Improving Writing with Technology

Chrissia Haughton

Kennesaw State University

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Dr. Anissa Lokey Vega

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**Setting and Context**

 The setting for this Capstone project will take place at my old school Riverside Primary (RVP), a pre-K-1 elementary school. Students leave the primary school to go up the street to the Intermediate school which is from grades 2-5. Though I will be attending another school in the fall, I’ve kept in contact with my mentor and current administration team at RVP and will continue working with existing staff members. RVP is a Title I public school based in South West of Cobb County. Every day, teachers and other staff members are accountable of closing the achievement gap between high and low performing students by ensuring that students have a fair, and equal opportunity to obtain a high quality education. The school holds 625 students, of those, 56% are African Americans 43% are Latinos and 1% are of other students in the building. There are 41% of the students that receive assistant from ESOL teachers. There are four ESOL teachers, two per grade level. There is 1% of students with a disability (SWD) and are housed in a special needs pre-K room, one kindergarten, and one first grade room. Next year, RVP will house a classroom for Emotional Behavior Disorder (EBD) students. Classroom ratio for all classes is 1:28. Kindergarten classrooms have paraprofessionals, while the first grade teachers have none. This is stressful on the classroom teachers and many would like another teacher in the classroom to help with daily activities. The past two years, RVP opened four first grade classrooms as two combined classes that included two classroom teachers in each large classroom and about 55 students per class. Within one of the classroom a Reading Recovery teacher was present for the entire year, and met with students outside of the classroom as well. The classrooms were opened in hopes of creating a smaller ratio for students to teachers and to create a more intimate classroom setting for those students that need small group lessons. RVP also opened up to the Dual Language Program. One in kindergarten and the other in first grade. Not all students attend this program because of the minimum of Spanish speaking teachers in the school. This program is still very new for the participating classroom teacher and requires lots of work from the English speaking teacher, who must assess all the students from the English and Spanish class, while the Spanish speaking teacher has no assessments to give because the appropriate assessments are only in the English language. Out of all these students 95% receives free lunch while the other 5% have reduced lunch and at times bring their lunch from home.

At RVP, the leadership consist of a principal and assistant principal. The last two school years, RVP held a school intern position for rising principals. This position was filled by the previous math coach. RVP also consist of a Math Coach and a Literacy Coach. Each coach is responsible for creating teacher workshops and school deadlines for the county while coaching classroom teachers in focused subjects. Both coaches assist teachers in classroom lessons and activities when needed. There are two technology specialist at RVP, one is housed in the Library and the other in the Computer Lab. At RVP computer lab there are 26 Dell desktop computers, 107 ipads, and 30 NEO2 keyboards for student use. Our students enjoy learning many programs including Graph Club, Kids Pix, Accelerated Reader, iRead, and FasTTMath. The technology lab is part of the specials rotation. During this time the students are actively involved in activities that integrate Math and Language Arts areas with computer skills. Our students also develop writing, comprehension, and basic word processing skills using Microsoft Word and NEO2 keyboards. This year, the librarian worked with students on several Project Based Learning (PBL) activities that followed the curriculum throughout the year. The computer teacher worked with students on several educational online tools, such as Scholastic iRead and Starfall. These two programs are our most popular sites for our young scholars. There is a Speech Pathologist that met with those SWD and pulled students from the classroom for an hour once a week. There are two guidance counselors one for first grade and the other for kindergarten. Every two weeks the guidance counselor would enter the classroom and have classroom guidance with the students. At RVP, there is a large behavior issue that most of the time the guidance counselor must attend too. This past school year, our classroom guidance was minimized due to attending those behavior issues.

The school performance data have been collected from several assessments given quarterly to students. At RVP, classroom teachers assess kindergarten and first grade students with Scholastic Reading Inventory (SRI) and Scholastic Math Inventory (SMI) now known as Houghton Mifflin Harcort (HMH) Math Inventory, Sight words assessment, RVP Math Problem Solving, monthly Running Records, quarterly Developmental Reading Assessment 2nd Edition (DRA2), and writing samples of narratives, informational, and opinion based of the Units of Study Writing by Lucy Calkins. Of these assessments given to students goals are set at the beginning of each quarter. At the end of the quarter, teachers came together during Title I planning days to discuss if goals were met and strategies that worked for those goals to be met. If the goals were not met, strategies were recommended to improve student achievement for the next quarter. About 47% of students are in the Early Intervention Program (EIP) and are monitored quarterly by the classroom teachers. There is about 49% of students that have begun the Tier process, where classroom teachers change the dynamic of teaching whole group to small group. Out of the 49% about half of those have changed from Tier II to Tier III, which requires one-to-one lessons from the classroom teacher. Throughout it all, 59% of students were reading on or above the reading level by the end of the school year, 76% met or exceeded in writing, and 62% met or exceeded in math. Kindergarten met their goal in math and writing, while first grade met their goal in reading and writing. First grade did not meet their goal in math because there was a new math system in place where students went from pencil and paper to small remote controls, which the county wanted to put in place. At RVP we believe this was too big of a transition for our young students to handle while test taking.

**Statement of Problem, Need and Rational**

Currently, RVP has sufficient technology that is used to support other subject areas as Math and Reading curricula. This includes Scholastic iRead, SplashMath, Scholastic FastMath that are used on the iPads, classroom computers and educational websites, but there are none for writing. Though some may have their doubts on whether to use computers over composition books may not be the best idea, research shows that there are benefits to using the computer for the writing process. Crafton (1996) states that technology would drastically improve student writing quality and improve students' attitudes toward writing. Research has shown that technology has increased student engagement and teachers have slowly adapted to the new way of teaching. Educators have responded to new conceptions of student learning and the emergence of digital technologies with continual searches for effective teaching and learning strategies to meet the needs of 21st-century learners (Leu, 2001; McKenzie, 2000; Turbill, 2002).

RVP has used the Unit of Study Writing by Lucy Calkins for the past three years and every year students have met or exceeded their writing goal in both kindergarten and first grade. According to the data collected, writing is RVP’s most successful area. Though our students may have met or exceeded the writing goal, according to the Lucy Calkins rubric, the quality in their work has depleted. Year after year, we get the same stories and students have become weary of the writing process and are no longer engaged. I believe with the use of technology students will be able to broaden their thought process by finding information via web and using a word processor to create their final writing pieces. With the use of technology while still using Lucy Calkins, students will engage in the writing process while continuing to be successful. Introducing Microsoft Word Processor will be a new way to include technology in the writing lessons.

This project is important for the change both teacher and student will encounter for the future. Leu (2002) has pointed out that literacy learning has become increasingly social as technologies and classrooms are integrated. Introducing the word processor to RVP’s writing lesson will increase student’s ability to perform through the writing process. Keuchle (1990) found that students using the computer as a word processor scored higher on writing assignments than students using paper and pencil. With technology being used, students are more engaged and may find using the computer more rewarding while they create their writing stories. Keuchle (1990) also found that the computer stories were longer and more detailed. In order for this to be successful, teachers must be on board as well. Many of the teachers at RVP are not familiar with most of the new technology and may need time to learn new skills. Learning to teach with technology is an ongoing and evolving process through several stages of development (Pittman, 2003). As an up and coming technology coach, I will step in and help those that need be. Because our students show perform well in the subject area of writing, increasing their ability to transform their work from paper to computer should broaden their writing skills.

**Objectives and Deliverables**

With word processor being introduced, the goals for this project are to provide teachers with professional development on how to introduce Microsoft Word and consistently use technology for the writing process with our students. Students will need to know the keyboard to complete their writing pieces. The following objectives I aim to accomplish during this project:

* **Objective**: Teachers will increase use of MS Word with primary students.
	+ **Deliverables**: Create tutorials on MS Word and present during professional development.
* **Objective:** Students will increase use of web tools to improve the quality of writing and increase engagement of writing process.
	+ **Deliverables:** Introduces Web 2.0 tools such as Lino and Storybird, along with MS Word.
* **Objectives**: Teachers will demonstrate to students how to effectively use web tools to improve the quality of students writing and increase engagement of the writing process.
	+ **Deliverables**: Create and model short videos tutorials on Lino and Storybird for classroom teacher that can be used to help students think of other topics or subjects they may want to write about and present during professional development.
* **Objectives**: Students will strengthen their writing topics by exploring educational sites such as BrainPopJr. and PebbleGo.
	+ **Deliverables**: Introduce areas on educational sites that inform students of selected writing topics, such as where to find their topic.
* **Objective**: Student will improve their skills with the keyboard.
	+ **Deliverables**: Collaborate and facilitate with the computer teacher on lessons that can be taught during enrichment class on how to find letters on the keyboard and specific functions that can be used when typing (spacebar, enter, and shift).
* **Objectives**: Students will increase their enjoyment of using MS Word by December 31, 2017.
	+ **Deliverable**: Create kid-friendly survey in order to see if their enjoyment has increased.
* **Objective:** Teachers and students will improve their classroom writing and engagement.
	+ **Deliverables**: Create an assessment to determine if students and teachers improve their classroom writing and engagement.

**PSC Standards**

**Standard 2: Teaching, Learning, & Assessment:** Candidates demonstrate the knowledge, skills, and dispositions to effectively integrate technology into their own teaching practice and to collaboratively plan with and assist other educators in utilizing technology to improve teaching, learning, and assessment.

* **2.3 Authentic Learning** Candidates model and facilitate the use of digital tools and resources to engage students in authentic learning experiences.
* **2.4 Higher Order Thinking Skills** Candidates model and facilitate the effective use of digital tools and resources to support and enhance higher order thinking skills (e.g., analyze, evaluate, and create); processes (e.g., problem-solving, decision-making); and mental habits of mind (e.g., critical thinking, creative thinking, metacognition, self-regulation, and reflection).
* **2.7 Assessment** Candidates model and facilitate the effective use of diagnostic, formative, and summative assessments to measure student learning and technology literacy, including the use of digital assessment tools and resources.

**Standard 3: Digital Learning Environments** Candidates demonstrate the knowledge, skills, and dispositions to create, support, and manage effective digital learning environments.

* **3.1 Classroom Management & Collaborative Learning** Candidates model and facilitate effective classroom management and collaborative learning strategies to maximize teacher and student use of digital tools and resources.
* **3.2 Managing Digital Tools and Resources** Candidates effectively manage digital tools and resources within the context of student learning experiences.

**Standard 5: Professional Learning & Program Evaluation** Candidates demonstrate the knowledge, skills, and dispositions to conduct needs assessments, develop technology-based professional learning programs, and design and implement regular and rigorous program evaluations to assess effectiveness and impact on student learning.

* **5.3 Program Evaluation** Candidates design and implement program evaluations to determine the overall effectiveness of professional learning on deepening teacher content knowledge, improving teacher pedagogical skills and/or increasing student learning.

**Project Description**

RVP currently does not use any form of technology during the writing process and in results, students writing pieces lack interesting facts and details. Students have maintained meeting the writing goal but has lost interest in the writing process and are not engaged during writing. This project will help teachers and students use Microsoft Word along with web 2.0 writing tools to improve student engagement and writing.

*Table 1.*

*Project Objectives Alignment*

|  |  |
| --- | --- |
| Project Objective | PSC Standard |
| Increase use of MS Word with primary students | **2.3 Authentic Learning** Candidates model and facilitate the use of digital tools and resources to engage students in authentic learning experiences. |
| Increase use of web tools to improve the quality of writing and increase engagement of writing process. |
| Demonstrate to students how to effectively use web tools | **3.2 Managing Digital Tools and Resources** Candidates effectively manage digital tools and resources within the context of student learning experiences. |
| Strengthen their writing topics | **2.4 Higher Order Thinking Skills** Candidates model and facilitate the effective use of digital tools and resources to support and enhance higher order thinking, processes and mental habits of mind. |
| Improve skills with the keyboard | **3.1 Classroom Management & Collaborative Learning** Candidates model and facilitate effective classroom management and collaborative learning strategies to maximize teacher and student use of digital tools and resources.  |
| Increase their enjoyment | **2.7 Assessment** Candidates model and facilitate the effective use of diagnostic, formative, and summative assessments to measure student learning and technology literacy, including the use of digital assessment tools and resources. |
| improve their classroom writing and engagement. | **5.3 Program Evaluation** Candidates design and implement program evaluations to determine the overall effectiveness of professional learning on deepening teacher content knowledge, improving teacher pedagogical skills and/or increasing student learning. |

**First Project Activity**

The first part of the project will be to introduce to teachers the benefits of Microsoft Word and how it can be use with primary students. A presentation will be provided along with several tutorials. The tutorials will take place during teachers planning time in span of two consecutive days. During these days, I will facilitate teachers with the word processor. Microsoft Word will also be introduced to students by the classroom teacher to increase the quality of student writing assignments and improve student engagement of the writing process. Students will continue to follow Units of Study by Lucy Calkins for the framework of each writing piece such as narrative, opinion, and information, but students will use computers as a form of research tool to build on teacher instruction of specific topic.

**Second Project Activity**

For the second part of the project teachers will collaborate with computer teachers on facilitating students on how to find information on the web. Students will spend time in the computer lab researching through educational sites such as BrainPop and PebbleGo to find information on their topic. During this time, students will also build skills with the keyboard. Students will continue work through the writing process with paper and pencil in the draft and edit phrase of the writing process.

**Third Project Activity**

For the third project activity students will begin to use web 2.0 tools. When students are ready to complete their final paper, they will move to the computer to create their writing piece. Teachers will develop a system for classroom management when it comes to the digital tools being used. Teachers will allot students specific times to use the computer to complete this task. Once students have completed their writing piece through the word processor, students will use web tools such as Storybird and Lino to share their work. Students will create several writing pieces and share their thoughts via the kid-friendly survey on how they liked or did not like using the word processor to create their final piece. The following table shows a list of combined activities and shared objectives with deliverables.

*Table 2.*

*Project Activities Alignment*

|  |  |  |
| --- | --- | --- |
| Project Activity | Project Objectives | Deliverables |
| Tutorials on word processor and web 2.0 tools. | Increase use of Microsoft Words and web 2.0 tools | Create tutorial videos |
| Collaborate with computer teacher on keyboard skills and web 2.0 tools. | Student will increase use of keyboard and 2.0 web tools. | Introduce Lino and Storybird. |
| Demonstrate and implement tools for student and teachers. | Improve writing material and build writing engagement. | Strengthen students ability to research through educational sites. |

**Evaluation Plan**

To determine what the effectiveness of professional learning on the use of technology to engage and improve student’s quality in writing, an evaluation is provided for the participants, both teacher and student.

**First Project Evauluation**

A survey used from Office Forms will be shared with teachers before and after. Through this survey I will know how both teachers and students feel about using a word processor and web 2.0 writing tools in the writing process. This evaluation will help in developing and improving the professional development for the participants. Researchers have found the Technology Acceptance Model (TAM) to determine teachers use of technology in the class. The perceived usefulness is used to which teachers believe technology supports their teaching in an efficient and productive manner along with perceived ease of use which is the extent to which teachers think that the use of technology will be relatively free of effort (Davis, 1989). Knowing this information will help create a more structured environment for teachers and students to be able to understand the material while being engaged through writing.

Professional development will take approximately two hours over the course of two days in the staff development room. During that time, teachers will learn how to implement the word processor to students, and to troubleshoot issues that may occur during the writing process. Implementation of the training will be assessed by teachers.

*Potential Questions for survey:*

1. *Did you find the information usefull?*
2. *How comfortable are you to use this skill independently?*
3. *Name something you still have questions about.*

**Second Project Evaluation**

During the second project, students will use educational sites to research their topic. Students will work on their writing pieces for a total of four weeks. Students will spend forty-five minutes in the computer lab once a week, practicing keyboarding skills directed by the instructor. Students will also spend an hour daily in the classroom writing their piece. During this time, students will continue using paper and pencil as build on fine motor skills to create their draft and edit their work before using the word processor. At the end of this project students will be assessed on the amount of information they found from the educational sites. Students will also be assessed on how well they can find information and how quickly they can find letters on the keyboard.

**Third Project Evaluation**

Once the students begin using this innovative way of the writing process, teachers will take notes of possible changes in their engagements. A spreadsheet will be provided to the teacher to collect data before, during and after the project. Lucy Calkins rubric is used to score students work sample. See example below.

*Table 3.*

*Example of Data Spreadsheet*

|  |  |  |
| --- | --- | --- |
| Participants | Number of Students Mastered w/o Tech | Number of Students Mastered with Tech |
| Class A |  |  |
| Class B |  |  |

Both teachers and students will complete a survey on how well they enjoyed using technology during this time. Teachers will share student data on writing samples, while students will verbally share their connection with the use of the word processor. Knowing the outcome of these evaluations will determine if this project could extend for a longer period of time and possibly be used for the following school year. Table 1 will show the proposed timeline of the project.

*Table 1.*

*Project Timeline*

|  |  |  |
| --- | --- | --- |
| Month | Activity | Hours |
| August | Create surveys for teachers and students.  | 5 |
| August | Create and find resources that will be used during the professional development. | 10 |
| August | Conduct survey and evaluate results for professional development. | 5 |
| September | Inform teachers of how Microsoft Word Processor is used in elementary schools to improve student engagement and writing process | 4 |
| September | Learn to troubleshoot issues that can occur. | 5 |
| October | Students learn about word processor and what can be created. | 5 |
| October | Students learn and practice how to use the keyboard. | 8 |
| October | Students research educational sites for topics | 5 |
| November | Students begin to create paper and pencil draft. | 10 |
| November | Students begin to work with the word processor after editing pencil and paper draft. | 20 |
| November | Students use web 2.0 tools to complete writing samples. | 10 |
| December | Post survey is conducted for teachers on student engagement and improvement of writing. Survey is evaluated. | 4 |
| December | Post survey is conducted for students on how much they enjoyed using the innovative way of writing. | 4 |
| TOTAL HOURS |  | 100 |

**Reference**

Admiraal, W., Louws, M. (2017). Teachers in school-based technology innovations: A typology of their beliefs on teaching and technology. In Computers & Education, 114, 57-68.

Crafton, R. (1996). Promises, promises: Computer assisted revision and basic writers. *Computers and Composition, 13,* 317-326.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology MIS Quarterly, 13, pp. 319–339

Kuechle, N. (1990). Computers and first grade writing: A learning center approach. In R. Boone (Ed.), Teaching process writing with computers (re.ed.) Eugene, OR: International Society for Technology in Education, pp.49-52.

Leu, D.J., Jr. (2001). Internet project: Preparing students for new literacies in a global village. *The Reading Teacher, 54*, 568–572. Retrieved from http://www.readingonline.org/electronic/elec\_index.asp ?HREF=rt/3-01\_column/index.html

 Leu, D.J., Jr. (2002). Internet workshop: Making time for literacy. The Reading Teacher, 55, 466–472. Retrieved from <http://www.readingonline.org/electronic/elec_index.asp?HREF=/electronic/RT/202_Column/index.html>

Leu, D.J., Jr., Karchmer, R.A., & Leu, D.D. (1999). The Miss Rumphius effect: Envisionments for literacy and learning that transform the Internet. The Reading Teacher, 52, 636–642. Retrieved from <http://www.readingonline.org/electronic/elec_index.asp?HREF=rt/rumphius.html>

Pittman, J. (2003). Preparing Teachers to Use Technology with Young Children in Classrooms. In Information Technology Children Education, 1, 261-287.