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 investigation 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 participant 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 gain motivation which will increase resiliency in studies. This study will help other educators determine what may be beneficial with different teaching styles. Other educations will be able to use the findings to help build the culture of their classroom 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 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 being to dealt with.

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 technology.

Literature Review

In my first year of teaching, teaching at an elementary school where the population was predominate African American, there are 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 the many indecencies that society has to offer, still be able to function, focus, and learn consistently at school?" It is 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 teacher would definitely be a provider of consistency. Williams and Bryan (2013) conducted a study identify 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 show related to environmental factors that contributed to their academic success despite adversity. The ten main themes were: 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 where 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 involving 5,805 undergraduate students from the University of Paeda. The participants were administered theSelf-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 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. There stories can be

used as encouragement and inspiration for teachers who may have thoughts of leaving

profession. Resilence within a student requires good teaching from a great source. Resiliency is

an important reason why teachers are needed staying 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 teacher can make a tremendous different 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 are 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 an 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 Powerpoint or other learning presentation created by students. The authors also found that student's 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 African American's about online communication indicates that they are enthused about computer mediated communication and actively learning. They also wanted to analyzed 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 participular country and located a keypal. Students were required to communicate with keypal 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 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 school where 4 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 knowledgable on how to be creative with a 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 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 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 where 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 the student's responses, their interest increase due to intrinsic motivation and curiosity.The majority of the students decisions to use digital tools in their classroom in the future was decide due to motivation and other contributing factors.

Finding what motivates students now is a struggle for teachers because they learned and was motivated in a different way from 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 were 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 where 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 class, 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 examine the relationship among students' characteristics, self-regulated learning, technology self-efficacy, and course outcomes in online learning settings. They conducted this study with an online surveys, questionnaires, online technology self-efficacy scale, 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 on pace and not report to class at a certain time. They also suggested that workshops are 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 4 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 girl not in technology education. The authors found that when the students have a freedom of choice, the more intrinsically motivated they are. 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. Experience teachers struggle with incorporating technology into the classroom because they are familiar with teaching with textbook, board, 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. In order for teachers to enhances resilience in students, there are several themes that a teacher must consider. Motivation is one of the main themes. In order to build on motivation in the 21st century student, educators must start with their students' interests and incorporate it with what is considered the way of the world. Teachers must incorporate technology.

Methodology Design

Overview of Research Design

This study will take place over an eight to nine weeks time frame. To distribute, collect, and analyze student questionnaires will take two weeks. The pretest, observation without technology implemented into classrooms, and posttest will take two weeks. The intervention, observation with technology infused into daily instruction, and post test after intervention will take two weeks. The final stages of data analysis and comparing findings will take another two to three weeks.

Participants

My research topic is related to using technology to increase motivation and resiliency in African American study. I will gather data from around 45 to 80 fourth grade African American students who share some of the same cultures, values, behaviors, language, and beliefs. The amount of students will depend on how classes I will teach that school term.

Data Sources/ Instrumentation/Procedures

With this study, I will use a mixed methodology. The design that will be used would be the Convergent Parallel Design. With this design, I will be able to collect both qualitative and quantitative data, analyze data separately, then compare the two. After comparing, I will be able to make interpretations on whether or not all data supports each other. I will gather data through

the use of surveys, questionnaires, pre-tests, and post-tests to determine whether technology increases motivation and student resiliency.

This study will first start with a qualitative method. With this method, I will issue questionaries to participating students to measure resiliency in the students. Examples of the types of questions will be used are as follows:

- What responsibilities do they have at home?

- What are some problems in the community that they do not like?

- Do they have siblings? If so, are you responsible for taking care of younger siblings when parents are away?

- Do you try to understand how other people feel?

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

The questionnaire will not be limited to these questions only. 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, I will continue with qualitative research. I would start by testing participating classes with without incorporating technology. Based off of my observations and data analysis from questionnaire, I will identify students with resilience and compare students without resilience. Then, I will incorporate lessons with technology. Then compare improvement with technology. I will be able to compare which students had the largest gains.

Realist ethnography will be 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 would use 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 will allow me to focus on my classroom. With the time series, I will be able to use the interrupted time series design where I will start with pretest of content before observation of lessons without technology and with technology. Then, I will conduct observations of lessons with technology. After the lessons are taught, I will give students posttest of content students learned. Next, I would have to do intervention of teaching lessons with technology, observe few lessons, and administer posttest.

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

Reliability/Validity or Credibility

Analysis

I plan to analyze the data of the questionnaire through the use of an ordinal scale. To describe the treads of resiliency, descriptive statistics will be used. I plan to use the measures of central tendency. I plan to use the mode for reporting variables with categorical variables.

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APPENDIX

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)

Environmental resilience assets

School assets *Caring relationships at school*	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?
High expectations at school	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?
Meaningful participation at school	Do you help make class rules or choose things to do at school?
	Do you do things to be helpful at school?
Home assets *Caring relationships at home*	Does a parent or some other grown-up at home care about your schoolwork?
	Does a parent or some other grown-up at home listen to you when you have something to say?
High expectations at home	Does a parent or some other grown-up at home believe that you can do a good job?
	Does a parent or some other grown-up at home want you to do your best?
Meaningful participation at home	Do you help out at home?
	Do you get to make rules or choose things to do at home?
Peer assets *High expectations with peers*	Do your best friends get into trouble?
	Do your best friends try to do the right thing?

Internal resilience assets	Do you try to understand how other people feel?
Empathy	Do you feel bad when someone gets their feelings hurt?
	Do you know where to go to get help with a problem?
Problem-solving	Do you try to work out your problems by talking or writing about them?
	Do you try to do your best?
Goals and Aspirations	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.

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