Exploring Technology:  
Inside and Outside the Classroom

By: Kristen Evans  
and  
Christina Reifsnyder

2008-2009 Easterly Parkway Elementary School  
First and Second Grade Interns

kee5004@psu.edu  
cfr120@psu.edu

April 25, 2009
Table of Contents

Description of Teaching Context ........................................3

Wonderings and Questions

Main Question ....................................................................6

Sub-Questions ..................................................................6

Data Collection

Clear Description of Data Collection .................................6

Before .............................................................................7

During .............................................................................7

After .............................................................................9

Data Analysis

Steps Taken to Analyze the Data ......................................10

Explanation of Findings

Claim #1 ..........................................................................16

Claim #2 ..........................................................................19

Reflection and Implications for Future Practice ..............21
Description of Teaching Context

Kristen Evans – First Grade (Easterly Parkway)

As a Professional Development Intern through Penn State University, I have worked in a first grade, self-contained classroom at Easterly Parkway Elementary School in the State College Area School District, located in central Pennsylvania, during the 2008-2009 school year. My first grade class is comprised of twenty students – ten males and ten females. Each student is between the ages of six and seven. The students come from a variety of ethnic, racial, and cultural backgrounds, as well as varying socio-economic levels.

As a whole, this first grade class seems to value and enjoy reading, which is evident through their continued enthusiasm toward the subject. The individuals in the class seem to have a strong grasp on various reading and comprehension strategies and are learning or are already using them consistently. There are seven students who excel in reading and are currently reading above grade-level. One of these students participates in a weekly book club for enrichment. There are three other students who are below grade-level in terms of reading and/or participate in the Title I reading program, a federally funded reading support program. There are three students who exited the Title I program and are able to meet grade-level reading standards. Finally, there are seven students who are at grade-level reading standards.

In terms of writing, most of the class seems to enjoy the freedom to write their own stories. The students are currently working on the basic mechanics of writing and working on “small moment” stories. They are working through the writing process – think, draw, write, “fancy” (revise). More than half of students in my class are at or
above grade-level writing standards. The other students are currently below grade-level writing standards, some due to the constant resistance to writing.

This first grade class, as a whole, seems to think critically and conceptually about mathematics. There are four students who are above and beyond first-grade math expectations and need constant probing and pushing through differentiated instruction in order for further improvement. These students participate in weekly math enrichment. There are twelve students at grade-level who are able to complete the requirements with success. There are six students who seem to need extra attention and guided practice in mathematics through differentiated instruction.

Currently, technology is not incorporated into the classroom on a regular basis. My mentor teacher and I use it about once every three weeks as an instructional tool during our lessons. The use of technology usually occurs in the computer lab once a week at most. Our classroom has a website, but it is not updated on a regular basis. With the varying socio-economic levels present within the classroom environment, it is a great possibility that some students may not have a computer at home. (See Appendix A for full Inquiry Brief)

Christina Reifsnyder – Second Grade (Easterly Parkway)

As a Professional Development Intern through Penn State University, I have worked in a second grade self-contained classroom at Easterly Parkway in the State College Area School District during the 2008-2009 school year. This second grade class consists of twenty-one students, ten female and eleven male, each of which has unique academic, behavioral and social needs. Of the twenty-one students, there are two African-American males, two Asian females, one Asian male, one Indian female, and fifteen
students who are identified as White or Caucasian. The students come from families that are from a range of socio-economic levels.

Academically, there is a wide range of ability levels in my classroom. In the area of academics, six of the students are high achievers, eight are average achievers, and seven are low achievers. In order to support the learning needs of everyone, several students leave the classroom at various points throughout the day to see a specialist. Five of our students receive math enrichment once a week. Several students require one-on-one attention in order to understand and complete their assignments. Four of these students receive reading and math support in Title I, which is a program for math and reading support. One student is in learning support. Two of the students leave the classroom for speech and language support. One student is an English Language Learner from India.

Many of the students have trouble achieving behavioral expectations during the day. Six of the students display trouble with self-control, which is exhibited by frequently calling out and being easily distracted by their surroundings. There are three students who follow directions, for the most part, but occasionally display a lack of listening, which is evident in their work. Six of the students consistently follow directions and do what is expected of them. Four of the students have difficulty staying on-task.

Currently in the classroom, technology is mostly used for the purpose of learning computer skills and participating in math activities as part of the Investigations Math Program. The use of technology usually occurs in the computer lab and rarely occurs in the classroom. Since the students come from a range of economic levels, it is a
possibility that a few students may not have computers in their home. Our classroom has a website, but it is not updated on a regular basis and contains mostly general information, such as the units of study and homework procedures.

**Wonderings and Questions**

**Main Wondering**

Our main wondering for our inquiry is focused on the integration of technology in a variety of ways. Through the use of technology inside and outside the classroom setting, we are curious to know how students will respond to increased technology usage in the classroom. We are also wondering if our implementations in school will lead to increased student choice in the extension of their own learning in their home environment.

*How can technology be used effectively both in and out of the classroom?*

**Sub-Wonderings**

- Are there any trends in which students choose to visit the classroom website? (Example: Achievement levels, gender, etc.)
- Are students motivated through technology?
- How can technology enhance parent-teacher communication?
- Which subject areas were students the most interested in visiting on the classroom website?

**Data Collection**

**Clear Description of Data Collection**

In an effort to provide evidence for our wonderings, we drew upon a variety of data collection methods. Our data collection consisted of initial parent surveys, student surveys, student interviews, student website updates, student website update checklists,
BEFORE

To collect baseline data prior to various interventions related to our inquiry project, we sent home a parent/guardian survey. The parent survey consisted of ten questions/responses that focused on home activities, computer and internet access, child supervision of computer usage, knowledge of the existing classroom website, and the frequency of visitation. Our intention for conducting this parent/guardian survey was to find out current levels of website awareness and technology usage in the home environment. In addition, we were interested in finding out which subjects our students enjoy the most and if it was related to the website that they would potentially visit. (See Appendix B for Example of Initial Parent Survey)

DURING

To begin the implementation of our inquiry project, we took a look at our current units of study in each subject. Then, we researched the Internet for a variety of developmentally appropriate websites, games, and activities that would directly link to our units, in addition to past units. Once we obtained a sufficient amount of web links, we created individual subject pages and placed the related links within them. Throughout the eight-week data collection phase, we continuously added new web links to the subject pages based upon what we were currently studying. We wanted students to have the opportunity to extend their learning outside of the classroom environment, as well as practice and review previously learned skills. (See Appendix C for a Comprehensive Website List)
Since we knew we wanted to use the classroom websites as part of our intervention, we set up a hit counter that tracked how many people visited various pages on the classroom websites. We were curious if students would access unit-related activities and games accessible on the classroom websites to extend and support their own learning. The hit counter was one way that we kept track of the website viewers. (See Appendix D for Hit Counter Totals)

We were aware that the classroom websites were public domain and could be accessed by anyone. In order to get a clearer picture of the websites that our first and second grade students were visiting, we supplemented the hit counter with additional interventions. One system was a student website update where students would place a popsicle stick with their name on it under a “yes” or “no” column, indicating if they visited the classroom website at home the night before. (See Appendix E for Photos of Student Website Boards) If the student visited the website, he/she was responsible for completing a student website update sheet. The website update form contained a list of the webpages accessible on the classroom website. The student would circle or check off the page(s) that he/she visited the night before and the specific link that was accessed. (See Appendix F for Examples of Student Website Update Sheets) During this process, we kept a tally of students who went on the classroom website and totaled the number daily and weekly. (See Appendix G for Example Student Website Update Checklist)

In order to gauge student engagement, we conducted a series of systematic observations during technology-rich and non-technology lessons and activities. We were specifically looking for the amount of student participation, as well as on/off-task
behaviors. As advocates for using technology in the classroom, we were hoping to find an increase in student participation, which was measured by the number of hands raised in response to a series of questions related to the specific lesson. In this case, the observer noted each question that was asked during the instruction time and the number of hands that were raised. If a question were answered incorrectly or incompletely, the observer would note the number of additional responses prompted by the teacher. (See Appendix H for Systematic Observation Sheet – Student Participation)

We also hoped to discover if students would be more likely to remain on-task and exhibit less off-task behaviors when technology is used to supplement instruction. During the on/off-task observations, the observer would scan the room in increments of one or five minutes, depending on the length of the lesson. The observer would note only the off-task behaviors displayed by the students in the classroom. The off-task behaviors were predetermined to be talking/making noises with peers about unrelated material, looking around the room, playing with objects unrelated to material, and laying/rolling around on the floor. When students were observed at a computer while visiting the website, the off-task behavior of clicking randomly was added to the list. (See Appendix I for Systematic Observation Sheet – On/Off-Task)

AFTER

When the interventions were completed, we conducted student interviews by asking students a series of seven questions for post intervention data. These questions were related to after-school activities, computer usage at home and at school, favorite webpages and web links, favorite school subject, and preference to technology tools. We were hoping to make a connection with the types of websites that the students were
visiting at home and at school and their favorite school subject.  (See Appendix J for **Student Interview Example**)

In addition to student interviews, we also send home a final parent survey. This parent/guardian survey included a series of ten questions/responses. The questions focused on a variety of topics, such as child home activities, knowledge of navigating to the classroom website, the frequency of visitation, most used webpages for both parent/guardian and child, possible after-school activities that made website access difficult, and technology talk in the home environment. With this piece of data, we were hoping to see if frequency in visitation would rise for the most visited webpage to relate to the child’s favorite subject, and for students to involve their parents/guardians in their educational process by communicating various activities they engaged in throughout the school day, including technology-related lessons/activities.  (See Appendix K for **Final Parent/Guardian Survey Example**)

**Data Analysis**

**Steps Taken to Analyze the Data**

As we studied our collection of data, we decided that we would begin analyzing the pieces that directly related to our main wondering and sub-wonderings. We were hoping to discover if there was a connection between the use of technology in school and the motivation students exhibited at home in relation to visiting the classroom websites. Another piece of information that we were seeking to have answered was if the websites students visited at home correlated directly to their subject of interest. Finally, we were hoping to find out if the use of technology during instructional times would increase student participation and decrease off-task behaviors.
The first piece of data that we analyzed was the initial parent survey. Through this survey we gained a greater understanding of the feasibility of our inquiry topic. We found out that 92.5% of the students have computers equipped with Internet access in their homes. This allowed us to proceed with our chosen inquiry interventions. In addition, the surveys provided us information pertaining to adult supervision when students are accessing the Internet. This led us to believe that it would take a lot of parent involvement and home-school communication in order for our project to be a success. We also analyzed the baseline data of how often the classroom websites were being accessed, using a scale from never to very often. (See Appendix L for Pie Chart Depicting Beginning Visitation Frequency) To our surprise, the biggest percentage of visitation prior to the interventions was in the never category at 45.2%. Another question that we analyzed from the parent survey was the subject area in which parents felt their child needed the most extra practice or extension. (See Appendix M for Pie Chart Depicting Parent-Suggested Focus Areas) Through our analysis, we discovered that the area of biggest concern was providing additional opportunities to practice math skills. This allowed us to focus on the math webpages on the classroom websites. We added several links related to unit topics, basic math skills, and calendar math activities. We continuously added relevant web links to the math pages throughout the eight-week intervention. In addition to math practice pages, we created language arts, spelling, popular books, science, social studies, and geography pages equipped with games and activities appropriate for first and second grade students.

After we created the various webpages and links, we attached hit counters to each of these pages to track how many times people were accessing the sites. After keeping
track of the hits on a weekly basis throughout the eight-week period, we had a total of 1,007 hits in all subject areas combined in our first and second grade classrooms, 599 and 408 hits respectively. We knew that this data had the potential to be flawed. Since the classroom websites are public domain, anyone can access it. This would skew our data. Another reason why we believe that the total hit count is high is because it includes both in school and out of school visits. In school, we used the classroom website during computer lab sessions, computer centers, morning visits, instructional times, and when we introduced the webpages and links to our classes. We also kept weekly and final totals of hits per subject area. (See Appendix N for Hit Counter Break Down By Subject Area) As we looked at the data, we noticed that the number of total hits per subject area varied between our classrooms. As a whole, we noticed that the mathematics webpage was accessed most frequently.

After the implementation of the various interventions, we analyzed the student website updates that students filled out when they visited the classroom website the previous night. We thought that, in addition to the webpage hit counters, the student website updates would provide us with a more accurate picture of the amount of times students accessed the classroom websites. Throughout a five-week period, we collected data on the frequency of student classroom website visitation. (See Appendix O for Frequency Charts) We found that throughout this time, students visited the websites a total of eighty-eight times, averaging to 8.8 visits per classroom website per week, or 17.6 visits to our classroom websites combined. In first grade, 95% of the students visited the classroom website at least once. While, in second grade, 70% of the students visited the classroom website at least once. The student website update also provided
additional information. Since the students were required to indicate which webpage they visited, we were able to analyze the distribution of websites among the subject areas. (See Appendix P for Subject Area Distribution Charts by Grade Level) The student website update checklist also provided us with information in terms of current academic/achievement levels of our students and if they visited the classroom website. In first grade, one hundred percent of the high-achieving students visited the classroom website at least once at home. One hundred percent of the current average ability students visited the classroom website at least once at home. When it came to the low-achieving students, 66.7% of the students visited the classroom website at least one time at home. In second grade, one hundred percent of the high-achieving students, 66.3% of the average-achieving students, and 40% of the low-achieving students visited the classroom website at least once at home. We both noticed that there was a drop-off when it came to the lower-achieving students. Finally, we looked at gender and frequency of visitation. We made a tally of which students visited the classroom website at least once in the eight-week span. Then, we tallied the amount of males and the amount of females who visited at least once at home. In first grade, all ten females (100%) visited at least once and nine out of ten males (90%) visited at least once. In first grade, there was very little difference in gender distribution. In second grade, nine out of nine females (100%) visited the classroom website at least once at home. Only, five out of eleven males (45.5%) visited the classroom website at least once at home. We noticed a significant drop in at-home classroom website visitation among second-grade males.

Another piece of data that we collected was through systematic observation with lessons using technology and lessons not using technology. We looked at student
Exploring Technology

participation, as well as on/off-task behavior. When we were looking for student participation, we focused on number of hands raised. In first grade, when no technology was used, an average of 8.2 hands went up to answer each question asked. When technology was used (example: SMART Board), an average of 8.3 hands were raised to answer each question. This left a difference of 0.1 hands raised per question in favor of technology. In second grade, when no technology was used in the lesson, an average of 8 hands were raised to answer the questions asked. When technology was used throughout the lesson, an average of 9.1 students raised their hands to answer the each question. This left a difference of 1.1 hands raised per question in favor of technology. The second type of systematic observation we used was on/off-task during both lessons using technology and not using technology. We determined off-task behavior as talking/making noises with peers about unrelated material, looking around the room, playing with objects unrelated to material, laying/rolling around on the floor, and clicking the mouse randomly while working on the computer. Once we tallied the off-task behavior, we determined the percentage of students who were on-task during each time scan. First, we analyzed the lessons without technology. We concluded that for non-technology lessons, our students were on-task an average of 89.8% of the time. Next, we analyzed the on-task percentage for lessons that incorporated technology. Here, we found that when technology is used, students were on-task 96.5% of the time. This made for a 6.7% difference. So, when a technology was implemented into a classroom lesson, students were on average on-task 6.7% more of the time.

After our interventions were complete, we decided to conduct student interviews. We were looking for a connection between student interest/favorite subject and their
preference in terms of the webpage and links that they accessed. We found that with 59.1% of students, there was a correlation between interest/favorite subject and their preference in terms of the webpage and links that they accessed. On the other hand, we found that with 40.9% of our students, there was no correlation between their favorite subject and the webpage/links that they accessed the most. The final interview indicated that 100% of the students liked when the SMART Board and other technology tools were used in the classroom and wished for it to be continued after our project. One hundred percent of our students also indicated that they appreciated when they were given time to use the computers at school, whether it be in the morning, during computer center, or in computer lab. Linked with this interview question, some students indicated that it was difficult for them to access the computer at home due to parent restriction (Example: “My mom and dad are usually on the computer doing work.” and “I’m not allowed to go on the computer too much at home.”) (See Appendix Q for Student Interview Questions)

The final piece of data that we analyzed was a final parent survey. (See Appendix R for Final Parent Survey) When we looked at this survey, we wanted to see if any parent visitation frequencies would increase on a scale of never to very often. After analysis, we determined that 0% of parents chose that they never visit the site. Rarely was chosen by 13.6% of parents. Parents visited the classroom websites sometimes 40.9%. Eighteen percent of the parents visited the classroom website often, and 27.2% indicated that they visit the site very often. We noticed a significant decrease in the amount of parents who initially stated never. We noticed that there was a noticeable increase in the very often end of the spectrum. (See Appendix S for Final Parent Visitation Frequency Pie Chart) We also found that when presented with the
opportunity by the parent/guardian to go on the classroom website at home, 95.5% of the students were interested. Through the survey, parents indicated that when unprompted, 50% of the students talked about the technology that was being used in the classroom when they were at home. The other 50% either did not talk about the technology being used or needed to be prompted to share the information about the school day.

**Explanation of Findings**

Once we thoroughly analyzed our data, we attempted to find specific trends that would lead us to make claims relevant to our wonderings. We came up with two claims, which are supported by evidence collected during our experience.

**Claim #1: If technology is used in the classroom, students are more likely to go onto the classroom website when they go home.**

After collecting and analyzing our data, we found a pattern embedded in the student website updates, student website update checklists, the hit counter data, as well as student quotes from interviews. This trend directly related to our main wondering: *How can technology be used effectively both in and out of the classroom?*

Upon analyzing student website updates, we realized that on the days that we would implement new technology websites/links into the classroom during instruction, students were more likely to visit the classroom website at home. In the first grade classroom, we noticed that on days that 30% or more students went on the classroom website at home and handed in a student website update form, a technology activity/link was used in the classroom the day before. *(See Appendix T for First Grade Frequency Bar Graph)* In the second grade classroom, we found the similar outcome. When a new link/website was introduced, students went on the classroom website to further explore
those sites. We noticed that whenever technology was used in the classroom, 10% or more of the students would access the classroom website that night. (See Appendix U for Second Grade Frequency Bar Graph)

One of our interventions during the inquiry project was to incorporate a technology project in each of our classrooms. In first grade, students participated in the World Math Day competition. The World Math Day competition is a forty-eight hour math marathon (6am on March 3rd – 6am on March 5th). During the competition, students logged onto www.worldmathday.com with a user name and password, which I provided to them, and competed against three other students the same age from around the world. When students logged on and chose to play a game, they had sixty seconds to compete. The object was to get as many questions as possible correct. The students then were able to see how many questions they answered correctly and their accuracy rate. The students were introduced to the competition in school during a computer lab session. Here, students were given their usernames and passwords. After I demonstrated the process, students were given the remainder of the time to compete. Since the World Math Day link was placed on the classroom website prior to introduction, students were able to know exactly how to access it both from home and school. The next day at school (March 4th), students were given five minutes on the classroom computer at some point during the day to access the World Math Day site. For the next two days (the duration of the competition), I noticed a significant spike in the hit counter data on the math webpage on the classroom website. During the week of the technology project, the math webpage received one hundred eleven hits, the most math hits out of any week. This meant that 31.6% of the total math hits for the eight-week data collection phase occurred during this
one week during the technology project. (See Appendix V for Total Hit Math Count Bar Graph) To supplement the hit counter data during this week, I also noticed an increase in students indicating that they went on the classroom website the night before, which resulted in more student website update forms filled out. During this week, I had twenty-nine home website visits. Since I began collecting student website updates, I had received fifty-six forms indicating that they went on the classroom website at home. The technology project for this week alone accounted for 51.8% of my website update forms. One hundred percent of the students who handed in the student website indicated that they accessed the mathematics webpage on the website to play the World Math Day competition. (See Appendix W for Weekly Distribution of Website Updates Bar Graph)

In second grade, students participated in a virtual field trip for the technology project. (See Appendix X for Virtual Field Trip) Since we are studying about pioneers, one of the websites that was already listed on our classroom website was chosen. Each student was given a piece of paper, which directed him or her to click on specific topic, and then answer a question. In the computer lab, students were placed in partners and worked together to search for the answer. After introducing this website to the classroom on a Friday, I noticed through the hit counter that there was a jump in visits to the pioneer websites over the weekend. The hit counter increased by forty-nine hits by the next Friday. (See Appendix Y for Social Studies Webpage Total Hits Bar Graph) Since the link to the website was already posted on the classroom website, it was easy for students to access at home without being bogged down in typing a long web address.
Other pieces of evidence that support this claim include an excerpt from a parent e-mail and excerpts from student interviews. One parent wrote, “*Rebecca couldn’t wait till I walked in the door with my computer so she could play her math competition!*” *Name was changed.*

During student interviews following the inquiry interventions, students stated:

“I liked the games we played. I wanted to go home and play the games.”

“It got me used to what I can do at home. So if I saw something interesting, I know I could do it again at home.”

“I liked the games and wanted to play them more.” When I asked the student to clarify where he wanted to play them more, he said, “When I got home.”

**Claim #2: The classroom website is an effective tool for home-school communication.**

As we were analyzing more of our data, we noticed that we had various pieces of evidence to support that parents appreciate the classroom website when it was updated on a regular basis with pictures and information relating to classroom events. This claim directly corresponds to our main wondering: *How can technology be used effectively both in and out of the classroom?* In addition, the claim and evidence relates to our sub-wondering: *How can technology enhance parent-teacher communication?*

Prior to analyzing the data we collected from initial parent surveys and final parent surveys, we were interested in seeing if the amount of parents who never or rarely viewed the classroom websites would rise after the implementation of keeping up-to-date classroom websites. After comparing the two sets of data, we realized that more parents, indeed, visited the classroom websites more often than before. Initially, 45.2% of parents
had never visited the classroom website. After the implementation of the interventions, zero percent of parents had never visited the classroom website. Initially, 12.9% of parents rarely visited the classroom website, which was deemed once a month. After, 13.6% rarely visited the website. We realize that this is a slightly higher percentage than before the implementation, but we believe that it is offset by the significant decrease in parents who never visited the site. Prior to our project, twenty-nine percent of parents claimed they visited the classroom website sometimes, which was deemed two to three times a month. After our project, 40.9% stated that they visit the classroom sometimes, which is an 11.9% increase. Initially, 6.5% of parents said they visited the classroom website often, or four to five times a month. After, 18.2% of parents said they visit the classroom website four to five times a month, an 11.7% increase. Finally, there was 3.2% of parents who stated that they visit the classroom website very often, or at least once to twice a week. After our interventions, 27.3% of parents claimed to visit the classroom website at least once to twice a week, which was an increase of 24.1%. (See Appendix Z for Before and After Pie Charts) With all of these significant percent increases relating to parents and how often they visit the classroom website, we felt that it was a strong piece of evidence to support the claim that the classroom website is an effective school for home-school communication.

Another piece of evidence that supports our claim that the website is an effective tool for communication is through the comments that parents made in our final parent survey. Through these comments, parents mentioned the interest some of their students had in visiting the website and their own interest in seeing updated news. This data told us that parents are finding the website beneficial. Since
parents are unable to be at school and see their child’s daily activities, the website is a way for us to communicate to them in a timely manner. The following are several examples of parent comments from the final parent survey:

“Your contributions to the classroom website were very well received! We look forward to seeing pictures, using links, keeping up to date, etc. Thank you for your hard work.”

“I think what you did with the class site was great. It was informative and the links were helpful for my child.”

“I love to listen to those stories (writer's workshop).”

Final Parent Survey Question: Which webpage did you, as a parent, guardian, visit the most? Why?

“What’s New in Room 249.”

“To see what she has been doing in school.”

“Updates as to what’s going on with assignments in class.”

In addition to the comments received through the final parent survey, a parent communicated her own appreciation for the website through a self-initiated letter. We used this as evidence to support the claim that the website is an effective way to communicate to parents. In turn, the parent communicated back to us her gratitude for the website. The following statement was taken from the letter:

“We love the work you have done on the website.”

**Reflections and Implications for Future Practice**

Throughout this inquiry project we learned that students are more motivated to go on the classroom website at home if technology was used in the classroom that day. We
had the opportunity to see this trend continue throughout the project. In order for a website to be a successful tool in extending and supporting learning, it must be continually used in the classroom. When students are exposed to a specific website in class, they become more interested in wanting to revisit the website at home.

Throughout this process we also came to discover how the classroom website became a valuable tool in home-school communication. It has become apparent to us that parents really value the regular updates made to the classroom website. Parents have expressed their appreciation and gratitude by saying how much they enjoy looking at updated pictures and information concerning what their son or daughter is doing in the classroom. We feel as though this would only be an effective tool in communicating if it was updated on a regular basis. When parents feel like they are involved in the classroom happenings, they feel like they are an integral part of the classroom community. In the future, we plan on using the classroom website as one-way to communicate with our students’ parents.

Since the beginning of our inquiry project, we feel as though we have become more competent users of technology through the various interventions we implemented. Using the technology more often has also made us feel more confident and comfortable in our abilities to incorporate it into the learning environment. We see how valuable technology can be as far as supplementing instruction in an effective manner. We noticed an increase in interest when we used technology in the classroom and many positive responses from our students. Since students appeared excited about the technology, we feel like they become more susceptible to learning.
Not all of our wonderings could be made into claims because of insufficient evidence. However, we noticed a beginning trend with the relationship of gender and the likeliness of students using the classroom website at home. In first grade, there was a 10 percent difference between males and females, and in second grade there was a more significant difference of a 54.5% difference between males and females. In first and second grade, there is a 44.5% decrease in males visiting the classroom website at home. We would want to further explore this trend by examining older grades. This leads us to our future wondering: Does gender play a role in classroom website visitation at home? Due to time constraints, we feel like we did not have enough systematic observations in order to made a solid claim about technology’s effect on student participation and student on-off task behavior, and would like to further explore this in our future classrooms.
Appendix A

Inquiry Brief

Context

Christina Reifsnyder – Second Grade (Easterly Parkway)

As a Professional Development Intern through Penn State University, I have worked in a second grade self-contained classroom at Easterly Parkway in the State College Area School District during the 2008-2009 school year. This second grade class consists of twenty-one students, ten female and eleven male, each of which has unique academic, behavioral and social needs. Of the twenty-one students, there are two African-American males, two Asian females, one Asian male, one Indian female, and fifteen students who are identified as White or Caucasian. The students come from families that are from a range of socio-economic levels.

Academically, there is a wide range of ability levels in my classroom. In the area of academics, six of the students are high achievers, eight are average achievers, and seven are low achievers. In order to support the learning needs of everyone, several students leave the classroom at various points throughout the day to see a specialist. Five of our students receive math enrichment once a week. Several students require one-on-one attention in order to understand and complete their assignments. Four of these students are receive reading and math support in Title I, which is a program for math and reading support. One student is in learning support. Two of the students leave the classroom for speech and language support. One student is an English Language Learner from India.

Many of the students have trouble achieving behavioral expectations during the day. Six of the students display trouble with self-control, which is exhibited by frequently calling out and being easily distracted by their surroundings. There are three students who follow directions, for the most part, but occasionally display a lack of listening, which is evident in their work. Six of the students consistently follow directions and do what is expected of them. Four of the students have difficulty staying on-task.

Currently in the classroom, technology is mostly used for the purpose of learning computer skills and participating in math activities as part of the Investigations Math Program. The use of technology usually occurs in the computer lab and rarely occurs in the classroom. Since the students come from a range of economic levels, it is a possibility that a few students may have computers in their home. Our classroom has a website, but it is not updated on a regular basis and contains mostly general information, such as the units of study and homework procedures.

Kristen Evans – First Grade (Easterly Parkway)

As a Professional Development Intern through Penn State University, I have worked in a first grade, self-contained classroom at Easterly Parkway Elementary School in the State College Area School District, located in central Pennsylvania, during the 2008-2009 school year. My first grade class is comprised of twenty students – ten males and ten females. Each student is between the ages of six and seven. The students come from a variety of ethnic, racial, and cultural backgrounds, as well as varying socio-economic levels.
As a whole, this first grade class seems to value and enjoy reading, which is evident through their continued enthusiasm toward the subject. The individuals in the class seem to have a strong grasp on various reading and comprehension strategies and are learning or are already using them consistently. There are seven students who excel in reading and are currently reading above grade-level. One of these students participates in a weekly book club for enrichment. There are three other students who are below grade-level in terms of reading and/or participate in the Title I reading program, a federally funded reading support program. There are three students who exited the Title I program and are able to meet grade-level reading standards. Finally, there are seven students who are at grade-level reading standards.

In terms of writing, most of the class seems to enjoy the freedom to write their own stories. The students are currently working on the basic mechanics of writing and working on “small moment” stories. They are working through the writing process – think, draw, write, “fancy” (revise). More than half of students in my class are at or above grade-level writing standards. The other students are currently below grade-level writing standards, some due to the constant resistance to writing.

This first grade class, as a whole, seems to think critically and conceptually about mathematics. There are four students who are above and beyond first-grade math expectations and need constant probing and pushing through differentiated instruction in order for further improvement. These students participate in weekly math enrichment. There are twelve students at grade-level who are able to complete the requirements with success. There are six students who seem to need extra attention and guided practice in mathematics through differentiated instruction.

Currently, technology is not incorporated into the classroom on a regular basis. My mentor teacher and I use it about once every three weeks as an instructional tool during our lessons. The use of technology usually occurs in the computer lab once a week at most. Our classroom has a website, but it is not updated on a regular basis. With the varying socio-economic levels present within the classroom environment, it is a great possibility that some students may not have a computer at home.

Wonderings

Main Wondering:
How can technology be used to extend learning both in and out of the classroom?

Sub wonderings:
- What after school/evening activities do students typically participate in?
- Does technology enhance/increase in class student participation?
- Can technology be a useful tool in differentiating instruction?

Rationale

Throughout our experiences in the Professional Development School and in our primary classrooms, we have made several observations that have led us to wonder about the education of our students. Being in classrooms that hold a variety of needs, several students leave throughout the day to acquire the extra support they need to be successful. However, we feel that several opportunities should also exist in the classroom. We have a handful of students in the classroom who are meeting the expectations, but are not getting the extension in content curriculum. For the students who really struggle, extra practice in certain areas could be beneficial. This led us to our first wondering: How can student knowledge be extended in the classroom?
Being confined to only so many hours in a school day, we then started to wonder how we could increase interest in school subjects at home. Hearing many students talk about video games when they come into school also concerns us. We want to find a way for students to use their time more productively or effectively in their home environment. If in fact technology is an interest of students, we feel that could be a useful tool in getting students curious about learning information. Since each student enjoys a different subject, we also wonder if allowing them to participate in technology related activities in a specific area of content would increase their interest and motivation.

The main reason for our wondering comes from our personal interest in pursuing the use of technology. Currently, technology is not used very often in our classrooms. Since technology applications are growing each day, we feel that it is important for us to broaden our technology base in order to become proficient in a variety of tools. We have observed in our classrooms that students seem to pick up skills using the computer very quickly and easily. Through the beginning use of the Smart Board, we have also seen a fascination with technology that seems to draw their attention. The Smart Board is an interactive whiteboard that has a touch-controlled screen and works with a computer. One specific part of technology we hope to improve is the use of our classroom websites. We are interested in seeing how adding educational websites and games for the students can increase their interest in viewing them at home; in effect, we want to see how that helps extend their learning outside of the classroom.

We want every student to be supported and challenged. Technology seems to get students excited about learning and they seem to be very perceptive about it. Society has been centered around technology so much in recent years that we feel like we should show students how it can be used in the educational process. We hope to discover that technology is an important tool that can be used to differentiate instruction inside and outside of the classroom. We also hope to discover that students become very interested in going home to use educational websites on the computer instead of participating in non-educational activities such as playing video games.

Data Collection

- Parent surveys before and after intervention
- Student surveys before and after intervention
- Student interviews based upon the surveys
- Teacher interviews on extending learning (technology & other)
- Daily survey chart (with teacher check list)
- Website Update Sheets
- Systematic observation during lessons (technology and non-technology)
  - On-off task
  - Number of times student participates
- Google Analytics (tracking number of hits on classroom website)
- Student directed projects
- Final student interviews
- Final mentor interviews

Projected Timeline

Week 1
February 9-13th
- Conduct initial parent and student surveys
- Begin using technology in lessons more frequently
• Activate Google Analytics

Week 2
February 16th-20th
• Send home parent letter about use of classroom website
• Send home kid-friendly website directions
• Student Interviews
• Systematic Observations Begin
• Record Tracking on Website

Week 3
February 23rd-27th
• Introduce Daily Survey Chart
• Website Update Sheets
• Continue to use systematic observation sheets
• Record Tracking on Website
• Introduce a Technology Project
• Teacher Interviews

Week 4
March 2nd – 6th
• Website Update Sheets
• Continue to use systematic observation sheets
• Record Tracking on Website
• Send Letter Home (giving suggestions of what students could do on the classroom website during Spring Break)

Week 5 (Not in School – Spring Break)
March 9th – 13th

Week 6
March 16th-20th
• Website Update Sheets
• Continue to use systematic observation sheets
• Record Tracking on Website
• Introduce another technology project

Week 7
March 23rd-27th
• Website Update Sheets
• Continue to use systematic observation sheets
• Final Student Interviews
• Final Mentor Interviews
• Record Tracking on Website
• Final Parent Surveys
• Final Student Surveys

Week 8
March 30th – April 3rd
• Begin Writing Inquiry Paper
Appendix B

Parent/Guardian Survey

Parent(s)/Guardian(s),

As a PDS intern this year, I am required to complete an inquiry project. I will be working with Miss Christina Reifsnyder, an intern in a second grade classroom at Easterly Parkway. Currently, we are leaning toward technology and how we could use it both in and out of the classroom to extend your child’s learning. Please take a few minutes to fill out this survey. Please return it to school in your child’s purple folder by February 13, 2009. Thank you for your cooperation! 😊

Sincerely,
Miss Evans and Miss Reifsnyder

1. When your child gets home from school each day, what types of activities does your child engage in? (Circle all that apply.) Please write the average number of hours your child spends doing each activity during the course of a week.
   a. TV (__________ hours)
   b. Computer (__________ hours)
   c. Video Games (__________ hours)
   d. Outside Play (__________ hours)
   e. Reading (__________ hours)
   f. Other ____________________________ (__________ hours)

2. Do you have a computer equipped with Internet in your home?
   a. Yes
   b. No

3. What subject does your child seem to enjoy the most? _______________________

4. Do you allow your child to go on the computer?
   a. Yes.
   b. Yes, but only when supervised by an adult.
   c. No.
   d. We do not own a computer.

5. Do you know how to navigate to Mrs. Titus’ classroom website?
   a. Yes
   b. No
   c. We have a classroom website?

6. How often do you use Mrs. Titus’ classroom website?
a. Never (0 times a month)
b. Rarely (1 time a month)
c. Sometimes (2-3 times a month)
d. Often (4-5 times a month)
e. Very Often (at least 1-2 times a week)

7. If the website was geared more to what we are studying in the classroom and gave you continuous updates on our current units of study, would you visit the website more often?
   a. Yes
   b. No

8. If the website was geared more to what we are studying in the classroom, would you allow your child to use the educational links on the classroom website?
   a. Yes
   b. No

9. If there was one subject that you wish your child had extra practice in, what would it be? __________________________

10. Thank you for completing this survey. I appreciate this very much, as it will be critical in the data collection for my inquiry project. If you have any other questions or comments, please use the additional space on this page to address them.
Appendix C

List of Websites (2nd Grade):

Spelling

Spelling City
http://www.spellingcity.com/index.php?option=com_frontpage&Itemid=1

HangMouse
http://www.vocabulary.co.il/games2/hangman/hman.php

Vocabulary Quiz
http://www.vocabulary.co.il/games2/vocquiz/vocquiz.php

Mystery Net
http://kids.mysterynet.com/

Blending Bowl
http://pbskids.org/lions/games/blending.html

Synonym Sam's Lab
http://pbskids.org/lions/games/synsam.html

Stories
http://www.bbc.co.uk/cbeebies/drilldown/stories/2/4/1/

Battleship (100 Misspelled Words)

The Tooth Taker
http://www.earobics.com/gamegoo/games/squanky/squanky.html

Match of Mystery
http://professorgarfield.org/phonics/mixmatch/mixmatch.html

Alphabetical Order
http://www.earobics.com/gamegoo/games/pawpark2/pawpark2.html

ABC
http://www.starfall.com/n/level-a/learn-to-read/load.htm?f

Capitalization and Punctuation
http://www.eduplace.com/cgi-bin/hme-quiz-
Fish 'Em Up!
http://www.missmaggie.org/scholastic/fishemup2_eng_launcher.html

Plants

Plant Life
http://www.catie.org.uk/plants_galore_page.html

Plant Growth

Interactive Plant Quiz
http://www.woodlands-junior.kent.sch.uk/revision/Science/plant.htm

Seed Dispersal

Seed Growth

Life Cycle of a Plant
http://www.crickweb.co.uk/assets/resources/flash.php?file=lcycles5b

Math

Fraction Flags
http://www.oswego.org/ocsd-web/games/fractionflags/fractionflags.html

Symmetry
http://www.ixl.com/math/practice/grade-2-symmetry

Congruent Shapes
http://www.ixl.com/math/practice/grade-2-congruent

Addition Word Problems
http://www.ixl.com/math/practice/grade-2-addition-two-digits-word-problems

Time Challenge
http://www.ixl.com/math/practice/grade-2-elapsed-time-ii

How much time passed?
http://www.ixl.com/math/practice/grade-2-elapsed-time
Time Words
http://www.ixl.com/math/practice/grade-2-time-words-oclock-half-quarter

Reading Clocks

RoboPacker

Math Lines
http://www.coolmath-games.com/0-math-lines/addition-10.html

Money Payer
http://www.ictgames.com/moneypayer50p.html

Bloxorz

Number Twins

Geometric Shapes
http://www.apples4theteacher.com/square.html

Pool Geometry

Dude’s Dilemma
http://www.missmaggie.org/scholastic/dilemma_eng_launcher.html

Bugs in the System
http://pbskids.org/cyberchase/games/bargraphs/bargraphs.html

Representing Data
http://www.bbc.co.uk/schools/ks2bitesize/maths/activities/interpretingdata_fs.shtml

Addition Hidden Picture
http://www.aplusmath.com/games/picture/AddPicture.html

Lifeguard
http://www.ictgames.com/LIFEGUARDS.html

Shark Pool
http://www.ictgames.com/sharknumbers.html
Pioneers

**Building a Sod House**
http://americanhistory2.si.edu/ourstoryinhistory/tryonline/buildsodhouse.html

**Pioneer Life**
http://www.naschools.net/teachers/scott2/scott2.htm

**Parts of a Wagon**
http://library.thinkquest.org/6400/wagon.htm

**Household Objects**
http://www.museum.state.il.us/exhibits/athome/1800/objects/index.html

**Pioneer Music**
http://library.thinkquest.org/6400/songs.htm

**Oregon Trail**
http://www.historyglobe.com/ot/otmap1.htm

**Pioneer Quiz**
http://library.thinkquest.org/6400/pioneer%20quiz.htm?tqskip1=1

Popular Books

**Junie B. Jones**
http://www.randomhouse.com/kids/junieb/activities/activities.html

**Little House**
http://www.littlehousebooks.com/

Geography

**Puzzled States**
http://www.scholastic.com/play/states.htm

**Find the State**
http://www.toonuniversity.com/5s_usgeo_d.html
## Appendix D

### Total Hits (Grade 1)

<table>
<thead>
<tr>
<th>Week</th>
<th>Math</th>
<th>Language Arts</th>
<th>Science</th>
<th>Social Studies</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1 2/7-2/13</td>
<td>5</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>8</td>
</tr>
<tr>
<td>Week 2 2/14-2/20</td>
<td>36</td>
<td>19</td>
<td>9</td>
<td>-</td>
<td>64</td>
</tr>
<tr>
<td>Week 3 2/21-2/27</td>
<td>52</td>
<td>30</td>
<td>41</td>
<td>19</td>
<td>142</td>
</tr>
<tr>
<td>Week 4 2/28-3/6</td>
<td>163</td>
<td>60</td>
<td>60</td>
<td>32</td>
<td>315</td>
</tr>
<tr>
<td>Week 5 3/7-3/13 (Spring Break)</td>
<td>229</td>
<td>93</td>
<td>63</td>
<td>36</td>
<td>421</td>
</tr>
<tr>
<td>Week 6 3/14 – 3/20</td>
<td>262</td>
<td>98</td>
<td>69</td>
<td>38</td>
<td>467</td>
</tr>
<tr>
<td>Week 7 3/21 – 3/27</td>
<td>304</td>
<td>106</td>
<td>71</td>
<td>42</td>
<td>523</td>
</tr>
<tr>
<td>Week 8 3/28 – 4/4</td>
<td>351</td>
<td>124</td>
<td>75</td>
<td>49</td>
<td>599</td>
</tr>
</tbody>
</table>
# Total Hits (Grade 2)

<table>
<thead>
<tr>
<th>Week</th>
<th>Math</th>
<th>Pioneers</th>
<th>Plants</th>
<th>Spelling</th>
<th>Popular Books</th>
<th>Geography</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>2</td>
<td>9</td>
<td>4</td>
<td>3</td>
<td>8</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>3</td>
<td>16</td>
<td>12</td>
<td>8</td>
<td>16</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>4</td>
<td>28</td>
<td>31</td>
<td>14</td>
<td>25</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>5</td>
<td>40</td>
<td>49</td>
<td>17</td>
<td>31</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>6</td>
<td>52</td>
<td>57</td>
<td>24</td>
<td>33</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>7</td>
<td>66</td>
<td>86</td>
<td>31</td>
<td>38</td>
<td>11</td>
<td>27</td>
</tr>
<tr>
<td>8</td>
<td>98</td>
<td>135</td>
<td>37</td>
<td>40</td>
<td>24</td>
<td>44</td>
</tr>
</tbody>
</table>
Appendix E
First Grade Student Website Update

Student Website Update

Name________________________________________

Yesterday, I visited:

☐  What’s New in Room 249?

☐  Language Arts Practice

☐  Math Practice

☐  Science!

☐  Social Studies!

I liked ____________________________

_______________________________

______________________________

...
Second Grade Student Website Update

Visiting the Classroom Website

1. What subject did you visit? Math Spelling Plants Pioneers

2. What did you do at the website? Describe the activity.

3. I learned ______________________________________________________________
# Appendix G

## Student Website Update Checklist

*Week 1: 2/23/09 - 2/27/09*

<table>
<thead>
<tr>
<th>Date</th>
<th>Zachary</th>
<th>Michael</th>
<th>Bradie</th>
<th>Aliza</th>
<th>Carter</th>
<th>Morgan</th>
<th>David</th>
<th>Taylor</th>
<th>Johnathan</th>
<th>Evan</th>
<th>Vivan</th>
<th>Ryleigh</th>
<th>Kaden</th>
<th>Ronald</th>
<th>Joseph</th>
<th>Anjelica</th>
<th>Julise</th>
<th>Cassandra</th>
<th>Catherine</th>
<th>Benjamin</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/23/09</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2/24/09</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2/25/09</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2/26/09</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2/27/09</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Systematic Observation Sheet
Student Participation

Subject: ________________________    Date ________________________
Teacher: ________________________    Time ________________________
Observer: ________________________    Technology ________________________
Location of Students ________________________    Number of Students Present ______

<table>
<thead>
<tr>
<th>Question</th>
<th>Number of Hands Raised</th>
<th>Number of Additional Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Uses for Number of Additional Responses
  - If initial answer was incorrect
  - If there were students who wanted to add more to the answer
Appendix J

Interview Questions

Student Name:__________________________

1. What activities do you do when you get home from school?

2. Did you appreciate when you were given time to go on the computer at school? Why or why not?

3. Do you ever go on the computer at home? If yes, what do you do?

4. What was your favorite webpage on the classroom website? Which game did you like/play the most?

5. What is your favorite subject in school?

6. Did you like the SMARTboard? Why or why not?

7. What other technology tools that we used in the classroom did you like? (Give student examples.)
Appendix K

Parent/Guardian Survey

Parent(s)/Guardian(s),

My inquiry project is coming to an end within the next few weeks. In order to complete my data collection, I would like some final parent/guardian feedback. Please take a few minutes to fill out this survey. Please return it to school in your child’s purple folder by *Monday, April 6, 2009*. Thank you for your cooperation! 😊

Sincerely,
Miss Evans and Miss Reifsnyder

1. When your child gets home from school each day, what types of activities does your child engage in? (Circle all that apply.) Please write the average number of hours your child spends doing each activity during the course of a week.
   a. TV (_________ hours)
   b. Computer (_________ hours)
   c. Video Games (_________ hours)
   d. Outside Play (_________ hours)
   e. Reading (_________ hours)
   f. Other ________________________________ (_________ hours)

2. Do you know how to navigate to Mrs. Titus’/Mrs. Barthmaier’s classroom website?
   a. Yes
   b. No
   c. We have a classroom website?

3. Since I have been updating the classroom website often, how often do you use Mrs. Titus’/Mrs. Barthmaier’s classroom website?
   a. Never (0 times a month)
   b. Rarely (1 time a month)
   c. Sometimes (2-3 times a month)
   d. Often (4-5 times a month)
   e. Very Often (at least 1-2 times a week)

4. Did you find the “What’s New in Room 249/250?” webpage informative?
   a. Yes
   b. No

5. Which webpage did you, as a parent/guardian, visit the most?

_________________________________________

Why?
6. Which webpage did you find your child visiting the most?
______________________________________________

7. Did you feel that it was difficult to find time to let your child visit the classroom website after school?
   a. Yes
   b. No

   If yes, please explain. (Extracurricular activities, etc.)

8. Did you feel that your child was **disinterested** when given the opportunity to visit the classroom website?
   a. Yes
   b. No

   If yes, please explain. (Other interests, etc.)

9. When your child comes home from school, does he/she share some of the technology-related activities that we do in the classroom?
   a. Yes
   b. No

   If yes, please explain what you’ve heard about. (Example: SMART Board)

10. Thank you for completing this survey. I appreciate this very much, as it will be critical in the data collection and data analysis for my inquiry project. If you have any other questions, comments, or general feedback, please use the additional space on this page to address them.
Appendix L

Beginning Visitation Frequency

- Never (0 Times a Month)
- Rarely (1 Time a Month)
- Sometimes (2-3 Times a Month)
- Often (4-5 Times a Month)
- Very Often (At Least 1-2 Times a Week)
- No Response
Appendix M

Parent-Suggested Focus Areas

- Mathematics
- Reading
- Writing
- Science
- Foreign Language
- No Response
Appendix N

Total Number of Hits By Subject Area

![Bar Chart]

- Popular Books
- Geography
- Science
- Social Studies
- Language Arts
- Mathematics

Legend:
- Second Grade
- First Grade
Appendix O

Percentage of Students Visiting Website at Home
Grade 1

Percentage of Students Visiting Website at Home

Percentage of Students Visiting Website at Home
Second Grade
Appendix P

Website Distribution Among Subject Areas
First Grade

![Diagram showing the distribution of website visits among subject areas for First Grade. Mathematics has significantly more visits compared to Language Arts, Social Studies, and Science.]
Website Distribution Among Subject Areas
Second Grade
Appendix Q

Interview Questions

Student Name:__________________________

1. What activities do you do when you get home from school?

2. Did you appreciate when you were given time to go on the computer at school? Why or why not?

3. Do you ever go on the computer at home? If yes, what do you do?

4. What was your favorite webpage on the classroom website? Which game did you like/play the most?

5. What is your favorite subject in school?

6. Did you like the SMARTboard? Why or why not?

7. What other technology tools that we used in the classroom did you like? (Give student examples.)
Appendix R

Parent/Guardian Survey

Parent(s)/Guardian(s),

My inquiry project is coming to an end within the next few weeks. In order to complete my data collection, I would like some final parent/guardian feedback. Please take a few minutes to fill out this survey. Please return it to school in your child’s purple folder by Monday, April 6, 2009. Thank you for your cooperation! 😊

Sincerely,
Miss Evans and Miss Reifsnyder

1. When your child gets home from school each day, what types of activities does your child engage in? (Circle all that apply.) Please write the average number of hours your child spends doing each activity during the course of a week.
   a. TV (__________ hours)
   b. Computer (__________ hours)
   c. Video Games (__________ hours)
   d. Outside Play (__________ hours)
   e. Reading (__________ hours)
   f. Other ____________________________ (__________ hours)

2. Do you know how to navigate to Mrs. Titus'/Mrs. Barthmaier’s classroom website?
   a. Yes
   b. No
   c. We have a classroom website?

3. Since I have been updating the classroom website often, how often do you use Mrs. Titus'/Mrs. Barthmaier’s classroom website?
   a. Never (0 times a month)
   b. Rarely (1 time a month)
   c. Sometimes (2-3 times a month)
   d. Often (4-5 times a month)
   e. Very Often (at least 1-2 times a week)

4. Did you find the “What’s New in Room 249/250?” webpage informative?
   a. Yes
   b. No

5. Which webpage did you, as a parent/guardian, visit the most?

________________________________________

Why?
6. Which webpage did you find your child visiting the most?
   ________________________________________________

7. Did you feel that it was difficult to find time to let your child visit the classroom website after school?
   a. Yes
   b. No

   If yes, please explain. (Extracurricular activities, etc.)
   ________________________________________________

8. Did you feel that your child was disinterested when given the opportunity to visit the classroom website?
   a. Yes
   b. No

   If yes, please explain. (Other interests, etc.)
   ________________________________________________

9. When your child comes home from school, does he/she share some of the technology-related activities that we do in the classroom?
   a. Yes
   b. No

   If yes, please explain what you've heard about. (Example: SMART Board)
   ________________________________________________

10. Thank you for completing this survey. I appreciate this very much, as it will be critical in the data collection and data analysis for my inquiry project. If you have any other questions, comments, or general feedback, please use the additional space on this page to address them.
## Ending Visitation Frequency (Parent)

- Never (0 Times a Month)
- Rarely (1 Time a Month)
- Sometimes (2-3 Times a Month)
- Often (4-5 Times a Month)
- Very Often (At Least 1-2 Times a Week)
- No Response
Appendix T

Percentage of Students Visiting Website at Home
Grade 1

- Over 30% = Technology Used Prior Day
• Over 10 Percent = Technology Used Prior Day
Appendix V

Total Hits – Mathematics Webpage
First Grade

Total Hits – Pioneer Webpage
Second Grade
Appendix W

When you are on our classroom website, click on Pioneer Websites and then Pioneer Life.

1. Click on What trails did the pioneers travel? and look under Oregon Trail. Where did the Oregon Trail start? (What state?)

2. Click on How did they travel? How many oxen would they buy per wagon?

3. Click on Cooking on the Trail Name one type of food the pioneers cooked.

4. Click on Fire Cooking How many baskets of buffalo chips did it take to cook a meal?

5. Click on the Tools and Utensils to see real pictures. Name one tool.

6. Click on Pioneer Games, Toys, and Songs. List one game or song.
Appendix X

Total Hits – Pioneer Webpage
(2nd Grade)
Appendix Y

Beginning Visitation Frequency

- Never (0 Times a Month)
- Rarely (1 Time a Month)
- Sometimes (2-3 Times a Month)
- Often (4-5 Times a Month)
- Very Often (At Least 1-2 Times a Week)
- No Response

Ending Visitation Frequency (Parent)

- Never (0 Times a Month)
- Rarely (1 Time a Month)
- Sometimes (2-3 Times a Month)
- Often (4-5 Times a Month)
- Very Often (At Least 1-2 Times a Week)
- No Response
## Appendix I

### On-Off Task Observation

<table>
<thead>
<tr>
<th>Date: ____________________________</th>
<th>Time ___________________________</th>
<th>Technology: Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher: _________________________</td>
<td>Observer ________________________</td>
<td>Other: __________</td>
<td></td>
</tr>
<tr>
<td>Subject: _________________________</td>
<td>Location of Students ____________</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Student Initials**

| Time Interval | Activity | ZA | MB | BF | AG | CG | MG | DG | TH | JI | EJ | VK | RL | KL | RM | JN | JR | AR | CS | CY | BZ | Total |
|---------------|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-------|
|               |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |       |
|               |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |       |
|               |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |       |
|               |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |       |
|               |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |       |
|               |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |       |
|               |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |       |
|               |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |       |
|               |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |       |
|               |          |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |       |

**Off Task Behaviors:**

- **T** = Talking/Making Noises with Peers about Unrelated Material
- **L** = Looking Around the Room
- **P** = Playing with Objects Unrelated to Material
- **F** = Laying/Rolling Around on the Floor

**Totals:**

\[ T = \_\_\_\_\_ \]
\[ L = \_\_\_\_\_ \]
\[ P = \_\_\_\_\_ \]
\[ F = \_\_\_\_\_ \]