

Building on Resilience through Motivation with Technology in the Classroom

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## **Introduction**

### **Orientation to Topic**

Day by day, there are many African American and other minority students who are faced with the many challenges within their home lives. These challenges effects the students' ability to achieve academically. Ferrer (n.d.) mentions several reasons why students lack achievement in schools. Many of these reason include not having proper support from parents, taking on others' responsibilities at home, and even not having proper role models. These students have to learn how to balance what is happening at home and in the community with attempting to be successful in school.

Many students are not always struggling in the classroom due to lack of understanding. These students' lack of understanding stems from lack of motivation. Today, students bring their lives from the community into the school. The happenings in society often provide motivation for students. Maybe teachers should include in the schools what is driving our society more and more on a daily basic which is technology! Our students create a technology generation. Studies have proven that children would much rather stay inside and play video games, watch television, or use the computer and other electronics versus going outside and play in nature. According to Ahuja (2013), in a 2010 study of 8 to 18-year-olds conducted by the Kaiser Family Foundation, teenagers today spend more than seven and half hours a day consuming media. This media includes watching TV, listening to music, surfing the Web, social networking, and playing video

games. In *Teens and Technology 2013*, researchers also found that 81% of teens who are online participate in social media (Madden, Lenhart, Duggan, Cortesi, and Gassert, 2013). Therefore, why not use what students already love and incorporate it into the classroom as motivation for them to complete and improve in their daily instruction.

### **Purpose Statement**

The purpose of the study is to show that despite the many challenges faced at home or in the community, minorities can use technology as motivation to succeed academically. Within this study, teachers will use strategies to demonstrate whether or not resiliency would increase if students become motivated within the classroom.

### **Research Questions**

This study investigates the affect that motivation has on resilience and how technology could be used to increase that motivation in students.

The main questions for this study asked:

RQ1: Would resilience increase if students were more motivated in the classroom?

RQ2: How would technology increase motivation and academic success?

### **Importance of the Study**

Teachers are often trying to find what will motivate their students in order to plan for success in their instruction. The significance of this study is the participants will be able to determine whether technology could be used as motivate to get their student focused. It will also

help participants to see what works best for their students. The participants will even be able to determine if there are other determining factors that help with gaining motivation which will increase resiliency in students. This study will help other educators determine what may be beneficial with different teaching styles. Other educators will be able to use the findings to help build the culture of their classrooms and identify technological strategies that could possibly work to motivate their students.

### **Definition of Terms**

The Oxford Dictionary defines *motivation* as the reason or reasons one has for acting or behaving in a particular way. [Businessdictionary.com](http://Businessdictionary.com) states that, “Motivation results from the interaction of both conscious and unconscious factors such as the (1) intensity of desire or need, (2) incentive or reward value of the goal, and (3) expectations of the individual and of his or her peers.”

The Merriam Webster Dictionary defines *resilience* as the ability to become strong, healthy, or successful again after something bad happens. It also defines it as the ability of something to return to its original shape after it has been pulled, stretched, pressed, bent, etc. In this study, resilience will be viewed as the ability to become successful as a student after bad or unfortunate situations have been dealt with or encountered.

The Merriam Webster Dictionary defines *technology* as the use of science in industry, engineering, etc., to invent useful things or to solve problems. It also could be a machine, piece of equipment, method, etc., that is created by using technology.

### Literature Review

In my first year of teaching, teaching at an elementary school where the population was predominate African American, there were several days when I thought to myself, “Why can’t I reach my students today?” As time went by and I tried to build a rapport with my students, I began to get to know more about them personally. I started noticing patterns within many of them and started thinking, “How can a person that is so young and exposed to the many indecencies that society has to offer, still be able to function, focus, and learn consistently at school?” It is really a struggle. On a day to day basic, so many African American and other minorities’ students are faced with many obstacles and pressures from society that could block their potential as excellent students.

With all the obstacles and challenges these students withstand, there are some expectancy that many feel that students should receive from school. Many students report to school to receive something that they may not receive very often. They expect to receive consistency. A stable educator would definitely be a provider of consistency. Williams and Bryan (2013) conducted a study where they identified the factors and processes that contribute to the academic success of urban, African American high school graduates from low-income, single-parent families. The authors used a multiple case study design. They used a systematic way of looking at events, collecting data, analyzing information, and reporting the results. The first author contacted gatekeepers at a Midwestern, historically Black college and university who agreed to assist with identifying students who met the study criteria. This study involved eight males who decided to participate. The researchers gathered data through two interviews per participant, one

group and one individual. The authors found ten main themes from the participants' individual interviews. These themes are related to environmental factors that contributed to their academic success despite adversity. The ten main themes were as follows: school-related parenting practices, personal stories of hardship, positive mother-child relationships, extended family networks, supportive school-based relationships, school-oriented peer culture, good teaching, extracurricular school activities, social support networks, and out-of-school time activities. Many of these themes were some of the patterns that I began notice that many of my students were missing. As the year progressed, students and parents became more involved, I began to see a major difference.

There are several challenges that young African American students face daily. These challenges can effect a person's emotions and success in the classroom. Mega, Ronconi, and De Beni (2013, July 1) conducted a study to determine whether there is a link between emotions, self-regulated learning, and motivation to academic achievement. These researchers proposed a theoretical model study involving 5,805 undergraduate students from the University of Paeda. The participants were administered the Self-Regulated Learning, Emotions, and Motivation Computerized Battery (LEM-B), which consisted of 3 questionnaires that measured the direct links of the different aspects. After analyzing findings, the results showed that emotions are a direct link to self-regulated learning, motivation, and academic achievement. The many challenges that young African American students may that could even affect their thought process and daily decisions. These decisions could ultimately affect their paths for their future. Fletcher and Cox (2012) conducted a study to determine the factors of why African American

students may or may not participate in career academies and identify the many challenges that they have to face. These researchers used a phenomenological approach to examine the stories of 15 African American high school juniors and seniors who were enrolled in a CTE program. Fletcher and Cox gathered data by questionnaires and interviews from both individual and group sessions. The researchers were able to identify recurring themes with the data. These themes included *Preparation for the Next Level* for students who wanted to continue education, *Less Time for School Activities* for students who feel that career academics take their time away from class their required courses and extra-curricular activities, *Not Just Going Through the Motions* for students who wants a sense of community, hands-on training, and like to explore their interests, and *An Unrealized Connection with Core Academic Subjects*. Researcher recommended that teachers help their students to make connects between their core courses and CTE courses.

Although our students' issue remain prevalent, resilience in African American students is possible and could be on the rise. Taylor (2013) conducted a qualitative study to analyze the eight themes of resilience that are identified in Polidore's Theory of Adult Resilience in Education (2004). In this study, stories of four female African American teachers are examined who all work in the same rural area before, during, and after desegregation. Their stories can be used as encouragement and inspiration for teachers who may have thoughts of leaving profession. Resilience within a student requires good teaching from a great source. Resiliency is an important reason why teachers are needed to stay in this profession. This study shows the challenges faced by teachers and displays how teachers must have the capability and ability to

adjust to daily challenges in the classroom. Despite any hardships students may face, good teachers learn to be supportive and provide stability.

Excellent support and sound structure from great teachers can make a tremendous difference in a classroom. As time went by during my first year of teaching, if I wanted to provided support and structure in my class, I had to figure out what would motivate my students to learn. Loon, Ros, and Martens (2012) examines how students are could be intrinsically motivated and the possible learning outcome from a digital technological task. They used an experimental design approach. The study was conducted with 320 fifth and sixth grade students from 8 different schools in the Netherlands where students were familiar with working independently and using technology. They found that the digital tasks that were performed with a teacher providing autonomy support and structure provided a positive influence or contribution to the students' intrinsic motivation and to the outcome of their learning. The intrinsic motivation was measured from a questionnaire called the Intrinsic Motivation Inventory (IMI). The learning outcome was measured based off PowerPoints or other learning presentations created by students. The authors also found that students that were provided structure received higher learning outcomes. When there was no structure and support, the student's intrinsic motivation level was very low. The students received the lowest learning outcome when there was support and no structure. With my students being born into a world that is technology driven, I quickly noticed difference in their motivation as more technology became infused into my classroom, daily lesson, and all around the school.



Sometimes with trying to promote motivation, teachers must try something new. Our technologies are growing daily. These technologies are increasing the motivation in our classrooms. Although the use of the Internet and email come to us like second nature, it wasn't always so simple or pertinent as they are now. Griffin and Anderton-Lewis (1998) examined the views and perceptions of 138 African American students in a business communication field at a historically black college or university. They studied to determine whether the African American students' perceptions about online communication indicates that they are enthused about computer mediated communication and actively learning. They also wanted to analyze whether students are willing to communicate with professor online. The researchers even wanted to examine the styles of writing and content in emails from the students to determine if they view instructors as facilitators. Students worked on a global project where they had to do research on a particular country and each located a key pal. Students were required to communicate with key pal via e-mail and keep in close communication with instructor about progress about semester. The results were gathered by survey. The researchers found that the students became very excited about the use of the Internet and e-mail and decided that they would be using both in the future. The results also showed the students began to view instructors as learners of the cyber messaging. Now, it has all changed and we depend on email and Internet to live and survive in our world today.

Currently, more and more educators are becoming more educated on the use of technology in the classroom and how to incorporate it into lessons. Campbell and Jane (2012) conducted a research on design and technology with teachers in their 4th year of teaching. This

study was conducted at two different schools where four teachers agree to teach a technology course. The teachers also had to be prepped through informal sessions and were given brief outlines of research in order to become knowledgeable on how to be creative with design and technology education. Campbell and Jane used a content analysis research approach by analyzing students' writing to determine whether there were improvements in the technological task. Based on the students' language within their writings, the researchers found that the students expressed excitement, joy, fun, and even frustration. These findings were related to motivation within the students.

For educators today, many are trying new technological programs to see what works best to motivate the 21st century student. Sardone and Devlin-Scherer (2010) conducted a study using the mixed-research design involving 21 undergraduate students enrolled in a teacher education course where digital learning games were explored. The researchers conducted the study to evaluate the relationship between motivation and 21st century learning skills through the use of digital games. Data was collected from the responses in surveys and interviews after the use of the digital games. According to the student's responses, their interest increased due to intrinsic motivation and curiosity. The majority of the students' decisions to use digital tools in their classroom in the future was decided due to motivation and other contributing factors.

Finding what motivates students now is a struggle for teachers because they learned and was motivated in different ways than students present day. Halat (2013) conducted a qualitative research study to examine the views or thoughts of elementary school students about the increase in learning through the use of WebQuest. This study involved 65 students which included 9

graduate students, 25 fourth graders, and 30 fifth graders over 8 week time frame. The graduate students introduced WebQuests to students and allowed them to explore and enhance learning through the use of it at their own pace. After exploration, students were given questionnaires. The researcher found that the WebQuests increased the students' motivation and achievements positively since they found some interest in this new style of learning. The students were motivated because they found that learning using WebQuests was fun, exciting, and amusing.

In order for students to become succeed in the classroom, not only must a teacher provide stimulating and exciting lesson to enhance the motivation within students, the students must already have and use the characteristic of self-motivation. Wang, Shannon, and Ross (2013) conducted a study with 256 students to examine the relationship among students' characteristics, self-regulated learning, technology self-efficacy, and course outcomes in online learning settings. They conducted this study with online surveys, questionnaires, online technology self-efficacy scales, and the students' final grades. They found the students had higher motivation when they had already taken online courses. They found that these students also had higher levels of technology self-efficacy and were satisfied with their course which resulted in better final grades. They recommended that the instructors start providing opportunities for students by offering courses online where students work at their own pace and not report to class at a scheduled time. They also suggested that workshops should be offered for the students and instructors. The more familiar a person becomes with a content or skill, the more confidence is built. When a person's confidence is steady rising, their self-motivation also increases.

Technology has become the way of the world. Therefore, teachers from all over the world are trying to figure out how to use technology as a way to motivate students. Hietanoro and Ruismäki (2011) conducted a qualitative study that consist of four students to identify the determining and contributing factors of motivation for technology education in Finland. This study's data was collected by interviews. The participants included a boy and girl in technology education and a boy and girl not in technology education. The authors found that when the students have a freedom of choice, the more intrinsically motivated they became. They also discovered that other contributing factors included positive classroom environment, atmosphere, support, and interaction with teacher.

By integrating technology into instruction, teachers are building a digital community of learners. We live in a time frame where teachers also must no longer instruct without technology. Experienced teachers struggle with incorporating technology into the classroom because they are familiar with teaching with textbook, boards, pen, and pencil. In order to increase motivation through the use of technology, technology must be available. There are several types of digital initiatives that specifically targets integration of technology into the classroom instruction. Some of these initiatives include Bring Your Own Technology (BYOT), Flipped Classroom, and the list goes on. When teachers are attempting to enhance resilience in students, there are several themes that a teacher must consider. Motivation is one of the main themes. To build or increase motivation within the 21st century student, educators must start with their students' interests and incorporate it with what is presently considered to be the way of the world. Teachers must incorporate technology.

## **Methodology Design**

### **Overview of Research Design**

This study took place over a four week time frame. To distribute, collect, and analyze student questionnaires took one week. The pretest, observation without technology implemented into classrooms, and posttest took one week. The intervention, observation with technology infused into daily instruction, and posttest after intervention another week to conduct. The final stages of data analysis and comparing findings happened over the course of 2 weeks.

### **Participants**

My research topic is related to using technology to increase motivation and resiliency in African American study. I gathered data from 45 fourth grade African American students who share some of the same cultures, values, behaviors, language, and beliefs. The amount of students depended on how classes I taught this school term. This school term, I am teaching two homeroom classes with about 22 to 23 students in each class. I also interviewed two colleagues about motivation, resilience, and technology.

### **Data Sources/ Instrumentation/Procedures**

With this study, I used a mixed methodology. The design that was used is the Convergent Parallel Design. With this design, I was able to collect both qualitative and quantitative data, analyze data separately, and then compare the two. After comparing, I was able to make interpretations on whether or not all data supports each other. I also gathered data through the use of surveys, questionnaires, pre-tests, and post-tests to determine whether technology increases motivation and student resiliency.

With this study, I first started with a qualitative method. I issued questionnaires to participating students to measure resiliency within the students. The questionnaire provided data that helped identify what contributes to the student’s resiliency based on environment factors, needs of youth, and internal factors. A copy of the questionnaire given to students can be found in Appendix I.

Here are the sample of the questionnaire given to the students:

Name: \_\_\_\_\_ Date: \_\_\_\_\_

**Complete this survey quietly by yourself!!**

	Agree			Disagree		
	Str on gly	Agr ee	So me wh at	So me wh at	Dis agr ee	Str on gly
1. Do the teachers and other grown-ups at school care about you?						
2. Do the teachers and other grown-ups at school listen when you have something to say?						
3. Do the teachers and other grown-ups at school tell you when you do a good job?						
4. Do the teachers and other grown-ups at school believe that you can do a good job?						
5. Do you help make class rules or choose things to do at school?						
6. Do you do things to be helpful at school?						
7. Does a parent or some other grown-up at home care about your schoolwork?						
8. Does a parent or some other grown-up at home listen to you when you have something to say?						
9. Does a parent or some other grown-up at home believe that you can do a good job?						
10. Does a parent or some other grown-up at home want you to do your best?						
11. Do you help out at home?						
12. Do you get to make rules or choose things to do at home?						
13. Do your best friends get into trouble?						
14. Do your best friends try to do the right thing?						

After questionnaires, I continued with qualitative research. I started by testing participating classes without incorporating technology into the weekly lesson. This week consisted of no technology for me as the teacher or for my students. I taught my lessons by writing on the dry erase board. Students were expected to take notes within their notebooks and complete classwork on paper. Center time consisted of completing problems on paper, use of textbooks and workbooks, and completion of performance tasks with only paper all with no use of the computers or iPads. Based off of my observations and data analysis from questionnaire, I identified students with resilience and compare students without resilience.

One week later, I incorporated lessons with technology. Incorporation of technology consisted of a consistent use of technology for students and teacher. During whole group instruction, each student was given an iPad and were required to log into ClassFlow. ClassFlow is a teaching tool where teachers can create lessons and digitally connect the classroom. It allows the teacher electronically send flipcharts page by page to each students' iPad. Students are given online tools that allows them to write, type, and draw on screen. After students have used their tools, they are capable of sending their responses to the teacher. The teacher is capable of seeing students' screen in the teacher log-in and can display the responses of each student to provide immediate feedback. I created interactive flipcharts for lessons that allowed the students to view videos, play interactive games related to the topic, and practice strategies electronically. I often used Classflow during whole group instruction only. During small group instruction, students were given the opportunity to work on concepts by using educational game apps that were related to the concepts. The students also used the computers to complete related concept

lessons on StudyIsland.com within practice and game mode. Students even used iPads to assist in completion of CCGPS performance tasks.

Then I compared improvement of students' scores with technology to scores without technology. Based off of my implementation, I was able to compare which students had the largest gains.

Realist ethnography was the best qualitative method to use. My topic is not an issue that is forming some form of inequality and needs actions from all parties. My topic is not a topic that have been researched all that often, which means I could not complete it as a case-study because there are not multiple studies to compare it to. Therefore, I used realist ethnography to gather knowledge on the cultural theme that could be used to create a plan on how to use technology.

With my topic being related to using technology as motivation within the classroom, the quantitative method called time series design allowed me to focus on my classroom. With the time series, I was able to use the interrupted time series design where I started with pretest of content before observation of lessons without technology and with technology. Then, I conducted observations of lessons with technology. After the lessons are taught, I gave students a posttest of content students learned. Next, I did interventions of teaching lessons with technology, observe few lessons, and administer another posttest.

After analyzing all qualitative and quantitative data, I was able to compare and contrast findings and find common themes. Based off of data, I should be able to determine if technology increased motivation within students, which students increased significantly, and if the data from both methods correlate.



### **Analysis**

I analyzed the data of the questionnaire through the use of an ordinal scale. I used Google Forms and created a scale questionnaire to calculate student responses. The scale range included: Strong Agree (1), Agree (2), Somewhat Agree (3), Somewhat Disagree (4), Disagree (5), and Strongly Disagree (6). You can find results in bar graphs below in Appendix II. To describe the trends of resiliency, descriptive statistics was used. I used the Anova: Single Factor tool to analyze data for pre-test and post-tests. I also analyze the interviews through the use of transcribing and data coding for themes.

### **Results and Conclusion**

Based off of the data that was collected from the survey, I could tell that I had a wide range of different external factors that affect my students. Under the category of School Assets, the students were asked to honestly express how they felt about their school life. I was able to assess that most of the students agree that the teachers and adults care about them, tell them when they are doing a good job, or believe in them. Only 4% of the students disagreed that the teachers believe that they can do a good job. In the School Assets category, more students disagreed that they have the opportunity to create rules in school. Thirty-three percent disagree that they get to help make school rules or choose things, and 13% strongly disagree.

In the category of home assets, 6% of the students disagreed to some degree that they do not have someone at home that cares about their school work. Another 6% disagreed or strongly disagreed that their parents listen to them. Two percent of the students disagree that they have some adult at home that believes they can do well. 100% of students agree to some extent that their parents want them to do their best. Like under the School Assets, at home many students

disagree that they have the opportunity to make rules or choose things. Four percent of the students somewhat disagreed, 16% disagreed, and 27% strongly disagreed.

There was a wide range of responses under the peer assets category. It was very close to half of the students who have best friends getting in trouble. Fifty-three percent of students agreed to some degree that their best friends get into trouble and 47% disagreed. According the questionnaire, although many students are getting in trouble, most of them are trying to do the right things in school. Only 9% of the students are not trying to do the right things according to their peers.

Under the Internal Resilience category, the majority of the students either agreed, somewhat agreed, or somewhat disagreed that they understood others feelings. Seventy-five percent of the students to some degree agreed that they feel bad when they hurt someone's feelings. Only 2% of the students somewhat disagree that they try their best. Nineteen percent of the students do not like to talk or write about the problems that are bother them. One hundred percent of students agreed that they have some future plans; however, 15% of the students either somewhat disagreed, disagreed, or strongly disagreed that they will attend college or other schools after high school.

From this project, I was able to analyze the pre-and post-tests without and with implementation of technology using the Anova: Single Factor tool. With this tool, I was able to test the difference between the means of the three test. The variables of this project included motivation increase based off of no implementation or implementation of technology during instruction. I decided to conduct my project while teaching a concept that my students appear to struggle with each year, which is fractions. The concepts that I focused on was simplifying

fractions and adding/subtracting fractions and mixed numbers. Below you will find the Anova: Single Factor data analysis from this research project.

Anova: Single Factor						
SUMMARY						
<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>		
Pre-test	45	1425	31.67	181.23		
Post test w/o integration	45	2793	62.07	188.93		
Post-test with integration	45	3743	83.18	207.65		
ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	60348.50	2	30174.25	156.67	1.40E-35	3.06
Within Groups	25423.38	132	192.60			
Total	85771.88	134				

Summary statistics of Adding and Subtracting Fractions and Mixed Number Unit test scores (out of 100 possible points) for 45 students suggest increase in scores as a result of implementation of technology within class instruction. The mean of the pre-test was 31.67, increasing to 62.07 with lessons without implementation of technology, and finally an increased mean of 83.18 after lessons taught with implementation of technology. A single factor ANOVA was computed to examine the effect that teaching with technology will increase student motivation and have an effect on the post-test unit scores. There was a significant effect of integrating technology within the students' scores. [ $F(2, 132) = 156.67, p < 0.05$ ]. The critical

value was 3.06 and  $F=156.67$ , which is higher than the critical value. Therefore, the P-value is 1.40 which is more than 0.05.

I also had the opportunity to interview two colleagues to compare their experiences and beliefs about motivation, technology, and resilience. In Appendix III, you will find a transcript of each interview. Both interviewees are elementary teachers who have at least 15 years of experience in teaching. One participant originally began her experience within the middle school setting. Both participants have taught in states other than Georgia. They both described several strategies that they have used within their classrooms to motivate all of their students, as well as the use of technological advancements. They even discussed the negative aspects with motivation and technology.

Some common themes within both interviews were *motivation*, *technology use*, *classroom strategies*, and *negative aspects*. Within both interviews, the teachers discussed how students nowadays are considered to be living in the digital age, where they are accustomed to the latest technology. They both discussed how technology would not only motivate students with difficult backgrounds, but all students. In each interview, the teachers both expressed how hands-on learning is definitely a benefit for the students. Learning hands-on often motivates the students and gets them all excited to learn. Another common theme was technology. Within this theme, the interviewees discussed the lack of resources for the students. They both discussed how they use technology as a resource more than a reward. Both described how they use technology as an incentive for behavior modification plan. For a few students, they have tried several strategies to increase behavior modification. What these two teachers have found is

that technology often motivates the students to improve their behavior. Both teachers discussed how technology in the classroom is an enhancement of instruction and extends learning.

The negative aspects that both teachers discussed was the lack of technology resources in the classroom and at home. They explained that lack of resources at home causes the students to have a lack of exposure and does not advances the students' technological skills. The teachers also discussed how a lack of technological resources put the students in a disadvantage to other students who are often exposed to these technological advancements. One teacher discussed that one way that she is increasing the amount of the technology within her classroom is through writing grants. She recently had a project funded through Donors Choose.

From both interviews, I gathered that the teachers felt that technology most definitely increases the motivation within all students. Although it may really increase or spark the interest of students who may have a difficult home life or outside external influences, technology will increase the motivation of all students depending on how it is used.

### **Summary**

Based off of the implementation, data analysis of test scores, and interviews, I am able to conclude that technology has a tremendous influence on students' motivation and interest. The students appeared to focus more and remain the information faster than without technology. From the questionnaire, I was able to determine several external factors that often blocks my students' focus or attention. Based off my overall research, I can conclude that technology played a major role in the increase of motivation and resiliency in students. Also based off of the data analysis of the tests, I was able to determine that technology did not only cause a significant increase in students who display resiliency, but also caused a significant gain in scores for all

other students as well. As mentioned in one of the interviews, our students live in a technology driven society and technology sparks the interest of most students regardless of their background situations. Overall, technology simply increases motivation in all students if it is used correctly.

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**APPENDIX I**

Questionnaire/Survey questions for students (students will be given a kid-friendly survey. Students will have to respond to questions through the use of a scale)

<i>Meaningful participation at school</i>	Do you help make class rules or choose things to do at school?
	Do you do things to be helpful at school?
<i>Environmental resilience assets</i>	
<b>School assets</b>	Do the teachers and other grown-ups at school care about you?
<i>Caring relationships at school</i>	Do the teachers and other grown-ups at school listen when you have something to say?
	Do the teachers and other grown-ups at school tell you when you do a good job?
<i>High expectations at school</i>	Do the teachers and other grown-ups at school believe that you can do a good job?
<i>Home assets</i>	Does a parent or some other grown-up at home care about your schoolwork?
<i>Caring relationships at home</i>	Does a parent or some other grown-up at home listen to you when you have something to say?
	Does a parent or some other grown-up at home believe that you can do a good job?
<i>High expectations at home</i>	Does a parent or some other grown-up at home want you to do your best?
	Do you help out at home?
<i>Meaningful participation at home</i>	Do you get to make rules or choose things to do at home?
<b>Peer assets</b>	Do your best friends get into trouble?
<i>High expectations with peers</i>	Do your best friends try to do the right thing?
<b>Internal resilience assets</b>	Do you try to understand how other people feel?

<i>Empathy</i>	Do you feel bad when someone gets their feelings hurt?
	Do you know where to go to get help with a problem?
<i>Problem-solving</i>	Do you try to work out your problems by talking or writing about them?
	Do you try to do your best?
<i>Goals and Aspirations</i>	Do you have goals and plans for the future?
	Do you plan to go to college or some other school after high school?

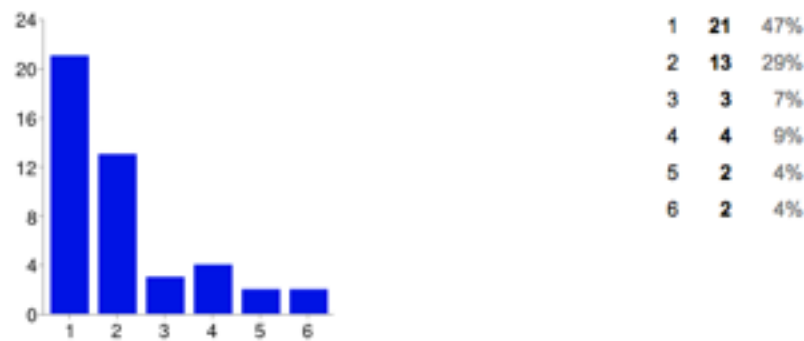
This survey was used as a part of the Healthy Kids Survey.

Hanson, T. L., & Kim, J. O. (2007). *Measuring resilience and youth development: the psychometric properties of the Healthy Kids Survey*. (Issues & Answers Report, REL 2007–No. 034). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory West. Retrieved from <http://ies.ed.gov/ncee/edlabs>.

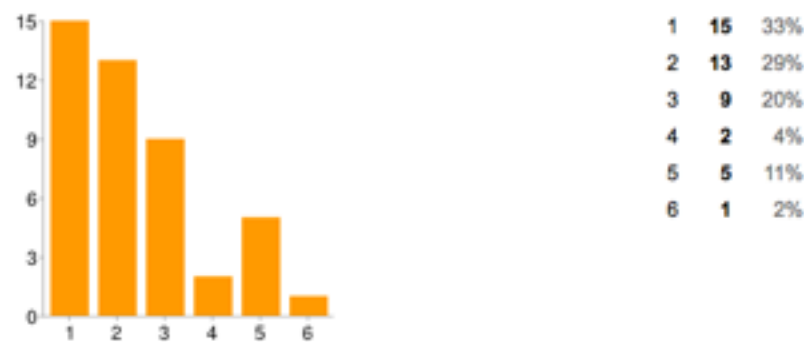
## **APPENDIX II**

RESULTS/DATA FROM QUESTIONNAIRE

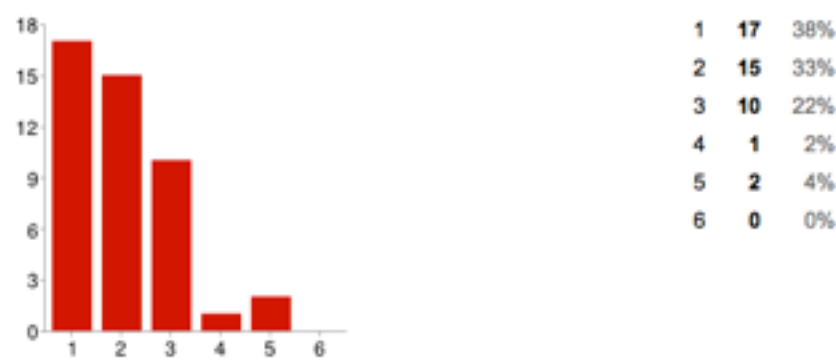
**Do the teachers and other grown-ups at school care about you?**



**Do the teachers and other grown-ups at school listen when you have something to say?**



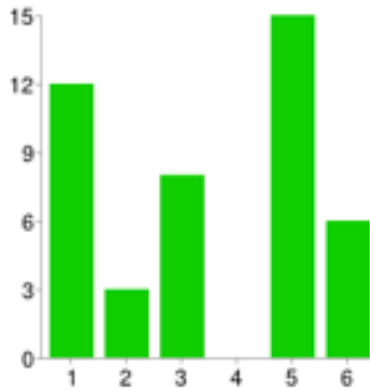
**Do the teachers and other grown-ups at school tell you when you do a good job?**



**Do the teachers and other grown-ups at school believe that you can do a good job?**

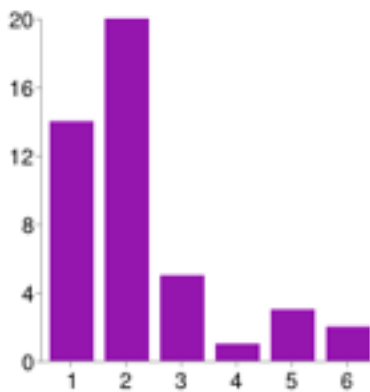


**Do you help make class rules or choose things to do at school?**



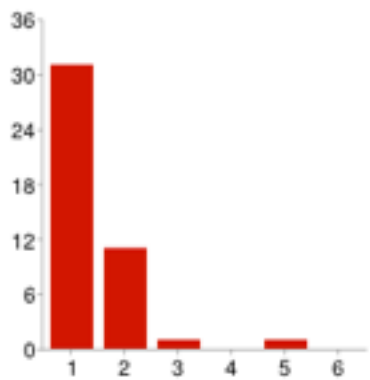
1	12	27%
2	3	7%
3	8	18%
4	0	0%
5	15	33%
6	6	13%

**Do you do things to be helpful at school?**



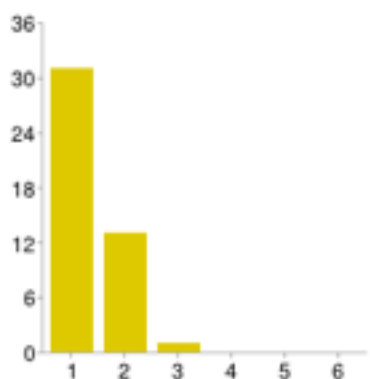
1	14	31%
2	20	44%
3	5	11%
4	1	2%
5	3	7%
6	2	4%

**Does a parent or some other grown-up at home believe that you can do a good job?**



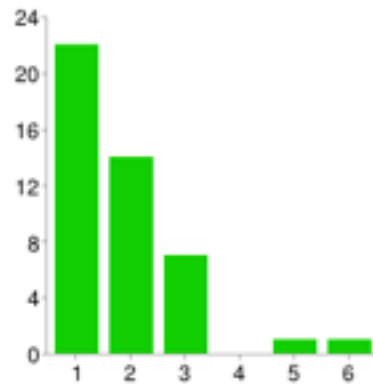
1	31	69%
2	11	24%
3	1	2%
4	0	0%
5	1	2%
6	0	0%

**Does a parent or some other grown-up at home want you to do your best?**



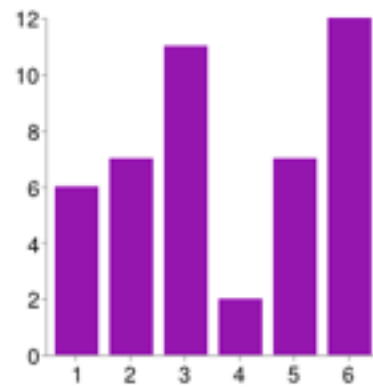
1	31	69%
2	13	29%
3	1	2%
4	0	0%
5	0	0%
6	0	0%

**Do you help out at home?**



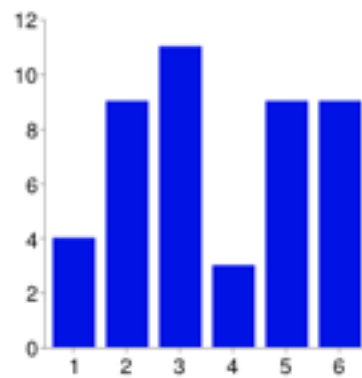
1	22	49%
2	14	31%
3	7	16%
4	0	0%
5	1	2%
6	1	2%

**Do you get to make rules or choose things to do at home?**



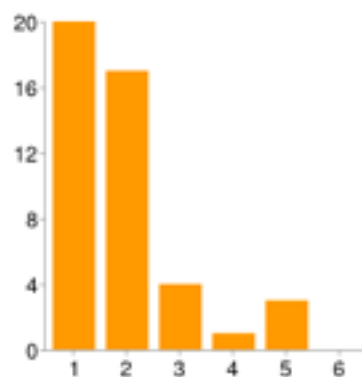
1	6	13%
2	7	16%
3	11	24%
4	2	4%
5	7	16%
6	12	27%

**Do your best friends get into trouble?**



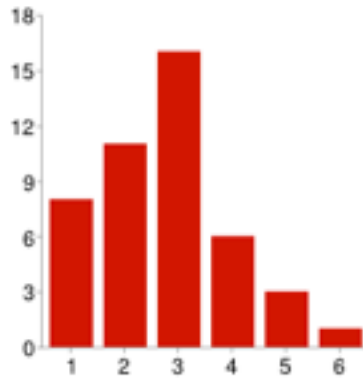
1	4	9%
2	9	20%
3	11	24%
4	3	7%
5	9	20%
6	9	20%

**Do your best friends try to do the right thing?**



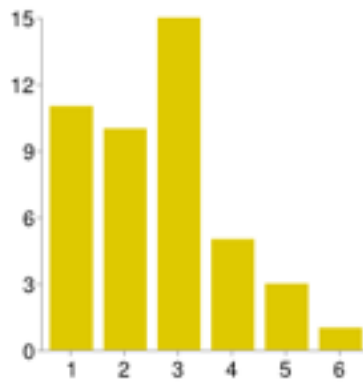
1	20	44%
2	17	38%
3	4	9%
4	1	2%
5	3	7%
6	0	0%

**Do you know where to go to get help with a problem?**



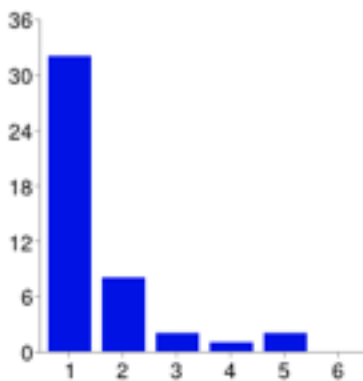
1	8	18%
2	11	24%
3	16	36%
4	6	13%
5	3	7%
6	1	2%

**Do you try to work out your problems by talking or writing about them?**



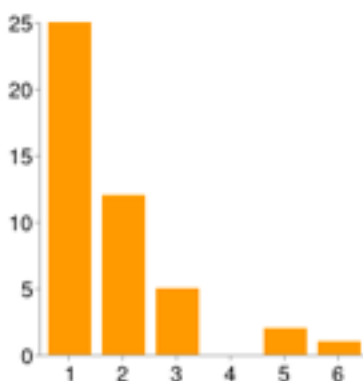
1	11	24%
2	10	22%
3	15	33%
4	5	11%
5	3	7%
6	1	2%

**Does a parent or some other grown-up at home care about your schoolwork?**



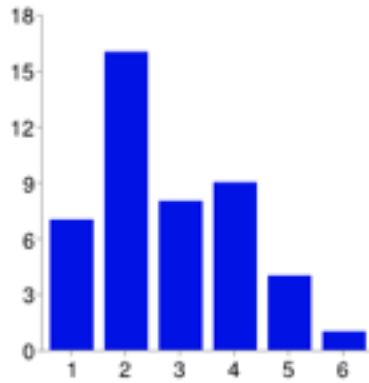
1	32	71%
2	8	18%
3	2	4%
4	1	2%
5	2	4%
6	0	0%

**Does a parent or some other grown-up at home listen to you when you have something to say?**



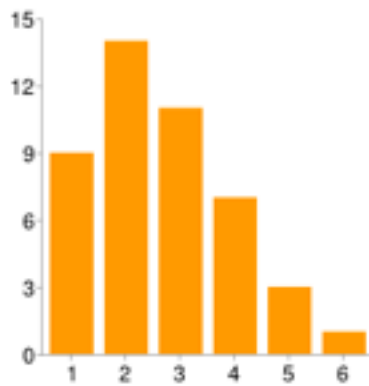
1	25	56%
2	12	27%
3	5	11%
4	0	0%
5	2	4%
6	1	2%

**Do you try to understand how other people feel?**



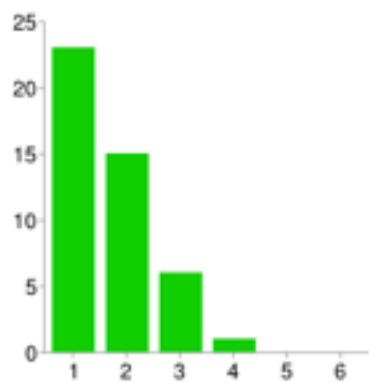
1	7	16%
2	16	36%
3	8	18%
4	9	20%
5	4	9%
6	1	2%

**Do you feel bad when someone gets their feelings hurt?**



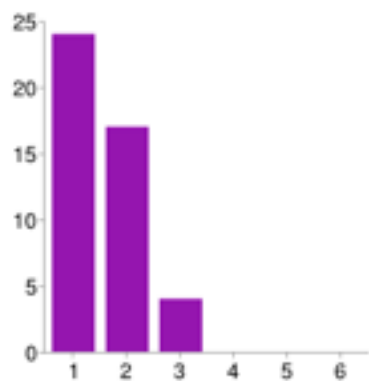
1	9	20%
2	14	31%
3	11	24%
4	7	16%
5	3	7%
6	1	2%

**Do you try to do your best?**



1	23	51%
2	15	33%
3	6	13%
4	1	2%
5	0	0%
6	0	0%

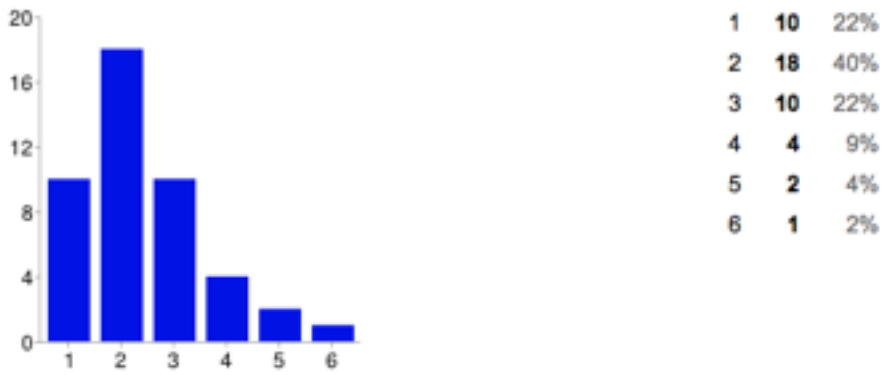
**Do you have goals and plans for the future?**



1	24	53%
2	17	38%
3	4	9%
4	0	0%
5	0	0%
6	0	0%



**Do you plan to go to college or some other school after high school?**



### APPENDIX III

Interview #1: Mrs. WS

Date: November 12, 2014

Time: 3:05 pm

Q: Umm, ok...this is my first interview with Ms. W...first question, In your experience, what are some strategies that you often use to motivate your students to complete assignments in class?

A: Umm, I bring in real life before we start assignments. I usually bring in real life examples so it can peak their interest. I like to keep the assignments engaging and basically quick based so that they are constantly moving and doing something. If it is Math, we do hands on, umm, hands on activities until its time for them to actually solve problems. If it is reading, I use video to show strategies...to show...to get them to identify strategies, any types of activities that I might find online in order to keep them motivated throughout the lesson.

Q: Cool! How often do you use technology in your classroom?

A: Just about all day every day, I use technology. Since I teach reading, a lot of times when we are reading texts, any type of text, umm, a lot of the information that they come across is not..they don't have a lot of background knowledge for that information, so I like to use the internet to show different things that they may come across in their reading. For example we were reading a story about...it was a folk tale and they didn't know...it was folk tale written by someone living in India and they had no clue why ancestor wrote folktales. So I was able to pull up a video about why folktales where passed down generation to generation on the internet.

Q: Ok..umm...How often do your student use technology into the classroom?

A: I would like for them to use it more often. I do have right now, four computers. I do let them get on, but since I have more students than computers, all students aren't able to use technology every day. However, I just received a grant from Donor's Choose where I will be getting 4 more mini iPads, so I will be able to increase the number of students who have access to technology every day.

Q: That's pretty awesome! Donor's Choose. Is technology used as a resource or more as a reward? Why?

A: It is mostly for me used as a resource. I think I have one student who I have it tied into a behavior intervention for them, but the majority I use it more so as a resource to either supplement learning, to activate prior knowledge, or to extend learning.

Q: Ok. In your experience, would say that technology is considered to be a motivational tool for students within the classroom? Why or why not?

A: Absolutely! It would be a motivational tool because a lot of my student do not have access to technology at home, so when they are able to use...umm, when they are able to use technology within the classroom that excites them. That already sparks...umm already have their attention sparked because they are able to do something that they are not usually able to do.

Q: Ok...some of our students have outside distractions, so do you think that technology would increase their motivation to do well or better in school despite the outside circumstances or distractions at home?

A: Absolutely. In a school that I worked at in Charlotte, they implemented an iPad Lab, and basically use the iPad lab for an hour for research. We had less attendance issues and behavior issues on those two days. When I tell kids enjoyed, just the fact that they were able to use the iPad lab...umm, being able to learn like that, being able to research, they...on the days that they didn't go to the lab, they were more motivated to get work together for them to use the next day in that iPad lab. It was cool.

Q: Wow! That is pretty awesome! I think that I will have to work on implementing that within my classroom. Thank you Ms. W for your time and being a part of my interview process!

Interview #2: Ms. MC

Date: November 12, 2014

Time: 3:30 pm

Q: Thank for you for allowing me to interview you for my research paper. First question...In your experience, what are some strategies that you often use to motivate your students to complete assignments in class?

A: Umm, students are motivated by having the ability to monitor their progress. They complete assignments and receive immediate feedback, which is a letter grade or some type of comment or score that lets them know how they are doing and they have to monitor, check and keep a log of their progress and thus they set goals to obtain their work. So their motivation comes from receiving rewards which may be token in class or it may be a lunch time activity that they like

such as playing the Wii. So they are motivated by receiving rewards and the ability of monitoring their progress, and create goals for themselves and obtain those goals.

Q: Cool! How often do you use technology in your classroom?

A: Umm, I try my best to use technology as much as possible, at least once a week. We have a center with iPads and students are able to use apps at least once or twice a week with the iPads. We have desktops where they go online and complete some assessments, which we do that at least once a week. So once a week or more is a target...between one to three times per week. It depends on the concepts and activities that are going on throughout the week...so as often as possible, because they are able to apply their knowledge and use it...their knowledge of concepts and skills in a different way. With the enhancement of technology brings it to the 21st century and really holds on to the attention of the students and they are actively engaged in their learning with the use of technology at 1 to 3 times per week.

Q: Umm...Is technology used as a resource or more as a reward? Why?

A: Umm...most of the time, it is used as a resource. Like I said students are able to apply their knowledge to some form of technology, whether it be online or on the iPad...umm, but I also have some technology time on Fridays as a reward, but moreover as a resource and less often as a reward. And it also depends on that particular student...if I have a student that has difficulty managing behavior, and then I may use technology as a reward. And that time may occur throughout anytime of the day. So it really depends on the dynamics of the classroom, but moreover as a resource, not so much a reward, umm, in my classroom.

Q: In your experience, would say that technology is considered to be a motivational tool for students within the classroom? Why or why not?

A: Umm...yes, I think it is a motivational tool because students seem to love the opportunity to use, whether it be to view video, or create some type of PowerPoint or presentation using Weebly, or create or join in on some type of blog...They just enjoy that! And that the way of the world and that's what they are used to..And that paper and pencil just seem not to work well to enhance the instruction of students in this day and age. So technology has been a great tool to enhance instruction and I feel that students are able to apply and see their learning actively within classrooms...so definitely as an enhancement and also as a motivational tool to keep all learners wanting to improve.

Q: Ok...some of our students have outside distractions, so do you think that technology would increase their motivation to do well or better in school despite the outside circumstances or distractions at home?

A: Students that are having some type of difficult background at home can definitely use technology to enhance their learning because that may be something that they may not see at home. And that will definite motivate them to have that just exposure to technology, for which they may not get it in their home life. Technology can enhance a lot for all students..this group of students because this is what they are used it. They are used to something that has video, animation, something that has sound, something they can see, something that they can actually apply, use, make. And there are various advances in technology that they have become accustomed to..and so most of the time, students are looking for some type of technology within the classroom. But it is all about exposure. And hopefully, they have been exposed to different aspects of technology.

Q: Well, cool! That’s all of my questions. I appreciate you staying and answering all of my interview question! Thanks and have a great one!!

**APPENDIX IV**

ANOVA: Single Factor Data Analysis

Table 1				
Students	Pre-test	Post test w/o integration	Post-test	
1	29	57	100	
2	14	64	91	
3	21	36	64	
4	43	64	82	
5	36	73	82	
6	57	73	91	
7	29	57	73	
8	36	64	82	
9	36	43	73	
10	43	91	100	
11	43	57	82	
12	29	57	82	
13	29	57	100	
14	21	36	18	
15	64	91	100	
16	21	64	82	
17	36	57	91	
18	57	82	100	
19	50	82	91	
20	57	73	100	
21	29	64	82	
22	29	57	82	
23	7	43	64	
24	29	64	73	
25	21	64	73	
26	21	64	82	
27	21	73	91	
28	36	73	82	
45	7	50	82	

ANOVA: Single Factor						
SUMMARY						
Groups	Count	Sum	Average	Variance		
Pre-test	45	1425	31.67	181.23		
Post test w/o integration	45	2793	62.07	188.93		
Post-test with integration	45	3743	83.18	207.65		

ANOVA							
Source of Variation	SS	df	MS	F	P-value	F crit	
Between Groups	60348.50	2	30174.25	156.67	1.40E-35	3.06	
Within Groups	25423.38	132	192.60				
Total	85771.88	134					

## APPENDIX V

### PARENTAL CONSENT FORM

**Title of Research Study:** Building on Resilience through Motivation with Technology in the Classroom

**Researcher's Contact Information:** Ms. Krystle Scott, (404) 802-7850, and kscott@atlanta.k12.ga.us

Your child is being invited to take part in a research study conducted by Krystle Scott of Kennesaw State University. Before you decide to allow your child to participate in this study, you should read this form and ask questions if you do not understand.

#### **Description of Project**

The purpose of the study is to show that despite the many challenges faced daily, students can use technology as motivation to succeed academically. Within this study, teacher will use strategies to demonstrate whether or not resiliency would increase if students become motivated within the classroom.

#### **Explanation of Procedures**

Students will be given questionnaires to measure resiliency within the students. The questionnaire will provide data that will help identify what contributes to the student's resiliency based on environment factors, needs of youth, and internal factors. After questionnaires, teacher will teacher classes with without incorporating technology for one week and given a post test at the end of the week. The following week, teacher will incorporate lessons with technology and administer post-test at the end of the week. After the two weeks, teacher will compare improvement with technology. Teacher will use gathered data through the use of surveys, questionnaires, pre-tests, and post-tests to determine whether technology increases motivation and student resiliency by comparing and contrasting findings and finding common themes.

#### **Time Required**

This study will take place over a **five** week time frame during October 2014-November 2014:

1 week— Distribute, collect, and analyze student questionnaires

1 week—Pretest, Observation without technology used classroom, and Posttest

1 week—Intervention, Observation with technology infused into daily instruction, and Post-test

2 weeks—Teacher Interviews, Data analysis and comparing findings

#### **Risks or Discomforts**

There are no known risks or anticipated discomforts in this study.

#### **Benefits**

Students will be able to receive technologically enriched lessons to help understand content. Teachers will be able to discover strategies that will help instructional strategies for the future.

**Compensation**

There is no compensation for participating in this research study.

**Confidentiality**

The results of this participation will be confidential. Researcher will use pseudonyms to maintain confidentiality of students. There will be no descriptive reports to identify each individual students.

**Use of Online Surveys** (if applicable)

Data collected online will be handled in a confidential manner (identifiers will be used) but Internet Protocol addresses **WILL NOT** be collected by the survey program.

**Inclusion Criteria for Participation**

Teacher will inform parents by sending home the following forms: Parental Consent Form and Assent Forms for Minors. Since the research will be done in classroom, teacher will ask Mrs. Twyman (principal) or 4th grade teacher to obtain assent.

**Consent to Participate**

I give my consent for my child, \_\_\_\_\_, to participate in the research project described above. I understand that this participation is voluntary and that I may withdraw my consent at any time without penalty. I also understand that my child may withdraw his/her assent at any time without penalty.

\_\_\_\_\_  
Signature of Parent or Authorized Representative, Date

\_\_\_\_\_  
Signature of Researcher, Date

Research at Kennesaw State University that involves human participants is carried out under the oversight of an Institutional Review Board. Address questions or problems regarding these activities to the Institutional Review Board, Kennesaw State University, 585 Cobb Avenue, KH3403, Kennesaw, GA 30144-5591, (470) 578-2268.

**APPENDIX VI****SIGNED CONSENT FORM**

**Title of Research Study:** Building on Resilience through Motivation with Technology in the Classroom

**Researcher's Contact Information:** Ms. Krystle Scott, (404) 802-7850, and kscott@atlanta.k12.ga.us

**Introduction**

You are being invited to take part in a research study conducted by Krystle Scott of Kennesaw State University. Before you decide to participate in this study, you should read this form and ask questions about anything that you do not understand.

**Description of Project**

The purpose of the study is to show that despite the many challenges faced daily, students can use technology as motivation to succeed academically. Within this study, teacher will use strategies to demonstrate whether or not resiliency would increase if students become motivated within the classroom.

**Explanation of Procedures**

Students will be given questionnaires to measure resiliency within the students. The questionnaire will provide data that will help identify what contributes to the student resiliency based on environment factors, needs of youth, and internal factors. After questionnaires, teacher will teacher classes with without incorporating technology for one week and given a post test at the end of the week. The following week, teacher will incorporate lessons with technology and administer post-test at the end of the week. After the two weeks, teacher will compare improvement with technology. Teacher will use gathered data through the use of surveys, questionnaires, pre-tests, and post-tests to determine whether technology increases motivation and student resiliency by comparing and contrasting findings and finding common themes.

**Time Required**

This study will take place over a **five** week time frame during October 2014-November 2014:

1 week— Distribute, collect, and analyze student questionnaires

1 week—Pretest, Observation without technology used classroom, and Posttest

1 week—Intervention, Observation with technology infused into daily instruction, and Post-test

2 weeks—Teacher Interviews, Data analysis and comparing findings



**Risks or Discomforts**

There are no known risks or anticipated discomforts in this study.

**Benefits**

Students will be able to receive technologically enriched lessons to help understand content. Teacher will be able to discover strategies that will help instructional strategies for the future.

**Compensation**

There is no compensation for participating in this research study.

**Confidentiality**

The results of this participation will be confidential. Researcher will use pseudonyms to maintain confidentiality of students. There will be no descriptive reports to identify each individual students.

**Inclusion Criteria for Participation**

Teacher will inform parents by sending home the following forms: Parental Consent Form and Assent Forms for Minors. Since the research will be done in classroom, teacher will ask principal to obtain assent.

**Signed Consent**

I agree and give my consent to participate in this research project. I understand that participation is voluntary and that I may withdraw my consent at any time without penalty.

---

Signature of Participant or Authorized Representative, Date

---

Signature of Researcher, Date

---

PLEASE SIGN BOTH COPIES OF THIS FORM, KEEP ONE AND RETURN THE OTHER TO THE INVESTIGATOR

Research at Kennesaw State University that involves human participants is carried out under the oversight of an Institutional Review Board. Questions or problems regarding these activities should be addressed to the Institutional Review Board, Kennesaw State University, 585 Cobb Avenue, KH3403, Kennesaw, GA 30144-5591, (470) 578-2268.

APPENDIX VII**Research Study Assent Form (7-10 Year Age Range)**

**Study Title: Building on Resilience through Motivation with Technology in the Classroom**

**Researcher:**

*Ms. Krystle Scott, (404) 802-7850, and kscott@atlanta.k12.ga.us*

My name is *Ms. Krystle Scott*. I am from Kennesaw State University.

- I am inviting you to be in a research study about *whether technology will increase motivation in students*.
- Your parent knows we are going to ask you to be in this research study, but you get to make the final choice. It is up to you. If you decide to be in the study, we will ask you to complete a student questionnaire, have one week of instruction without technology, have another week of instruction with the use of technology, and take a pre-test and post-tests. This study will take place over a **five** week time frame during October 2014-November 2014.
- Media recording will be a part of the study. However, I will not record you without your permission.
- If you take part in this research study, you will be able to receive technologically enriched lessons to help understand content. It will also help me to be able to discover strategies that I can use to improve how I teach you in the future.
- I don't think anything bad would happen if you decide to take part in this research study, but some kids might get bored during the week when we do not use technology. I am going to do my best to make sure that you still enjoy the activities that we have to do without technology.
- If anything in the study worries you or makes you uncomfortable, let me know and you can stop.
- Everything you say and do will be private. We won't tell your parents or anyone else what you say or do while you are taking part in the study. When we tell other people about what we learned in the study, we won't tell them your name or the name of anyone else who took part in the research study.
- You don't have to be in this study. It is up to you. You can say no now or you can change your mind later. No one will be upset if you change your mind.

- You can ask us questions at any time and you can talk to your parent any time you want. We will give you a copy of this form that you can keep. Here is the name and phone number of someone you can talk to if you have questions about the study:

Name: *Krystle Scott* Phone number *(404) 802-7850*

- Do you have any questions now that I can answer for you?

IF YOU WANT TO BE IN THE STUDY, SIGN OR PRINT YOUR NAME ON THE LINE BELOW:

Put an X on this line if it is okay for us to record you \_\_\_\_\_

\_\_\_\_\_  
Child name and signature

\_\_\_\_\_  
Date

Check which of the following applies (*completed by Mrs. Twyman or one of the 4th grade teachers*)

- Child is capable of reading and understanding the assent form and has signed above as documentation of assent to take part in this study.
- Child is not capable of reading the assent form, but the information was verbally explained to him/her. The child signed above as documentation of assent to take part in this study.

\_\_\_\_\_  
Name of parent who gave consent for child to participate

\_\_\_\_\_  
Signature of person obtaining assent

\_\_\_\_\_  
Date