A QUALITATIVE RESEARCH ON THE INTEGRATION OF INDIVIDUAL iPADS FOR ALL STUDENTS IN A PUBLIC ELEMENTARY SCHOOL

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A thesis submitted in partial fulfillment of the requirements for a baccalaureate degree in Childhood and Early Adolescent Education with honors in Childhood and Early Adolescent Education

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Abstract

The basis of my inquiry into the implementation of iPads in an elementary general education classroom stems from my personal interest in promoting and utilizing technology in my future classrooms. This thesis focuses on understanding how the iPad is being used in a second grade classroom as well as measuring the teachers’, students’ and parents’ reactions to iPad distribution to each student. I conducted a qualitative research approach in a second grade classroom of 19 students in which I was student teaching, by both observing and applying the iPad into daily lessons, distributing surveys and giving verbal interviews. I present my findings around six themes: access to Internet and applications, use in the general education classroom, use in specials and outside classes, student responses to the iPad, parent responses, and teacher/administrative training with the iPads before/after student use. This study can be used as a reference for administrators and educators to better understand how iPads can be used in educational settings especially at the elementary level, as well as ways of upholding strong family outreach with new products.
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Introduction

The Changing Classroom: An Overview

As a future elementary school educator I have become aware of the drastic changes that are taking place in our country’s educational system. Our teachers and students are being pressured to teach faster, learn faster, utilize new teaching techniques, grasp completely new learning strategies, etc. The pressure of meeting state standardized test requirements and adapting to the new Common Core\(^1\) Standards is resulting in lost time in the general education classrooms. Teachers are expected to instruct all students and guide them to their highest potential but also have to adhere to teaching the necessary information for the state test that will happen tomorrow, or next week, or next month. It is problematic in today’s classroom for teachers to give individualized attention/instruction to students while also being expected to move at a consistent fast pace through the curriculum.

Times are changing and the curriculum is changing. The No Child Left Behind Act left both teachers and students feeling pressured to rush to perfection by maximizing scores on the state standardized tests, as defended by Deborah Meier, (Meier, 2004, p. vii). Although one of the goals for the NCLB Act was to ensure all students a fair and adequate education, the reality is that, “the tests are created in such a way as to be cheap and easy to administer” (Wilhelm, p. 15). The new Common Core Standards are now having a similar effect on the education system, with

\(^1\) High-quality academic national/state standards which many school districts refer to in their curriculum
teachers now focusing on “the way the common standards can pressure changes in the education landscape, and torque the tensions involved in a deep reworking of curriculum and instruction” (Gewertz, 2013, p. 1).

The change that I became most interested in is the growth of technology use in schools today. With more material to cover in modern day curriculums, less time in today’s classrooms for exclusive focus on academics and more students spending time with video and electronic media in their personal lives, incorporating technology into general education classrooms may be the key to helping students learn new information and strategies. The use of technology in today’s classroom is certainly on the upswing and, coupled with a higher level of student technical “savvy” than may have been true years ago, I shaped my research around questions such as:

- Can using technology encourage students to stay focused and on-task for longer periods of time?
- How can teachers use technology to help give more individualized attention to students in their classrooms?
- Is incorporating technology a key success strategy in the classroom of the 21st century?

These are all sub-questions for which I set out to find in answering my central research question:
How does supplying iPads to every student reflect and support the academic curriculum at ABC Kids Elementary School? For the purpose of this study I define ‘technology’ as the active use of an iPad in the classroom, elementary school classroom as the class of 19 second-graders in ABC Kids Elementary School in Maple Hall, Pennsylvania. ‘On-task’ is defined as the amount of time a student was able to remain focused through iPad use, ‘learning strategies’ as utilizing the iPads in various subjects and incorporating the new strategies we are teaching and ‘individualized attention’ as the ways in which an iPad could be used to individually monitor and/or gauge the students’ work and to give feedback to the student. During my time pre- and student teaching in Maple Hall, Pennsylvania, I was fortunate enough to be placed in an elementary school where the administration made the decision to distribute iPads to each student in the building for individual use. As a young person who grew up in a technology-centered school district and society myself, I was eager to begin my teaching experience at this placement while observing and participating in this cutting edge introduction of new technology to an elementary school.

Since Apple released the iPad in 2010 it has achieved worldwide eminence. Apple has hosted conferences, workshops and interviews to promote this new product and almost every major industry in the nation has come to utilize it in some form. Although Apple is promoting the use of the iPad in every industry, it has a large focus on its use in education. With my understanding of Apple’s belief that the iPad can change education and “replace paper textbooks with digital textbooks,” (Lorpresti, 2012, p. 6), I was excited to see how the school planned to

2 All of the names of the school district, town the school is located in, individual school, students, parents and teachers involved have all been given pseudonyms throughout this research paper.
implement the iPads into everyday lessons and how the teachers, students and parents would respond to the distributed individual iPads. Perhaps these observations could be extrapolated to other classrooms and other districts. Concrete data on technology use at the elementary school level could be useful for school districts around the country who might be wrestling with these very same issues.
Chapter 1

How Does Supplying iPads to Every Student Reflect and Support the Academic Curriculum in a Second Grade Classroom?

In this chapter, I will introduce the setting of my study and explain how I developed my research question, the key components of which have been defined in the previous section. There are a lot of factors that contributed to my decision about what I wanted to focus on for this thesis which are directly explained throughout this chapter. I organize this chapter in chronological order of the events that took place that led to my placement school making the decision to distribute individual iPads to all of their elementary students this year. Firstly, I describe the program that my school adopted and integrated, then I discuss how my central research question developed and became what it is now.

One-To-One

One of the popular practices in use today is called one-to-one computing. I heard about one-to-one programs after initially hearing about it and wanted to explore the outcomes, test scores and overall student success within these programs. This is when “each student receives a computer [or other technological device] for Internet access and digital learning” (Chandler & Tsukayama, 2014, para. 5). Chandler and Tsukayama go on to explain that this trend “took root with laptops in schools well over a decade ago, but it has gotten a huge boost in recent years with

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3 One-to-One educational programs throughout this thesis are referred to as one piece of technology to every one student in the classroom.
the advent of lower-cost tablet computers”, specifically, Apple’s iPads (Chandler & Tsukayama, 2014, para. 5).

The One-To-One (OTO) Institute’s mission is to ignite “21st century education through the implementation of one-to-one technology in K-12 education environments” (OTO Institute, 2015, homepage, footer). One-To-One Institute is located in Mason, Missouri and also offers services to other schools and districts to encourage their research-based method, and to share that “engaging in a 1:1 program is the community’s will to let go of outdated, ineffective practices to make way for the new” (OTO Institute, 2015, Developing a 1 to 1 Program section, para. 6.). Everyone in this institute shares the belief that for a successful educational future for our country we need to move away from sole emphasis on teacher-directed education to a more student-centered learning approach. An exceptional way to accomplish creating a student-centered learning approach, is to implement the one-to-one computing system. Students can then manage their own learning, explore what they find interesting, choose from millions of books online and read stories that come to life. The OTO Institute’s website boasts about the findings of a recent study that concluded, “students in 1:1 programs outperform across all education success measures” (OTO Institute, 2015, Why One to One section, para. 2.) than other students.

Central PA School District Adapts One-To-One: The Phenomenon

Maple Hall is a quiet rural town located in the exact center of Pennsylvania. The area is filled with open fields, farms, barns and farm animals throughout the district area. Maple Hall has a lot of family-owned stores and restaurants as opposed to big shopping malls/centers. The main attraction—and best-known event—in Maple Hall is the Big Fair, which is hosted once a
summer. The Big Fair has a few acres worth of camping grounds where nearly everyone in the community comes to camp out for a full week with their families and to enjoy the company of their neighbors. Just from this brief overview of the area, one can envision this as the tight-knit rural community that it indeed is.

ABC Kids Elementary School is one of two elementary schools in the Central PA School District (CPASD). The school educates five grades, ranging from kindergarten through fourth grade students. As previously stated, the Central PA School District chose to embark on the one-to-one program with their high school students by giving them all individual MacBook Air laptops to use in and out of the classroom; which has a very high cost each year. This school year, 2014-15, the school district decided to expand its program.

With the support of administrators and staff members, CPASD received funding for their technology expansion through the Pennsylvania Department of Education’s “Classroom For The Future Grant”. This grant allowed the school district to purchase laptop carts, cases for their devices and also to expand their one-to-one program down to the elementary levels. CPASD made the decision to provide all of their elementary school students with iPad Mini’s for in-school and academic use only. When I received my student-teaching placement in this district and learned that this would be a first-year experience with iPads for all elementary students, teachers and administrators in the building, I knew that I wanted to be involved, collect valuable opinions and gather observational records for this research project.

When Central PA School District made the decision to go digital in 2012, the school district administrators, staff and school board decided to adapt the one-to-one computer initiative with the goal of giving the district’s high school students what they believed would be the most advantageous to their academic careers. Central PA posted an online letter addressed to
Parents/Guardians to inform them of their new plans. The letter available on the school’s website introduces the “new generation of students [who] expect a learning environment that integrates today’s digital tools, accommodates a mobile lifestyle, adapts to individual learning styles, and encourages collaboration and teamwork” (CPASD, 2015). The letter goes on to explain all of the goals and expectations that the school district has for initiating the one-to-one program, as well as descriptions of the new devices and also replacement costs and fees.

After this program proved very successful with the high school students, Central PA School District decided to expand their initiative. Central PA then introduced their plans to families in the district to distribute iPads to each individual elementary student, grades Kindergarten-4th.

Since these students are much younger, parents had serious concerns about replacement fees or costs for any type of damage. The school district and the parents worked together to come to an agreement that each family felt completely comfortable with, and then they were able to go on with expanding the one-to-one program at the elementary level.

Since the beginning of the 2014-15 school year, Central PA School District kindergarteners through 4th graders all have an individual iPad. All of the students were supplied with a protective case around the device as well as nametags on each to avoid confusion. The iPads are kept in a certain spot in each classroom with every student also having a charger. Students have the opportunity to use their iPads numerous times throughout the day but they are only for educational use and must stay in the building at all times.

The one to one philosophy that the Central PA School District adopted can be summed up as a success, as high school students are given pieces of technology that they have used in all subject areas and it has proven, for the district, to enhance the students’ learning. I wanted to
know if Central PA would adopt the one to one philosophy—at the elementary level—in the same way that the One-To-One Institute does: moving away from teacher-directed learning and focusing on student-centered learning, and in terms of my research question: how does supplying iPads to every student reflect and support the academic curriculum at ABC Kids Elementary School?

Framing a Research Question: New Start for Central PA

Adapting the one-to-one program at an elementary level was a brand new experiment, a brand new idea and a brand new initiative being brought into this district with most teachers who were not at all familiar with iPads for solely academic purpose before this year. Although there are students in my placement school who do not use technology at all in their homes or use a minimal amount, the majority of the students were more advanced with iPads going into the school year than many teachers.

Since this was a new experience for students, teachers, parents and the administrators of the district, I set out to study how the iPad is being used in general education classrooms—as well as other classes such as reading support, guidance, etc.—and how the students, teachers and parents are all reacting to this new technology in the school. I want to uncover how to better utilize iPads in educational settings and all the ways to do so, as well as creating an efficient communicative relationship between teachers and parents in reference to bringing in new technology in the classrooms. I also considered the few obstacles that Central PA has faced with putting such a large focus on technology this year.
With our society becoming increasingly more technologically driven, I want to learn for my own future reference and discover for other educators what using iPads in schools could look like, what the pitfalls may be and how to maximize the technology and the learning potential for all. This is why I structured my qualitative research question on the integration of individual iPads for all students in a public elementary school.

In order to answer my research question, I embarked on an extensive exploration through Apple’s applications (apps) that were accessible to students, the times of day that students used the devices and what for, which classes I saw the iPads being used in, where the students could bring the iPads in the building, if they were replacing paperback books/paper and pencil worksheets, etc. Throughout my data gathering, I witnessed an elementary school that effectively modeled and encouraged the academic use of iPads for students (see Chapter 4: Data Analysis and Findings).

Even though obtaining only this basic information was my initial goal, my study did not end with just the answer to my original research initiative. Engaging with the project at the first level of definition—observational records—took me down a new path, a journey that I was not expecting academically. I was suddenly thrown into an action research project where I would be “data gathering and [conducting] analysis to [reach] final conclusions and actions arising out of th[is] research” (Whyte, 1991, p. 247). As opposed to a typical qualitative research study, as I uncovered key information for my research and for the district in the parental responses I obtained. Based on some strong themes, I experienced a kind of “a-ha moment” that benefitted both my research and the district, when I realized and brought to the district’s attention the need for enhanced communications with the students’ families. These themes became apparent in the
feedback I received from parents as part of my early distributed surveys and it became clear that a sub-question was formulating. What is the role of communication between families and school in supporting successful technology integration? Rather than just observing how iPads reflect the academic curriculum, I also became interested in documenting the importance of strong communication between families and the school district. The feedback I was gathering from this rural society that is rapidly incorporating technology into its education and community life, was that there is a very important role indeed.

**Sub-question: What is the role of communication between families and school in supporting successful technology integration?**

I thought in the beginning of the year that gauging the parents’ reactions to the iPads would help me to reflect on how the students were using/responding to them in the classroom. Although the data I gleaned from the surveys did serve that purpose for me, a strong theme in these surveys also exposed the parents’ feelings of being out of the loop about their child’s iPad use, why they were being used and how.

This was a revolution in my research project in that my work expanded from an exercise in theory and observation and became also about gathering live data that the district could use to adjust its approach in real time to iPad use in the classrooms.

Therefore, this study also seeks to investigate various ongoing techniques and strategies to keep students’ families involved with the integration of technology into an elementary school.
Defining Key Terms

Throughout this study, I use many terms that are crucial to understand throughout the entirety of this thesis. The terminology used throughout this document follows that given in footnotes, found at the bottom of each page with a specified key term.

Processing This Document

All of the participants in this exercise have been given pseudonyms as well as the school. Many of the technological terms mentioned in this thesis are endemic to Apple and its company’s products and will be explained throughout this thesis. An appendix is provided in the back of this document for defining some basic terms and finding out additional information.
Chapter 2

Methods

In October 2014, I began the process of obtaining permission from The Pennsylvania State University’s Institutional Review Board (IRB) of Human Resource Protections to conduct my qualitative research study. After they reviewed my proposal and approved the initiation of my study, I then contacted a school administrator from my student teaching district receive approval to conduct the study throughout the year at my student teaching school. Once my research proposals were cleared, I began prepping the materials needed for my study and assemble my methods in collecting data throughout the duration of the study (see Appendix N).

This following chapter is a “clear and precise description of how [my] experiment was done, and the rationale for the specific experimental procedures chosen” (Kallet, 2004, p. 1229). Specifically, I organize this chapter by reviewing the steps that I took in chronological order to begin my research: gaining permission from the Institutional Review Board, contacting a school administrator, obtaining voluntary participants, listing my materials and then describing the various ways that I would collect my data throughout the study.

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[4] Qualitative research can be defined as exploratory research. Throughout this study, I collected opinions, reactions, responses of various people involved in this technology initiative.
Basic Research Actions: Gaining Permission and Adhering to Professional Ethics

Institutional Review Board (IRB)

Soon after I developed my research question, I submitted my research proposal to The Pennsylvania State’s Institutional Review Board (IRB) of Human Resource Protections to be approved to begin my study. This section describes this process.

The IRB requires information to be submitted before beginning a research with human participants. I had to clearly state the objectives with my study, the desired outcome that I was searching for and my intention to protect all of the individuals involved. My listed objectives were to obtain included people’s opinions at all levels, including students, parents, teachers and possibly administrators, as well as observe and practice active research throughout my process. I hoped to uncover people’s true opinions about the distribution of these iPads, and turn any negative assumptions/opinions into positive ones, as well as record how the iPads support and reflect the academic curriculum.

Firstly, I had to participate in brief courses that required me to read and understand the laws in conducting research involving human participants and the ethical research process when involving children. I had to agree to protect all human participants by giving them, my school and its district all pseudonyms. I also agreed to make it clear to my student participants that everything in this study is voluntary. If the students felt uncomfortable, unenthused or uninterested at all they did not have to continue a conversation or any survey I gave them and it would not affect their grades or our relationship as teacher to student at all. Though not specifically necessary for IRB, I personally believe this was important to stress to the children, as their authority figure and mentor. As also the survey administrator, this kept me on my toes as
far as balancing the need to promote the project to keep the students’ interest without ever coercing or cajoling them to take part.

After stating all of my research intentions, goals, materials, human participants and my intent to keep them safe, as well as completing the required readings and educational courses for the IRB’s approval, I was cleared to begin my study. My next step was to receive permission from the district in question through a school administrator.

School Administrator

The process of obtaining permission from the IRB was rather arduous and so I was well aware that I had to be thorough in my presentation to the school administrator to gain the desired permission before I could commence on my iPad research plan. So, I chose to write up an outline and a summary of what I wanted to do: conduct both observational and action research, as well as dispersing surveys to a broad group of teachers, parents, students and potentially school administrators.

It seemed to me that taking an observational research approach to my question—how iPads in an elementary school can reflect and support the academic curriculum—would provide me with some useful anecdotal information but would not allow me to collect the amount of data that I was hoping to receive. I could not simply sit in the classroom and observe the students using their new iPads all year long, I wanted to at least attempt to gain some basic empirical data in order to bolster my conclusions.

I thought about what would be the best way to go about answering my central question and how to provide the most meaningful data. I realized the best way to obtain diverse opinions
would be to simply ask the people involved the question directly and capture some real results. I shared my intent with the school administrator to interview teachers’ reactions to the iPads being distributed to every student in the building for the first time, how he or she felt about teaching with the iPads and any drawbacks or obstacles that he or she had to face with the iPads. I also shared my request to interview students with verbal questioning and written surveys; asking them how they felt about the iPads, if they should use them more or less, what their favorite thing to do on the iPad is, and if the iPads are exciting/important enough to discuss at home with their families. Then, I stated my intent to send home surveys to parents and teachers, to gain a perspective for the motives and reactions of supplying these iPads.

I wanted to know how various constituents (teachers, students, parents) were reacting to the distribution of these iPads to each individual student, while also observing and practicing in the classroom how the devices can be used to reflect and enhance the academic curriculum. Though my research question is formally about practice, by doing this part of the exercise I was able to gain important information for myself and for the district about perceptions. Simply put, I discovered in microcosm what is perhaps self-evident but can get lost in any school initiative. If parents are not on board with a strategic idea or objective, it is less likely to succeed. Touching base periodically with parents to ensure awareness and understanding can definitely affect cooperation and therefore results.

I clearly stated and explained all of my research methods in a letter to my school principal. The principal read my proposal, and agreed with me that I could begin my research. (see Appendix A).
Participants

In this section, I will describe all of the participants who provided data during the duration of the study.

Students

19 second-grade students in ABC Kids Elementary School comprised the students in the classroom which I was placed in to student teach. Of these nineteen total students, there are eleven female students and eight male students. After sending home a letter to the parents and guardians of these students (see Appendix B and B.2). I received permission for fifteen of them to participate in my study. Out of these fifteen focal student participants, eleven of them were female students and four of them were male students. Although the parents did have the initial control over the decision for whether their children would participate or not, the students also were made aware that they did not need to participate if they did not want to. I spoke to all of the students, explained my project and told them that if they chose not to participate or answer a question, it would be of no effect to them and I would not be upset at all. My letter to the parents was broken down into three main categories that the parents/guardians could check off to approve in order for their child to participate. The three categories included photograph permission, interviewing permission and parental cooperation, which I explain in the following sub-sections.
Photograph Permission.

I explained in my letter that the student participants could be photographed and these pictures could be placed in my thesis/appendix. I also explained how no student information at all would be connected with these pictures. Each student would be given a pseudonym and no information at all about any student would be shared. I received permission from all fifteen or the approving parents/guardians that their child could be photographed for my thesis. These photographs were initially going to be integrated into this thesis, but were no longer of substantial use and effectiveness, so they were disposed of.

Interview Permission

In this letter, the parents were informed of my intent to interview the student participants in either a verbal or written format. I conducted both written surveys as well as semi-structured verbal interviews. These interviews/surveys would be protected the same way as the photographs would in this project; by giving pseudonyms for each child and never posting any information about any student. I received permission from fourteen of the fifteen student participants to be interviewed for my thesis research.

Parental Cooperation

Lastly, I asked the parents/guardians if they would like to be involved in my iPad research. I received approval from thirteen of the fifteen total parents/guardians that voluntarily agreed to respond to surveys I distributed to them.
Thirteen parents agreed to participate directly in my research. In the letter sent to them I explained my research topic and methods of collecting data (See Appendix B). I explained that I would also like to collect data from the parents as well. My letter states that I would send home surveys that would allow the parents to express their expectations and opinions as well as any concerns. I had now had a 68% response rate of the total number of parents in my classroom that would respond to the surveys that I sent home throughout the duration of my study.

Data Collection Tools

Here, I will describe in clear detail the data sources I utilized and analyzed in order to answer my research question. The instructional materials used can be separated into four main categories: iPads, Observations, Surveys, and Family Outreach.

iPads

Of course the iPads themselves were the main focus of my research to answer my question of how these technological devices can reflect and support the academic curriculum in an elementary school. The iPads were distributed to every elementary school student in my student teaching placement school for the first time this year as an experimental outreach of the district’s one-to-one program. In my classroom there are a total of twenty-one iPads at all times. Nineteen students whom all have their own iPads, as well as my mentor teacher and the full-time

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5 Instructional Materials: the materials that helped me analyze and collect my data.
classroom aid who was also given an iPad. The iPads have provided my mentor teacher and I with various forms of important data: how long students stay on certain tasks on the iPads, which students scored the highest/lowest in numerous activities, recording accuracy and fluency checks with each student and giving us more insight into how the students react and respond to these devices in different ways and within all subjects.

**Observations**

Observations served as an important component to my research. Throughout the entire process of my research I observed the use of the iPads everyday. My observations focused on gathering crucial data in the general education classroom, specials/outside classrooms and in all other parts of the building as well. I observed student interactions with the iPads, how each new app was presented by faculty members and recorded how often we used them. From the very beginning of my research, I knew that keeping a record of my observations throughout the school year of the use of the iPads as well as student/teacher reactions and responses to the devices would help me keep my data organized for analysis. So, Starting on the twenty-third of September 2014, I started to keep a “daily records” chart of the new apps that I saw being used in our school. I wrote down the app name, a picture of the app’s logo, the class the app was being taught in, how many students were there and a detailed description of what happened throughout that time (see Appendix C, pages 58-62).

On this chart, you will see many different apps. It holds information from the first time the app was introduced to the students to use and the teachers to teach with. I observed the reactions of the students, the instructions that were given, the teachers taking notes and how the
students were responding to each of these apps. I also kept a daily use chart, which shows each app that we used for an interactive lesson in the general education classroom; as well as the date that we used the app, the subject it was being used for and which teacher was giving the lesson (see Appendix D).

Between these two charts, you will read about a variety of apps and how they can be used. It will help to give you an idea of how often we use these apps as well as their increasing significance to our classroom environment and daily routines.

**Family Outreach**

Informal communications with families also served as a data source and did help me to develop and answer an important sub-question in my research. Throughout my research endeavor, it became clear that regular family outreach and upholding strong communications with students’ parents in relations to technology is “material” in that the absence or presence of this outreach makes a difference to the successful implementation of a study on the subject, let alone the success of the technology initiative itself.

**Applications**

In the beginning of my research, I did not expect to see hundreds of applications (apps)—a program created for something particular that can be downloaded on any Apple product—designed for specific educational use. These applications have enabled the students and the teachers to enhance both learning and teaching in classrooms today. Each application serves a different important purpose in our classroom, whether that be providing students with more
individualized instruction, picking apps that help students to stay on task for longer periods of time or to teach children how to create projects in various formats. Beginning the school year with teachers who were new to using iPads and students that were new to using these devices for solely educational purposes was challenging. Discovering new apps as well as getting to know them, designing lessons on them and then pushing them out to all of your students for their use is difficult if you do not have some sort of technological-savvy background or aptitude.

Luckily for my placement school, they have a wonderful support system in providing a technology coach to the teachers, who provides quality guidance and support, teachers who explored throughout Apple’s cyber-world discovering many new apps and describing how to use them, and the technology training that all of our district staff members had to go through before the beginning of the school year. All of the faculty members worked together to search for educational apps that have proven during this study to support and reflect the academic curriculum. Through my observations, I have recorded numerous apps that have been used in our general classroom, and other classes, to support the learning of our students and build off of the curriculum ABC Kids Elementary School utilizes.

### Surveys

Surveys functioned as a vital part of my research process. I distributed four different surveys throughout the year to measure both student’ and parents’ reactions/responses to these devices? I gave surveys to all thirteen parent participants twice, five student participants once and one teacher participant once. The student and teacher surveys were just distributed in class to
voluntary participants, while the parent surveys were sent home to willing participants in the students’ homework folders to be filled out and returned back to school. More details can be found in Chapter 4. This brief section will describe when and how I designed these surveys.

**Parent Surveys**

After sending home my initial explanatory letter about my research topic and methods, and receiving permission from the voluntary parent participants, I wanted to get started right away. I designed my first parent survey with more general questions due to my expectation that the answers would be more general than detailed, given that this was the beginning of the school year. On October 28, 2014 I sent home my first parent survey containing seven general questions (see appendix E) to gauge parents’ opinions and reactions to their children receiving a personal iPad in school.

I then asked for their parent signature, and thanked them for their voluntary participation. Due to the responses of this first survey and allotting time to pass throughout the school year, I sent home my second parent survey on January 14, 2015, which contained six questions (see Appendix F). These questions were more directive and asked for more parental detailed perspectives than the previous survey. At the end of this survey there was a place for the parent/guardian’s signature, and a quick thank you from me for their choosing to participate.

**Student Surveys**

I planned throughout the school year to give my students surveys for them to complete and give back to me. I wanted to gauge how much they liked/disliked using iPads
in school for strictly academic purposes and how they thought it was benefitting them, which is in reference to my central research question (see Appendix G).

I wanted to give my students time to adapt to using iPads in school and for strictly educational use, so I did not find it necessary to start interviewing/surveying my students during the first day of my research but I did monitor their experiences with the iPads by keeping daily records, photographs of them using it and noting the apps that we use the most (see Appendix C).

After allotting enough time for the students to familiarize themselves with the use and functions of the iPads, I chose to start giving surveys to my students during my first week back from winter break. I picked five students, three girls and two boys, to give survey questions to for the first time. I chose these students based on academic level: three students are at a higher-academic level while the other two are at a lower-academic level.

I made it clear to these student participants that they did not have to complete the survey if they did not want to. I also let them know that this was completely voluntary. They could only answer questions that they wanted to, and they did not have to write anything on the paper survey or say anything in response to my verbal questions that they did not want to. I explained how this is not a grade for them or how it will not affect any relationship they had with me. If they wanted to they could, if they did not want to they could just work on something else.

The students acknowledged that they understood so the five student participants completed the survey on January 7, 2015, which consisted of five questions (see Appendix G and Appendix G.2).
**Action Research**

As my research process continued to grow and develop, my observations branched out into more than what I initially expected. Feedback on the surveys strongly indicated a need for parents to be better included in the technological loop about the iPad itself and the communication loop about why and how the iPads could be a benefit to their child. My findings here demonstrated clearly that a gap between school goals and parental perceptions could affect the effective use of the technology for the students. This sparked a school-wide communication initiative involving an active research initiative that will be presented in Chapter 4. Thus, I frame my study as an Action Research project.

**Data Analysis**

When making the decision of how to finally analyze all of the observational, action and written data that I received I needed to determine what form of data analysis that I wanted to utilize. After researching various forms of data analysis that would best suit this thesis and answer my research question, I chose to organize it in a mix of *bivariate descriptive analysis* and *explanatory analysis*.

* **Bivariate Descriptive Analysis**

Bivariate descriptive analysis involves “either establishing similarities or differences between the characteristics of categories of objects, events or people, or describing patterns or connections between such characteristics” (Blaikie, 2003, p. 29). Therefore, I chose to take the
approach of establishing the similarities and differences in my students’, administrators’ and
students’ parent’s feelings and stance taken on the distribution of individual iPads to each
elementary school student.

*Explanatory Analysis*

The other form of data analysis that I chose to incorporate into this thesis is explanatory
analysis. Here, “explanations are supposed to tell us why certain things occur together or follow
one another in time” (Blaikie, 2003, p. 30), which directly relates to the disputed notion of
causation. I am able to argue in this chapter how the use of the iPad for elementary aged students
can directly support and reflect the academic curriculum and the reason behind many peoples’
support of these devices in educational settings. These two relations go hand in hand, and my
findings provide the clear connection between the two.

With these two forms of data analysis that I will be using I am able to appropriately focus
on the six categories that I have defined to answer my research question; as a refresher, these
categories are: access to Internet and applications, use in the general education classroom, use in
specials and outside classes, student responses to the iPad, parent responses, and
teacher/administrative training with the iPads before/after student use. These categories and my
findings within them help to answer my qualitative research question on the distribution of
individual iPads for all elementary students of: How does supplying iPads to every student
reflect and support the academic curriculum at ABC Kids Elementary School?
Six Focal Findings

To present my findings clearly, I have separated my findings chapter into six focal findings that were created through descriptive codes, representing each vital feature that was adopted during my research. Each of these areas represents what I focused on, what I used to collect my data in that area and the results that I found which clearly answer my central research question. These six main focal areas are listed as follows:

1. Access to Internet and Applications
   a. This area addresses the degree of connectivity available in a classroom or building and the various programs available to teachers and students that are digestible for classroom use.

2. Use in the General Education Classroom
   a. Here I discuss the various ways the iPad can be used by the student’s grade teacher for core curriculum and learning enhancement.

3. Use in Specials and Outside Classes
   a. Options for the use of technology outside of the core classroom in subjects such as art, guidance, technology itself, etc.

4. Student Responses to the iPads
   a. Here the student’s enthusiasm and abilities around technology are reviewed.

5. Parent Responses to the iPads: Upholding Strong Communication
   a. Strengthening the link to the home front was proven to be vital to a successful technological implementation, as will be discussed.

6. Teacher and Administrative Training with the iPads Before/After Student Distribution
a. The structure and sharing the teachers built into their teaching day to embed technology among themselves as well as with the students is explored here.
Chapter 3

Literature Review

In this chapter, I will describe how I came to make the decision about my final area of focus for my research. This chapter will also provide a thorough review of previous research on the topic of integrating iPads and other technological devices into elementary/higher-level educational classrooms. This chapter will provide essential background information for those who are new to the topic, and serve as a reminder of previous research for those who are familiar with this topic.

Why Did I Decide On This Research Question?

Initially, I had a completely different idea for my thesis research. I was not entirely sure what I wanted to focus on, so I listed a few ideas that I had… none of which were about integrating information technology in schools. It was not until I received my student teaching placement school, met with my mentor teacher and made the discovery that this would be the first year that all of the school’s elementary students were given iPads for the first time that I made my decision to research this topic. My qualitative research on the integration of individual iPads for all the students in a public elementary school study was then born, with the research question: how does supplying iPads to every student reflect and support the academic curriculum at ABC Kids Elementary School?
Questions Before Research

I had now made my decision on this thesis research and knew what I wanted to focus on, but had questions before I even started. Why did the school district make the decision to distribute iPads to all of the elementary students this year? What does a “One-To-One” school look like? What is the cost of these devices? Can elementary students handle having such an advanced technological device? These questions that I had before even beginning my research helped me to create my central research question and develop my sub-questions throughout my research process.

Is Apple Taking Over Education?

Although many school districts have yet to implement iPads into their daily classroom routines, Apple is fairly confident that their product is the future for education. While Apple continues to push iPads for educational use, many schools have already taken them up on the idea and incorporated them into their own classrooms. As of June 2012, there were “more than 1.5 million iPads [being] used specifically for education and more than 20,000 educational applications [that had] been created” (Alyahya & Gall, 2012, p. 1). This number is rapidly growing with more and more schools choosing to purchase iPads for their students and more applications have been created since as well. The numbers look great for Apple, and there are a plethora of studies that have been conducted that show the iPads’ effectiveness, such as: “students [who use] iPads score much higher on literacy tests than students that [do not] use the device” (Wainwright, 2015, para. 3) and how “students using iPads saw their math test scores increase 20% in one year compared to students using traditional textbooks” (Wainwright, 2015,
Although these results are promising, can the iPad actually take over the future of education?

In Apple’s eyes, it certainly can. During a presentation in New York’s Guggenheim Museum in January 2010, “Apple’s senior vice president for worldwide marketing, Philip W. Schiller, outlined the company’s ambition to replace paper textbooks with digital textbooks, which would be specifically designed to read on an iPad” (Lorpresti, 2012, p. 6). The Apple company website goes into great detail about the supposed benefits that this would hold for students. Being able to have an interactive textbook versus a paper textbook is the current argument for this transformation. I did not get the sense from my placement school district meetings or website information that they planned to get rid of paper textbooks, but their focus was on implementing the iPads into daily classroom lessons.

Apple explains that on the iPads students “can flip through a book by sliding their finger along thumbnail images of the pages. If they don’t know the definition of a word, one tap takes them to a glossary or dictionary. No longer limited to a single picture to illustrate the text, now students can flick through a gorgeous photo gallery or dive into an image with interactive captions. They can use a finger to rotate a 3D object to show a human brain from every angle, or have the answer spring to life in an interactive chapter review” (Lorpresti, 2012, p. 7). These arguments sound convincing but many people question if the iPad holds the same educational effectiveness as textbooks can and have for centuries in the past.

While this argument is still up for debate, many people have taken to the Internet to voice—or aggressively type—their opinions. I went on to read people’s arguments, opinions and Apple’s as well. An interesting article written by Shelly Blake-Plock is a comparison from his time as a student and now as a teacher. He writes about how his memories of having textbooks as
a student made him fall asleep “face down in [his] textbook” (Blake-Plock, 2015, para. 1). He continues his comparison from a teacher’s perspective, explaining that his current “students learn better when they take the active role in finding and choosing texts” (Blake-Plock, 2015, para. 8), which is more accessible when they have Internet access. There are many Internet posts about supporting paper textbooks and/or banning them, either written by scholarly authors, teachers, parents, people who just want to share their opinion or Apple representatives themselves. After reading some of this heated debate from various perspectives, I knew I wanted to specifically focus on how the iPads in my placement school reflected and supported the academic curriculum throughout the year. I wanted to test Apple’s theory that iPads are indeed the future of education.6

A strong argument supporting paper textbooks and against purchasing iPads for their school districts is the cost. Although “Apple intends to keep the price of any e-textbook to $15 or less, the base price of an iPad 2 is $499” (Lorpresti, 2012, p. 10) apiece. How Apple plans to convince school districts that are already struggling with a tight budget to purchase iPads for their schools is beyond most people’s—in some ways including mine—understanding, but they are determined to do so. Another representative for Apple stated during a conference that “the biggest hurdle [to implementing iPads in all U.S. classrooms] is making sure that there are enough ways to use it to make an investment worthwhile…just to use it as a textbook reader is a waste of its capabilities; that would be more expensive than it is worth” (Lorpresti, 2012, p. 10).

6 Note: This is Apple’s theory, not my own.
Most Districts’ Concern: How Much Will These iPads Cost?

In support of the aforementioned argument, I learned that one of the main questions that students/faculty/administrators who would be receiving iPads from the Central PA School District had would be about cost. Of course, for every school district the price of purchasing iPads will be different. These prices vary by what type of iPads you choose to purchase, how many gigabytes you choose, the Wi-Fi compatibility, how many students you have, how many faculty members in total and also factoring in buying iPad chargers, cases and insurance. Luckily (and likely not coincidentally) for school districts that are fussing over how much this may cost, Apple has made it extremely simple for administrators to calculate the total.

Apple has provided an “Institutional Purchasing” menu on their website that allows school districts to search the price for any kind of technological device from the company that they are interested in. Apple even thought of breaking down this pricing chart into the colors of the iPads and other devices that are available for purchase.

Even though this company has persuaded many people that the investment in iPads for educational use is well worth the cost, the cost still requires understanding the breakdowns and component charges. Each iPad Mini—which most schools choose to purchase for students—is listed at $239.00 (Apple, 2015, Education Institutions Price List section). The school district discount is that you can buy these same exact iPads in a 10-pack at the cost of $2,340.00 (Apple, 2015, Education Institutions Price List section). As an incentive for districts to buy in bulk, Apple’s generosity here may prove underwhelming.

After digging deeper into costs and how to receive discounts/aid in purchasing these devices for school districts, I learned that CPASD looked into government sources for funding. As stated earlier, CPASD received funding from the Pennsylvania Department of Education’s
“Classroom For The Future Grant,” granting the district enough money to purchase laptop carts, cases for their devices as well as the opportunity to expand their one-to-one program.

What Does A One-To-One School Look Like?

Going into this qualitative research study, I was aware what a one-to-one program was—one technological device to one student ratio—but I did not know quite what this program looked like in schools. I had no background knowledge on the benefits of one-to-one or any challenges these programs had. So, I began to look into various studies/scholarly works that would give me a deeper understanding of what my placement school district was experimenting with this year by distributing iPads to every elementary student and expanding its one-to-one program to the elementary level.

I looked into an article written by Mark Warschauer, *Going One-to-One*. A section of this article is listed as “The Whys” (Warschauer, 2006, p. 35). Here, Warschauer describes all of the benefits and ‘whys’ schools should choose to integrate the one-to-one program for their students. These reasons listed include: “21st century learning skills. Probably the single most important reason to start a one-to-one program is that laptops [and other technological devices] facilitate the kinds of learning, thinking, and analysis that today’s world demands. Greater engagement through multimedia. One teacher [he] interviewed said that students are ‘technology sponges,’ [he goes on to explain how these students’] out-of-school hours are filled with images, video, sound, music, and animation. More and better writing. Students in [one-to-one] schools write much more than those in traditional classrooms.” He also states how they take more pride in their writing, build a professional look for their writing skills and revise much easier than paper and
pencil writing. “Deeper Learning. Technology provides students with multiple angles to get at the same material, thus facilitating project-based work that enables them to dig further and deeper. [Lastly,] easier integration of technology into instruction. The teachers we interviewed and surveyed were nearly unanimous in their enthusiasm for the way laptops [and other technological devices] helped them naturally integrate technology into instruction” (Warschauer, 2006, p. 35).

After reading this about the “whys” and benefits of adapting a one-to-one program in schools and researching the One-to-One Institution (as previously mentioned), I could clearly understand why CPASD wanted to expand their program to the elementary level. This article helped me understand more holistically why CPASD wanted to distribute these iPads and how the overall goal of expanding this program is to address all aspects of how students learn.

Can Elementary Students Handle Having Such An Advanced Technological Device?

Since I had not ever seen a one-to-one program in person before beginning my student teaching experience, I was nervous about whether these iPads would be treated fairly and responsibly by the students of the entire school. I made the fair assumption that this had also been considered by the district’s administration before officially expanding their one-to-one program and wondered what they decided to risk damage to many of the devices possibly.

I dove into research-based studies of elementary schools that already inhabited the one-to-one approach into their schools, young students working with iPads and laptops as well as more cost research into purchasing insurance for damaged/broken technological devices. Out of
all this research that I did, I did not find any written pieces of evidence that young students could not handle technological devices.

One specific study explains how iPads are “alluring for kinesthetic learners” and have made “a natural fit for elementary students” (Bennett, 2011-12, p. 23). Bennett describes one student whom “every morning caused a commotion in the reading center before the instructional day started. She showed him how to download books he might like [on his iPad]. From then on, he read with focus and concentration for at least 20 minutes each morning—something she had yet to see him do in his previous six weeks in the classroom” (Bennett, 2011-12, p. 23).

Bennett’s article, as well as many others, assuaged my concerns about young children’s abilities to responsibly manage iPads and other technological devices. In reality, most of these children probably deal with more technological devices than some adults do throughout the day and are likely already proving themselves perfectly capable of handling them. As stated by the authors of “Cross Currents: Cultures, Communities, Technologies,” “today’s students—K through college—represent the first generations to grow up with this new technology [and] have spent their entire lives surrounded by and using…tools of the digital age” (Blair, Murphy & Almjeld, 2001, p. 45). Our students are ‘digital natives’—as these authors refer to them as—while most teachers who are not so familiar with technology are referred to as ‘digital immigrants’.

The teachers in my placement school introduced students to the iPads and also went over the rules with them at the very beginning of the year, such as: keeping them in the same place in the classroom at all times if they are not being used, do not bend or take the case off, how to properly carry the iPad through the hallways, etc. As of right now—in the late weeks of March—we have not had any iPad damages from any of the second grade students.
Literature Review: Effectiveness

All in all, the existing research on technology in elementary classrooms shows that there is still much to explore about the benefits and possibilities of adapting one-to-one programs and integrating technology into schools, but signs point to more positives than negatives. This research also shows Apple’s intention of continuing their expansion of technological devices into everyday classrooms to benefit student learning and best maximize their learning environment. From previously written and conducted research, it is clear that integrating technology into classrooms for students of all ages—and doing so effectively—can have some benefits for children, both in their immediate classroom experience and in the long run. The studies that I looked at in this literature review provided me with information that I could use to focus on in my own research as well as inspiring me to look deeper into diverse areas of information when researching or making any informed decision of consequence.

What New Do I Add To This Field

After answering my central research question and comparing my own findings to the other sources that I have read and referenced in this chapter, I introduce a whole new aspect to be aware of when incorporating a one-to-one program or technology initiative into a school: family inclusion. Family outreach developed itself as a significant part of my research process (see Chapter 4 - Parent Responses to the iPads: Upholding Strong Communications) that has not been studied in great detail before this research. It has been proven through test scores and student engagement in other studies, as well as presented as important through observational records and direct student opinions in my research, that students enjoy using these iPads in school and they
can reflect and support the academic curriculum; but upholding strong communications with families and parents outside of school has not been discussed in great enough detail. Apple believes that their technological devices are the future of education, but have they planned to support school districts and teachers in keeping parents involved with the students’ work now that there are less pencil/paper items going home? After realizing the lack of communication with parents about what the iPads were being used for in our school, we thought of many ways to introduce the iPads academic and educational value, which supports and reflects our school’s curriculum to them (see Chapter 4).
Chapter 4
Data Analysis and Findings

In this section, I will present my data analysis process and my findings. Here, you will find direct quotes from students and parents about their responses and reactions to the distribution of iPads this year. Exact references to my notes and observational data will also be present in this section. In order to analyze the data I am about to present, I focused my analyses of all of the data that I collected, then sorted them into what question I wanted them to answer. Next, I categorized all of this data into six different emergent themes that presented itself from the data. These categories were created and defined as crucial after I read my data, sorted it, categorized it and began to analyze it. Each section should represent all of my results throughout the process of answering my central research question: how does supplying iPads to every student reflect and support the academic curriculum at ABC Kids Elementary School? I will display my results within each theme that I developed, which presented itself a major topic throughout this school year in reference to the iPads and the technology initiative. Each of the following categories is a purposeful theme that repeatedly presented itself during my research and data collection processes.

Access to Internet and Applications

Many people in my placement school have noted a consistent obstacle to using the iPads this year were various internet problems. With all new pieces of technology, there are expected
glitches and small issues that are usually easy to overcome, but the Wi-Fi Internet has been a concern with these technological devices in the classrooms.

In my building, we have a teacher gathering at the end of each day. It is a brief time wherein all faculty members in the building gather—after the students leave—to discuss important issues, concerns and positives for that day. While there have been many positive stories about the use of the iPads and how wonderful they are, there have been even more concerns shared about them; and these iPad concerns are almost the same every day…the Wi-Fi kept dropping.

Our faculty and students have struggled to overcome the hurdle of dealing with Wi-Fi this year with every student and teacher trying to access the Internet at the same time through most points of the day. There are constantly students getting disconnected from the Internet, or apps dropping in the middle of an assignment because students lose Internet access.

An even bigger issue that has resulted from the Wi-Fi dropping is that students then have to disrupt the lesson to ask the teacher to fill in the Wi-Fi password. Of course, it is important that students do not know any of the passwords for the Internet or Apple ID codes—because we do not want students going on or downloading anything that is not directed by the teacher—so every time the Internet drops, there is a period of instructional time lost. No matter how big or small that chunk of time is, it is still taking away from other students learning.

This is an issue that has been problematic since the beginning of the school year in September, and has unfortunately not been fully resolved. The team of “tech experts” in my placement school has been working on it, and it has improved, but there are still glitches.

What I have concluded regarding this issue is that it is never going to be completely resolved, at least in the short term, because every piece of technology comes with running the
risk of losing Internet or not fully connecting to Wi-Fi. Also, with 225 students trying to log onto Wi-Fi at the same exact time along with other teachers/administrators, it is certainly going to cause some people to lose access to it at any given time.

Use in the General Education Classroom

Using active and observational data collecting techniques has been the most commonly utilized research technique during my research process in the general education classroom in which I have been teaching in: the second grade classroom at ABC Kids Elementary School. I have witnessed the evolution of the use of the iPads since the first week that the students were given them in September to their use now in early spring.

We have learned to love these technological devices in our classroom, and our use of the iPads has grown exponentially throughout the school year. We went from using the iPads at most once per day just as a reading tool, to using them at least two or three times a day for various projects, assignments and studying tools. Since September, my mentor teacher and I have learned of many new educational apps that have benefitted our students and classroom greatly. We have grown to understand how to utilize the iPads in our classroom to directly reflect the academic curriculum instead of just letting the students use their Epic apps to read on them.

By November, when my mentor teacher and I decided that we wanted to use the iPads more in the classroom, we introduced more apps to our students and would utilize these apps into more lessons that we taught throughout the day, but we were still not where we wanted to be. By January, my teacher and I decided to make it our “Classroom New Years Resolution” to use the iPads for an important lesson at least once a day starting in January, and we did. I have provided
my “Thesis iPad Daily Record Chart” (see Appendix D) that shows just a sample of the major projects we have done in our classroom with the iPads. This chart shows how we have used certain apps as test reviews, quizzes, extended assignments, presentations of research projects, spelling exercises and to use as assessments for us in various subjects.

Along with my mentor teacher’s and my own growing excitement for the more frequent use of the iPads in our general education classroom, the students also have developed a love for the iPads as well. Our students are always excited and eager to log onto their iPads to complete a lesson as proven in the many observational records that I took of various lessons. On September 23, 2014 I noted that “every student in the room is engaged and excited to see the next page [on Nearpod].” On February 26, 2015 I also recorded that “the kids LOVED this app, throughout the presentation they were engaged, giggling, participating what information we should share and were all enjoying watching the “how to” [example]” (Curran, Daily Records Chart, see Appendix C). I did not think it possible to hold a test review session or even an actual quiz and have a classroom full of 7-8 year olds thrilled to begin.

These iPads have not only changed the way that teachers can teach, but also the way that students can learn—through interactive projects on apps such as Google Earth, providing individualized spelling lists easily through the app Spelling City, or being able to assess students’ accuracy and fluency with reading while at home and without pulling the student out of instructional time with using the app Evernote (see Appendix C). Our iPad usage has allowed us to give more individualized instruction to students, without having to take time away from instructional time in the classroom to pull them aside from the whole-group activity. We have been able to plug in specialized spelling lists for certain students that we make based on misspelled words in their writing; we can assign readings and comprehension quizzes for
students based on their reading level and receive immediate feedback on the results, we have been able to make accommodations through quizzes or writing assignments on the iPads for students who need it as well as still having fun on the devices with everyone involved.

I have found that the growing use of these iPads in the general education classroom has proved to be beneficial for all participants involved—teachers, students and aids in the room. These devices have allowed us to provide more individualized instruction to students who need it as well as incorporating engaging and fun assignments for students that require them to still work just as hard as they would with pencil and paper assignments, as well as encourage them to produce their best work.

Kahoot

Here I will describe just one app that we use frequently in the classroom in precise and clear detail, to give an example of how the iPads reflect the academic curriculum in our class.

One of the most commonly utilized applications we use in our classroom is called Kahoot. Kahoot is an engaging, fun, interactive and easy way to assess your students. I know it to be frequently used throughout the building during lessons in the general classroom. I was introduced to this app through a teacher who sent out a school-wide email about its effectiveness. This teacher wrote about how Kahoot has become a commonly used app in her classroom and how it could benefit the rest of us as well.

The Kahoot website allows you to make an account where you can create as many interactive quizzes as you want, for free. I created my classroom account and made my first trial

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7 One of the numerous—but most frequently utilized—apps that we use in our classroom.
quiz. I found many beneficial qualities that this app has to offer, such as: the teacher’s device has control over moving from question to question so kids cannot jump ahead, the question and choices are only listed on the teacher’s projected device so the kids must pay attention to the teacher reading the question before picking their answer on the iPads, the students’ iPads only reflect color-coded choices for the answers so, again, they must pay close attention and take their time choosing answers, the students receive immediate feedback if they chose the correct or incorrect answer which helps to gives the teacher a chance to explain why the answer is correct, etc.

The first time that I chose to use the Kahoot app with my students, they were overjoyed. Every student was engaged—paying close attention, cheering on their classmates who answered correctly, delighted to see the green “correct” screen on their iPad windows and taking their time answering each question. This is how the app works: from my master device (laptop or teacher iPad), I can create a multiple-choice assessment with anywhere from two to six choices to pick from. I could also choose to incorporate pictures with my questions, videos, songs or pages from a book we have been working on. Once I create my quiz, I can share the game-pin with the students who all type it into their iPads. After the students are on my quiz, they enter their names and I can see what each student is answering throughout the entire quiz. At the end of the quiz, Kahoot gives you the option to download the results. The results download right into a Microsoft Excel file on my laptop (you can choose to send it to Google Docs or another format also) which list each student’s correct/incorrect answers and the percentage they earned on the quiz.

Through observing the students’ reactions to this app, it is clear that students can stay on task for a longer period of time when taking a quiz on Kahoot rather than with pen/pencil, according to their quiz scores rising in my record of student assessments. Since being introduced
to this app, I have been able to give quizzes in much shorter periods of time than before with students also scoring higher and focusing more on choosing their answer wisely, since they get direct and immediate feedback (see Appendix D for Kahoot use).

In summary, this is an excellent app to use as a pre-, formative or summative assessment task. Kahoot allows teachers to be in control of his or her students’ speed while taking the test to ensure each student is taking his or her time, and also gives immediate feedback to the students and results to the teachers. Since being introduced to this app in January, I have already used it for the following purposes: an antonym quiz, non-fiction text features review, ways to show numbers in different ways math review, synonyms summative assessment, getting to know Pennsylvania pre-assessment, Pennsylvania state symbols review, and a Pennsylvania test review. The different ways to use this app in the classroom to help support the academic curriculum in a fun and engaging way for students are endless. To see a list of other apps that we frequently use in our classroom, reference the Daily Records Chart (see Appendix D).

**Use in Specials and Outside Classes**

At the beginning of the school year, I did not think that the specials the students attend throughout the week would incorporate the iPads at all during their instructional time, but I was wrong. As part of a first year one-to-one school, I was very impressed by the commitment to incorporate these iPads by every teacher in the building, not just the general education teachers.

The specials that all of the students in this school attend are Art, Music, Guidance, Technology, Team Time and Physical Education. I was surprised to learn that three of these courses utilize the new technological devices given to the students nearly every day that the
students come to them. I have had the opportunity to sit in on a few Art, Technology and Guidance classes to observe these iPads being used and what they are being used for, and what I found amazed me.

Art class was the special that surprised me the most with incorporating the iPads. I have seen students bring their iPads to art class for a few different uses, but an aspect that I found especially interesting was their use of the QR codes hanging around the room. Students were allowed five minutes to walk around the classroom and observe the various pieces of artwork hanging on the walls. Students were instructed to pick their favorite artwork and scan the QR code next to it. They logged on their Inigma apps—which allows them to scan a bar code and takes them directly to a website—and be instantly directed to a list of needed materials. The students collected these materials and sit back down at their seats. Then, they hit the “next” button and it would bring them to a video of how to create the piece of artwork they chose step-by-step and with all of their collected materials.

Another special which heavily uses the iPads is Guidance. Our guidance counselor has found many beneficial ways to use the iPads throughout the year. One way that I found extremely beneficial for the students was the introduction of “Nearpod® Quizzes” for them as an activating strategy as soon as they walk in.

After the initial introduction of this activating strategy, students walked into Guidance class and know exactly what to do. They would unpack their things and then log into the Nearpod app to begin the quiz. The quiz would hold questions such as: how are you feeling today, why are you feeling this way, draw a picture of your emotion, etc. I found this to be an incredible opening exercise in that it opened up the students to begin communicating and

Another frequently used app in our classroom and other classes as well.
articulating. The guidance counselor then took the time to allow a few students to share their feelings and what made them feel this way. This built a strong system of communication and honesty within the entire second grade and allowed the guidance counselor to receive immediate feedback for how the students in the building were coping with issues in their lives. Our guidance counselor has also found numerous other ways to incorporate the iPads into her special time lessons.

The last special to incorporate the iPads heavily is Technology class. Our technology teacher takes this special time to introduce new apps to both teachers and students. She gives an explanation of the app, models how to use the app for all of the students and then shows the students an example. The students are then granted a 10-15 minute period to experiment with the new app and create their own short project on it. During this time, teachers can ask questions and get to know the apps themselves to decide if it is something that they want to incorporate into their general education classrooms. I have provided an “iPads Daily Records” document which shows all of the technology classes that I have attended, which new app was introduced and to how many students, along with how the students and teachers responded to the new app (see Appendix C).

The teachers in this building have been working hard and succeeding in using these iPads to reflect and support the academic curriculum in and out of the general education classrooms. Both grade teachers and special teachers have been working together to best utilize these devices for all students and to most benefit them throughout the school year. Without the wonderful cooperation of all participating teachers, the outcome of the distribution of these iPads to elementary students would be short of terrible but probably not successful. Their support and collaboration has helped to make this one-to-one project a major success in the building.
Student Responses to the iPads

As stated previously, I observed and recorded that the students in this building have a strong interest for the use of these iPads in school. Although the iPads are used directly to support and reflect the academic curriculum, and are not used for games or nonsense, the students absolutely adore them. Between the responses that I received from my student surveys and my observations of students using these iPads, I have not received any negative feedback or observational data from the students in this building.

My student surveys were given out after the end of our winter break to gauge student involvement and engagement with the iPads (see Appendix G and G.2). The only complaint that I received on these surveys was that we do not use them enough! Student responses to the question, “would you like to use the iPads more often in school or do you think that we use them too much?” were all very similar: “I theing we need to us them more in math” and “I would like to use them evry day”.

In this specific question on the surveys and on all of the other survey questions for my students, I received very similar answers. It seems that there is a very common interest and love for using the iPads in school, even for one student, Becky, who is not exposed to any technology at all at home. She writes on her survey that she “injoy[s] iPads because it is a time for [her] to use tec. [She] cant do it at home because [she] has no tec. [She] also like[s] it because it helps [her] lirn” (Becky).

When asked if the students enjoyed using their iPads in school, or if they had any dislikes about them, it seemed that most students expressed their excitement and love for using these devices for strictly academic use: “I love using my iPad in school! What I like about it is that we an go on fun apps” (Katie). Each student wrote about a different app or something slightly
different from each other. Melissa expressed that she “like[s] to listen to music on my iPAd. I also like to take pictures on my iPad. What I dislike about it is that I can’t use youtube.” Eric, discussed how he “like[s] to play Spelling City.” (Eric), while Donald “love[s] playing on the iPad a lot” (Donald).

The comments of these students all responding with different answers did not surprise me, but I was shocked to read that every student also responded differently when they were asked which app was their favorite, and if there were any apps they did not like. Although I did not expect all of these students to discuss different apps for each of their favorites, I did predict that none of the students would discuss an app that they do not like, which is the correct responses I received. “My favrit app is Epic. Because you lisenten to storys.” (Katie). Melissa believes that her “favorite app that I have on my iPad is called Chatterpix. I do not have an app that I do not like” (Melissa). While most students just wrote down one example, Becky wrote four of her favorites: “My three favorits are: 1. Epic 2. Nearpod 3. Spelling City 4. Splash Math” (Becky). Eric shared his excitement for all of the educational apps we use on our iPads: “I lik all of the apps” (Eric)! Donald reflected on an app that we had recently introduced to the class during the time of this survey: “Google Earth A lote” (Donald). These students all expressed their interest in using the iPads for educational use, even while solely reflecting and supporting the academic curriculum rather than just playing games.

The next question on this survey was one that I was very intrigued in reading and analyzing the responses to, since each student uses technology in varying levels in their households. When asked if these students would like to use the iPads more often in school or if they think we use them too much, these are the responses I received: “I think we use them just a nuff” (Becky). “I would like to use them evry day” (Eric). “I theing we need to us them more in
math” (Donald). I received no negative feedback from the students about the amount that we use these devices, besides that we should use them more often. These responses reflect the students’ constant interest and engagement with the iPads.

Lastly, I wanted to ask the students about what their parents think about the iPads. It was important data to collect whether parents are interested and asking their children questions or whether they could care less that this school was applying a technology initiative. The students were asked if they talk to their parents about using the iPads in school and if their parents are interested in what the iPads are used for… I received mixed answers: “yes! They ask me about iPads a lot” (Becky). “Yes” (Eric)! “We don’t rily d and took [talk] about the iPads” (Donald). These responses led me to think that the students do not tell their parents much about the iPads, although they constantly talk about them in school.

From this question and the brief data, I began to get a feeling that not all the students were talking to their parents at home. This sparked my interest in contacting the parents again. I wanted to answer my sub-question of whether the parents were aware of the educational value and what their students were using these iPads for in school or not.

I have also witnessed another aspect of evidence in student iPad interest in addition to observing actual use. I have had numerous conversations with the children about the iPads as well where the students are not shy about expressing their enthusiasm. It is a constant request that we review for our tests/quizzes on our Kahoot app or that we sign into SplashMath to review the current math material we are working on. Students are always eager to write stories and then transfer them into our Pages app so it can be neatly printed and presented in our classroom/in the hall.
It is evident that there is a direct correlation in second grade students’ engagement in activities and the involvement of the iPads. We have even witnessed some students scoring higher on test/quiz reviews when they are performed on the iPads than when they are written assessments. Although I thought the data sample was too small to formally analyze this aspect of the data numerically or qualitatively, I did notice this correlation as well and it is worth mentioning.

**Parent Responses to the iPads: Upholding Strong Communication**

As mentioned above, I issued surveys to my students’ parents who volunteered to be part of this thesis research. The responses to my first parent survey, which was issued on October 28, 2014, were mostly general responses since it was towards the beginning of the school year. Parents stated that they were not sure of the role the iPad played in their child’s education but they hoped that it would be beneficial.

**Specific Responses to Survey #1**

On this first survey sent to the parents, my questions were very general and non-descriptive, since it was the beginning of the year and I figured that most parents were not fully aware of what these iPads were being used for yet in school. When asked how these technological devices were being used for in school to teach the academic curriculum to their child, I received vague answers that just seemed like assumptions or guesses: “I’m not completely clear on that” (Becky’s Mom). “Hopefully it will give them opportunities beyond the classroom” (Eric’s Mom). “educational games” (parent #1). I was able to assume that the
students were not certain on the academic goals for these iPads were quite yet, but it was early in
the school year so I assumed I would receive similar responses to this question.

My next question was aimed to gauge opinions about the students being distributed these
iPads for the first year. I asked if they liked the idea of distributing these iPads to each student, as
well as to support why or why not. I received extremely varied answers: “I’m right in the middle.
I think they should be controlled like T.V. watching; and as a physical educator kid’s posture is
usually horrible when using electronic devices” (parent #1). “I am not crazy about the iPads
because I feel like technology is reconstructing the learning experience, making it less
interpersonal between teachers and students. Kids spend the day at school staring at screens, and
then go home and stare at more screens” (parent #2). “I don’t really feel strongly one way or the
other” (Katie’s Mom). “I like it. We are technologically behind the eight ball in our home. This
is good exposure for Becky” (Becky’s Mom). Again, since this data was being collected at the
beginning of the school year, I was eager to compare parents’ opinions later on when they knew
more about the devices.

These were only a select few of the responses from parents and just two of the seven total
questions on the first survey sent home, to see the entire survey and all of the parents’ responses
see Appendix I, pages 74-89. The parents did not seem concerned about their lack of knowledge
for how exactly these iPads would be used at this point, but since there was a common response
that they were not completely sure what it was being used for, I chose to develop a second parent
survey. I sent it out after allowing some time to pass by on January 14, 2015.
Specific Responses to Survey #2

As opposed to survey #1, the responses to this survey were anything but “general,” they were direct and informative. At this point in the school year, the parents responded that they still had no idea of the purpose of these iPads and that they were starting to hear from their child(ren) that all he or she did on the devices was play games and take pictures.

When asked if the parents, at this point in January, had a better understanding of what their child(ren) were using the iPads for in the general classroom, I received a universal answer of: no. Although the level of this unanimous ‘no’ varied from completely disregard of anything that the students were doing on these devices that held educational value to having a slight idea of what could be happening, the message behind their answers were loud and clear. Some of the parents’ responses were as follows: “No. We have a vague understanding. Becky tells us a lot, but we have a lot of questions” (Becky’s Mom)! “not necessarily. We hear about games, taking pictures” (parent #3). “Not really” (parent #4). “Moderate. I would be interested to know how many minutes/hours per day is spent on them. Does it replace paper and is easier to track their progress” (parent #1)? “I only know what Katie tells me at home and mostly I hear about how they are used during inside DPA [recess] time” (Katie’s Mom). These are not the responses that I was expecting, but they were important opinions to consider and analyze for this project.

A question at the end of this survey asked the parents if they wanted to be more informed about the technology initiative. When asked this, and for parents to make any suggestions (like newsletters, pamphlets, etc.) I received all very similar answers: more communication would be nice. The answers to this question were all solely reflecting a need for better understanding/communication: “Any of these would be an improvement! We have no way of knowing what she’s ‘doing’ all day. Is she learning or playing games all day? Is she challenged
or skimming by with apps/iPads? Is she learning to spell or is the iPad correcting her errors for her? We would like to know what skills (& subjects) she is being ‘taught’ by the use of the iPads. At this point, we do not feel good about them because it seems she is on them more than she is not, & we see no benefits. (There may be benefits, but we have no way to know 1 way or the other)” (Becky’s Parents). “Sending a newsletter would be nice” (parent #4). “We would appreciate a newsletter update” (parent #1). “I think a newsletter about the different programs the kids use would be great” (Katie’s Mom)! Not one parent that responded to this question stated that they felt fine about it and did not want any extra information at all. All of the parents sought for more knowledge as to what their child(ren) were doing all day on these devices, because they were not hearing the academic value they hold when communicating at home with their kid(s).

To see the rest of the parent responses to all of the questions on this survey, go to Appendix J, pages 90-102.

Action Research

Clearly, we were not communicating to the parents of our students how these technological devices were truly reflecting and supporting our academic curriculum, and how we were proving this to be true in our classroom.

My teacher and I decided that our communication to our students’ parents had to be much more frequent and informative than what we were currently providing. We chose to host a “technology workshop,” where we would invite both students and parents to attend so the students had a chance to share their work on the iPads as well as my teacher and I having our
chance to present the ways that we were incorporating these iPads for strict academic purposes (see iPad Flyer at Appendix K. See Newspaper Ad for our Workshop at Appendix L).

After our hour-long workshop presentation, we asked the parents to use the iPads themselves and fill out a brief questionnaire on their reactions to the workshop. We asked the parents to rate this workshop’s information on a scale of 1-5, with all responses being either 4 or 5’s, and only one 3. We asked ‘what did you learn’? Parents wrote about various things they learned on the iPads. Some of my favorite responses were, “the classroom is far beyond chalk and textbooks of my day. I’m old!!,” as well as “I had no idea that this was available to the students. I learned what games they are using to reinforce what they’ve learned. I really like the variation to the classic power point.” Our final question for the parents was “what are you proud of that your child has shared with you?” Some of the responses we received were, “proud of how much he has learned and the great things the school is using to help them learn and develop,” and “I am proud of her knowledge and ability using the iPad. I am proud of her reading, spelling, and math work on iPad.” See all of these responses on our questionnaire page at Appendix M.

After this workshop, we received much better feedback from our students’ parents about how we are using the iPads in school as well as additional emails we received thanking us for our dedication in upholding strong communication between families and the classroom. I found that it is crucial when adapting a one-to-one program in your school that parents need to stay in the loop of their child’s learning. With less paperwork going home, and more assignments/work being completed on the iPad, parents will want to be involved in what their child is learning about in school.
Teacher and Administrative Training With the iPads Before/After Student Distribution

Going into this school year, I was informed that the teachers and administrators of the Central PA School District had to take ‘iPad and Apple Training’ before establishing their one-to-one program for the students. The teachers got to know the iPads and a few of the introductory apps that all teachers would utilize in the beginning of the year, such as the popular reading app, Epic. At this point, the teachers were introduced to some of the wonderful components and ways to utilize iPads for academic benefits but they were not fully equipped with the knowledge that they needed to truly incorporate these devices for academic curricular support.

Throughout this year, I have seen this change dramatically. The CPASD faculty and staff have been working hard to find more and more ways to directly use these devices to support and reflect their academic curriculum. Whether that be through the various emails I have received this year from excited teachers sharing apps with others that they found to be very useful or from our technology teacher who has explored the web and Apple’s products to find the best apps that our students can use.

In addition to teachers and faculty doing their own personal research on apps to incorporate into their classrooms, the administration at CPASD has also incorporated their fair share of Apple/iPad Training for teachers who are interested in attending. On February 10, 2015 we had a faculty meeting to explore two more beneficial apps that directly reflect and support our academic curriculum, iTunes U and iBooks. We worked together to explore these apps and see how they could be used in our classroom.

At this meeting, we also learned how technologically advanced this district is compared to other neighboring districts. Some of our district’s administrators stated that they are interested in applying for our elementary school to be an “Apple Distinguished School,” which means that
our faculty/staff creates assignments, projects and lessons with the iPads instead of just downloading apps and telling students to go on them and read.

Being recognized as an Apple Distinguished School would allow our teachers to build a much larger network for themselves and connect with other teachers across the state, if not the entire country. The CPASD administrators believe in our teachers and faculty members and think that we can be awarded this prestige status because of their hard work and collaboration in building a strong foundation of iPad use in our building to reflect and support our school’s academic curriculum.
Chapter 5
Conclusions and Recommendations

How does supplying iPads to every student reflect and support the academic curriculum at ABC Kids Elementary School?

I have found that the answer to my qualitative research question is simple; it is absolutely undeniable that supplying iPads to every student and adapting a one-to-one program reflects and supports the academic curriculum in an elementary school. Through my research, I have found that there is a plethora of ways that the iPads can be used to achieve this goal, and that the teachers in my school are working hard to incorporate all of the ways they can in their classrooms.

Through the use of the wide variety of educational applications that Apple has to offer, and the way that teachers have been adapting these applications to reflect their academic curriculum, there are many more ways yet to be imagined that students can use these devices for academic use.

My findings have provided evidence that we can use the iPads for whole-group or individualized instruction, all forms of assessment, assistance with research projects/other assignments, reading and spelling development, writing and typing enhancement as well as practicing verbal and presentation skills. These iPads have granted both teachers and students the opportunity to expand the academic curriculum in a way that was unexpected. They have enhanced student engagement while also providing more easily accessible ways to assess
students on various aspects of their academic development: reading fluency/accuracy, spelling, test/quiz reviews, current level of understanding of various topics, etc.

The answer to my qualitative research question – how do these iPads reflect and support the academic curriculum in a second grade classroom – is—if conducted with knowledgeable and willing educators to work with these devices—in endlessly enriching and engaging ways for students, parents, teachers and society.

**Recommendations**

**Universities**

My first recommendation in regards to my findings is to teacher educators, universities and professors. More research is needed into incorporating one-to-one programs and how to appropriately and effectively uphold strong communications with families and parents involved with the district. Information needs to be presented as to what options already exist to uphold strong communication with families—does Apple provide anything? Do other companies? Do school districts have curriculums in place for this? —How students can connect with parents via technological device, how parents can still receive their child(ren)’s work and monitor their progress as well as presenting clear data as to how students who have no technology at home and/or have parents whom utilize technology to the minimal extent can explain the educational value of the iPads to their parents clearly.
**Policy-Makers**

My next recommendation is presented for school districts and school administrators who have the ability to change school district policy and curriculum instruction. I recommend to school districts that choose to adapt a one-to-one technological program consider family outreach as well as providing extensive teacher technological training before initiating this program. It is crucial that strong communications between our students’ families and our school are upheld as well as the faculty having full technological awareness/willingness to participate and work with this program.

Additionally, it should be noted that the issue surrounding funding and cost is always something to consider when incorporating a technology initiative—but there are solutions to most of these issues. There are grants and other sources of funding that district’s can apply for so they can begin a one-to-one initiative, or any other technology initiative. Although I personally did not research into deep detail about these funding programs for districts of children with low financial means, I did come across various funding sources that can be applied for.

**Schools**

I highly recommend that teachers and principals be prepared to participate in a digital technology initiative before it actually begins. Both the principal of the building and the faculty working within it needs to be aware of the possibilities of the devices being incorporated and comfortable with the new technology in order for this to work effectively. If there is no kind of staff technology training before a new technological initiative is brought into a school, the effectiveness of this program will immediately lack. Provide technology training sessions that
are mandatory for all faculty members in your building that explain the basics of the device—how to use it, certain settings, etc.—as well as ideas of how to incorporate it into classrooms—different apps, cross-curricular uses, etc.

**Teachers**

If your district has decided to develop a technology initiative into your school, it is vital that you are willing to try it. Understandably, technology does not suit everyone’s educational philosophy, but every educator must be willing to get to know it if it is being incorporated into your curriculum. It is likely that the students entering your classroom will already have some kind of background knowledge with the devices being brought into the school, so you will have to be willing to work with them to keep student interest in using them for educational value.

**Parents**

Lastly, parents, if you have any kind of concerns or questions about the new technological initiative being introduced into your child(ren)’s school, you can feel open enough to present these concerns right away. Teachers and administrators want to know when there is a lack of communication between the students’ families and the school, and they will work to fix it if you tell them. By waiting until someone asks about your comfort with the technological initiative taking place, you are just delaying information to yourself. Despite if there is fantastic community connectedness in your district or a major lack thereof, parents should feel comfortable with knowing the education that their child(ren) are receiving.
A Note To All One-To-One Schools

Keep your students’ families involved. Continue to practice family outreach and uphold strong communications with them. Whether your actions to do this are to host a technology workshop and let the parents actually see student work on the iPads, to send home newsletters with information about how you use the technological devices or to email/print out student projects on these pieces of technology for parents to see. Most parents want to be involved in their child’s education, and we cannot let our technology expansion take that away from them or we will take away more than we gain.

This project’s research gives evidence to districts across the country that incorporating technology in the classroom adds to the student learning experience and to his or her knowledge base and engagement with learning. The students’ obvious enjoyment and engagement with the material through their iPads, their enhanced involvement with test preparation and execution and their improved ability to experience special topics such as art and guidance all speak to the benefits of utilizing technology in elementary school. A point also uncovered was that, contrary to what some may presuppose, the engagement between the teacher and the students is actually enhanced through technology, not diminished. The ability to individually tailor assignments in spelling and reading comprehension in classroom real time through technology is a boon to any teacher and connects that teacher to the individual student’s learning in ways that conventional methods simply cannot achieve. The results documented in this project also reveal the importance of not just practice but perceptions. When any initiative is undertaken, in this case incorporating technology in a school district’s classrooms, buy-in from all participants (administrators, teachers, students and parents) is necessary for the best outcome. My hope is that
other districts in the United States can reference this research to bolster their case for incorporating technology in the classroom. When executed properly, students are engaged, curriculums are enhanced, parents and teachers are excited and administrators are satisfied. In conclusion, it is my hope that this study, however small, helps school districts develop a plan to effectively incorporate a technology initiative into their schools.
Appendix A

Approval Form From School Administrator

October 20, 2014

Principal [Redacted]

In addition to my student teaching experience in Centre Hall-Potter Elementary this year, I hope to expand my overall experience by writing my honors thesis about this school. I am a scholar in the Schreyer Honors College at Penn State and am required to complete an honors thesis before the end of this school year. I was inspired to focus my thesis on the distribution of iPads to every student in Centre Hall-Potter Elementary. I have developed my thesis topic on the integration of information technology into elementary school classrooms, with the focus being on the students of [Redacted] Elementary School all being given iPads this year for use in their classrooms. It will be a qualitative research study based on my observations of all the students in [Redacted] second grade class this year. I hope, with your permission, to perform this research study and provide pictures of the iPads, applications, lesson plans and the student's use of the iPad throughout the year. The student’s parents will be given permission slips before any pictures are taken. The pictures of any student will never be attached with the child’s name and/or personal information about the child.

I plan to send out surveys to the student’s parents in Mr. Smith’s class about their feelings and expectations for their child(ren) being given iPads in school. Additionally, I will be interviewing the second grade teachers and select students throughout the year to ask them how the iPads are reflecting the academic curriculum and if they enjoy having them in the school setting.

Again, I will never attach a student’s name with a photograph, interview and/or anything else about the student. Also, I will send home permission forms to the parents before I interview/take photographs of any student.

My honors thesis will be published on the Schreyer Honors College website at the end of the year and I am more than willing to share it with you and/or any other educator/administrator involved with the district that would like to know more about my study.

APPROVAL OF PRINCIPAL DANIELLE YODER FOR JOANNA CURRAN TO COMPLETE THIS HONORS THESIS RESEARCH AT CENTRE HALL-POTTER ELEMENTARY SCHOOL:

Research Investigator’s Signature: [Signature]

Principal Signature: [Signature]

Date: 10/2/14
Appendix B

Front of Parent Approval Form

October 20, 2014

Dear Parents and Guardians,

Hello again! As mentioned in the initial letter I sent home in September, I am beginning to conduct my honors thesis research for the Schreyer Honors College at Penn State. My research will be on the distribution of iPads to every student in [Redacted] Elementary School this school year, with the focus being on the second grade students in your child’s and [Redacted]’s class.

Since I am in the classroom every Tuesday and Thursday this fall semester—and will be everyday in the Spring Semester—I will be able to observe how these students respond, react to and are engaged with their iPads in an academic setting. My hope for my thesis is to measure the way the iPads can be and are used to reflect and support the academic curriculum.

In addition to keeping records of my observations, I will be taking photographs of the iPads, applications used and students using them. I will also be holding interviews with the students in this class to get a better understanding of their opinions and reactions to having iPads in school. The pictures and/or interviews with any student will never be attached with the child’s name or confidential/personal information. Each child will receive a pseudonym so no information about them is released or can be connected to them. My honors thesis will be published on the Schreyer Honors College website at the end of the year, and I will be more than happy to share it with any of you if you are interested as well.

In addition to your child’s participation, I would be very appreciative if you would participate as well. If you are interested, I will send home a few surveys throughout this school year for you to fill out to express your expectations, opinions and/or concerns about your child having an iPad this school year. The same precautions for protecting your child’s information will be taken for you; so no names/personal information will be attached to any survey you choose to fill out.

I thank you for your consideration in granting permission for your child and yourself to participate in my honors thesis research this school year.

If you have any questions or would like to contact me for any reason, please feel free to email me at [Redacted] and I will respond promptly. Thank you.

Sincerely,

Joanna Curran

Please complete the form on the back and return it to your child’s classroom teacher.
Appendix B.2

Back of Parent Approval Form

Student Name: __________________________________________

Parent Name: __________________________________________

Parent Signature: _______________________________________

VIDEO PERMISSION

_____ My child has permission to appear in Joanna Curran’s honors thesis.

_____ I prefer that my child NOT be included in Joanna Curran’s honors thesis.

INTERVIEW PERMISSION

_____ My child has permission to be interviewed in Joanna Curran’s honors thesis.

_____ I prefer that my child NOT be interviewed for Joanna Curran’s honors thesis.

SURVEY QUESTIONS

_____ I would like to participate and fill out surveys for Joanna Curran’s honors thesis.

_____ I prefer that I do NOT receive any surveys for Joanna Curran’s honors thesis.
Appendix C
Daily Records Chart

September 23, 2014
Guidance Lesson
“Let’s Learn Nearpod”

*27 students
- The app logo looks like this:
  - Belly button = home button
  - “Monitor classroom activity and easily control students’ devices. Get immediate feedback and track your class’s progress with detailed reports.”
- Skip Tour ➔ students respond to the ipads, some have trouble keeping focus and not hitting buttons
  - “If your screen says ‘join a session’ give me a thumbs up” now if you see that box there are five letters to type into the box, PSQEC
  - No students had problems with the home button or scrolling over to the next page to find the app signal
- However, some students did have trouble finding where to look on the screen to follow the directions once in the app, their classmates who did know were excited to help them
  - Lots of direction, “if your screen looks like this, then……” “your screen should look like this……”
    - “hit this button right here……”
  - “if your ipad is fully downloaded and ready to go, put your hands up”
  - every student in the room is engaged, and excited to see the next page
- Teachers screen is hooked up to all of the student’s ipads, when she scrolls her screen over, their screen also flips
  - Instructions to type in their own name, no student had trouble
  - Have to instruct students to sit on their hands so no one can touch their iPads
  - Quizzes, writing activities, drawing features, etc.
  - Create your own lessons, engage students in interactive lessons
  - Worked on emotions and drawings, “do you feel angry/sad/happy?” “how is she feeling”

“answering quiz questions”

September 30, 2014
Art Lesson
“Scanning Bar Codes”

*28 students
- Students began this lesson last week, so they already knew how to start
- i-nigma app to scan bar codes
- Students can open up the app, walk around and scan the barcodes next to various pieces of art – after scanning the app it directs you to a link on a website – after opening up the link, it leads the students to a video that teaches them how to draw the drawing they scanned step by step – it also tells them what art supplies they need to draw and color
- AWESOME.
-students are all very involved and engaged, choosing different art pieces or continuing the ones they started last week
-Students are moving around the room and even choosing to work independently rather than with partners, so they can finish their art pieces
-Each student only got one lesson on the app, and they all remembered how to work it perfectly and were anxious to get started

October 7, 2014
Tech Time -> Group A
“Shadow Puppets”

*27 students
-Explains don’t allow or allow push notifications → don’t
-Explains access to photos → allow
-Flickr Creative Commons, search for animal (lion), comes up with numerous pictures of lions, THEN choose only four by touching them, then hit next
-asks for permission to access microphone → say OK
-Then add the title by clicking the big T, and fill in “Lions by _______”
-Then start to record, hit the start button and read the title… then pause
-Add voice overs to every slide
-Have options to email the video, copy the link, upload it places, etc.
-Runs through the examples very clearly by taking lots of pauses, having students repeat what she’s saying, etc.
-Children pick it up extremely quickly
+were engaged by the app, able to record their own videos
+many made more than one because they were having so much fun
+G.L. and C.W. worked very hard
+G.L. made two, C.W. worked with a partner because the other iPod didn’t work and they made one video together
+Students spread out around the library and worked on their videos so they could record their voices quietly
+One student (N.) was proud of his work and asked “can we send these to our moms?”
+Another way they would like to use this app in school? Student response → “A biography of a person” Isabella
“Pictures of us”
“Science, like I don’t know” –C.G. Teacher “like plants growing everyday”
“A Book Report” Liam
“A National Park” J.J.
“Can do math problems and talk about how you solved each one” Teacher

October 14, 2014
Tech Time – Group B
“Community Helpers Research”

*29 Students
-Were given a “Community Helpers Research” packet, with the pages asking: JOB TYPE – What does a _______ do?, SETTING – Where does a _______ work?, TOOLS – What supplies does a ______ need?, HELPERS? – Why is this job important to the community?, OTHER—Other cool facts!
-choose a job out of: teacher, police officer, nurse or firefighter
-scan the bar code of the appropriate job on the handouts given on the INIGMA app
-brings them to link online about that profession
-M.D. has not listened or done work at all today, as soon as we began lesson with the iPad she did not get off task at all
-She used app and read the article (after a bit of persuading to read) about her chosen profession: nurse
  +she would not read the article at first because it was too long, we changed the settings on “voice-over” and the iPad read aloud to her
**SHE LOVED IT**
  +she lied down and read the entire article with the app
  -she enjoyed scanning the bar code and using the app
  -Instructed to take notes from the reading to complete their books

October 23, 2014
In-Class Instruction
“How to use Evernote”

*18 students- Isabella was absent
-Evenote app
-told students that they need to get books that they can read while using this app
-works as a filing cabinet to put good work in, students can share it with the teacher/parents/others
-Click on notebooks and each student’s names come up, if you click on that note than their filing cabinet opens up
-Students will be making their very own audio books – excitement amongst students
-C.W.
  +very engaged in lesson, sat their and paid attention the entire time
  +spread out onto the carpet and lied down when it was time to make our read-a-louds.
Helped a student out with finding the next step in the app.
-H. F.
  +offered his iPad for demonstration. Sat there and paid attention the entire time. Raised his hands to answer questions and express his excitement. Sat in the corner to separate himself from others and worked on created his story.
-Type in Title, then click “Camera” and take a picture of the cover of the book. Press OK when asked about accessing photos.
-M.D. sat at her seat with her feet against the table paying attention and engaged the whole time.
-A.C. looked bewildered, engaged, excited
  +sat down on the floor and started her read aloud, got the app started, pictures taken and started her read aloud before any other student in the class.
**AWESOME APP: as soon as students hit ‘done’ it zaps a copy of the file into Mrs. Smith’s ‘filing cabinet’ and she can hear the recordings of the students reading!**

October 23, 2014
Math Class
“Splash Math”

*18 students
--after you are finished the workbook pages you can do 20 problems on math splash
  +can only complete 20 because it is all the school paid for and students then hit their max limits

January 6, 2015
Morning Reading
“EPIC”

*18 students
⇒ 8:30 AM – 9:00 AM
-- when they are done their reading prompt and writing responses, they can log into EPIC on their iPads and search for any story that interests them. The stories can be read aloud to them or they can read them quietly to themselves. The stories are interactive and come with pictures and great information. Students can search anything they want.

January 7, 2015
Daily 5
“Spelling City”

*19 students
⇒ 8:45
--Taught students how to find Mrs. Smith by typing in school zip code and clicking on her name. Then, click on the “sight word list one” spelling list. You can pick this list, then pick an activity: unscramble (sentence or word), alphabetize, audio word match, hangmouse, missing letter, read-a-word, Spelling TeachMe
--students separated in the classroom and worked on their spelling games
--everyone was extremely focused and intrigued by the game, the audio effects helped!

January 8, 2015
Tech Time
“Google Earth”

*26 students
⇒ 12:40-1:15
--Taught students how to zoom in and out, then let them explore for 7 minutes so they would get all of their excitement and exploration out.
--Went back to lesson: taught students how to click on N to steady the map on north. Also taught them to click on the arrow to take them exactly where they are. You can even click on photographs that people of took of certain places (beaver stadium). The Yellow Man also takes you to the ground. The students knew this but the teachers didn’t! All students are very engaged.
--We explored Beaver Stadium, Maple Hall Elementary, Eifel Tower and other places! Student’s assignment was to then pick a place in the world where they want to visit, take 3 different screenshots and then type a summary of their experience.
--All students listened to directions after playing for 7 minutes then asking to close them. No student played on their iPad or lost focus on the lesson after they were asked to keep their cases closed.
February 26, 2015
Tech Time
“Telestory”

-News Report
-Allows students to orally record a story that they wrote
-Must export to camera roll if you are saving the information
-Technology Teacher did an example news report of her in a helicopter above our elementary school, reporting about the weather
-The kids LOVED this app
 -throughout the presentation they were engaged, giggling, participating what information we should share and were all enjoying watching the “how to” of how to use the app
-Tech. teacher gave the students the last 10 minutes to create a ‘silly’ one on their own today so they could explore the app and get to know how to use it
-Kids LOVED it. They separated throughout the library and made a lot of practice Telestory’s.
The students either worked in partners or by themselves—but no matter if they were working with friends or not, they were all working hard and enjoying making these new projects.
-All of the students gave the technology teacher different ways we can use this app in the general classrooms for projects, some of these examples were: main idea, using it in science, social studies, explaining how to solve math problems.
Appendix D

Daily Use Chart

<table>
<thead>
<tr>
<th>Date</th>
<th>Subject</th>
<th>iPad Application</th>
<th># of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 6, 2015</td>
<td>Morning Reading</td>
<td>EPIC</td>
<td>18</td>
</tr>
<tr>
<td>January 7, 2015</td>
<td>Daily 5</td>
<td>Spelling City</td>
<td>19</td>
</tr>
<tr>
<td>January 8, 2015</td>
<td>Tech Time</td>
<td>Google Earth</td>
<td>26</td>
</tr>
<tr>
<td>January 15, 2015</td>
<td>General Class - Science Review</td>
<td>Kahoot! (Kahoot.it)</td>
<td>17</td>
</tr>
<tr>
<td>January 19, 2015</td>
<td>General Class - MLK Day</td>
<td>Evernote</td>
<td>16</td>
</tr>
<tr>
<td>January 20, 2015</td>
<td>General Class - SS Pennsylvania Unit</td>
<td>Kahoot!</td>
<td>17</td>
</tr>
<tr>
<td>February 2-6, 2015</td>
<td>All 3 Second Grade Classes - SS PA Unit</td>
<td>Nearpod Interactive Quiz (Harrisburg)</td>
<td>57</td>
</tr>
<tr>
<td>February 6, 2015</td>
<td>Daily 5</td>
<td>Spelling City (Added new individual lists for students)</td>
<td>19</td>
</tr>
<tr>
<td>February 6, 2015</td>
<td>Daily 5</td>
<td>Nearpod Interactive Quiz (Adding -ed)</td>
<td>18</td>
</tr>
<tr>
<td>February 10, 2015</td>
<td>Daily 5</td>
<td>Kahoot! Quiz (What is an antonym?)</td>
<td>19</td>
</tr>
<tr>
<td>February 11, 2015</td>
<td>Daily 5 / Writing Time</td>
<td>Popplet (Adjectives)</td>
<td>19</td>
</tr>
<tr>
<td>February 16, 2015</td>
<td>Social Studies</td>
<td>Kahoot! Quiz (PA State Test Review)</td>
<td>57</td>
</tr>
<tr>
<td>February 24, 2015</td>
<td>Science - Mammals</td>
<td>Popplet</td>
<td>19</td>
</tr>
</tbody>
</table>
Appendix E

First Parent Survey

Parents and Guardians,

This form is the first of a few parent/guardian surveys that I will be sending home this school year in reference to my honors thesis. Either answering in complete sentences or bullet points is fine. Thank you for agreeing to participate!

A Qualitative Research Study on the Integration of Individual iPads for All Students in a Public Elementary School: How does supplying iPads to every student reflect and support the academic curriculum in a second grade classroom at Centre Hall Elementary School?

Parent Survey:

1. Student Name: __________________________

2. Does your child have an iPad at home? Is it his or her personal iPad or is it shared amongst family members? If it is shared, who does he or she share it with?

3. If any, what academic purposes is the iPad at home serving your child (ex: reading/writing/mathematics applications, purchased books, etc.)?

4. Are you aware of the academic purposes your child is using their school iPad for? If so, what are they?

5. How do you think the iPads in school will be used to teach the academic curriculum for your child this year?

6. If any, what expectations do you have for your child’s use of the iPad in school this year?

7. Do you like or dislike that your child is receiving an iPad in school this year? Why or why not?

Parent Signature: __________________________

Again, I appreciate all of you volunteering to participate. Thank you.

Sincerely,

Joanna Curran
Appendix F

Second Parent Survey

Parents and Guardians,

This is the second parent/guardian survey of the year in reference to my honors thesis. In the first survey, there were similar responses, which stated that you (the parents) were not aware of what your child was doing with the iPad in school. So, these questions will focus on things you want to know about what your child is doing with his or her iPad. Either answering the questions in complete sentences or bullet points is fine. Thank you for participating!

A Qualitative Research Study on the Integration of Individual iPads for All Students in a Public Elementary School:
How does supplying iPads to each student reflect and support the academic curriculum in a second grade classroom at [Elementary School]?

Parent Survey:

1. Student Name: _________________________________

2. Do you feel you have a good understanding of what the iPads are being used for in your child’s general classroom, during specials and in other classes?

3. Have you seen any of the work your child has completed or progress on Apple’s applications he or she has made on the iPad?

4. Does your child talk to you about his or her favorite activity to do on the iPads during school time?

5. Are you satisfied with your knowledge and understanding of your child’s use of the iPad in school now? If not, do you feel it would be beneficial for you to be more informed of what the iPads are being used for?

6. If you feel that you would like to be more informed about your child’s use of the iPads in school, please write down any suggestions you have to improve the communication between the school and parents about our use of technology (ex: sending home newsletters, pamphlets, etc.):
Appendix G

Front of First Student Survey

Student Survey:

1) Do you enjoy using your iPad in school? What do you like or dislike about it?

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________.

2) What is your favorite app that you have used on the iPad so far? Is there an app that you do not like?

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________.

3) Would you like to use the iPads more often in school or do you think that we use them too much?

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________.


Appendix G.2
Back of First Student Survey

4) Are there any apps that you know of that you would like to use in school? If so, what are they and what do you use them for?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

5) Do you talk to your parents about using the iPads in school? Are they interested in what they are used for?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
Appendix H
All Responses to First Student Survey

Becky: Student Survey:

1) Do you enjoy using your iPad in school? What do you like or dislike about it?

I enjoy iPads because it is a time for me to use tech. I can't do it at home because I have no tech. I also like it because it helps me learn.

2) What is your favorite app that you have used on the iPad so far? Is there an app that you do not like?


3) Would you like to use the iPads more often in school or do you think that we use them too much?

I think we use them just a

huff.
Becky:

4) Are there any apps that you know of that you would like to use in school? If so, what are they and what do you use them for?

I do not have te£ at home,

So no.

5) Do you talk to your parents about using the iPads in school? Are they interested in what they are used for?

Yes! They ask me about iPads a lot.

Katie:

Student Survey:

1) Do you enjoy using your iPad in school? What do you like or dislike about it?

I love using my iPad in school. What I like about it is that we can go on fun apps.

2) What is your favorite app that you have used on the iPad so far? Is there an app that you do not like?

My favorite app is Epic because you can listen to stories.
Melissa:

Student Survey:

1) Do you enjoy using your iPad in school? What do you like or dislike about it?

I like to listen to music on my iPad. I also like to take pictures on my iPad. What I dislike about it is that I can't use YouTube.

2) What is your favorite app that you have used on the iPad so far? Is there an app that you do not like?

My favorite app that I have on my iPad is called Chatterpix. I do not have an app that I do not like.
Eric:

Student Survey:

1) Do you enjoy using your iPad in school? What do you like or dislike about it?
   I like to play Spelling City.

2) What is your favorite app that you have used on the iPad so far? Is there an app that you do not like?
   I like all of the apps.

3) Would you like to use the iPads more often in school or do you think that we use them too much?
   I would like to use them every day.
4) Are there any apps that you know of that you would like to use in school? If so, what are they and what do you use them for?

I don't no.

5) Do you talk to your parents about using the iPads in school? Are they interested in what they are used for?

yes!

Donald:

1) Do you enjoy using your iPad in school? What do you like or dislike about it?

I love playing on the iPad.

2) What is your favorite app that you have used on the iPad so far? Is there an app that you do not like?

google earth alato.

3) Would you like to use the iPads more often in school or do you think that we use them too much?

I think we need to use them more in math.
5) Do you talk to your parents about using the iPads in school? Are they interested in what they are used for?

We don't really talk about this at school.
Appendix I
All Responses to First Parent Survey

Katie’s Mom:

Parents and Guardians,

This form is the first of a few parent/guardian surveys that I will be sending home this school year in reference to my honors thesis. Either answering in complete sentences or bullet points is fine. Thank you for agreeing to participate!

A Qualitative Research Study on the Integration of Individual iPads for All Students in a Public Elementary School: How does supplying iPads to every student reflect and support the academic curriculum in a second grade classroom at [redacted] Elementary School?

Parent Survey:

1. Student Name: [redacted]

2. Does your child have an iPad at home? Is it his or her personal iPad or is it shared amongst family members? If it is shared, who does he or she share it with?

   Yes we have an iPad at home. It is not her personal iPad. She shares it mainly with her sister, by I (mom) also use it at times.

3. If any, what academic purposes is the iPad at home serving your child (ex: reading/writing/mathematics applications, purchased books, etc.)?

   I will admit we use the iPad a lot for entertainment/enjoyment. Meghan does often listen to books and plays a game called Study Island that works a lot on reading/words along with some science and social studies.

4. Are you aware of the academic purposes your child is using their school iPad for? If so, what are they?

   I only know about iPad usage from what Meghan tells me at home. I know they use them to type sometimes and also to expand upon math lessons. They also use them in Technology specials class. I don’t know many specifics about how they use them.
5. How do you think the iPads in school will be used to teach the academic curriculum for your child this year?

I hope it is used to provide extra practice on the concepts that are taught by the teacher.

6. If any, what expectations do you have for your child's use of the iPad in school this year?

I don't think I have any - honestly! I feel like a school day is so busy and full that any way a teacher fits it in is great!!

7. Do you like or dislike that your child is receiving an iPad in school this year? Why or why not?

I don't really feel strongly one way or the other. I do think it is important for kids to learn to use technology since our world is so dependent on it.

Parent Signature: [Blackened]

Again, I appreciate all of you volunteering to participate. Thank you.

Sincerely,

Joanna Curran
Becky’s Mom:

Parents and Guardians,

This form is the first of a few parent/guardian surveys that I will be sending home this school year in reference to my honors thesis. Either answering in complete sentences or bullet points is fine. Thank you for agreeing to participate!

A Qualitative Research Study on the Integration of Individual iPads for All Students in a Public Elementary School:

How does supplying iPads to every student reflect and support the academic curriculum in a second grade classroom at Centre Hall Elementary School?

Parent Survey:

1. Student Name: [Redacted]

2. Does your child have an iPad at home? Is it his or her personal iPad or is it shared amongst family members? If it is shared, who does he or she share it with?

   No

3. If any, what academic purposes is the iPad at home serving your child (ex: reading/writing/mathematics applications, purchased books, etc.)?

4. Are you aware of the academic purposes your child is using their school iPad for? If so, what are they?

   Some, math, reading, Nearpod.
5. How do you think the iPads in school will be used to teach the academic curriculum for your child this year?

I’m not completely clear on that.

6. If any, what expectations do you have for your child’s use of the iPad in school this year?

To become familiar with the iPad, I wish other tablets were also used. To familiarize the students with other products.

7. Do you like or dislike that your child is receiving an iPad in school this year? Why or why not?

I like it. We are technologically behind the eight ball in our home. This is good exposure for Allah.

Parent Signature: [Redacted]

Again, I appreciate all of you volunteering to participate. Thank you.

Sincerely,
Joanna Curran
Donald’s Mom:

Parent Survey:

1. Student Name: [Redacted]

2. Does your child have an iPad at home? Is it his or her personal iPad or is it shared amongst family members? If it is shared, who does he or she share it with? [a]

3. If any, what academic purposes is the iPad at home serving your child (ex: reading/writing/mathematics applications, purchased books, etc.)? [b] Use only 1: learning, games on it

4. Are you aware of the academic purposes your child is using their school iPad for? If so, what are they? [c] Yes, learning.
April 8, 2014

Parent Survey:

1. Student Name: [Blank]

2. Does your child have an iPad at home? Is it his or her personal iPad or is it shared amongst family members? If it is shared, who does he or she share it with?
   He does have his own iPad. He shares it with his younger brother.

3. If any, what academic purposes is the iPad at home serving your child (ex: reading/writing/mathematics applications, purchased books, etc.)?
   reading a educational games

4. Are you aware of the academic purposes your child is using their school iPad for? If so, what are they?
   yes - mathematics, reading & writing

5. How do you think the iPads in school will be used to teach the academic curriculum for your child this year?
   Hopefully it will give them opportunities beyond the classroom. It allows them to connect to others in other parts of the country/world.

6. If any, what expectations do you have for your child’s use of the iPad in school this year?
   They should be used mostly for educational purposes but also for fun.

7. Do you like or dislike that your child is receiving an iPad in school this year? Why or why not?
   I think its a great idea. With this day of age it is important for kids to understand technology. It also gives them other opportunities to learn.
2. Does your child have an iPad at home? Is it his or her personal iPad or is it shared amongst family members? If it is shared, who does he or she share it with?

   We do not have an iPad at home. Although, she & her sister each have a NOOK HD.

3. If any, what academic purposes is the iPad at home serving your child (ex: reading/writing/mathematics applications, purchased books, etc.)?

   On her NOOK, she reads, researches on the internet & plays some educational games.

4. Are you aware of the academic purposes your child is using their school iPad for? If so, what are they?

   Yes, math educational games
   QR Codes
5. How do you think the iPads in school will be used to teach the academic curriculum for your child this year?

I think they'll be very successful. Technology is such a huge part of their academic world.

6. If any, what expectations do you have for your child's use of the iPad in school this year?

I don't have anything specific except maybe reiterating safety in technology.

7. Do you like or dislike that your child is receiving an iPad in school this year? Why or why not?

I like it. It will only enhance her educational experience.

Parent Signature: [Blacked out]

Again, I appreciate all of you volunteering to participate. Thank you.

Sincerely,

Joanna Curran
Parent #2:

**Parent Survey:**

1. Student Name: [Redacted]

2. Does your child have an iPad at home? Is it his or her personal iPad or is it shared amongst family members? If it is shared, who does he or she share it with?

   NO

3. If any, what academic purposes is the iPad at home serving your child (ex: reading/writing/mathematics applications, purchased books, etc.)?

   N/A

4. Are you aware of the academic purposes your child is using their school iPad for? If so, what are they?

   NO
5. How do you think the iPads in school will be used to teach the academic curriculum for your child this year?

For reading material, or maybe playing games that are related to the material she is learning.

6. If any, what expectations do you have for your child's use of the iPad in school this year?

N/A

7. Do you like or dislike that your child is receiving an iPad in school this year? Why or why not? I am not crazy about the iPads because I feel like technology is reconstructing the learning experience, making it less interpersonal between teachers and students. Kids spend the day at school staring at screens, and then go home and stare at more screens.

Parent Signature: [redacted]

Again, I appreciate all of you volunteering to participate. Thank you.

Sincerely,

Joanna Curran
Parents and Guardians,

This form is the first of a few parent/guardian surveys that I will be sending home this school year in reference to my honors thesis. Either answering in complete sentences or bullet points is fine. Thank you for agreeing to participate!

A Qualitative Research Study on the Integration of Individual iPads for All Students in a Public Elementary School:
How does supplying iPads to every student reflect and support the academic curriculum in a second grade classroom at Elementary School?

Parent Survey:

1. Student Name: [BLANK]

2. Does your child have an iPad at home? Is it his or her personal iPad or is it shared amongst family members? If it is shared, who does he or she share it with?

   NO

3. If any, what academic purposes is the iPad at home serving your child (ex: reading/writing/mathematics applications, purchased books, etc.)?

4. Are you aware of the academic purposes your child is using their school iPad for? If so, what are they?

   YES

   Math, QR codes, Nearpod, games, taking pictures, type, math facts, reading
5. How do you think the iPads in school will be used to teach the academic curriculum for your child this year?

- Math curriculum
- Differentiated instruction
- Teach apps
- Presentation
- Reading, math fluency

6. If any, what expectations do you have for your child’s use of the iPad in school this year?

- Appropriate usage and ownership
- Cyber safety
- Impact of digital print

7. Do you like or dislike that your child is receiving an iPad in school this year? Why or why not?

I like it. He helps me. Hopefully he learns how to use it for different apps to help with future projects.

Parent Signature: [Blackened]

Again, I appreciate all of you volunteering to participate. Thank you.

Sincerely,
Joanna Curran
Parents and Guardians,

This form is the first of a few parent/guardian surveys that I will be sending home this school year in reference to my honors thesis. Either answering in complete sentences or bullet points is fine. Thank you for agreeing to participate!

A Qualitative Research Study on the Integration of Individual iPads for All Students in a Public Elementary School:
How does supplying iPads to every student reflect and support the academic curriculum in a second grade classroom at [redacted] Elementary School?

Parent Survey:

1. Student Name: [redacted]

2. Does your child have an iPad at home? Is it his or her personal iPad or is it shared amongst family members? If it is shared, who does he or she share it with? [redacted] has a Kindle that is her own.

3. If any, what academic purposes is the iPad at home serving your child (ex: reading/writing/mathematics applications, purchased books, etc.)? Reading, math games

4. Are you aware of the academic purposes your child is using their school iPad for? If so, what are they? NO
5. How do you think the iPads in school will be used to teach the academic curriculum for your child this year?
   I think it will be used to teach by possibly using games and lessons to learn new skills.

6. If any, what expectations do you have for your child’s use of the iPad in school this year?

7. Do you like or dislike that your child is receiving an iPad in school this year? Why or why not?
   I do like her using the iPad. I like that her learning experience will be interactive and fun. It will also help her learn to use new technology.

Again, I appreciate all of you volunteering to participate. Thank you.

Sincerely,

Joanna Curran
Parents and Guardians,

This form is the first of a few parent/guardian surveys that I will be sending home this school year in reference to my honors thesis. Either answering in complete sentences or bullet points is fine. Thank you for agreeing to participate!

\textbf{A Qualitative Research Study on the Integration of Individual iPads for All Students in a Public Elementary School:}

\textbf{How does supplying iPads to every student reflect and support the academic curriculum in a second grade classroom at \textit{[Redacted]} Elementary School?}

\textbf{Parent Survey:}

1. \textbf{Student Name: \textit{[Redacted]}}

2. Does your child have an iPad at home? Is it his or her personal iPad or is it shared amongst family members? If it is shared, who does he or she share it with?

   No - we do not own an iPad.

3. If any, what academic purposes is the iPad at home serving your child (ex: reading/writing/mathematics applications, purchased books, etc.)?

4. Are you aware of the academic purposes your child is using their school iPad for? If so, what are they?

   No - I only know my children take turns using iPads @ school.
5. How do you think the iPads in school will be used to teach the academic curriculum for your child this year?

educational games

6. If any, what expectations do you have for your child’s use of the iPad in school this year?

Sometimes I’m afraid the education suffers because iPads take away from teacher instruction and interfere with communicational skills.

7. Do you like or dislike that your child is receiving an iPad in school this year? Why or why not?

I’m right in the middle. I think they should be controlled like TV watching, and as a physical educator kids’ posture is usually horrible when using electronic devices.

Parent Signature: [Redacted]

Again, I appreciate all of you volunteering to participate. Thank you.

Sincerely,

Joanna Curran
Appendix J

All Responses to Second Parent Survey

January 14, 2015

Parent Survey #2

Becky’s Parents:

Parents and Guardians,

This is the second parent/guardian survey of the year in reference to my honors thesis. In the first survey, you answered similar questions, which focused on whether or not you (the parents) were aware of what your child was doing with the iPad in school. So, this second round of questions will focus on things you want to know about what your child is doing with his or her iPad. Either answering the questions in complete sentences or bullet points is fine. Thank you for participating!

A Qualitative Research Study on the Integration of Individual iPads for All Students in a Public Elementary School:
How does supplying iPads to each student reflect and support the academic curriculum in a second grade classroom at [Redacted] Elementary School?

Parent Survey:

1. Student Name: [Redacted]

2. Do you feel you have a good understanding of what the iPads are being used for in your child’s general classroom, during specials and in other classes?
   NO, WE HAVE A VAGUE UNDERSTANDING. ALLIAH TELLS US A LOT, BUT WE HAVE A LOT OF QUESTIONS!

3. Have you seen any of the work your child has completed or progress on Apple’s applications he or she has made on the iPad?
   NO! WE ONLY SEE MATH AND SOME WRITING WORK COMING HOME. BOTH OF WHICH ARE NOT DONE ON THE IPAD. WE SEE NOTHING ELSE.

4. Does your child talk to you about his or her favorite activity to do on the iPads during school time?
   YES. EVERY DAY WE DISCUSS AND TALK ABOUT THE DAY. SPLASH MATH IS A FAVORITE OF HERS.
5. Are you satisfied with your knowledge and understanding of your child’s use of the iPad in school now? If not, do you feel it would be beneficial for you to be more informed of what the iPads are being used for? I feel that all of the information (knowledge and understanding) is there, but we have not found her use on a daily basis in what that use has been on a daily basis — has come directly from our daughter. I definitely feel that there is a lack of communication with this. Allah brings very little schoolwork home, and we are always wondering what she’s working on in school when she is at it and how we can help.

6. If you feel that you would like to be more informed about your child’s use of the iPads in school, please write down any suggestions you have to improve the communication between the school and parents about our use of technology (e.g., sending home newsletters, pamphlets, etc.). Any of these would be an improvement! We have no way of knowing what she’s “doing” all day. Is she learning or playing games all day? Is she challenged or skimming by with the apps on the iPad? Is she learning to spell or is the iPad correcting her errors for her? We would like to know what skills (e.g., subjects) she is being “taught” by the use of the iPads. At this point, we do not feel good about them because it seems like she is on them more than she is not, and we see no benefits. (There may be benefits, but we have no way to know for sure.)

Parent Signature: [Redacted]

Thank you for choosing to participate!

Sincerely,

Joanna Curran

As parents who are very much in tune with our daughter’s education, we want to d need to know.
Parents and Guardians,

This is the second parent/guardian survey of the year in reference to my honors thesis. In the first survey, you answered similar questions, which focused on whether or not you (the parents) were aware of what your child was doing with the iPad in school. So, this second round of questions will focus on things you want to know about what your child is doing with his or her iPad. Either answering the questions in complete sentences or bullet points is fine. Thank you for participating!

A Qualitative Research Study on the Integration of Individual iPads for All Students in a Public Elementary School:
How does supplying iPads to each student reflect and support the academic curriculum in a second grade classroom at [Redacted] Elementary School?

Parent Survey:

1. Student Name: [Redacted]

2. Do you feel you have a good understanding of what the iPads are being used for in your child’s general classroom, during specials and in other classes?

   Yes

3. Have you seen any of the work your child has completed or progress on Apple’s applications he or she has made on the iPad?

   No

4. Does your child talk to you about his or her favorite activity to do on the iPads during school time?

   Yes - He likes Spelling City
5. Are you satisfied with your knowledge and understanding of your child’s use of the iPad in school now? If not, do you feel it would be beneficial for you to be more informed of what the iPads are being used for?

Yes - I have a good understanding

6. If you feel that you would like to be more informed about your child’s use of the iPads in school, please write down any suggestions you have to improve the communication between the school and parents about our use of technology (ex: sending home newsletters, pamphlets, etc.): N/A

Parent Signature: 

Thank you for choosing to participate!

Sincerely,

Joanna Curran
Parents and Guardians,

This is the second parent/guardian survey of the year in reference to my honors thesis. In the first survey, you answered similar questions, which focused on whether or not you (the parents) were aware of what your child was doing with the iPad in school. So, this second round of questions will focus on things you want to know about what your child is doing with his or her iPad. Either answering the questions in complete sentences or bullet points is fine. Thank you for participating!

A Qualitative Research Study on the Integration of Individual iPads for All Students in a Public Elementary School:
How does supplying iPads to each student reflect and support the academic curriculum in a second grade classroom at [School Name]?

Parent Survey:

1. Student Name: [Redacted]

2. Do you feel you have a good understanding of what the iPads are being used for in your child’s general classroom, during specials and in other classes? 
   not necessarily
   We hear about games, taking pictures.

3. Have you seen any of the work your child has completed or progress on Apple’s applications he or she has made on the iPad? 
   not so much 
   (hard to share w/out student email access)

4. Does your child talk to you about his or her favorite activity to do on the iPads during school time? 
   yes
5. Are you satisfied with your knowledge and understanding of your child's use of the iPad in school now? If not, do you feel it would be beneficial for you to be more informed of what the iPads are being used for?

6. If you feel that you would like to be more informed about your child's use of the iPads in school, please write down any suggestions you have to improve the communication between the school and parents about our use of technology (ex: sending home newsletters, pamphlets, etc.):

   - student -> teacher email -> parent
   - post on website
   - student portfolio - accessible online (via password)

Parent Signature:

Thank you for choosing to participate!

Sincerely,

Joanna Curran
Parents and Guardians,

This is the second parent/guardian survey of the year in reference to my honors thesis. In the first survey, you answered similar questions, which focused on whether or not you (the parents) were aware of what your child was doing with the iPad in school. So, this second round of questions will focus on things you want to know about what your child is doing with his or her iPad. Either answering the questions in complete sentences or bullet points is fine. Thank you for participating!

A Qualitative Research Study on the Integration of Individual iPads for All Students in a Public Elementary School:
How does supplying iPads to each student reflect and support the academic curriculum in a second grade classroom at Centre Hall-Potter Elementary School?

Parent Survey:

1. Student Name: [Redacted]

2. Do you feel you have a good understanding of what the iPads are being used for in your child's general classroom, during specials and in other classes?

   Yes

3. Have you seen any of the work your child has completed or progress on Apple's applications he or she has made on the iPad?

   She has told me about it

4. Does your child talk to you about his or her favorite activity to do on the iPads during school time?

   Yes
5. Are you satisfied with your knowledge and understanding of your child’s use of the iPad in school now? If not, do you feel it would be beneficial for you to be more informed of what the iPads are being used for?

I feel we are informed but mostly from her. Some more insight from teachers could be beneficial so if we get the chance we could do more at home.

6. If you feel that you would like to be more informed about your child’s use of the iPads in school, please write down any suggestions you have to improve the communication between the school and parents about our use of technology (ex: sending home newsletters, pamphlets, etc.):

I would say a note on places they go to or sights/apps they work with. I’m not extremely computer savvy, so any information would be helpful. Isabella is very helpful showing me what she does so we are lucky there but I’m not sure how other students are.

Parent Signature: [Redacted]

Thank you for choosing to participate!

Sincerely,

Joanna Curran
Parents and Guardians,

This is the second parent/guardian survey of the year in reference to my honors thesis. In the first survey, you answered similar questions, which focused on whether or not you (the parents) were aware of what your child was doing with the iPad in school. So, this second round of questions will focus on things you want to know about what your child is doing with his or her iPad. Either answering the questions in complete sentences or bullet points is fine. Thank you for participating!

**A Qualitative Research Study on the Integration of Individual iPads for All Students in a Public Elementary School:**

How does supplying iPads to each student reflect and support the academic curriculum in a second grade classroom at Centre Hall-Potter Elementary School?

**Parent Survey:**

1. **Student Name:** [Redacted]

2. **Do you feel you have a good understanding of what the iPads are being used for in your child's general classroom, during specials and in other classes?**
   
   Not really

3. **Have you seen any of the work your child has completed or progress on Apple's applications he or she has made on the iPad?**

   I don't think so.

4. **Does your child talk to you about his or her favorite activity to do on the iPads during school time?**

   Not really
5. Are you satisfied with your knowledge and understanding of your child’s use of the iPad in school now? If not, do you feel it would be beneficial for you to be more informed of what the iPads are being used for?

It would be nice to know what she is doing with it.

6. If you feel that you would like to be more informed about your child’s use of the iPads in school, please write down any suggestions you have to improve the communication between the school and parents about our use of technology (ex: sending home newsletters, pamphlets, etc.):

Sending a newsletter would be nice.

Parent Signature: 

Thank you for choosing to participate!

Sincerely,

Joanna Curran
Parents and Guardians,

This is the second parent/guardian survey of the year in reference to my honors thesis. In the first survey, you answered similar questions, which focused on whether or not you (the parents) were aware of what your child was doing with the iPad in school. So, this second round of questions will focus on things you want to know about what your child is doing with his or her iPad. Either answering the questions in complete sentences or bullet points is fine. Thank you for participating!

A Qualitative Research Study on the Integration of Individual iPads for All Students in a Public Elementary School:
How does supplying iPads to each student reflect and support the academic curriculum in a second grade classroom at [School Name] Elementary School?

Parent Survey:

1. Student Name: [Redacted]

2. Do you feel you have a good understanding of what the iPads are being used for in your child’s general classroom, during specials and in other classes?
   Moderate. I would be interested to know how many minutes/hours per day is spent on them. Does it replace paper and is easier to track their progress?

3. Have you seen any of the work your child has completed or progress on Apple’s applications he or she has made on the iPad?
   No

4. Does your child talk to you about his or her favorite activity to do on the iPads during school time?
   No
5. Are you satisfied with your knowledge and understanding of your child’s use of the iPad in school now? If not, do you feel it would be beneficial for you to be more informed of what the iPads are being used for?

I would like to know more.

6. If you feel that you would like to be more informed about your child’s use of the iPads in school, please write down any suggestions you have to improve the communication between the school and parents about our use of technology (ex: sending home newsletters, pamphlets, etc.):

We would appreciate a newsletter update.

Parent Signature: ____________________________

Thank you for choosing to participate!

Sincerely,

Joanna Curran
Parents and Guardians,

This is the second parent/guardian survey of the year in reference to my honors thesis. In the first survey, you answered similar questions, which focused on whether or not you (the parents) were aware of what your child was doing with the iPad in school. So, this second round of questions will focus on things you want to know about what your child is doing with his or her iPad. Either answering the questions in complete sentences or bullet points is fine. Thank you for participating!

**A Qualitative Research Study on the Integration of Individual iPads for All Students in a Public Elementary School:**

**How does supplying iPads to each student reflect and support the academic curriculum in a second grade classroom at ___________ Elementary School?**

**Parent Survey:**

1. Student Name: [Redacted]

2. Do you feel you have a good understanding of what the iPads are being used for in your child’s general classroom, during specials and in other classes?

   I am slowly gaining a better picture of how Meghan uses the iPad. I only know what Meghan tells me at home and mostly I hear about how they are used during inside DPA time.

3. Have you seen any of the work your child has completed or progress on Apple’s applications he or she has made on the iPad?

   **No - I don’t think I expected to**

4. Does your child talk to you about his or her favorite activity to do on the iPads during school time?

   We have started to ask more questions about what iPads are used for during school time, therefore, Meghan has started to talk about it more. Her favorite is Epic.
Appendix K

Technology Workshop Flyer

We ♥ Our iPads!

Come in to find out what your child already loves about technology in our classroom!

**Where:** Classroom
Room A103

**When:** Monday, February 2nd
6:30-7:30pm
*6:30-6:45 time with kids, 6:45-7:30 presentation*

**Why:** An information session for our students’ parents about how we are using our iPads in the classroom, and what our goals are for the future.

**Bring your child so he/she can show you the incredible academic benefits of using our iPads!**

Please check off one of the following options and send it back in your child’s folder.

- [ ] Yes, I am going to attend this event with my child.
- [ ] Unfortunately, I cannot come to this event.

Please sign your name here: _________________________________
Appendix L

Newspaper Ad For Technology Workshop

The Penns Valley Area School District All-Sports Booster Club is looking for volunteers.

Starting in June, the booster club will have several open positions available, according to a report from the district.

The booster club is looking for volunteers with "strong leadership" skills.

The club meets at 7 p.m. the second Tuesday of the month in Room 36 of the high school.

For more information, contact booster President Lanny Johnson at ljohnson@nvsd.com.

Second-grade teachers at Centre Hall Elementary are scheduled to hold a technology workshop for parents from 6:30 to 7:30 p.m. Monday.

The workshop will highlight how technology has changed the face of education.

A report from the district said that through the use of Apple iPads, second-graders are "using exciting and cutting-edge apps for differentiated instruction for all learners."

Booster club seeking volunteers

Britney Milazzo
On Centre: Penns Valley

Pesticide recertification program to be held

A free pesticide recertification training program for private applicators will be held 7:30 to 9:30 p.m. Feb. 11 at the Penns Valley High School auditorium.

Topics will include seminars on drift control, and what's new in weed control and controlling herbicide resistance weeds, according to a report from Penn State Extension.

The event is being sponsored by Penns Valley High School Young Farmers, with programs offered by Penn State Extension.

Registration is required by calling Don Woodring at Clinton County Extension at 570-725-0025, ext. 3821, or online at www.extension.psu.edu/clinton/events.

Applicants are required to bring their license.

Britney Milazzo writes a column about news from the Penns and Brandywine Valley regions. She can be reached at 231-4638 or bmilazzo@centredaily.com. Follow her on Twitter @BMilazzo.
### Appendix M

**Parent Responses After Technology Workshop**

<table>
<thead>
<tr>
<th>Timestamp</th>
<th>Rate this evening’s information on a scale of 1 to 5.</th>
<th>What did you learn?</th>
<th>What are you proud of that your child has shared with you?</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/16/15 19:18</td>
<td>4</td>
<td>What they are doing in the classroom with iPads.</td>
<td>She knew what she was doing</td>
</tr>
<tr>
<td>2/16/15 19:18</td>
<td>4</td>
<td>We learned about some real cool apps that the kids are using!</td>
<td>Proud of how much he has learned and the great things he school is using to help them learn and develop</td>
</tr>
<tr>
<td>2/16/15 19:18</td>
<td>5</td>
<td>Near pod and its use in classroom.</td>
<td>Math/Front row</td>
</tr>
<tr>
<td>2/16/15 19:18</td>
<td>5</td>
<td>The classroom is far beyond chalk and text books of my day. I’m old!!</td>
<td>His excitement about technology integrated into his learning.</td>
</tr>
<tr>
<td>2/16/15 19:19</td>
<td>4</td>
<td>We learned about some great educational apps.</td>
<td>His knowledge of the tablet, and its use in the classroom.</td>
</tr>
<tr>
<td>2/16/15 19:20</td>
<td>5</td>
<td>I had no idea that this was available to the students. I learned what games they are using to reinforce what they’ve learned. I really like the variation to the classic power point.</td>
<td>Her Evernote and how quickly and accurately she answered Kahoot questions!</td>
</tr>
<tr>
<td>2/16/15 19:20</td>
<td>4</td>
<td>I learned that my daughter has learned how to use many new apps.</td>
<td>I am proud of how she handles herself with other students.</td>
</tr>
<tr>
<td>Date</td>
<td>Time</td>
<td>Rating</td>
<td>Comment</td>
</tr>
<tr>
<td>------------</td>
<td>----------</td>
<td>--------</td>
<td>---------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>2/16/15</td>
<td>19:20</td>
<td>5</td>
<td>I learned about increased efficiencies and very the applications are lively, easy to use,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>student/teacher interactions in the classroom.</td>
</tr>
<tr>
<td>2/16/15</td>
<td>19:20</td>
<td>4</td>
<td>Learned about all the apps that they are using in class.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Learned about Nearpod</td>
</tr>
<tr>
<td>2/16/15</td>
<td>19:33</td>
<td>5</td>
<td>We learned in detail what our children are learning in their classroom.</td>
</tr>
<tr>
<td>2/16/15</td>
<td>19:33</td>
<td>5</td>
<td>The different educational apps</td>
</tr>
<tr>
<td>2/16/15</td>
<td>19:33</td>
<td>5</td>
<td>I learned how the kids are using technology to learn instead of paper and pencils.</td>
</tr>
<tr>
<td>2/16/15</td>
<td>19:33</td>
<td>5</td>
<td>How iPads are used in the classroom.</td>
</tr>
<tr>
<td>2/16/15</td>
<td>19:34</td>
<td>5</td>
<td>I learned about what the kids are learning, so cool.</td>
</tr>
<tr>
<td>2/16/15</td>
<td>19:35</td>
<td>3</td>
<td>What the apps are.</td>
</tr>
<tr>
<td>Date</td>
<td>Time</td>
<td>Experience</td>
<td>Comment</td>
</tr>
<tr>
<td>------------</td>
<td>----------</td>
<td>-------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>2/16/15</td>
<td>19:35</td>
<td>I am proud she can use her iPad so easily and</td>
<td>I am proud she can use her iPad so easily and learn from it! I can't</td>
</tr>
<tr>
<td></td>
<td></td>
<td>learn from it! I can't use them hardly at all!</td>
<td>use them hardly at all! It is great that they learn them so quickly!</td>
</tr>
<tr>
<td>2/16/15</td>
<td>19:35</td>
<td>That the kids aren't just using the iPad as</td>
<td>How well she knows the iPad.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>fun and to play games</td>
<td></td>
</tr>
<tr>
<td>2/16/15</td>
<td>19:35</td>
<td>Learning awesome new ways to learn</td>
<td>Math games</td>
</tr>
<tr>
<td>2/16/15</td>
<td>19:36</td>
<td>My dad learned that technology is more than just</td>
<td>My dad is proud how quickly I am to open apps and follow along</td>
</tr>
<tr>
<td></td>
<td></td>
<td>games.</td>
<td></td>
</tr>
<tr>
<td>2/16/15</td>
<td>19:37</td>
<td>I learned more about what Cecilia is working</td>
<td>She worked much faster reading and writing into it vs. trying to get</td>
</tr>
<tr>
<td></td>
<td></td>
<td>in class. I got a lot of great ideas for how I</td>
<td>her to do it on paper. Thanks so much for providing this workshop!</td>
</tr>
<tr>
<td></td>
<td></td>
<td>can extend her learning at home using the apps</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>shared tonight. I also got some great tips that</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>I can use at work. :-)</td>
<td></td>
</tr>
</tbody>
</table>
Appendix N

IRB Approval

STUDY00001268: How does supplying iPads to every student reflect and support the academic curriculum in a second grade classroom at Elementary School?

Principal investigator: Joanna Curran
Submission type: Initial Study
Primary contact: Joanna Curran
IRB coordinator: Courtney Whetzel

Approved

STUDY00001268 Review Level: Exempt

Red IRB: 10/13/2014 12:00 AM
Red approval: 11/7/2014
Active: 11/7/2014
Approval end: 11/7/2014 1:43 PM

Current Actions:
Bibliography


Blaikie, N. (2003). Analyzing Quantitative Data: From Description to Explanation. *Sage Publications Ltd*. Retrieved From: [http://books.google.com/books?hl=en&lr=&id=sNQ54wUa2SwC&oi=fnd&amp;pg=PP2&amp;dq=how+to+analyze+quantitative+data&amp;ots=v7p-nLb4VL&amp;sig=mplvg0WsD5bWHB7VyjZfYVtWIL4#v=onepage&amp;q=bivahow%20to%20analyze%20quantitative%20data&amp;f=false](http://books.google.com/books?hl=en&lr=&id=sNQ54wUa2SwC&oi=fnd&amp;pg=PP2&amp;dq=how+to+analyze+quantitative+data&amp;ots=v7p-nLb4VL&amp;sig=mplvg0WsD5bWHB7VyjZfYVtWIL4#v=onepage&amp;q=bivahow%20to%20analyze%20quantitative%20data&amp;f=false)

Blair, K., Murphy, R., & Almjeld, J. (2001). Cross Currents: Cultures, Communities, Technologies. *On the Horizon, MCB University Press*. 9(5). Retrieved from: [http://books.google.com/books?hl=en&lr=&id=T8aiUYoQvBAC&oi=fnd&amp;pg=PA45&amp;dq=digital+native+vs+immigrants&amp;ots=YJ3XVg8ut9&amp;sig=iRZkp9L9cU2oVPexQRjRU0W4luY#v=onepage&amp;q=digital%20native%20vs%20immigrants&amp;f=false](http://books.google.com/books?hl=en&lr=&id=T8aiUYoQvBAC&oi=fnd&amp;pg=PA45&amp;dq=digital+native+vs+immigrants&amp;ots=YJ3XVg8ut9&amp;sig=iRZkp9L9cU2oVPexQRjRU0W4luY#v=onepage&amp;q=digital%20native%20vs%20immigrants&amp;f=false)


Academic Vita

JOANNA D CURRAN
Email: jdc5430@psu.edu

OBJECTIVE  Teaching position for Early Childhood Education in a Preschool or Elementary School.

EDUCATION  The Pennsylvania State University, University Park, PA
Bachelor of Early Childhood and Adolescent Education

RELEVANT WORK EXPERIENCE

Student Teaching
Centre Hall-Potter Elementary School, Centre Hall, PA  Fall 2014-Spring 2015
-Taught in a second-grade classroom with 19 students. Co-taught with other second grade teachers and built professional relationships with all other staff members in the building.
-Completed Learning Focus Training that led to successfully constructing lesson plans to meet state standards and student learning objectives.
-Built an online portfolio to represent all aspects during this experience of Pennsylvania’s teaching standards and domains that were achieved.
-Completed an undergraduate thesis on my study of upholding strong relationships with families when implementing technology into the curriculum as well as how iPads reflect the academic curriculum.

Vacation Bible School Teacher/Assistant/Station Leader
Pleasantville United Church of Christ, Chalfont, PA  Summer 2010-Summer 2014
-Taught and educated children from the ages of PreK-6th grade
-Job included: formatting lesson plans, decorating my own classroom, teaching lesson, serving snack, making games relatable to subject matter and integrating music into lessons.

Summer Camp Counselor
Twin Oaks Summer Day Camp, Warrington, PA  Summer 2013-Summer 2014
-Senior camp counselor working with children ages 5-13
-Job included: arts and crafts lessons, physical games outside, responsibility for over 100 campers, planning and organizing field trips, creating newsletters home for parents, etc.

Intramural Soccer Coach/Instructor
Soccer Shots, State College (area), PA  Spring 2014-Fall 2014
-Coached soccer to 100+ players while also connecting the soccer sessions to the written curriculum.

OTHER WORK EXPERIENCE

Rita’s Treat Team Member
Rita’s Italian Ice, Chalfont, PA  Summer 2009-Summer 2013
-Developing excellent customer service techniques, responsibility and money management.
- Moved to a management position after I received recognition for excellent service from corporate headquarters.

ACTIVITIES
- Member of the Pennsylvania State Education Association (PSEA)
- Intramural Sports: soccer, basketball, golf and flag-football

HONORS AND AWARDS
- Earned scholar status in the Schreyer Honors College at Pennsylvania State University, 2013-15
  - Achieved Dean’s List every semester of college, 2011-2014
  - Member of the Alpha Lambda Delta Honor Society, 2013-2015
  - Member of the Kappa Delta Pi Honor Society in Education, 2013-2015
  - Member of the National Society of Leadership and Success, 2013-2015

REFERENCES: Letters of reference available upon request.