in. The students reminded her that she needed a password. There were some problems logging in, so the teacher and I went around to each computer to help the students get in. As I helped one little boy, he told me I was “magical” when I finally got him logged in.

**Physical Ease of Writing/Revision/Correction**

While using the Word document in the first grade classroom the teacher reviewed how to change the font, size, and color of the text. Then the teacher informed the students that they could explore and write whatever was on their mind. One student began typing out the words of the week and the student sitting next to her thought she was “brilliant” for thinking of that. Although this was the first time that these particular students used the Word document, it seemed that they were doing a wonderful job investigating the program and each one of the students understood that this program was used for typing documents. While observing these students type, there was not one who sat there and procrastinated on what to start typing. Once the program was opened all you could hear were the taps from the students’ fingers on the keyboard.

After analyzing all of the data that I collected while conducting interviews with students and teachers and also from the survey I gave, everyone was in agreement that technology makes writing easier because of spell/grammar check and it is neater. One statement that Shane stated while making revisions was, “it was easier for me to find my mistakes after I type it.” In the survey, 82% of the participants preferred to write an essay on a Word document than writing one on paper because it is easier and faster. One participant stated “I prefer a word processor because my arm gets tired writing, plus there is word count and an online thesaurus.” Composing one’s work on the computer takes time at first because you need to learn the keys, but once you learn,
you do not need to have the added stress of making sure you are forming your letters correctly and making sure that you have enough space between each word because the computer does it for you. While working with Shane, two of his biggest issues when you first glanced at his handwritten pieces of writing were letter formation and word spacing.

In this sample, Shane wrote a letter about himself to a made up pen pal about his favorite things to do. After meeting with Shane’s mother, we discussed his writing program and I informed her that Shane expressed no interest in writing and he was having a difficult time putting his ideas down on paper. I asked Shane’s mother if he ever expressed an interest in using their home computer and she responded with a quick yes. Shane sees his older brother use it for research and typing papers and at one point Shane got on the computer and started typing his own story. At that point I told Shane’s mother that I would like to continue to teach the writing process that we teach at Learning Center A, but also allow Shane to use the computer to publish his writing and
see if his writing is enhanced by letting him use a piece of technology that he is interested in. Shane’s mother was in full agreement.

Shane was thrilled that the arrangement of typing his essays on the computer was made. In his next sample, Shane was able to type his essay and was able to read it with ease to make self corrections.
Paintball

I like to play paintball. Paintball is a painful and fun but it hurts when you get hit. I play it because it is fun to snipe people. The guns have three gears: on, supercharge, snipe and long-range. You should not have a light on your gun, because someone will see the light and shout you. It is healthy because you are running around. And it is unhealth because you are being hit with paintballs. That's what interest me in paintball.
Increased Student Engagement

Van Leeuwen and Gabriel’s (2007) research showed that peer interactions increased once technology was implemented into the classroom. While conducting my research, I observed the same. As students began to type, they began asking each other different questions to each other, such as, “what do you think that red squiggly line means?” When the teacher heard that particular question she walked over to the student and informed him that it meant a word was misspelled or the computer does not recognize it because it is a name of a person or place. Once the students found out this information, he quick to tell all of his friends, and at that point on all of the students were worried about their spelling mistakes, but they also thought it was funny that the computer did not recognize some of their names.

While observing the students type, there was much conversation and peer support. When one student found out what a certain key did, he or she was certain to tell their friend next to them. One little boy wrote, “I love to play Wii and I have blue eyes.” After the boy wrote that he had blue eyes, he made the text bigger and changed the color the text to blue because he has big blue eyes. When I saw this on the computer screen I gave the little boy positive praise and as soon as the students around him heard me say that, they were quick to come over to see what the little boy had created. It is incredible to see how positive attitudes can get when one is interesting in the assignment or how it is suppose to be completed.

There was another boy in the class that tends to do what his is not suppose to, but this activity was engaging to him. So happened that I was sitting next to him while the teacher walked by and she was surprised to see that he had a sentence written and she definitely gave him positive praise for trying. When this boy was through typing, he was excited and made sure to tell me and his friends around him what he typed.
Using technology enhances writing and engagement with others by using sources such as Facebook and blogging. With these tools, students are expressing their thoughts and feelings to each other while receiving and giving back feedback. When a new source of technology is introduced the public is intrigued by the new possibilities that they can explore. While exploring on programs such as Facebook or the Word processing program students start communicating with each other to retrieve answers. Each participant in the research expressed they are a member of Facebook or they email, or see their parents email on a daily basis. By hearing and seeing this data makes me understand that engagement and peer interaction is increasing because of technology.

Student Initiated Revision/Length of Writing Pieces

After conducting my research, I found many similarities when comparing Shane’s work to the first graders work. After each essay that Shane had written on the computer, he would find revisions on his own. By typing his work on the computer makes me believe that it was easier for Shane to point out his own mistakes due to the print being legible and words spaced apart. When I saw Shane’s first essay that he completed on the computer, I was excited to see him want to revise and edit what was supposed to be his final copy.
This was a critical piece of information because Shane was starting to see the importance of making revisions and to double check his work before handing it in for a grade. In the above writing sample, it is apparent that Shane did a considerable amount of revisions. He indicated
that he would move sentences around, add words, change words, and add clarification. He did not do any of these things when he handwrote stories or narratives.

The same phenomenon happened in the first grade classroom at Great Elementary. When visiting the school, the teacher and I sat down to discuss what she started seeing since technology was introduced to the class and she also shared some work that the students have written in the past while learning about biographies. At first the students printed their rough draft and then dictated what they wrote to the teacher as she typed them on the computer. Once she handed the typed copies back to the students, she thought that was the end of this writing assignment. Little did she know that the students were not finished with their writing pieces. A few students mentioned she did not type some of the things that they told her so they continued making corrections so it could be typed again. Once the one student found a mistake, all of the students decided to add more to their biographies. Here are some of the samples of the students’ work.
Michael is in my class that is Mrs. Mayer. He has a brother, his name is Christopher. They like to rest. Like on TV, Michael's favorite thing to eat is pizza. His brother's favorite thing to eat is penatbudder and Jelle. Whine they go outside he likes to
Who has a birthday on October 1st? Their favorite color is blue. They like to play on the playground. His favorite food to eat is pizza. He was born on September 25th, 2002. It is Michael Smith!

He lives with his dad, his 2 brothers, Chris and Patrick. His favorite to play with his Xbox. He has 25 games to play on the Xbox. When he grows up, he wants to be a dirt bike rider.
Who has a birthday on October 1\textsuperscript{st}? Their favorite color is blue. They like to play on the playground. His favorite food to eat is pizza. He was born on September 1\textsuperscript{st}, 2002.

It is Michael's birthday! He lives with his Mom, Dad and his 2 brothers, Christopher and Patrick. His favorite thing to play with is his Xbox. He has 25 games to play on the Xbox! When he grows up he wants to be a dirtbiker.
I got a for his name
is Tyler I lik
Him as a friend
To me he is my
friend he is my best friend
he is so nice to me
I lik him as a best
friend to me a lot
and the end.
Who loves the color blue and has 2 parents and has a big sister. No it is not Lara or Salvintino, it is Tyler!

Tyler likes to take walks just like I do! He wants to be a police man when he grows up and I like police men. He is silly and is my friend.

He loves to play board games like he was Born in El. His birthday is September 2nd he love to eat pizza.
From what was seen from the above work, even though the teacher from Great Elementary did not plan for the students to revise their work again, they did. On the second draft the students were able to read their work more clearly so it was easier for them to notice what they needed to add and take out of their original piece of writing. When the students revised their work, they added in more detail to make their biographies clearer to the reader as well as change word placement.

Looking at the data, it indicates that students have an easier time making self corrections and revisions when they type their writing pieces due to neatness and word space.

Analyzing the writing samples and surveys, it is to be concluded that not only are self revisions happening, but also the length of writing pieces are extending. According to the survey, many of the participants stated that while typing an essay on the computer (Word program) it is easier due to the fact that it has spell/grammar check as well as a word counter. By having these features, students have the ability to spice up their work and make it more presentable for the
reader. One student that complete the survey stated, “When you type, you can write more and can easily go back and see your mistakes and then fix them.”

Paintball
By

I like to play paintball. Paintball is a painful and fun game. It hurts when you get hit. I play it because it is fun to snipe people. The guns have three gears. The three gears are supercharge, snipe and long-range.

You should not have a light on your gun. One reason you should not have a light on your gun is someone will see it and shoot you. It is healthy because you are running around. It is unhealthy because you are being hit with paintballs. Those are the reasons I like paintball.

This writing sample from Shane indicates how the self corrections and the tools that were used on the Word program spiced up his ability to write a clear and precise essay.
Implications and Conclusion

All of the research and data that was collected in the past few months was well worth the effort. The participants that were involved helped me develop a clear understanding of what I was really looking for. Through interviewing and working with students/teachers and administering surveys allowed me to understand why technology enhances the ability to write clearer and more precise essays. It was amazing to see how students, as young as first grade, were able to make self corrections/revisions on the work they or their teachers produced on the computer. The positive energy and reinforcement of the students working together while using the technology in their classrooms were uplifting to see because of the positive interactions between the students as they explored the different programs.

By looking at all the data that was collected in my research I have made a conclusion that it is highly important to incorporate technology into the classroom while learning to write and while creating essays. Collecting the data from Shane showed me that students can enjoy the process of writing if you make it interesting for them. In the beginning of the process it was difficult for Shane to write his ideas on paper. He dreaded coming to Learning Center A for his writing instruction because it was stressful for him to incorporate all the fine motor skills while using a pencil and paper to write and to think of how he needed to formulate sentences on what he was thinking. Now I look at Shane, and he is like a new child coming into the center. He enjoys what he does during his writing time because he knows that he will be able to use the computer to type his essays and make revisions.
After conducting my research and analyzing my data I believe that word processors should be part of every classroom to support students, especially those who have motor skills issues, because the findings of my research indicate that students are more apt to write because the physical act is less difficult. This is consistent with Van Leeuwen and Gabriel’s (2007) findings that tell the reader that students with stronger writing skills can sustain their focus while writing with paper and pencil, but those who do have motor skill delays have an easier time working with the word processor due to the fact that they do not have to stress about pencil grip, letter formation, and word spacing. This is so because these students are able to perform certain strokes on the keyboard to formulate the words and thoughts they want to express.

While comparing my findings to other literature about incorporating technology with writing showed increase interaction among peers as expressed in Van Leeuwen and Gabriel’s research. Also to increase peer interaction, my research also expresses how Facebook and the use of blogs have become an important part of daily writing. According to the National Commission on Writing (2006) they state, the “use of blogs and wikis have increasingly provided an expanded motivation to write.”

Bromely (2005), Martin (2008), Kinzer & Verhoeven (2008), Halsey (2007), Lee & O’Rourke (2006), and Van Leeuwen & Gabriel (2007) claim that technology has affected both what is written and how it is written and continues by claiming that because technology has made it easier to compose and revise, student are becoming better writers and readers. The majority of my participants in the research made the same distinctions about technology and writing. The data that was retrieved from the survey, the participants informed me that one reason why it is easier to use the computer to write is because of the resources that are on it. Kara-Soteriou, Zawilinski, and Henry (2007) also state that because of the list of resources that
are on the internet or program that are in use, makes the motivation and abilities to write increase. One student that was interviewed in the Gatzke and LeDrew (2008) study stated that she “loved using the computer to write their books. It made the writing, spelling, and changing (revising) easier” (p. 290).

In future research, I would interview more classroom teachers across grade levels to get their input on how they incorporate technology in their classroom and also if they think technology enhances their students’ writing abilities. In my study I focused more on the students thought process, but it is also important to incorporate other teachers’ thoughts. It would also be interesting to compare the thoughts of new teachers versus teachers who have been teaching for a bit of time.
References


APPENDICES

Appendix A
Permission Letter

March 10, 2010

Dear Parents/Guardians,

My name is Lisa Sandolo and I am currently a graduate student at St. John Fisher College and hold the position of Director of Education at the Sylvan Learning Center. As part of the Childhood/Secondary Literacy program I will be conducting research for my capstone or thesis in your child’s program. I have spoke to Carol Steron and she has graciously opened up the center to me as I will look closely at the literacy practices that take place in the center.

The study will be from March 2010 – April 2010. I would love to have your permission to hold student interviews and copy student work. Throughout all my studies and paper your child’s identity will be protected, as I will give all students who participate in the study a pseudo name.

Please sign, both you and your child, on the lines below, indicating to me that he has your permission and is willing to participate in my literacy research. Please feel free to contact me if you have any further questions. Thank you!

Sincerely,

Lisa Sandolo
Work: 872-1071
Cell: 507-8220

Parent/Guardian Signature & Date    Student Signature & Date
Appendix B
Technology Survey

Using Technology to Write Survey:

Please circle one: **Male or Female**  
Age: ______

1. How is technology used in your classroom(s)?

2. What motivates you to write?

3. How do you incorporate technology in your writing in your everyday life?

4. Do you prefer to write an essay on paper or the word processor? Why?

5. Do you think that using a word processor while writing an essay enhances your writing? Why?
Appendix C

Interview Questions for Teacher

1. Where do you currently teach and what grade?

2. How many students are currently in your classroom and how many of them are currently at grade level?

3. How do you integrate technology into your classroom?

4. Is there peer collaboration while the students are using the computers? How so?
Appendix D

Interview Questions for Student

1. Have you ever used a computer before now?

2. Do you prefer using the computer while writing essays? Why?

3. Do you know what the red squiggly line means under some words that you type?

4. What else do you use the computer for?