Use of Computer Technologies in Supporting 3rd Graders' Literacy Development

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Use of Computer Technologies in Supporting 3rd Graders’ Literacy Development

By

Nicole Pensgen

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A thesis or project submitted to the

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CHAPTER 1: INTRODUCTION

Background

Over the last ten years the push for school districts to incorporate technology into their instructional programs has been widespread. With the strict policies of the No Child Left Behind Act, schools across the country are pushing for technology to be implemented into daily instruction in schools. Russell, Bebell, and Higgins (2004) state that “the U.S. Department of Education has launched several efforts to prepare pre-service and in-service teachers to use computers for instructional purposes” (p. 314). These reforms and ideas show how important technology has become in the field of educating the youth of today.

With the push for educators to use technology, more and more teachers across the globe are using various technological programs and websites to enhance their literacy instruction. In most classrooms students of the same grade level may differ immensely in their reading and writing abilities. For example, in my current third grade classroom, I have students reading at a first grade level and others reading at a sixth grade level. Likewise, their writing development is also this diverse. Many teachers including myself are turning to technology, specifically programs or websites, as a means for all students to further develop those essential literacy skills to become lifelong readers and writers. However, there is still a lack of consensus as to how these programs or websites support literacy development in both reading and writing.
Purpose of the Study

The purpose of this study is to examine how the use of computer technology supports third graders’ literacy development. The following research question will be addressed during this study: How does the use of computer technology support third graders’ literacy development? To further explore this topic I will also be looking at the types of reading and writing activities available in the online learning sites that the school uses and how those activities affect students’ reading and writing development. Additionally, I will look to see if students are transferring their learning from reading activities into their own writing.

Rationale

Finding ways to incorporate technology, specifically for literacy development, is a challenge for teachers across various grade levels. This study is an investigation into the impact of computer technology on students’ literacy development. My integration of the various programs or websites on the laptops will coincide with the daily classroom schedule and routines.

There are various benefits of using computer technology and websites for literacy development. First, it allows the teacher to differentiate instruction by matching each child’s literacy needs with appropriate learning experiences. Within each program or website the teacher can focus on specific skills or areas of need. Second, using technology can be motivational for reluctant learners. By providing colorful and interactive programs and sites the students become more engaged and motivated to learn. Last, by using computer technology you are able to tap into the
multiple intelligences of children by benefits those students who are visual-spatial, bodily-kinesthetic, musical, intrapersonal, or linguistic.

From this research study we can see how the various programs or websites are being used for reading and or writing instruction and the overall effect on literacy development.

**Organization of Thesis**

This thesis is composed of five chapters. Chapter one will look at the problem being studied and why it will be beneficial in the field of education. Chapter two will be the theoretical framework and explore recent research in the area of technology. The research design will be explained in chapter three. Chapter four will reveal the findings that will be discovered through the data collection and analysis phase of the study. Last, chapter five will delve into the implications of this study.
CHAPTER 2: REVIEW OF LITERATURE

Introduction

In determining the value of using computer technology in literacy instruction, it is important to research several aspects. Currently, there is a lack of research on the benefits and uses of specific computer technologies in literacy instruction. Therefore, this research study is important for understanding how computer technology can improve literacy instruction for all students. In this section I will provide the conceptual framework. First, I will examine the general uses of computer technology. I will focus on the use of computer programs, the benefits and challenges. Then, I will take a closer look at how computer technology is used in reading and writing instruction at the elementary level.

Use of Computer Technology in Elementary Curriculum and Instruction

Use of Computer Technology:

It is first important to consider the various ways teachers are using technology in their classrooms. This can vary immensely as there is so much one can do on a computer. We can examine how teachers used and implemented computer technology in their classrooms in relation to the curriculum and instruction. In a study (Russell, Bebell, & Higgins, 2004), Russell et al. looked at the differences in instructional practices and learning activities of students who were placed in classrooms equipped with permanent laptops versus classes who shared a cart of laptops. Similarly, Dunleavy, Dexter, and Heinecke (2007) looked at how teachers implemented laptops in their classrooms. First, the two most frequent uses for the one to one laptops
included online research and productivity tools (i.e. Microsoft Word, Excel, PowerPoint). The second most frequent use of the laptops was for drill and practice exercises. These exercises were used for instruction, remediation, reinforcement, and assessment of concepts learned. The third most frequent use for the laptops included online environments such as classroom web pages and videos to facilitate communication and enhance instruction. Adding on, Mouza (2008) looked at how teachers embedded laptops into their instruction and found that they used technology to create meaningful learning activities that engaged students in complex, authentic tasks across all subject areas.

Benefits of Computer Technology:

When looking at implementation of computer technology it is essential to consider the benefits of using computer technology in the classroom setting. There are various benefits reported. One potential benefit is increased student achievement. Another is student engagement or motivation. Adding on, computer technology also gives classroom teachers additional learning tools to extend learning opportunities to meet diverse needs and build necessary literacy skills.

In an article by McPherson (2005), he looked at how students are using the Internet as a source of reading materials. He looked at the Internet’s impact on reading as well as the benefits and challenges it provides to students. There are a variety of benefits. One being that multimedia can increase the readability of text-heavy pages. Second, online activities such as Webquests, often link to authentic reading materials and deal with essential questions. Third, students are motivated to
read these online materials. Another benefit is exposing students to informational text structures. Last, the materials found on the Internet can be incorporated into a home literacy program.

Warschauer’s (2006) research found that laptops and connections to the Internet provided scaffolding for many classroom topics, thus building background knowledge. He noted increased student engagement in wireless classrooms as students participated in more diverse writing activities, analysis of reading, and use of media-production software. Finally, he observed how students gained control of reading on the page as well as the screen. The students realized that there was more to a computer than games or chatting and gained practice in reading for a variety of purposes, such as interpreting the textual and visual elements in a document and knowing how to navigate and find information.

**Challenges of Computer Technology**

Since the use of computer technologies in the classroom is fairly new, there are many challenges that educators face. Bringing new literacies into a classroom is not an easy task for a teacher, especially when two thirds of teachers feel underprepared to use technology (Kajder, 2005).

Teachers and students face a variety of challenges alike. For teachers, these challenges include problems with resources (lack of technology, time, or technical support), teacher knowledge and skills (inadequate technological and pedagogical knowledge), school leadership (lack of school planning or scheduling), teachers’ attitudes and beliefs (not valuing or being fearful of the use of new technologies), and
assessments (traditional rather than matching new literacies’ expectations) (Hew & Brush, 2007).

McPherson (2005) also looked at the disadvantages of using the Internet for reading by students. First, readers can sometimes get lost within a site or waste time navigating the links. Second, advertising on certain sites can cause distractions to students or have ethical implications. Third, web page design can often parallel information text structures, making it difficult for young readers to read. Last, readability of Webquests and linked web sites is at a higher reading level than most students’ are able to independently read.

**Use of Computer Technology in Reading and Writing Instruction**

**Types of computer technology in reading development**

It is important to consider the various ways educators are incorporating technology into their daily reading instruction. The avenues to do this in a classroom are endless. One way to engage students in conversations about what they are reading is through communication via computer. In the article entitled “Literacy Instruction With Digital and Media Technologies,” Barone and Wright (2008) examined how a fourth grade teacher used technology in his classroom. During reading, student activities were differentiated and students were doing various things on their laptop computer. After the mini-lesson on sequence of events, students add to their timeline on the computer as they read from their basal story. Also, students stopped periodically while reading to engage in conversation through the use of instant messaging (IM). Students shared their thoughts and answers to question with a
partner. By using IM to communicate students were able to deepen their understanding of the story and foster engagement. Throughout the reading block, students also participate in various center activities that are Internet-based and related to the week’s story and reading skills.

Another component of reading that may be targeted through the use of computers is word identification or phonics. In a study by Macaruso, Hook and McCabe (2006) they examined the benefits of two specific computer programs designed to supplement regular reading instruction in an urban public school. Those two intervention programs were *Phonics Based Reading* (PBR) and *Strategies for Older Students* (SOS). Both are forms of computer assisted instruction (CAI) designed to supplement classroom instruction. The programs contain various activities that support learning and application of word-attack strategies at various levels in order to increase word recognition. Ten first grade classes from various schools were selected to participate in the study. The results showed that intensive phonics-based CAI can be quiet beneficial to low performers in the early grades.

Besides comprehension and word identification, spelling is another key component of both reading and writing. The study looked at the role of the program *WordMaker* on the spelling performance of first graders in a co-taught classroom. *WordMaker*, a software program provides a systematic, sequential approach to teaching phonics and spelling while offering engaging activities, graphics, supporting sounds, and a motivating literacy environment for learners. Activities within the program encourage learners to engage in experiential learning, guided discovery, and
knowledge transfer techniques. A wide range of learners are accommodated through creative and effective built-in scaffolds and customized feedback. To the results of the study showed that 83% of students showed gains between pre and posttest scores. The use of feedback through the program was also beneficial to all students. Adding on, the teachers in the study observed that the program engaged students in decoding and spelling skills in a fun way.

**Types of computer technology in writing development:**

In the area of writing, popular technologies offer new and exciting ways to capitalize on the strengths of authentic writing, the power of the writing process, and the engagement of collaborative writing. The question remains as to which programs or software to use and the benefits and challenges each poses.

In the article by Van Leeuwen & Gabriel (2007) they look at the role of word processing software in writer’s workshop. The research was conducted in a first grade classroom in Canada. The purpose of the study was to develop a greater understanding of the multiple factors involved in the use of word processing by beginning writers, as well as the effect of integrating ICTs on the classroom environment and on the teacher. The findings indicated that students enjoyed writing on the computer and most preferred it over the traditional paper and pencil. Also, when students were engaged in writing on the computer they were less likely to engage in various pre-writing processes when using the computer. After looking at various writing samples done on the computer and through the use of paper and pencil the authors looked at three components: ideas and order, words and sentences,
and conventions of language. They found that word processed and handwritten pieces were of similar quality. However, there was a difference in the length. Pieces that were handwritten tended to be longer.

Blogging is another way to incorporate authentic writing with communication. According to Boling, Castek, Zawilinski, Barton, and Nierlich (2008), “Blogs are websites that allow individuals to create personal webpages of text, pictures, graphics, or other multimedia with the same ease as creating a word processing document” (p.504). Through blogging students are able to communicate their thoughts and opinions with their peers, or teachers about various topics. Blogging may look differently depending on the grade level or task. However, blogging creates opportunities for students to safely connect with real audiences. This, in turn, can result in increased motivation and literacy engagement as students read, write, create, and produce for meaningful, authentic purposes.

**Benefits**

There are many benefits of using computer programs or software during the writing process. Typically when one thinks of the writing process they think of the recursive steps of planning, drafting, editing, revising, and publishing. However, that is not always the case in every classroom. In many classrooms, students produce one draft depending on the task and amount of time given. Setting aside the traditional paper and pencil, there are many benefits of using computer technology when engaging in the writing process. One major benefit of using computer technology to write is that it allows students to focus their attention on their ideas or development.
Many students who are used to traditional paper and pencil writing get caught up in the steps of the writing process. This leads to students not producing their best work because they are so focused on what they have to do next. By using computers during writing, students can focus on their ideas and easily make changes without having a mess or having to write a final copy.

Another benefit is for students who struggle with hand writing due to fine motor skills or attention. By using technology, they can type their thoughts or ideas rather than worry about producing print and legibility.

Using wikis or blogs to write also poses the benefit of writing for an audience. So often, students produce a writing piece and it does not get shared with anyone besides the class, teacher, or child’s family.

**Challenges**

Incorporating technology into writing instruction also poses challenges for both teachers and students. One obvious challenge is student familiarity with programs or software. When using technologies it takes time and direct instruction on how to use it. This time may impede on students ability to generate ideas or produce their writing quickly. They may be more focused on how to use the technology and it may interfere with their writing.
CHAPTER 3: METHODS AND PROCEDURES

Introduction

This research study will consider the use of computer technology on third graders’ literacy development. It will look at the types of reading and writing activities that are available in the online learning sites that the school uses. These may include software programs or websites used during the reading and writing literacy block. The study will also look at how the activities affect students’ reading comprehension and deeper understanding of various texts. Last, it will look at the correlation between reading and writing and the ways in which the computer activities support students’ writing development.

I will conduct the study in a third grade classroom of an elementary school. In the following section, I will introduce the contextual information, and data collection procedures and methods.

Context

District

This study will take place in an elementary school of a small, suburban community in western New York. The total community population is approximately 23,000. The public school district enrolled 3,708 students in grades K-12 in the 2010-2011 school year. The student ethnicity in that year was 0.3% American Native or Alaskan Indian, 8.6% Black or African American, 2.3% Asian or Pacific Islander, 7.3% Hispanic or Latino, 79.5% White, and 2% Multi-Racial. Of those students approximately 16% qualified for free or reduced priced lunch. Within the school
district there are a total of 288 teachers. All of the teachers hold valid teaching
certificates. Only 11% have fewer than three years of teaching experience. As far as
the district accountability, it is all within good standing with statewide mandated
standardized testing.

*School*

The elementary school where the study will take place is one of the six
neighborhood elementary schools in the district. It enrolls approximately 150 students
in grades kindergarten through three. Of those students, 1% are Alaskan or Native
American, 11% are Black of African American, 7% Hispanic or Latino, 4% Asian or
Pacific Islander, 74% White, and 3% Multi-Racial. The overall average class size is
about 20 students.

*Class*

The study will take place in a third grade classroom of 15 students. Of those
students, 3 are African American, 3 Asian, 1 Hispanic, 7 White, and 1 Multi-Racial.
Technology in the classroom consists of 2 classroom computers, TV with VHS and
DVD, and an ELMO. A laptop cart containing 10 computers is also available for
classroom use. The classroom has a well-stocked library where students are able to
borrow and sign out books from various genres and levels including both picture and
chapter books. Students also visit the school library once every six days to sign out
books of choice. In the classroom, trade books, chapter books, and an anthology are
used during the reading block. The daily schedule consists of reading, writing, word
study, math, and science or social studies. The district follows a reading and writing
workshop model for their literacy program. During reading workshop the teacher begins with a whole class mini-lesson. After that, students are engaged in differentiated work sessions. These include but are not limited to independent reading, guided group, and literary experience. During writing workshop the teacher begins with a mini-lesson targeting a specific strategy, skill, or technique. After that students are independently writing, working in guided groups on a specific targeted skill, or doing investigations. In addition, students are engaged in daily word study or language skills activities.

Focal Students

The two focal students were selected at random. The students participating in the study are currently third graders in the elementary school, average age, 8 years old. All of the participants are from low to middle class families.

The first focal child is a Caucasian female student. She is currently a child identified as “exceeding standard” in reading and writing. She is enthusiastic about reading and learning new things. She takes great pride in her work and enjoys working with her classmates and sharing her learning with the teacher-researcher. For the remainder of the study, she will be referred to by the pseudonym, “Leah.”

The second focal student is a male student reading at grade level and considered to be “meeting standard.” He is an Africa American student who is supported by his family at home. This focal student will be referred to as “Joey,” a pseudonym, for the remainder of the study. Joey enjoys learning in a hands on way. He is very motivated by technology.
Teacher Researcher

The teacher-researcher, Nicole Pensgen, identifies as Caucasian and is in her third year of teaching. The teacher-researcher is certified in elementary education grades 1-6 and also 7-9 mathematics. She is currently pursuing her master’s in childhood literacy at The College at Brockport. Her philosophy of education is a student-centered approach focusing on balanced literacy. This approach is also supported by the school district.

Permission and Confidentiality

For the purposes of this study, permission was collected from all students in the third grade class. A letter was sent home explaining the study and requesting a signature for consent. Student identity was protected in multiple ways. When writing about the focal students in this study the use of pseudonyms were applied at all times. Also, any data collected (e.g. student work samples) had student information removed to ensure anonymity.

Data Collection Instruments

Several data collection instruments will be used in order to triangulate findings related to the impact of technology on students’ literacy across multiple domains of data. I will gather input from the student’s academic goals for reading and writing, the New York State Learning Standards, my observations, student work samples, as well as input from parents and the teacher assistants that work with students receiving additional pull out support. I will explain each data type and collection in detail below:
Surveys

Surveys will be used as one of the tools to collect data. This instrument will be used to answer research question 1. This tool will also be used to determine what technology is used in school during pull out support. A survey will be given to teacher assistants at the beginning and end of the study.

The professionals survey (Appendix A) will include questions that ask teacher assistants about technology use during the chapter one reading program. The last two questions are about the impact of these technologies on students’ motivation and attitude and what literacy skills are impacted as a result of using these technologies.

I will send a consent letter explaining the research, along with the survey. Professional surveys will be placed in school mailboxes. I will ask for the surveys to be returned within one week.

At the conclusion of the study, I will send out follow-up surveys to the professionals. The follow-up survey will include questions that ask the teacher assistants to indicate any changes.

Field Notes

Field notes (Appendix C) will be used to answer research questions 2 and 3. Field notes will be completed by the teacher three days a week for four weeks during the literacy block, including both reading and writing workshop. The teacher will use the attached field note template to record activities and observations.

Work Samples

Besides surveys and field notes, student work samples will also be used as a
data collection tool. Student work samples will be used to answer research questions 2 and 3. These samples will be collected throughout the study in order to track student growth and transfer of skills. The student samples will be used to see how students are transferring their knowledge from the reading activities into their own writing.

**Procedures**

The study will be carried out in the 2011-2012 school year and will begin in the winter, continuing for approximately four weeks. Literacy activities on the computer will occur for approximately thirty minutes for three to four days a week during either reading workshop or writing workshop. Data will be collected on each participant during each computer literacy activity.

Data collection will begin prior to the start of computer use during reading and writing workshop. Parent and professional surveys will be distributed, which will assist in determining students’ prior experience with computer programs/websites related to literacy.

In addition, field notes and student work samples will be used throughout the study to answer research questions 1, 2, and 3.

The table 3.1 below outlines what instruments will be used during each week the study will take place.

**Table 3.1 Data Collection Procedure**

<table>
<thead>
<tr>
<th>Week</th>
<th>Tool(s)</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior to week 1</td>
<td>Surveys</td>
<td>Surveys will be sent home to parents and given to professionals</td>
</tr>
<tr>
<td></td>
<td>Work samples</td>
<td>These will be used as baseline data</td>
</tr>
<tr>
<td>---</td>
<td>--------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>Observations</td>
<td>Teacher will complete field notes for 30 minutes 3-4 times each week.</td>
</tr>
<tr>
<td></td>
<td>Work Samples</td>
<td>Students reading journals and writing pieces will be collected and analyzed</td>
</tr>
<tr>
<td>2</td>
<td>Observations</td>
<td>Teacher will complete field notes for 30 minutes 3-4 times each week.</td>
</tr>
<tr>
<td></td>
<td>Work samples</td>
<td>Students reading journals and writing pieces will be collected and analyzed</td>
</tr>
<tr>
<td>3</td>
<td>Observations</td>
<td>Teacher will complete field notes for 30 minutes 3-4 times each week.</td>
</tr>
<tr>
<td></td>
<td>Work Samples</td>
<td>Students reading journals and writing pieces will be collected and analyzed</td>
</tr>
<tr>
<td>4</td>
<td>Surveys</td>
<td>Surveys will be sent home to parents and given to professionals</td>
</tr>
<tr>
<td></td>
<td>Work samples</td>
<td>These will be compared to baseline data</td>
</tr>
<tr>
<td></td>
<td>Observations</td>
<td>Teacher will complete field notes for 30 minutes 3-4 times each week.</td>
</tr>
</tbody>
</table>

Prior to week one of the study, parents and professionals will be given the survey to complete. The teacher will also collect student work samples which will
serve as baseline data.

During weeks one, two, and three observations 3-4 days a week for an hour each day will take place. The teacher will record these observations in the field note template. The teacher will be noting the types of computer activities being used, how it affects students understanding of texts, and the transfer of knowledge into the participants writing.

During the fourth week of study, the final surveys will be administered to parents and professionals. Additionally, student work samples will be collected.

**Data Analysis**

Analysis of data will begin with results of parent and professionals surveys. It will be used to answer research question 1 and what websites/programs are used in these settings.

Field notes and student work samples from each week will be compared to monitor how the computer activities affect students’ comprehension and higher level thinking of texts, as well as how the activities support students’ writing development.

Triangulation across the three domains of data such as surveys, observations, and work samples will provide reliability and validity. Through triangulation, all data will be compared and categorized, looking for common themes or issues that reoccur.

I will be looking at and coding the reading and writing activities students are engaged in on the computer. These may include specific software or websites used during reading or writing workshop. Students decoding and comprehension of texts will also be coded to look for changes in levels of understanding. Last, I will code
how reading supports students’ writing development in the areas of organization or structure and idea development.

**Summary**

This research study examines the use of technology, specifically computer programs and websites, on third graders’ literacy development. Research will be conducted in a third grade classroom in upstate New York, consisting of 15 students. Research will be conducted during both reading and writing workshop. Data collection instruments will include interviews, student work samples, and field notes. Three students will be observed more closely for literacy development. The study will last four weeks. Data will be analyzed and triangulated for common themes that emerge.
CHAPTER 4: INTERPRETATION OF DATA

Introduction

In today’s classrooms across America it is almost impossible not to see students engaged in some type of technology throughout the school day. Getting students to read and write is essential in order to prepare students’ for college readiness. Integrating technology into the classroom can be a challenge for both educators and children alike. Based on this information, I performed a four-week long qualitative study focused on using technology-specifically online learning sites in reading and writing workshop. I observed and analyzed the work of two third grade students. My overall objective was to see how computer technology had an impact on students’ reading and writing development and if they transferred their learning from reading into their writing.

In the research study, I examined how computer technology was implemented in a third grade classroom during both reading and writing workshop and the effect on the child’s reading and writing development. This study involved looking at three questions. The first question looked at what specific computer programs and websites were used during the literacy workshop time. The second research question focused on how the specific online learning sites affected students’ reading and writing development. The last question looked at how students were transferring their learning from reading activities into their own writing.
Research Question 1: What specific reading and writing activities are available in the online learning sites that the school uses?

Online Learning Sites Used During Reading and Writing

TumbleBooks

One website that was used in my third grade classroom and also at home by students was TumbleBooks. TumbleBookLibrary is an online collection of animated, talking picture books. TumbleBooks are created by adding animation, sound, music and narration to existing picture books in order to produce an electronic picture book which you can read, or have read to you. The TumbleBookLibrary is a collection of licensed titles from a variety of children's book publishers. TumbleBooks can be experienced in two different modes. Children can either use the automatic or manual mode. In automatic mode, the pages turn by themselves and are narrated; while in manual, the narration and animation continue but children turn the pages at their own speed. A flashing arrow appears at the end of each page prompting the reader to turn the page. The sound off/on button allows the student to mute the narration and read to themselves. In addition to those choices, there is also the pause button. The Pause Button: Both the student and teacher can use the pause button to stop the story at any time in order to practice story predictions, interpret pictures, discuss new vocabulary words, discuss a character, discuss possible consequences of actions, encourage problem solving, or provide historical, geographical, or other perspectives. Once you are on the site you are prompted to choose one of the following options: story books, read-alongs, videos, puzzles & games, language learning, and nonfiction books.
When a student chose the story books option they could sit back and listen or read along at your own speed to entertaining and amusing picture books. Read-Along Books combine adjustable text and color with complete narration and sentence by sentence highlighting. The video options included short clips from National Geographic. The puzzles & games option includes puzzles, word catch, memory games, match the sentence, spelling, and other choices like crosswords and word searches. The Language Learning option allows children to hear stories in other languages such as French, Spanish, Chinese, Russian, and also Bilingual playlist. The Non-Fiction tab allows students to read books about science, math, history, animals, geography, biography, insects, or seasons. A snapshot of the main menu choices is below.

**Figure 4.1 TumbleBooks Main Menu Choices**

Students used this site at various parts of the day, but mostly during reading workshop. During reading workshop, students could use this site to independently read. Sometimes students would be given the choice of what book they wanted to
choose and at other times I would choose. If I wanted students to focus on a specific type of story, author, or genre then I would often choose for them in order to match their learning experience to their current goals. For my students reading at a lower reading level they could listen to the stories as a read aloud and follow along. For my more advanced readers, they could use the manual option and turn off the sound and read the stories themselves. Another useful feature of this site was the comprehension quiz questions and book reports that went along with each story. This allowed the children to not only listen to or read the story but also make sure they understood the book. Both the quiz and book report could also be printed after completion so I could see their responses and students were held accountable for their learning. A snapshot of a sample quiz question and book report question is below.

**Figure 4.2 TumbleBooks Sample Quiz Question**

![50 Below Zero Quiz Question](image-url)
As an educator what I liked about this site was that you could select a text by searching for a specific title, author, or reading level. This was a great site that the children absolutely loved using. It was very easy to navigate and also very engaging and interactive.

*Study Island*

Another website that was used by the third grade students was called Study Island. Study Island is an interactive online site that helps students in kindergarten through 12th grade master state-specific, grade-level academic standards in a fun and engaging manner. Study Island combines rigorous content that is highly customized to specific state standards in math, reading, writing, science, and social studies with interactive features and games that engage students and reinforce and reward learning achievement. Study Island’s programs enable educators to track student performance
in real-time to address individual learning gaps, while allowing administrators to monitor student progress and measure teacher effectiveness.

Students in my third grade classroom used Study Island during a block of time during reading workshop to focus on specific reading skills. These skills including a variety of items some including but not limited to: main idea, supporting details, author’s purpose, theme, characters, and plot. The students were assigned skills based on individual areas of need. Each student had a log in to the site and worked on the specific skills they were targeting. The Study Island program tracked the student’s progress so the teacher was able to see growth and each student’s score after completing a module. For each skill area, students were given a short text and then answered multiple choice questions about the text. The multiple choice questions were aligned with the specific skill they were working on.

Once a student is logged into the site they are prompted to pick an area of focus: ELA, math, science, etc. From there they then narrow in on the specific topic they would like to focus on. After picking the topic, they choose their session option—practice mode, classroom response systems, printable worksheets, or game mode. A screenshot of this screen is below.
In my classroom students had to complete the test mode first before they were allowed to do the game mode. The practice mode consisted of a short leveled passage and questions related to the passage and specifically the skill they were working on. A snapshot of this screen is below.
Besides the passage and questions showing on the screen for the students, at the top of the screen the students can also see the question number they are on, the session time, and their score. A snapshot is below.

**Figure 4.6 Study Island Session Info**

![Session Info](image)

After the student selects their answer to the question a yellow star appears if they answered it correctly. From there, they are able to read an explanation or proceed to the next question.

**Figure 4.7 Study Island Correct Answer Screen**

1. How did the Pony Express change life for people who moved west?
   - It enabled them to travel from California to Missouri.
   - It enabled them to receive mail from Missouri in about one-third the time it used to take.
   - Before the Pony Express, people could not send mail to the west coast.
   - America did not have mail delivery service before the Pony Express.

If a student selects the wrong answer a red x will appear next to the choice they selected. They will not be able to proceed until they have chosen the correct answer.
2. How many miles did each Pony Express horse run at a time?

After they have chosen the right answer they can then click the explanation button to read more information related to the question. This may help clarify why they missed the question.

According to the passage, “Here’s how it worked. A young rider would grab a mailbag then jump on a horse and ride for ten miles at top speed. Then he would jump on a fresh horse and keep going. He would change horses seven times, and then he would pass the mailbag to another rider, who would keep on riding another seven horses for another seventy miles until he reached the next rider!”

After students were engaged in practice mode they could then do game mode. Game
mode was more interactive and animated.

**Figure 4.10 Study Island Game Mode**

![Game Modes](image)

After analyzing the field notes of the teacher-researcher it was evident that all of the students were engaged in this learning environment. The teacher noted that students were on task and very eager to use the site.

*Reading A-Z*

Another site that was used in my classroom was Reading A-Z. This website is geared towards educators as a resource; however the books that are available on this site can also be used with digital projectors and interactive white boards or read online. The website Reading A-Z offers thousands of professionally developed downloadable books (including English, Spanish, and French versions) and quality teaching and learning materials. Reading A-Z is designed to provide supplementary materials from early emergent through fluency. In addition to the K-6 market, Reading A-Z materials have found widespread use at a range of grade levels in
special education and special needs, remedial reading, ESL and ELL, and foreign language. Categories of materials available by Reading A-Z include: Leveled Reading, Phonics, Vocabulary, Fluency, Poetry, Alphabet, Assessments and more. A snapshot of these categories on the main webpage is below.

**Figure 4.11 Reading A-Z Categories**

In the classroom I used this website during reading mini-lessons by projecting a book for all of the students to see. Once the text is projected, there are an array of options you can use to interact with the book. These include a drawing pen, highlighter, text tool, stamp, and framing tool. The drawing pen allows you to write anywhere on the text. The highlighter highlights whatever section of the text you select. The text tool inserts a text box which allows you to insert any text anywhere on that page. The stamp allows you to insert specific symbols such as a star arrow, stop sign, smile, check mark, or question mark. The framing tool allows you to show or hide parts of the text. A sample of these interactive features is below.
It’s simple.
We cannot live without green plants.
In fact, no animals can live without green plants. Why?
There are two reasons.
First, green plants give us food.
They give us food because they can make their own food. ?
No other living thing can do this.
Green plants do it by using water, air, and sunlight.

Depending on the focus of the mini-lesson the tools were used for different purposes.
If I was focusing on comprehension we used the symbols to show connections we had while reading, questions we had, or the check mark when one of our questions was
answered. If we were focusing on phonics or specific vocabulary I would often use the highlighter feature to focus in on specific word parts or content vocabulary. The framing tool was used if I wanted the students to only focus in on a specific part of the text within a page without being exposed to the entire page. This was great for making predictions.

Besides being used during whole or small group mini-lessons I would invite children to use the projectable books instead of using a paper copy. This was motivating for many students and also allowed them to really focus in on one page at a time.

**Spelling City**

A website that was used in the classroom to practice spelling and word study was Spellingcity. This website allowed students to engage in interactive activities to practice their weekly word study words. The teacher could download each list of weekly words for the students onto the site. Once the students were on the site they could select their list and choose which activity they wanted to do. You can see in the snippet below that this child is working on digraphs. Below the feature is their list of words. From there, they can select to do a spelling test, teach me, play a game, flashcards, or vocab test. If the spelling test option is chosen a voice will read the word and then use it in the sentence. The student then has to correctly spell it. In the teach me mode, students are able to review their words by hearing how to spell the word and then by hearing the word being used in context. The play a game mode allows the children to choose from a variety of games while practicing their words.
The vocabulary option allows children to match each word with the corresponding sentence, find which of their words correctly completes the sentence, or sentence unscramble in which they can place the words in the correct order to form a sentence.

Figure 4.13 SpellingCity Activities

Microsoft Word

Another program that was utilized during both reading and writing workshop was the word processing program Microsoft Word. One aspect of reading workshop
involved students responding to the literature they were reading. All the students in the class read the same story from our Houghton Mifflin basal reading series and then also engaged in an instructional level text during guided reading. For each story that we read from the grade level anthology, students had a choice to respond to comprehension questions via the computer or using paper and pencil in their reading response journals (RRJ). The teacher would give the students a list of questions and students then chose two to three of those questions to respond to using the computer or written means. Students used Microsoft Word as a tool to share their thoughts, feelings, connections, and insights about a particular book they were reading.

Besides responding to literature using Microsoft Word, students also used the word processor to write letters to the teacher or other classmates to share their learning and feelings about a text. It was very motivating for many students who loved technology or who had found traditional paper and paper writing laborious.

Besides using Microsoft Word during reading workshop, it was also used during writing workshop to publish the writing pieces we were working on. After students had taken their work through the pre-writing, drafting, revising, and editing phases, they were able to choose to handwrite or type their final copies. Almost every student wanted to type their final copy.

*WorldBook Online*

An additional site that was used during writing workshop was WorldBook Kids. This is an online encyclopedia for kids. During the four week study the students were working on state reports. As part of the writing process they engaged in the
process of gathering information on their state. Besides using traditional books they also used this website to gather information.

**Online Learning Sites Used During Chapter One Reading Support**

Besides observing students using technology within the classroom setting, I also surveyed two of the teaching professionals in my building that provide additional reading support to students throughout the school day. I wanted to see what other online websites educators were using with students to support literacy instruction. I will reference the two professionals as professional one and professional two.

The first question on the survey asked: What computer programs or websites do you use with students during chapter one services? Professional one shared that she used the following programs or websites: Reading A-Z, Tumblebooks, IXL math, AAA math, and math magician. Professional two shared that she used dictionary.com to help explore unknown words with kids, and Google images to see real pictures of animals, plants, etc. that students’ are reading about.

The second question asked: How often are students engaged in these technologies? (days per week, amount of time). Professional one shared that she uses Reading A-Z one to two days a week for approximately twenty minutes. Tumblebooks was used as an additional source for reading materials. So if she was using it would be daily, however this source was not used every week. The last three math sites were used about two times a week for ten minutes. Professional two shared that she does not use the computer with the students very often. She estimated that she uses the computer about twice a month for about five minutes at a time. It is
usually a spur of the moment decision.

Question three of the survey asked: What do you see as positives and negatives of using computer technologies to support reading and writing development? Professional one shared that a big positive is that it is more engaging for students because of the sounds and interaction-especially with the reading accuracy and math fluency. A negative of using the technology is that it is hard for students to interact as they are reading. It is better to have a paper copy that can be marked in or using sticky notes to record thinking. Professional two did not feel that she had enough experience with incorporating computer technologies into literacy instruction to answer this question.

Question four of the survey asked: How does using computer technology impact students’ motivation and attitude? Professional one said that students are definitely more motivated when using technology and have a more positive attitude about what they are learning. Professional two felt that technology can have a positive effect on motivation and attitude because there are so many opportunities for the teacher to find materials that are interesting to students, or that the students can find for themselves which in turn can make the learning experience more authentic and engaging.

The last question of the survey asked: What literacy skills do you feel are most impacted when students are engaged in these computer programs and activities (comprehension, decoding, fluency, vocabulary, etc)? Professional one felt that decoding and vocabulary were most targeted. The programs she referenced have a
positive impact on reading accuracy and vocabulary. Students are more engaged and more focused on the skills being targeted. Professional two felt that the skills that are impacted through the use of dictionary.com and Google Images are vocabulary and comprehension. Once a student has a better understanding of a vocabulary word or a clearer image of what a “roan mare” or “grandfather clock” look like, they are more connected. He or she can feel with the text.

*Research Question 2: How do the specific online learning sites affect students’ reading and writing development?*

**Reading Development**

It is important to look at how the online learning sites affected the students’ reading development. I will discuss what I observed as a teacher-researcher during the four week study and how each of the components of reading was impacted by the use of technology in the classroom. The teacher researcher not only observed the students’ interactions while using the online sites but also examined how their learning impacted their reading and writing development.

Since reading is multi-faceted the teacher-researcher focused on the areas of need or goals for each of the focal students in order to narrow in on the skills that were being focused on. This allowed the teacher to focus on what skills they would be practicing on the online learning sites. It is important to first understand what the areas of need were for each of the two focal students. Focal student one, Leah was focusing on using specific textual evidence to support her understanding of a story.
She was also focusing in on the author’s purpose and message/theme. Focal student two, Joey was focusing on text organization for both fiction and nonfiction texts and characterization. In addition, both students had goals around fluency.

Comprehension

Looking at both focal students’ work from the beginning of the study to the end of the study, there are patterns showing a deeper level of understanding after engaging in the online learning sites. Each student in the class was engaged every other day on the study island website to practice the targeted skills they were working on at the time of the study. So focal student one, Leah practiced using specific textual evidence when responding to texts and using that textual evidence to make inferences and draw conclusions. You can see in the journal response samples below that Leah was using specific details from the story when answering the comprehension questions. The first sample was a comprehension response question to the anthology story “Pepita Talks Twice.” The comprehension question asked why the main character, Pepita grumbles at the beginning of the story.
Leah began her response to the question by echoing what the question asked and providing a general answer. From there, she stated specific textual evidence from the story as to why Pepita grumbled. You can even see that she is beginning to draw conclusions that she was tired of speaking twice, even though that was not directly stated in the text. Another question that was asked about the same story was about one of the characters, Lobo. The question asked why is Lobo an important part of the story? Again you can see that Leah’s response is organized and she is providing specific textual evidence to support her claim that Lobo is an important part of the story.

Figure 4.14 Leah’s Reading Response #1

Why did Pepita grumble at the beginning of the story?

1. Pepita grumbled at the beginning of the story for many reasons. The first reason why Pepita grumbled at the beginning of the story is because people kept asking her to speak Spanish and English for people and she started to grumble when people asked her to speak Spanish and English. Second, she grumbled because people forced her to translate for them so they could understand what they want or what their saying to them. Third, she was sick of speaking twice every day for people because everybody wanted her to translate for them. That’s why Pepita grumble at the beginning of the story.
Leah also began to transfer her understanding of theme into her journal responses. In class we were focusing on the theme of a story. Students at this point in the year were taking their understanding of theme to the next level by turning the theme into a thematic statement. For example, if students identified change as a hidden idea or theme, then they had to turn that word into a statement. An example would be sometimes things in our lives impose change. In the sample below you can see that Leah included the theme of friendship in her response, even though the question wasn’t specifically asking about theme. She stated that she would go back to rescue the men because they are their friends and friends are always there for each other no matter what happens to them.
Focal student two, Joey practiced understanding the role of characters within a story and how a character may change throughout the story. You can see in the journal response samples below that Joey was using specific details from the story to conclude how characters changed or their point of view. The first sample was a comprehension response question to the anthology story “Yunmi and Halmoni’s Trip.” The comprehension question asked how does Yunmi feel about her relatives by the end of the story? Joey was able to synthesize how the main character, Yunmi had changed from the beginning to the end of the story. At the beginning of the story Yunmi was very jealous of her cousins. Yunmi’s cousins were getting all the attention from her grandma. Joey was able to state that Yunmi felt happy at the end of the story and gave specific reasons to support how he knew she felt this way.
Besides identifying how a character’s feelings changed, Joey was also able to take on the perspective of a character in a story. Joey wrote a diary entry from the perspective of the dog, Lobo in the story “Pepita Talks Twice.” He was able to understand how the character was feeling and relate that back to the evidence from the text.

**Figure 4.17 Joey’s Reading Response #1**

How does Yunmi feel about her relatives by the end of the story?

I think Yunmi feels happy about her relatives in Korea by the end of the story because they want her and Halmoni to stay in Korea longer than their suppose to. Also their cousins like Yunmi so much that their trying to keep her there so Halmoni can stay longer. Second their having so much fun with her that they want her to stay with the whole family. That’s how Yunmi feels about her relatives in Korea by the end of the story.

**Figure 4.18 Joey’s Reading Response #2**

Dear diary,

Lately my owner, Pepita has been confusing me. She has been calling me two different names, and I don’t know which one to answer to because it’s confusing me. I thought my name was Lobo but she keeps calling me Wolf. The next day we were playing with a ball and the ball rolled into the street and I ran in the street to get the ball. I didn’t see the car coming. Pepita shouted “Wolf come here” but I did not understand what she was saying. Finally, she called me the correct name and I turned around before the car almost hit me. I’m so glad she called me the correct name, she saved my life! I’ll write again soon.

Sincerely,

Lobo (Joey)
While reading the projectable books on Reading A-Z students were able to interact with the text. This allowed them to make connections, predict, ask questions, summarize, and monitor their understanding. I observed many of the students utilizing the toolbar to write notes and track their thinking. Focal student one-Leah used the highlight tool often to go back into the text and highlight evidence to support her understanding. Joey also used the highlighting tool to help him break up multisyllabic words into the word parts that he knew.

*Fluency*

According to Rasinski and Padak (2008), “Fluency is the ability to read expressively and meaningfully, as well as accurately and with appropriate speed” (p. 202). Fluency is an important component in reading. Fluency and comprehension are very closely connected. Students who read fluently are better able to understand than students who need to spend time decoding and re-reading. According to Fountas and Pinnell “Most of the time students will read silently, but fluency is still an issue and a goal of guided reading. We want students to be able to read with a rhythm, flow, and meter that sounds like everyday speech.

After listening to the two focal students read during reading conferences and during guided reading groups, it was evident that they were transferring their knowledge of fluent reading into their own reading (Fountas & Pinnell, 2001, p. 354). Prior to the use of computer technology, focal student two, Joey read very slowly in two and three word phrases. At the end of the four week study he was reading in
larger phrases and using much more expression and intonation. Before the study, Leah was already a pretty fluent reader, but lacked expression. She read in large meaningful phrases, but her voice was static. By the end of the story, Leah was changing her voice as different characters spoke, and using much more expression. Being able to listen to stories read aloud on Tumblebooks exposed all the children in the class to what good reading should sound like. Students were able to hear that fluent reading involves reading words automatically at an appropriate speed with appropriate phrasing and intonation.

*Vocabulary*

It was amazing to see the students’ vocabularies grow just from listening to stories read aloud on TumbleBooks. Read alouds allow children to access higher level texts that they may not be able to read independently. Besides modeling what fluent reading sounds like, read alouds also expose children to new vocabulary words. This is known as incidental word learning. “In fact, researchers report that students learn as many words incidentally while listening to teachers read aloud as they do by reading themselves (Stahl, Richek, & Vandevier, 1991). It was evident that both focal students were not only being exposed to new vocabulary while they were listening to the stories on TumbleBooks, but they were also using the new words in their daily oral language.
Writing Development

Not only did the online learning sites improve both focal students’ reading development, but their writing was also improving. Before using the websites both students’ writing was very simplistic and did not include much description or detail. After engaging in the online sites, their writing began to lengthen and become more detailed and organized. Samples of their writing will be referenced in the following research question.

Research Question 3: How do students’ transfer their learning from the reading activities into their writing?

It is essential for students to understand the relationship between reading and writing and the connection between the two. Children need to understand that readers think like writers to understand the author’s purpose and viewpoint, for instance, and writers assume alternative viewpoints as potential readers.

During the four week study I looked to see how the students’ learning from the reading activities was transferring into their own writing projects. At the time of the study we were finishing up a feature article writing piece, where students got to choose a state to research and write a report on. Students were responsible for collecting facts about their state and synthesizing and organizing their information. They had to research facts, geography, weather, places to visit, fun facts etc. After gathering their facts from online and print sources, they had to turn their facts into a report. The second half of the study the students were working on an expository
writing piece, which was a commentary. They had to pick a topic they felt strongly about in order to make a point. Some topics of interest included smoking, drugs, dog fighting, use of technology in school, pollution, recycling and more. I was impressed with what I saw both students’s transferring from reading into their writing. I will explain this transferred learning by examining various features of focal students’ writing development from organization to purpose.

**Organization**

Looking at the focal students’ writing pieces, it was evident that they were transferring their learning from the reading activities into their own writing. The one area I looked at was the organization of their writing. I looked to see if it was in a logical sequence and had a beginning, middle, and end. Joey’s writing before the study was often unorganized and did not have a distinct beginning, middle and ending. He often started his writing pieces by just telling details. After looking at his feature article on Texas, you can see that he has a clear beginning to hook the reader. He then has an organized paragraph for each area he researched. He engages the reader in his introduction by painting a picture of what Texas looks and sounds like. He then organizes his ideas into separate paragraphs with a sub-heading. This allows the reader to easily follow along and understand what each part of his report will entail.
Before the study Leah was already using paragraphs to organize her writing.

However, during the study we were learning about text features of nonfiction texts. We discussed the various features such as headings, sub-headings, pictures, captions, maps, and so on. These text features were also explored as students practiced passages and questions on Study Island and they were also exposed to text features as they listened to non-fiction read alouds on TumbleBooks. Below you can see that Leah was including these text features into her own pieces. She organizes her entire report by including sub-headings. Her sub-headings are also more creative than Joey’s so you can see the level of sophistication. Besides sub-headings, she also included other text features into her report. In the first part of her state report you can
see that she included a map and caption. In the second example you can see that she included a photograph and caption.

Figure 4.19 Leah’s Feature Article

Tar Heel’s Location

North Carolina is located in the east coast of the United States. It lies along the Atlantic coast between Virginia and South Carolina. North Carolina has four borders. Its east border is the Atlantic Ocean and its north border is Virginia. North Carolina’s western border is South Carolina and Georgia.

The state bird, tree, and flower in North Carolina

Let me tell you about North Carolina’s flower, tree, and bird. North Carolina’s is the flowering dogwood. Dogwood grows all over the state. It starts to bloom in the spring. Their state tree is longleaf pine. Did you know this tree was used for resin, turpentine, and timber? They used these materials for ships. Their state bird is the cardinal, also known as the winter redbird. The cardinal can be spotted across the state. This fine singer got chosen in 1943 to be the state bird.
Development of Ideas

Through the online learning sites students were exposed to a variety of genres of varying lengths. We know that good writers elaborate and explain for a specific purpose. If they didn’t do this, we may not understand their message or what we would take away. Both Leah and Joey did a great job of developing their ideas in their commentary. They began with their claim and evidence but then went a step further and explained.

Figure 4.20 Joey’s Commentary

The first reason why electronics should be allowed at school is so we have other choices at recess. Right now at recess when we go outside, we only have a few choices. They are playing on the playground, jump rope, running, Frisbee, or sidewalk chalk. If electronics were allowed there would be more options. Kids would bring their own to play during recess. They could bring their Ds, DSi, DSIXL, 3DDS, IPOS, OR IPADS.

Joey started with his first reason why electronics should be allowed in school: so that we (children) have other choices at recess. From his claim he provided evidence that right now at recess students play on the playground, jump rope, run, play Frisbee, or use sidewalk chalk. He then goes to explain that if kids could bring their own electronics there would be more options.
Leah also did a great job elaborating in her commentary. Her topic was texting while driving. She not only used evidence and explained, but she also added interpretation.

Figure 4.21 Leah’s Commentary

The second reason why texting while driving is not good is because it’s against the law. Texting while driving is against the law because you could go through a red light or you could get caught talking on the phone while driving by a police man. Also you can speed past the speed limit. You could go to jail by doing all those things. If you break the law you are not being a good citizen.

She began by stating her claim that texting while driving is not good because it’s against the law. From there she provided her evidence as to why it’s against the law. She did a great job providing multiple pieces of evidence. From there she explained that as a result of going through a red light or getting caught by a policeman that you could get sent to jail. Last, she ends her paragraph by adding interpretation.

Mechanics

Both Leah and Joey’s sentence structure, syntax, and grammar improved in both writing pieces. If we look at a sample from Joey’s commentary you can see that his sentences are more complex and that he is using sentence variety.
Figure 4.22 Joey’s Commentary: Mechanics #1

The third reason why electronics should be allowed in school is because it makes learning fun. Did you know we spend six hours every day learning new things? Most of the time we are doing paper sheets at our desks. If we used electronics we would be more excited to learn. Also, we would be able to move our fingers and move around.

In the sample above you can see he is using a variety of sentences. He even includes a question in this paragraph. He uses transitional phrases like third, and also to make his writing flow. He even included the prepositional phrase “doing paper sheets at our desks.”

Figure 4.23 Joey’s Commentary: Mechanics #2

The first reason why texting while driving is not good is because you can get in a car accident. You could get in a car accident because you’re not looking up at the road and because you’re paying attention to your cell phone. Getting in a car accident could get you injured badly if you bumped into another car while you were texting on your phone.

In Leah’s paragraph above we can also see that her writing is much more complex. She uses the conjunction “and” to explain why you could get in a car accident. She also uses contractions and higher level vocabulary such as accident, injured, and attention.
Purpose

One of the area’s we focused on in on the online reading activities was
author’s purpose. We discussed that author’s write for a variety of purposes. They
write to inform us, persuade us, and entertain us. This understanding was then
transferred into their own writing during their state feature articles and commentaries.

Figure 4.24 Leah’s Commentary: Purpose

As you can see texting while driving is not safe so if this situation
doesn’t change there will be many accidents and policemen on the streets.
It is important to stop because if you don’t there will be many problems
happening everywhere.

In Leah’s conclusion you can see that she is trying to persuade the reader to
understand that texting while driving is not safe. She goes to even explain what will
happen if this problem doesn’t change. She then ends her paper by telling the reader
that it is important to stop because if you don’t there will be many problems
happening everywhere.

Figure 4.25 Joey’s Commentary: Purpose

Have you ever wanted to bring an electronic to school but you
were told NO! They are not allowed. This happens to kids’ every day. I
think electronics should be allowed in school.
In Joey’s introduction he starts his first sentence by trying to connect to the reader through a questioning technique. He then states how big of a problem this is by stating…This happens to kids’ every day. He then ends his introduction by stating his opinion and stance.

Summary

The study found that the online learning sites that students engaged in during the four week study had an impact on their reading and writing development. It is quite clear that the areas that students were focusing on through their personal goals not only improved but other areas also did. Students were then able to independently apply their learning from reading into their own writing. As we can see from the two focal students, the degree of transfer did differ, but ultimately students did benefit from the online learning sites. Incorporating technology into literacy practices is not only motivational but also beneficial for all learners.


**Chapter 5: CONCLUSIONS AND IMPLICATIONS**

**Conclusions**

This study examined the ways in which online learning sites were used within the literacy block in a third grade classroom. Students were engaged in various online learning sites and activities over a four week time frame with the teacher-researcher to see what kinds of sites were used, how the sites affected students’ reading and writing development, and how students transferred their learning from reading into their own writing. Two focal students formed the basis of this study. Though triangulation of the various data sources, it was found that using online sites can have a significant impact on students’ reading and writing development and their ability to transfer their learning from one setting to another.

Teachers need to understand the power of technology in supporting a child’s learning. With today’s shift towards the increasing demands of technology, children must be exposed to various modes of learning.

**Implications for Future Teaching**

The findings from this study will inform my future teaching in a variety of ways. I will continue to incorporate online technologies into my literacy instruction, both in reading and writing workshop.

To help further develop students’ reading and writing development, I will encourage students to utilize the online sources at home to reinforce the skills that are being taught within the classroom. This will also mean communicating with families around the sites we use within the classroom, as well as log in information, and what specific skills or areas their child should be targeting at home.
**Recommendations for Future Researchers**

One area to consider for further inquiry would be to analyze the various ways other teachers across the country are utilizing online learning sites in their classrooms. It would be helpful to any teacher to see the ways in which other educators use learning sites within their classroom. They can look at not only the sites they are using, but how they structure it within the classroom setting, and which sites are used for what content areas. By seeing what other online sources are out there, it would allow other educators to choose the online learning experiences that would best meet their students’ or class’s needs.

Another area to consider for future researchers would be how technology impacts students’ motivation. During my study it was evident by all students that they loved using the computers during both reading and writing workshop. Each day the first thing they would say to me as they walked through the door is “Are we using the computers today in reading or writing?” We know that students are able to learn best and grow as learners when they are motivated and eager to learn.

As with any study there are always limitations. Limitations in this study include a small sample size of students at the third grade level. Only two students served as the focal students for this study. This inquiry study did not take into consideration students at other grade levels or from other types of communities, and therefore cannot be generalized across ages, grade levels, or rural and urban communities.
Recommendations for Literacy Educators

The Internet is rapidly changing what it means to be literate. Students are increasingly becoming involved in online activities such as reading electronic storybooks, playing interactive games, e-mailing, blogging, using social media, researching various topics, exploring websites of favorite authors, and so much more. Many students learn to do all of these things outside of school. Others, however, have not had as many experiences or opportunities to explore these new technologies. Teaching students how to read and write online has become a priority so that they can become fully literate in today’s digital world (Henry, 2006). Internet texts are much different than books. Whereas print materials are linear and sequential, online texts are a unique genre with these characteristics: nonlinearity, multiple modalities, intertextuality, and interactivity. The Internet requires students to develop new ways of reading and writing. Literacy in the 21st century involves more than teaching students to read books and write using paper and pencil. It’s essential that educators teach their students how to use the Internet and other technologies.

Another area to study is what professional development opportunities educators are given on incorporating technology within the classroom. In order to expose children to technology, first teachers must be informed of useful sites or programs and have the proper training on how to use the sites or programs. By having training, teachers will be able to match students to appropriate technological tools that will match their instruction and learning goals for each student.
References


Appendices

Appendix A

Survey for Professionals

Please answer the following questions to the best of your ability.

1) What computer programs or websites do you use with students during chapter one services?

2) How often are students engaged in these technologies? (days per week, amount of time)

3) What do you see as positives and negatives of using computer technologies to support reading and writing development?

4) How does using computer technology impact students’ motivation and attitude?

5) What literacy skills do you feel are most impacted when students are engaged in these computer programs and activities (comprehension, decoding, fluency, vocabulary, etc.)
Appendix B

Field Notes

Date: ____________

Grade Level: ______

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