VOICE AND CHOICE: HOW SUPPLEMENTAL EDUCATIONAL PROGRAMS
INVOLVING INSTRUCTIONAL TECHNOLOGIES, DIGITAL LITERACY, AND
LEADERSHIP OPPORTUNITIES EMPOWER YOUTH TO ADVOCATE FOR
EDUCATIONAL CHANGE

A Dissertation
by
AMY L. MYERS AND REBEKKAH L. WATKINS

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 APPROVED BY:

Patrick O'Shea, Ph.D.
Chairperson, Dissertation Committee

Amy Washburn, Ed.D.
Member, Dissertation Committee

Andrea Burns, Ph.D.
Member, Dissertation Committee

Vachel Miller, Ed.D.
Director, Educational Leadership Doctoral Program

Ashley Colquitt, Ph.D.
Associate Vice Provost and Dean, Cratis D. Williams School of Graduate Studies

Abstract

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Amy Myers
B.A., University of North Carolina at Chapel Hill
M.A., North Carolina State University
M.L.S., East Carolina University
Ed.D., Appalachian State University

Rebekkah Watkins
B.J., University of Nebraska-Lincoln
M.A., Appalachian State University
Ed.D., Appalachian State University

Dissertation Committee Chairperson: Patrick O'Shea

The purpose of this research is to present a problem of inequality in North Carolina's
rural schools, summarize current research about it, and lastly propose how the two
researchers for this project addressed the issue. In essence, the problem that this study
addressed is that K-12 students in public schools are not receiving the leadership and
technology opportunities they need to be successful, and they are not active participants in
the education process. The research used a Youth Participatory Action Research
methodology to answer the problem throughout the course of a weeklong summer camp.
Students were taught leadership and digital literacy skills. A multitude of instructional
technologies were used throughout the week, and students created a final digital deliverable
to advocate for change within their schools.

The findings of the study suggest students benefit profoundly from supplemental educational opportunities like this camp because due to various constraints in the public school system, leadership and digital literacy skills are not being taught consistently for all students. The implications of the study suggest that more supplemental activities, such as this camp, benefit students in rural counties extensively and provide an added supplement to their public-school education. Further, educational leaders need to understand the importance of adding accountability in teaching specific skills, especially digital literacy, to today's students.

Dedication

Amy would like to dedicate this work to the memory of her parents William and Shirley Lowery who instilled an appreciation of education in her and gave her a love for lifelong learning. A special dedication goes to Baylor, Amy's trusted Sheltie, who attended too many classes via Zoom to count and for always, always being there no matter what. This dedicated animal represents the true meaning of friendship, and without him, Amy could not have completed this program.

Rebekkah would like to dedicate this work to her mother for being an ongoing support throughout her educational journey. She would also like to dedicate this work to her three siblings as they have spent the last 23 years listening to her talk about her schooling but always showing up for graduations anyway. An additional dedication goes to Mischa, Rebekkah's thirteen-year-old cat, who has been through every graduation from her high school graduation to her doctoral graduation. Without Mischa, Rebekkah would not have made it this far.

Amy and Rebekkah would also like to dedicate this work to Cohort 2A, the most supportive group of educators both of them have had the privilege of calling friends. While their time together began in the tumultuous pandemic era via Zoom, their friendship and support continued through countless graduations and life changes.

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Chapter 1

Foundational Knowledge Regarding the Research

This is a joint dissertation being completed by two doctoral students, who will refer to themselves as Technology Researcher (A. Myers) and Leadership Researcher (R. Watkins). They proposed that a collaborative dissertation was the most appropriate way for them to attain their research goals, as they both hoped to collaborate on ways supplemental educational offerings could help students progress beyond their lower socioeconomic status, while each of these doctoral students considered very different aspects within the research: leadership and instructional technology/digital literacy.

Through a summer camp they developed and implemented together during the summer of 2023, they broadened and enlarged educational offerings beyond the state-mandated curriculum for approximately six rising fifth, sixth, and seventh grade students in rural Jackson County, (see Figure 1) North Carolina. Because of their geographic isolation, these students often fail to get exposure to culture beyond their own community, thus causing them to be ill-prepared for life beyond a working-class station anywhere but in their native location. Further, they lack knowledge of careers and skills beyond the offerings within their communities. Traditional public education is failing many students like these due to its focus on testing and Eurocentric ideals. The researchers offered a supplemental option in the form of a summer camp, and at the conclusion of the camp they evaluated data in terms of their respective interests.

Figure 1

Jackson County Is Highlighted On Map Of North Carolina

(Dincher, 2007).

Further, through a Youth Participatory Action Research (YPAR) methodology,
participants were involved in determining ways to actively improve their education while
learning leadership and digital literacy skills to support those actions and their long-term
academic success.

Research Problem

The purpose of this chapter is to present a problem of inequality in North Carolina's
rural schools, summarize current research about it, and lastly propose how the two
researchers for this project will address the issue. In essence, the problem that this study will
address is that K-12 students in public schools are not receiving the leadership and
technology opportunities they need to be successful, and they are not active participants in
the education process.

Evidence of the Problem

In the 1970s a French sociologist, Bourdieu, proposed that social and cultural classes

were reproduced through the cultural capital that schools provided to students. Up until this point, society had defined capital in economic terms, but Bourdieu explained that capital includes resources that provide distinction, such as property that comes from a person's social and economic status. Kleanthous (2013) explained, "Cultural capital consists of a large number of types of cultural knowledge and possessions including educational credentials and informational capital" (p. 156). In essence, this capital was a result of the schooling and exposure to other educational opportunities in one's life. Therefore, the better the school and other opportunities, the more cultural capital and a higher socioeconomic class in life one attained. Students received this cultural capital through the school's pedagogy and curricula, as well as privileges afforded by family background, which were associated with various socioeconomic classes. According to Rawolle and Lingard (2013), education sorted people into various classes and reproduced these classes through its curricula and pedagogy implicitly. The cultural capital found in the teachings of a school perpetuated the various classes and the inequality that existed between them. As cited in Green (2013), Bourdieu believed "the social world was accumulated history," and "there is no way out of the cultural assumptions and habits which we have inherited and which we will reproduce in the ways in which we interact with society" (p.139). Green also explained that Bourdieu believed that because schools perpetuated these "cultural assumptions and habits" the cycle of inequality between socioeconomic classes would continue. Bourdieu's theory about class and inequality substantiates the ongoing need for supplemental educational offerings for students from middle or lower socioeconomic classes because the cycle continues. The need is substantiated because these opportunities give people a way to grow their *cultural capital* and eventually move beyond their *habitus*.

Bourdieu's emphasis on how the educational system reproduces class is especially useful, as it allows the researcher to think through cultural, social, and economic capitals and how people create *habitus* that perpetuates class. Cultural habits become part of people's personality and moral virtues, which Bourdieu called *habitus*. Green (2013) explained, "Bourdieu uses *habitus* to refer to the deeply rooted assumptions, not explicitly reflected upon but held almost subconsciously, which we all inherit. These assumptions regulate both individual and collective action in the social world" (p. 140). Therefore, one's *habitus* influences a person's outcome in life in terms of their profession and social status. To this end, Bourdieu's conceptualization of educational reproduction is generative for grasping how supplemental educational offerings and an improved education for middle and lower social classes are imperative for equipping students with the cultural capital they need to move beyond their working or middle-class status and to succeed in today's society. It is here, also, that Bourdieu's attention to symbolic violence, which will be detailed later in this chapter, is of value for informing why higher socioeconomic classes use schools to oppress their lower counterparts in society.

Bourdieu's theory about class is central to these researchers' understanding of class in relation to the American educational system. This learning challenges previous ways of knowing by introducing those involved to a new way of critiquing and attempting to change how one's background and school impact class. It is common to wonder why most people remain grounded in the same socioeconomic class as their parents and grandparents, yet a few push forward. It is no secret the higher class does not welcome newcomers easily, but knowing how they use public schools as another means to maintain control is disturbing. Rawolle and Lingard (2013) explained how traditional education has perpetuated a greater

inequality because students do not grow their cultural capital when they remain in schools that reinforce their social class norms. Supplemental educational opportunities are important, but Bourdieu's theory explains that students face greater challenges to overcome their socioeconomic status than just their background, and these supplemental opportunities are imperative to enabling students to push beyond the limits. Schools matter, but additional educational opportunities may matter even more. Supplemental opportunities matter so much because they plant seeds of *cultural capital* for these individuals that may help them move beyond their socioeconomic backgrounds.

In addition, some argue the middle class does well in terms of schooling and the opportunities afforded by their cultural capital. In fact, according to Kleanthous (2013), Bourdieu talked about how the cultural capital from the middle-class habitus afforded those students more opportunities than students from the lower class (p.156). Middle class students excel in school, and they have more opportunities than their working-class counterparts, but without nontraditional educational opportunities, they, too, also suffer from a lack of cultural capital to ever rise above their social standing. In fact, they would do well to join forces with working class parents to improve schools, according to Brantlinger (2007). Brantlinger challenged previous ideas about school because he argued the middle class was being oppressed by the upper class, but they are unable to see it and instead fight to keep their students separate from the lower socioeconomic class. Brantlinger's assessment is on target, and one could also argue that cultural capital will always create one's habitus, and the higher class will remain in control until the middle and lower socioeconomic classes broaden their exposure to cultural capital through supplemental educational opportunities.

Bourdieu did extensive work regarding the impact of education on one's social class.

In fact, his concept of reproduction of class through education has been especially impactful to the researchers' understanding of critical class theory. According to Rawolle and Lingard (2013), Bourdieu argued education reproduces inequality because their cultural habits are part of everyone. The habitus, according to Bourdieu, affects how one relates to society, thereby impacting how and where they work and the friends with whom they interact. These friends form their professional and personal networks, which also significantly impact their social and cultural capital. Further, as cited in Green (2013), Bourdieu said that one's economic status determined everything, including their outcome in life.

Bourdieu also proposed the idea of symbolic violence, which he explained as being the procedures and regulations imposed by social institutions like schools and religious organizations. These ubiquitous institutions perpetuate inequalities, which create a type of "symbolic violence." According to Green (2013), Bourdieu believed "The concept of symbolic violence can be used to track the exercise of power and explore how particular cultural practices…are recognized and legitimated to validate and preserve control in the social field" (p. 142). Essentially, these bastions of society maintain the status quo and keep the dominant class in control.

Inequalities and Leadership

As educators, both researchers [who for the remainder of this dissertation will be known as the Leadership Researcher (R. Watkins), and the Technology Researcher (A. Myers)] of this project experience and observe the systems within public education that perpetuate inequalities. These inequalities continue to grow as one goes further into rural communities. As stated by Rodriguez (2018):

Critical theory provides a space of transformation or emancipation from the control

and distribution of power. Leadership plays a key role in this transformation; this

axiological understanding of leadership undergirds the conceptualization of [Latinx]

Educational Leadership. The importance of this is that students in diverse, rural, or

low-income areas, face the greatest need for educational opportunities to assist in the

perpetuation of more educational inequalities. (p. 6)

The expectation for students attending public schools is that they will join the workforce as

productive members of society once they graduate high school. Unfortunately, many students

in impoverished, rural North Carolina schools do not have the same opportunities as students

from more affluent and urban communities. Due to this lack of opportunities, the number of

students who are able to meet this expectation in rural areas is much lower than their peers in

other areas of the state.

Traditional Education's Focus

Traditional public education is failing many students due to its focus on testing and

Eurocentric ideals. Supplemental educational offerings, such as the camp offered by the

researchers are important, because according to Gamoran (2007), most tutoring and other

similar programs have focused specifically on minorities and females, and very few have

targeted those representing a lower socioeconomic status. This research focused specifically

on ways education can benefit students representing lower socioeconomic backgrounds

without regard to race or gender. Using instructional technologies, leadership and technology

skill-building, as well as digital citizenship lessons, these researchers exposed students to

topics they may never have explored in-depth inside a classroom with the added opportunity

to reflect on ways these experiences would benefit them. Many of them lack access to these

resources outside of school because of their isolated location, insufficient monetary resources, and lack of knowledge about these resources.

American Education Remains Unequal for Socioeconomic Classes

Gamoran (2007) found that even though American education has become more equal for race, it is just as unequal for socioeconomic classes as it has ever been despite ongoing federal and state policies. Further, Gamoran (2007) surmised this inequality will continue because the same socioeconomic circumstances exist in society. Schools are still primarily funded by property taxes; hence the rich get the best schools and more resources, while the poor do not (Gamoran, 2007, p. 170). In addition, leveled classes in high school, Gamoran argued, have contributed to the problem. This argument suggests more students take academically lower classes, which do not prepare students for universities, so they end up attending community colleges, thus perpetuating their lower socioeconomic class.

Anyon's (2007) research regarding the four types of schools based on class is just as relevant today as it was in the 1970s when she conducted her work. In fact, Anyon found that in the United States, despite social classes being in flux, the education associated with specific classes remained the same. Working class schools taught contrasting information and used different pedagogical methods than schools for middle or higher-class students. These researchers would argue the leadership and teachers in these schools were not cognizant of how they were reinforcing the class status of their students; nonetheless, they were complicit. Pedagogical approaches and even the curriculum differed from school to school based on the socioeconomic status of the students they served.

In addition, Kelly (2007) argued based on their research that students from middle and higher-class backgrounds were tracked to attend college-preparatory classes, while lower

social classes took lower-level classes. Due to this unequal separation, the students who represented the lower class were markedly less prepared for college. Kelly's research was conducted in the 21st century, and unfortunately is not that radically different from Anyon's, which was conducted in the 1970s. Very little has changed in American society over the years to mitigate the class divisions perpetuated by the educational system.

Leadership Is Important for Young Learners

Leadership begins at the merging point of ideas and human rights, and it is important to note that children, regardless of age, do in fact have human rights and ideas that can help shape their community and learning opportunities. By encouraging students of any age to participate in basic human rights, such as their education, begins the process of developing their own ideas about their lives and the ones around them. Level et al. (2022) state, "Participation in school decision making fosters a sense of citizenship in young learners, helping them to develop important competences, such as co-operation and communication skills, self-efficacy, responsibility, civic-mindedness and respect for the value of democracy" (p. 65). This alone begins the development of leadership skills as early as kindergarten. The problem with this concept is that many K-12 students do not have the opportunity to build these skills within the regular classroom. There is a vast amount of research on the importance and effect of leadership opportunities on middle and high school students but when it comes to elementary aged students, the research is limited. Mitra and Serriere (2012) took note of this lack of scholarship and began researching the development appropriateness of leadership skills in young children and began a project with fifth graders. Mitra and Serriere (2012) write:

Youth development is a process that prepares young people to successfully navigate

the transition to adulthood. For instance, youth need opportunities to influence issues

that matter to them, engage in actively solving problems, develop closer and more

intimate connections with adults and with peers, and assume more active classroom

roles. (p. 745)

In Mitra and Serriere's project, the researchers observed different scenarios, and aside from

interviewing the students, the researchers kept their distance as to not play a role in the

leadership opportunities. Over the course of two years numerous observations were made

where the students were given the suggestion of taking the lead on a problem they brought up

(in one instance was school lunch that three girls could not eat due to dietary restrictions). At

the end of the research, it was concluded that there are five areas of student leadership that

can take place within a school setting if administrators, teachers, and community members

allowed the space for it to happen. Those five areas are: agency, belonging, competence,

discourse, and civic efficacy (Mitra & Serriere, 2012). School leadership has to be willing to

let go of some control to allow students to develop and grow these skills, regardless of

whether it is a standard or tested expectation. Once students were given the chance to work

with their teachers, principal, and other classrooms they saw the impact their leadership

could have on their learning and school community. Mitra was left with one question after

the research and it flows into the purpose of the current dissertation, "how do we enable such

contexts for younger children, including the roles of adults and institutions in fostering

student voice, rather than silencing young people" (Mitra & Serriere, 2012, p. 769). This

dissertation was grounded in this context, and student voice was integral to the study's

success.

Digital Divide

The evidence regarding the adverse consequences of technology deficiencies and students from a lower socioeconomic status have been documented over time, especially those that explore the "digital divide." This "digital divide" has impacted people since the first medium was invented because those with money were capable of purchasing technologies more readily and earlier than those without the financial means, although the term is usually associated with those who have not had access to technology and broadband access. In fact, Ritzhaupt et al. (2013) said:

> The term digital divide has recently expanded beyond physical access to technology to include whether individuals have the necessary ICT [information and communication technology] skills. Put simply, the digital divide is multilayered and includes several related dimensions of computer access, usage, and skill. (p. 293)

Although written in 2013, this research, which is based on a study of several thousand middle school students from a lower socioeconomic status, is just as relevant today as it was then. Sadly, the issue is ongoing. Students from lower socioeconomic backgrounds often lack a basic understanding of how to integrate digital literacy skills into their academic and personal lives.

In addition, the study said, "The results demonstrate a clear digital divide relative to gender, ethnicity, and the SES [socioeconomic status] of middle school students within 13 districts in the state of Florida" (Ritzhaupt et al., 2013, p. 300). It appears that the initial digital divide, which referred to lack of hardware and broadband access, contributed significantly to the "digital divide" as it currently means the lack of digital literacy skills

integration. The decrease in access at home to technologies has impacted students from lower socioeconomic backgrounds and their parents' abilities to understand how to evaluate sources effectively, to create online media, rather than being passive consumers of it, and to assist their children.

The COVID pandemic revealed the issues in greater detail as students transitioned to remote learning. In fact, not only were many students unaware as to how to access online resources, but their parents were unable to support them because of their own lack of knowledge. According to the North Carolina Broadband and Digital Equity Division (2021):

> In North Carolina, at least 1.1 million households are on the wrong side of the digital divide. Nearly 30% of these households lack access to a high-speed internet connection; and roughly half are priced out of internet access required to spend at least two percent of monthly income on a $60 per month subscription. Many also lack the digital skills to take advantage of telehealth opportunities, pursue an education using virtual tools or use online job boards to find work. Through targeted investments we can change these statistics and achieve digital equity. (North Carolina Broadband, para. 2)

These statistics reflect the reality of many families in Jackson County, North Carolina. The North Carolina Broadband Adoption and Availability Index Maps (2021) report that only 52.65% of households in Jackson County have broadband, and a little less than 60% of those households have fiber or DSL connections, which are typically the fastest and most reliable.

Problem Statement

As previously stated, the problem that this study will address is that K-12 students in public schools are not receiving the leadership and technology opportunities they need to be successful, and they are not active participants in the education process.

Research Questions

1. How can the use of instructional technologies successfully provide leadership and mentorship opportunities to children located in remote areas of North Carolina?

2. In what ways can educators build strong digital citizens through supplemental educational opportunities?

3. How can these supplemental opportunities, like this camp, build a stronger understanding of credible information so students can become more knowledgeable consumers of online information?

4. How might students recognize ways in which supplemental educational opportunities enhance their knowledge beyond what is offered by their traditional education?

How the Problem will be Addressed Through This Research Study

In this YPAR study, the researchers created and managed a camp in rural Jackson County, North Carolina. This supplemental educational opportunity infused digital technologies and leadership opportunities to extend the traditional curriculum offered in public schools. Using Bourdieu's theory of cultural capital, these researchers examined how this opportunity would mitigate the effect of traditional education. In order to critique traditional education, the students, who represented a lower socioeconomic class, engaged in emancipatory educational opportunities while the researchers acted as facilitators to guide

their students' understanding of how their education differed from those in more affluent areas and how they could affect change.

This study took a preliminary look at what the inequalities of public education in rural North Carolina appear to both the researchers and the co-researchers (students). The students and researchers worked together to define a problem and solutions to improve the opportunities within their community. The research was broken down into two components: digital literacy and leadership skills. The co-researchers took a critical look at their educational opportunities, both in and out of the classroom, and crafted a solution to how they, themselves, would fix it. Through the use of technology, the co-researchers explored how digital tools and digital literacy could improve their opportunities and abilities to enact change within their communities. Through building leadership skills, the co-researchers determined the actions and connections they needed to make to have the ability to discuss and challenge changes within their communities. Overall, the goal of this research project was to guide youth in a rural North Carolina community through a series of learning experiences to help them better understand the impact they can have and to empower them as individuals within their communities.

In this project, the researchers drew upon the work of Bourdieu to make the argument that supplemental educational opportunities are vital to help students progress beyond their middle or lower socioeconomic status. Further, they argued that information literacy skills are imperative to enabling them to compete in a globally connected world and to avoid class regression if they are currently middle class.

The critique of power structures is central to critical theory, the foundation for YPAR, which is why this theoretical framework was necessary for this study. Essentially, this

research sought to critique traditional public education for K-12 and to empower a group of students who represented a lower socioeconomic class. They focused primarily on Bourdieu's theory regarding class. By integrating his ideas about various types of capital, which is defined as being property that comes from a person's social and economic status, the students and researchers explored how exposure to nontraditional educational opportunities could empower this group of students in a myriad of ways.

One central aspect of critical theory that was essential to the researchers' understanding is the notion of change for empowerment. These researchers wanted to empower those who have not had advantages afforded to them based on their race, gender, or socioeconomic class. Because of their past experiences and identities as white females who attended public universities in North Carolina, they felt strongly about helping those who are born into the middle or lower classes. Much research has been done regarding the American educational system and helping minorities and women, but critical theory based on class is just as important. Class disparities in American society are more pronounced now than ever before, which also necessitated the need and timeliness of this research.

The contextual connection to the central aspect of YPAR and Bourdieu's theory is considering how supplemental educational offerings could offset the deficits in one's habitus to improve social class mobility. Further, after critiquing the deficits in the traditional education provided to the camp's participants, both researchers understood specific skills and curricula needed to offset these deficiencies. Supplemental educational offerings can help to create a more equitable field and build cultural and social capital for students from lower socioeconomic backgrounds in rural Jackson County, North Carolina. Through a summer camp in which various instructional technology tools were utilized, the cultural capital was

broadened and improved for the participants. Because of their geographic isolation, these students often fail to get exposure to culture beyond their own community, thus causing them to be ill-prepared for life beyond a working-class station anywhere but in their native location.

The connection between Bourdieu's theory about class and traditional education is generative for grasping how important supplemental educational opportunities truly are for middle and lower socioeconomic classes. Further, all extracurricular, supplemental educational opportunities are valuable, but these researchers would further argue that digital literacy skills are imperative for students to improve their cultural value to move beyond their lower or middle-class status. These skills are invaluable because today's world is globally connected, and if students do not learn how to think for themselves critically, decipher news and information intelligently, and understand how to utilize technology in productive ways, they will have further deficits upon graduation. They will not have the skills needed to compete successfully in society's technologically advanced society, thereby further decreasing their ability to move beyond their socioeconomic class. In fact, without these skills (or cultural capital as Bourdieu would describe them) some students may even regress from middle class to lower, working class.

The researchers' goal was to work with these students to provide them with supplemental educational opportunities through a summer camp and to evaluate what they have learned at the end of the week. They analyzed the data they collected from camp interactions, personal conversations and class discussions, as well as the observations they made and conversations they had with students over the course of the week. They worked alongside these children and determined what topics they were newly exposed to and in what

ways the students saw their overall education being supplemented by this opportunity in ways traditional public school has not educated them. They evaluated the data for similar themes and ideas. Further, they analyzed how Bourdieu's theory of cultural capital was evident or changed throughout the course of this week. In addition, they ensured all IRB protocols were followed since they were working with children, and they wanted to safeguard their anonymity. Additionally, because they were approaching this group as a representative of a more dominant group, the university community, they were continuously cognizant of their roles as outsiders and as academics. They used reflexivity and were aware of their biases prior to beginning the research. They also made sure participants were aware of any prejudices they may have had and how they could have impacted the research.

Their goal was to empower these students through what they learned. It was the researchers' job to help students see the ways supplemental educational opportunities, such as the one they provided, would increase their cultural capital in terms of education and broaden their perspectives on the world. Their voices were invaluable to completing this research and making it successful.

The following chapters will include research regarding this issue of inequality with two distinct literary reviews, one about the need for leadership opportunities and another about the importance of technology opportunities. The succeeding chapter will address the methodology for the project, followed by the research from this project, and a final chapter synopsis of the researchers' findings and conclusions. Although this was a joint dissertation, the Leadership Researcher and Technology Research each wrote their own chapters on their literature reviews, their findings, and conclusions. All other chapters were written collaboratively.

Chapter 2: Watkins Literature Review

Leadership and Mentorship in Education

  While creating a comprehensive review of literature surrounding the topic of leadership and mentorship in education for youth, there seemed to be a lack of sources focusing on the impact of these programs on students in areas where socio-economic status or accessibility to educational resources may be low. For this research, the focus was to look at the impact that leadership and mentorship had on rising fifth and sixth graders that come from a low-income county in western North Carolina. This analysis took place during a summer research institute where students were provided the chance to create and participate in leadership opportunities and mentor relationships with successful community members. It is important to note that success looks different to everyone and that the concept of personal success was communicated to both community members and junior researchers (students) during the summer program.

  Community-based education is not a new concept and was tied in closely with the examination of youth leadership and mentorship but more specifically, the interest in understanding what scholarly work has been done to create this understanding and what room there still is to add to the scholarship. This research is comprehensive in the fact that it was used to aid in the analysis of leadership and mentor skill building in these North Carolina students. The research did not stop with one analysis but continued throughout the summer program. Youth leadership and mentorship is not new in and of itself but expanding on its impact in a rural community may bring in information that can shed light on how to reach

students and help them to become more academically successful as well as strengthen their ties to the community they are coming of age in.

The Impact of Community-Based Education

Before tackling the connections between community-based education and youth leadership it is important to note what community-based education is. Villani and Atkins (2000) attribute community-based education to:

> the student's ability to recognize and support the needs of the surrounding community. In this way, students become accountable for providing values which stem from their freedom to express, develop, and solve the inherent problems or concerns they have for their community. (p. 122)

While they are focused on the sustainability of one's community much of their scholarship is based on Gardner's (1991) book, *The Unschooled Mind: How Children Think and How Schools Should Teach,* where he explains that the old way of schooling and thinking has receded, and it is time for modern schools and learning to make that change as well. Villani and Atkins (2000) state, "We must all stop expecting children to fit old models and allow for the natural emergence of future citizens that embody creative spirit, critical thinking, and high standards" (p. 121). Students will reenter society post-school years with no idea how to contribute to or sustain their communities if they do not see the importance of it, which is where community-based education comes into play.

For community-based education to be successful there must be trust between the schools and community because teachers and students are the driving force of this type of education but the parents, community leaders, administration, and citizens help to promote, develop, and assess the collaborative programs (Villani & Atkins, 2000, p. 122).

Community-based education is truly an "all hands-on deck" education strategy. The downfall of community-based education is that it is not standards driven meaning, assessment of student learning is more difficult to pinpoint, however, this does not mean it is impossible. There are several formative assessments that can be completed to assess if a learning outcome is being met. This type of learning is considered to follow a student's intrinsic motivation, creativity, and innovation. All these factors are pieces of a 21st century learner which is an important aspect of learning in modern times but in the American education system, standards are the baseline that determine if a student has met aligned learning checkpoints. The debate around standards-based education is up for discussion regularly as different educators try to decide what the best way to assess student learning is. Standards-based learning is centered around providing students with higher standards and challenges of learning and consequences to schools whose students do not meet those standards by the end of a school year. Student achievement is centered around meeting standards rather than skill-based learning which is what my research is focused on - the building of leadership skills that students do not receive in the general education classroom.

Dating back to the mid-19th century, both oral and written examinations were gaining popularity in the United States. Oral examinations were emphasized prior to educators understanding variability and comparability in the classroom. Starting in Boston, the State Superintendent of Public Instruction began to emphasize the importance of written examinations. It was decided that "Written examinations were given, and scored under uniform conditions, and the tabulated results published in detail, question by question and school by school" (Miyamoto, 2008, p. 30). The hope was that a uniformed examination grade would stop biased judgment against pupils by the administrators of the exams. By the

20th century written examinations became the norm in place of promotion based on completion. The expectation was that teachers would be able to use written words and uniformed scoring to decide a student's grade and if they would be promoted on. This began the emphasis on standard-based education, a focus on testable material for grading guidance, and structured examinations for education departments.

While standards-based learning does have some substantive backing and research, there are some educators who believe community-based education (place-based education) and standards-based learning can coexist. Semken and Garcia (2021) reviewed numerous studies using science standards in both Thailand and the United States to see if community-based education and standards-based education are compatible, and while there were many studies done that said the two philosophies were not, these two deemed them compatible if flexibility could be found in the wording of standards. Flexibility comes from how learning takes place and what the students learn along the way. Semken and Garcia's (2021) research showed skill building to be more beneficial in recognizing student learning progressions which comes from place-based or community-based learning.

Analysis of Youth Leadership Effectiveness

When studying youth leadership and its effects on communities it is important to note that research has been completed but much of it is centered in urban schools and communities. Ricketts and Rudd (2002) completed an analysis of youth leadership effectiveness on career and technical education readiness. Before understanding what youth leadership can do, one must first acknowledge what leadership is. Monkman and Proweller (2016) define leadership as, "A personal and developmental process aimed at enhancing individual competencies in communication, intrapersonal and interpersonal skills, critical

reflection, decision making, and positive community involvement" (p. 181). Once the basis

of leadership is understood then one can look at the five key aspects of leadership that

Ricketts and Rudd (2002) designed, "(1) Leadership Knowledge and Information, (2)

Leadership Attitude, Will, and Desire, (3) Decision Making, Reasoning, and Critical

Thinking, (4) Oral and Written Communication Skills, and (5) Intra and Interpersonal

Relations" (pp. 13-14). While completing this study, they realized that many of the

leadership skills their students developed came from them being involved in that

improvement within the realm of new material can take place in both place-based and

standards-based education. Both are necessary, but different progressions were shown in

their research, meaning the choice of methodology will lead to a different progression This

information is exactly what is needed when discussing the pursuit of leadership opportunities

for low-socioeconomic areas.

Kouzes and Posner's (1995) Ten Commandments of Leadership, as cited by Rickets

and Rudd (2002), which can serve as a basis as to what skills and activities would benefit the

youth in western North Carolina. These leadership commandments are:

1. Search out challenging opportunities to change, grow, innovate, and improve.

2. Experiment, take risks, and learn from the accompanying mistakes.

3. Envision an uplifting and ennobling future.

4. Enlist others in a common vision by appealing to their values, interests, hopes and
   dreams.

5. Foster collaboration by promoting cooperative goals and building trusts.

6. Strengthen people by giving power away, providing choice, developing
   competence, assigning critical tasks, and offering visible support.

7. Set the example by behaving in ways that are consistent with shared values.

8. Achieve small wins that promote consistent progress and build commitment.

9. Recognize individual contributions to the success of every project.

10. Celebrate team accomplishments regularly (p. 10).

These guidelines can benefit the students in question by providing them with learning outcomes and goals to work toward. Ricketts and Rudd (2002) also included critical aspects to follow when developing youth leadership programs, "Youth/adult partnerships, granting young people decision making power and responsibility for consequences, a broad context for learning and service, and recognition of young people's experience, knowledge and skills" (p. 10). When creating a youth program that involves the increase in leadership skills while critically looking at the inequities that students in low-socioeconomic areas are faced with, these elements are seemingly perfect to use as a guide.

Youth Leadership Initiatives

In another study completed in San Francisco, California, because of community leaders not taking a teen alcohol issue to heart, Sedonaen, founder of the San Francisco Bay Area's Youth Leadership Institute (YLI), began developing youth–adult partnerships (Y-APs). Sedonaen chose to make Y-APs the centerpiece of her youth development practice, viewing this approach as the best way to ensure that youth participants' developmental needs were being met, that programming was engaging and relevant to them, and that communities would benefit from their young people's ideas and energy (Libby et al., 2005). By encouraging youths to take ownership of their communities and the problems they, themselves are facing, but under the guidance of community leaders, community concerns began to be handled appropriately. Sedonaen went on to start youth philanthropy

organizations where the youth participants take part in fundraising for changes in their

communities. While that cannot be a young person's job all alone, adult partners were

included, and did aid in the success of the youth initiatives. By allowing youth to complete

actionable aspects of change in their communities, a sense of belonging, self-sufficiency, and

respect is built. These are all skills that may not be commonly found within a classroom

setting.

Many pieces of youth leadership were discovered in Libby's youth leadership

institute but the large takeaways regarding differences in youth leaders are something that

this research can build upon. By adding youth leaders from different backgrounds, such as,

the low-socioeconomic demographic in western North Carolina, the knowledge of different

cultures, races, economic availability, and lifestyles change. Libby (2005) wrote:

> We have found that it is critical to create pathways for young people within YLI and
>
> their communities. After watching young people move through YLI…taking on new
>
> roles requiring increasing amounts of commitment, skill level, and savvy, we realized
>
> that we needed to consider how we could make those paths more visible to young
>
> people. (as cited by Libby et al., 2005, p. 116)

Youth leadership styles became the center focus of the YLI after the deep analysis of the

organization was completed. For the institute, understanding youth roles in leadership and the

expectations they had of the organization, it was important to identify the other types of

leaders necessary. Some of these leaders were: less experienced youth leaders, quieter

leaders, and less-traditional leaders. Understanding where Libby was coming from allows my

research to start out with leadership styles in place. Many students receive hard handed

leadership during the school day from teachers, coaches, and mentors, but what this research

will include is allowing students to document the type of leadership they want and need, which may vary student to student. Once those leadership styles are documented, the students will attempt to recreate those styles through their own projects.

The students who participate in this research will have a perspective that other youth leaders may not understand. The fact that many of these junior researchers struggle with food security, transportation, and cost of living in western North Carolina, creates entirely different challenges to overcome. The demographics of Jackson County are discussed later on in the dissertation. Thinking about the expanse of western North Carolina and Jackson County alone, where the summer research institute took place; there are students on the south side of the county who have never been to the north side because their family does not have the means of transportation to leave the mountain they reside on. In the middle of the county is a university where the professors' children live, often living more affluent lives and experiences. On the north side of the county the elementary school furthest from the research site, sits on the Qualla Reservation boundary creating a world of new scenarios and perspectives. For the purposes of this research, the two schools that are mentioned, Cullowhee Valley School (Cullowhee) and Blue Ridge School (Cashiers), are just shy of 19 miles apart but it takes approximately 30-40 minutes to drive due to mountain terrain. A variety of leadership styles and experiences is extremely valuable when building a community leadership program, and Jackson County, North Carolina has just that.

Youth Involvement in Community Action

While the overarching goal of the research, and the summer research institute, is not to convince Jackson County youth to begin volunteering in the community, there is a direct correlation between volunteering, community involvement, and youth leadership, which is

the main goal of the institute. Kenneth Jones (2009) expands upon the idea that there is an increase in youth involvement within communities, but no major research looks at the benefits these actions have on youth. While Jones completed a study upon the civil leadership that youth take, it is very similar to the research concept of youth leadership within and outside of the classroom. Jones explains simply that youth must have experiences outside of the classroom to build their civic mindedness to become better citizens but amid that explanation, Jones (2009) also explains in detail the importance of youth activities and how, if structured correctly, leadership skills begin to develop:

> There remains a major assumption that in order to reach desired results of advancing community connectedness, youth must play a role in improving their communities… Youth must be given the chance to develop [those] skills that undergird a civic-minded society. (p. 248)

A theme that continued to appear throughout the literature review process was the idea that youth must be given a chance to develop skills. In the classroom, as discussed above, the focus is centered around standards-based learning. What that does not include is the chance to develop real-life, meaningful skills that transfer across careers, educational opportunities, and leadership roles. Jones was not alone in his endeavors of youth leadership development. Means et al. (2021) discuss the implications of using YPAR as a means of including youth in the process of change.

Means et al. (2021) focused on rural communities and youth collaboration with school administration to locate the issues and disparities of postsecondary education. The study has similar themes to this research but the main element of the study to draw attention

to is the conclusion and reflection of why and how the researchers used YPAR. They explained:

> Instead of relying on the expertise of school and community leaders to investigate and address challenges facing rural youth, these leaders could consider how to engage rural youth in how to develop and implement programs and services that responsive to their needs… (Means et al., 2021, p. 50)

While the study was focused on something entirely different than youth leadership, it was still incorporated through the methodology. This once again proves just how impactful leadership roles for youth can be.

Summer Program Impact

While a majority of schooling takes place from the months of August through May, that leaves three to four months of time for learning disparities to begin showing up. The most common fix for this is summer school, which shows up regularly in many public schools in the United States. Students can attend these programs for additional reading and math support, to improve test scores, or to make up missed time (absences) during the school year. While not having expertise on social and emotional growth and hindrances, the researchers have encountered several arguments that students not having a full break during the summer months can negatively impact them in these areas. This is an argument that has been heard for the last two years at Blue Ridge School. To combat those arguments Chaplin and Cappizano (2006) completed a study to examine the impact of summer education programs. They found:

> Low-income children may experience a decline in academic progress during the summer months, especially relative to higher-income children. This learning loss may

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contribute to overall differences in educational achievement between low- and higher-

income children. (Chaplin & Cappizano, 2006, p. 1)

When discussing disparities and inequalities between socio-economically disadvantaged

children and socio-economically advantaged children, learning loss over the summer is a

major concern.

Chaplin and Cappizano's (2006) program (BELL) went on to provide significant

research regarding the improvements of academic achievement due to the rigorous summer

programs that these students attended. While Chaplin and Cappizano's program was centered

around academic growth, and this summer research institute focused on the development and

creation of leadership skills in youth, it may be enough to suggest that summer programming,

or out-of-school programming can have dramatic effects on youth. Chaplin and Cappizano

do note the changes their program may have on students as they age out of the BELL

program, but most are positive implications. They found:

Finally, after many years, impacts on adult behaviors may become apparent. These

would include economic self-sufficiency, academic success, socially responsible

behaviors, community involvement and leadership. Thus, the background factors play

key role in affecting the outcomes analyzed in this report. (Chaplin & Cappizano,

2006, p. 8)

Past experiences are going to be a large component of low-socioeconomic students, as many

students in Jackson County face poverty, low nutritional and medical services, lack of

parental support, and many other disadvantages that come with being from a low-

socioeconomic county in western North Carolina.

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Youth Leadership Practices

Summer camp is a very popular way for youth to gain many new skills, especially depending on the type of camp they are attending. Numerous studies have been completed regarding the interests and impacts of summer camp, but few have looked at leadership skills specifically. One study that did take leadership into account was Martin who was looking at youth leadership development through attendance in summer camp programs. Martin (2018) explained that since youth leadership has begun gaining traction in recent years, findings are suggesting that leadership skills are developing in more than one area. She noted:

> Camp leadership development programs are an anticipated rite of passage for many youth, often enriching campers' leadership skills and spurring significant change in their perceptions of leadership. Findings reported that campers demonstrated significant, positive gains in seven areas related to leadership development… additional gains linking campers' leadership development to camp experiences up to six months after the conclusion of camp. (Martin, 2018, p. 162)

Camp involvement can build leadership skills in positive aspects just with summer attendance, so with the concept of organizations centered around leadership development in youth coming from rural, low-socioeconomic regions, there is a benefit to completing this research. Furthering the study of youth leadership development in these areas can bring a larger understanding of skill-based learning or 21st century skill building both in and out of the classroom.

When discussing the role that this research played in rural western North Carolina, it is not lost that these students have prior experience, and some may have prior leadership skills. As Hornyak et al. (2022) explains, by offering the opportunity to build leadership

skills many youths take it. These leadership skills can provide self-efficacy, improve confidence, build community connections, and assist in discovering individual identities. The goal of this research is to incorporate these skills into community and place-based education. Youth should feel a connection to where they live and by creating relationships with community leaders and gaining skills that will assist the youth going forward in their careers and educational pursuits, they may someday return to their communities and become a leader to other youth. Building leadership skills in youth is truly a cycle that can continue for many years as long as the process of building those skills continues. Positive youth development is something Hornyak et al. built their entire study upon. They said, "Positive youth development is a strength-based perspective of adolescence which emphasizes the individual's development of resilience and competency through bidirectional relationships with other individuals and organizations in their world" (Hornyak et al., 2022, p. 2). By spending effort focused on having youth work with community leaders, seek out the changes they want to see made in their schools and communities, and give them a voice, builds that competency and resilience that was previously mentioned.

YPAR and Youth Leadership

Youth participatory action research is the methodology that this research will center around and ties in well with youth leadership development. Allowing the youth participants, or junior researchers, to take part in discussions and brainstorming for possible improvements to their education, they can try out ideas, work with peers and adults, and discover their own leadership roles. Hornyak et al. (2022) explained, "This approach acknowledges young people as 'competent citizens' who can actively participate in and shape organizations, rather than passive beneficiaries of services" (p. 2). This all ties back to

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the idea that the participants in this research have a greater chance of becoming successful citizens through the skills gained from the research institute. Monkman and Proweller (2016) completed a study with low-income high school students that were part of a Civic Engagement Program. The students worked together in the study to identify ways to that could "effect change in their own lives and others" (Monkman & Proweller, 2016, p. 194). What ultimately came out of those programs is:

> One key strategy the CEP used was to encourage youth to follow their passions in developing "ventures" as a space within which they could practice advocating for themselves and others, organizing events and activities, and learning to collaborate as a group, all to develop the skills and knowledge for self-determination individually and collectively. (Monkman & Proweller, 2016, p. 179)

By allowing these students from low-income backgrounds to participate in group action and make decisions they began to develop their own skills that they would go on to use in the community. When examining the leadership styles available to them Monkman and Proweller (2016) realized, "Through qualitative inquiry, we explore the ways in which 'leadership' is understood and engaged in by the youth, demonstrating that traditional authoritative models of leadership are rejected and more collaborative and relational approaches are embraced" (p. 180). Authoritative leadership felt controlling and until they changed the leadership model there was no youth interest. Once the collaborative leadership and relationship styles came into play, there was more youth buy-in for the after-school programs. It is studies and opportunities like Monkman and Proweller's that help those of us doing research truly understand the impact that youth participation has on decision making and new ideas coming to fruition.

Youth Leadership in Action

The Leadership Researcher grew up in a very rural, low-income area in Colorado. There were little to no opportunities for leadership outside of school, not just in her hometown, but within a 50-mile radius of where she lived. As someone who grew up with a mother who is a former Marine and an elementary school teacher, not becoming a leader was not an option. She was introduced to a program titled, Girls in the Middle, which absolutely changed her life. Girls in the Middle is "an organization focused on inspiring 5th-8th grade girls in southeastern Colorado to pursue paths in STEAM" (Girls in the Middle, 2018, para. 1). This organization invited professional women to come to a community college in the middle of a valley to teach young girls about how to become more than just a teacher or housewife. They participated in activities with women from the United States Air Force who were dipping items in liquid nitrogen just to see what would happen or learning how to count the rings inside a tree to tell its age from a female forest ranger. There were approximately 75 girls learning that they could become leaders and doers and no door was closed to them. The Leadership Researcher participated in that program for two consecutive years and each year was astounded by the leadership she saw.

Youth leadership does not show up just because someone tells a child that they are a leader or because they watch someone else become one. As MacNeil and McClean (2006) write:

> I know that people do not learn by being told the answers. Education is not a process of filling up learners with new information; it is a process of creating conditions that support learners in making discoveries themselves, then putting those discoveries to use. The same holds true for learning leadership. (p. 99)

One does not learn to become a leader because their mother told them to, but one also does not become a leader because they attend one program, one time. Leadership takes time and effort to build - which is why this research looked at one summer institute and then gave the researchers multiple options for future avenues to utilize the research within. Leadership skills are ever evolving and engage a person to become flexible with their learning.

This research project took place during the summer months, meaning the junior researchers had to act quickly to make change and put their leadership skills to use. MacNeil and McClean (2006) wrote about the changes they have made to their vision on youth development. They do not look for "future leaders" but put youth leaders into direct practice for change now. They explained:

> Focusing on youth as tomorrow's leaders can be a way to prevent young people from having real voice and power today. When one focuses too narrowly on the future leadership roles of youth, they might overlook the need to address what current leadership roles are (or are not) available to young people. (MacNeil & McClearn, 2006, p. 100)

It was not until the Leadership Researcher went to college and had new leadership opportunities that she truly understood leadership in action or leadership in practice. She took part in developing a very large educational event at her university and the tasks she was given were tasks she had never been asked to do. She worked closely with professors as they guided her through what she needed to do. She was asked to contact numerous community leaders and organizations to participate in the event and led many efforts to help make the event a success. This experience of learning as she went and taking on roles that were new to her, is what led her to pursuing higher education degrees. Her professors pushed her to use

leadership skills in the moment, not just teach about them. These experiences were crucial to her leadership skills development, as it will be for the junior researchers participating in the study. Further, MacNeil and McClean came up with questions that they use as they further deepen their understanding of youth leadership development and that can be very impactful for all parties involved, and especially youth leaders. These questions are:

What comes next? How can I make sure that the young person, learning about leadership, learning the skills of leadership, will find opportunities to practice that leadership? How can I make sure that opportunities are available for that young person to engage in the work of leadership, benefiting not only herself or himself, but also the group and organization in which she or he is engaged? (MacNeil & McClearn, 2006, p. 103)

These are questions that were important to follow and try to answer throughout the research process and to have the junior researchers try to answer them.

Chapter 2 Continued: Myers Literature Review

In the state of North Carolina, students who live in rural, poverty-stricken areas often do not have access to many cultural opportunities or a broad curriculum with supplemental educational opportunities. Further, they may lack the understanding of how many instructional technologies can be utilized practically, and they may not be exposed to a sound digital literacy curriculum. Digital literacy as defined by the American Library Association is "the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills" (American Library Association, 2019, first subheading). This study's research considered how a summer program in Jackson County, North Carolina, could empower students to critique and potentially improve public education in their rural areas of the state. By examining the social class of these students through the lens of Bourdieu's work regarding class and education, this research study tried to determine how their low socioeconomic backgrounds have impacted their attitudes and understanding of education. It was the goal of the study that through critical action research, these students would begin to advocate for positive changes to their educational experiences. Further, the researchers examined how summer programs and school partnerships have positively impacted student achievement historically. Because the Technology Researcher's concentration is on instructional technology, she focused on the inclusion of instructional technology within this program and how it could be used in a relevant way for students to use in their leadership and mentorship opportunities. And lastly, she evaluated the inclusion of a digital literacy curriculum and its importance as part of the research. Although these goals were ambitious for a week's time, the student participants guided how much was covered, and time was taken to listen to their voices to determine the

progression of the curriculum and integration of the technologies based on their proficiency levels.

Summer Camps in the United States

Summer camps have long been synonymous with academic gains and supplemental educational opportunities. At their inception in the late 1800s, summer camps began in the United States as an opportunity for boys to spend time in nature, as the country was becoming more urbanized (Gershon, 2019). The popularity of the camp concept grew, and by 1918 there were more than 1,000 in the country. As the idea expanded, the types of camps changed, becoming more theme-centered. Parents sent children to camp to enhance their education. Class and education distinguished the types of students who attended camps from the very beginning: the more affluent attended camps and enhanced their educations. Bourdieu would argue it is all based on the cultural capital supplied by the schools in which parents from higher socioeconomic backgrounds understood the importance of supplementing education and ensuring their children attended the right schools and had the proper experiences.

Camp research is almost 100 years old, and most research has focused on the positives of camp opportunities. Kaul et al. (2018) said:

> Perhaps unequivocally, research has shown that camps can make a positive difference in the lives of children and adults. The transference of skills from camp to everyday living and to future work and leisure life has been shown to a growing extent. (p. 322)

No one disputes the fact that camps not only can provide much needed academic boosts, but they can also foster leadership and other lifelong skills, which the Leadership and Technology Researchers definitely hope to accomplish with their research. Nevertheless,

Kaul et al. (2018) did suggest that the potential negative effects of camp, such as racism, need to be addressed. The Technology Researcher and Leadership Researcher ensured how this camp experience might not be positive for all of their students, especially since they were working with students from lower socioeconomic backgrounds It was imperative that they practiced reflexivity and ongoing reflection to ensure these students left with a positive experience to ensure the success of the camp.

The Impact of Supplemental Educational Opportunities

The research regarding the impact of supplemental educational opportunities on student learning, especially in terms of how they impact students from a lower socioeconomic status, is hard to quantify. Many variables can impact student learning, but overall, the research suggests that enrichment programs benefit students, especially those from a lower socioeconomic background.

Hodges et al. (2017) conducted a quantitative study on 137 Midwestern lower income elementary aged students who exhibited high potential based on academic performance. They explained:

> Not all learning takes place in the classroom during the school day. Both formal and informal educational opportunities abound in many communities around the country. Unfortunately, students from low-income families face barriers that frequently result in their absence from these extracurricular, out-of-school programs. As such, they often do not receive the same educational opportunities as their middle-class peers. (Lohman, 2005, as cited in Hodges et al., 2017, p. 204)

Students from lower socioeconomic backgrounds miss out on these opportunities for various reasons, and over time these losses contribute to an academic achievement gap between them and their peers from higher socioeconomic backgrounds.

Despite these obstacles, the Hodges et al. (2017) study found that these students achieved academic gains in math and language arts after attending the Saturday enrichment program. It is the Technology and Leadership Researchers' hope that through this supplemental enrichment camp these students would also grow academically and become stronger students and leaders.

Summer Programs and Title I Students

Other research by Guffey et al. (2020) looked at how a summer program helped Title I students, who are economically disadvantaged. Guffey et al. (2020) explained:

Cooper, Charlton, Valentine, Muhlenbruck, and Borman (2000) reported that over the summer, students show no growth, and in many cases lose one to 3 months of learning, citing the greatest losses in mathematics and spelling. They also determined that the achievement gap between those who are economically disadvantaged and economically stable grew during the summer months. (p. 26)

Guffey et al. (2020) acknowledged the need for enrichment programs over the summer for economically disadvantaged students, and how these students are more adversely affected by the "summer slide." Further, Guffey et al. explained that they created centers for the different subjects taught throughout the Monday through Thursday schedule. The summer program was useful because "A STEM summer camp is a great opportunity for educators to fully implement many of the practices and research-informed teaching methods that may be challenging to utilize during the year due to time constraints and standardized testing"

(Guffey et al., 2020, p. 27). This rationale is one of the main reasons this study's researchers believed a summer program was so important because much of the digital literacy content the Technology Researcher hoped to cover was not always taught throughout the school year due to testing and other constraints. Guffey et al. also shared some of the elements that made their camp successful, including a slower pace of instruction because they were focusing on the grade level for the upcoming school year, co-teaching, implementation of research-based teaching practices that may not be utilized during the school year because of time and testing constraints, parent involvement, special education teacher participation, and inclusion of physical activity. Not only did the summer program help students academically, but it also improved their attitude toward learning.

Summer Media Literacy Camp

Richardson et al. (2016) actually held a summer media literacy camp for ten students ages 12 to 16. A group of librarians and staff from the Florida Institute of Technology created this experience so they could explore how students sift through the avalanche of information they consume online and to teach them media literacy skills. The biggest challenge for the camp was the wide gap in ages and the need for more hands-on activities. It lasted for five days and each day covered a different digital literacy topic. Although libraries throughout the U.S. often provide such camps, this is one of the few that actually provided research findings. It offered good practical advice about conducting a camp, but their research regarding how much students learned or any future steps they would take, was somewhat lacking. The study would have been more useful if they had shared specific strategies that they used to help students become fact checkers and if they incorporated International Society for Technology in Education (ISTE) standards into their curriculum.

Further, it would have been more helpful if the study had provided student demographics besides age, and more specifically, socioeconomic status.

Further, the Morton et al. (2021) study research involved a four-week camp for rising second through fifth grade students, and they found (based on pre- and post-assessments) that the camp helped with academic achievement and lessened the learning gap that occurs over the summer months. It was a joint effort between the school, a local college, and a local nonprofit for socioeconomically disadvantaged elementary children. Morton et al. (2021) said, "The program was designed to engage students in meaningful, real-world, learning experiences to best prepare them for success with the upcoming year's first quarter reading, mathematics, and science content while also supporting the development of physical and social-emotional skills" (p. 2). This study suggested that enrichment rather than remediation is more effective in achieving academic gains in a small amount of time. A partnership of school, college, and a nonprofit also strengthened the collaborative frame of the project, which benefited the students.

Morton et al.'s (2021) research supports the reason this camp was so important. Not only were the researchers attempting to empower the students to understand how their education could be improved and to advocate for that, but they were also providing them with digital literacy and leadership skills, which are invaluable.

Enrichment Programs and Academic Gains

Enrichment is imperative for academic gains, and Bestelmeyer et al. (2018) recognized this in their outreach ecology program for grades kindergarten through twelfth. According to Bestelmeyer et al. (2018), "The Long-term Ecological Research (LTER) program has broadened the impacts of long-term, site-based research through a variety of

education and outreach programs" (p. 706). This study integrated collaboration to help them find relevant ways to benefit their community. In addition, to their commitment to practical solutions, they highlighted six other trends that have been successful for their outreach program including: field trips, inquiry-based science instruction, ecology on the school grounds, new science curriculum standards that include ecology, elementary schools that devote less time to teaching science, and twenty-first century learning that included collaboration, communication, creativity, and critical thinking. Although this article did not provide specific ways it improved the understanding of ecology for certain demographics, it did provide a guide for ways to successfully implement an outreach program like the one the researchers of this study hope to create.

Programs for ELL Students

The Shideler et al. (2020) study explored how English Language Learners (ELL) remained on grade level via a summer program. Because ELL students are often economically disadvantaged, making them similar to the group of students in Jackson County participating in this study, the work done with the ELL students provided useful insight. Shideler et al. (2020) found that even though summer programs positively impact academic achievement,

they found that the impact dissipates if the students do not continue to attend them each summer, and the earlier that programs begin in elementary school the greater the impact they will have. To assess the impact of their summer program, the researchers analyzed spring and fall test results of the students who attended and found they had great success. It was important for the Technology Researcher to ensure that she had some way of measuring how students were impacted by the program.

How to Set Up a Summer Program for Success

  Understanding how to set-up a summer program for success is also important, and McCombs et al. (2021) provided practical guidelines for doing this. They said programs that run for five weeks, three hours a day and have 15 or fewer students in each group are most effective. Further, McCombs et al. (2021) reported that "The National Academy of Sciences consensus study finds that the content and structure of rigorously studied voluntary programs varied by grade level, duration, content, and curriculum; some demonstrated academic benefits while others did not" (p. 3). They found that attendance is invaluable for students' success and the inclusion of certified teachers is also a vital aspect. They stated that the cost of a five-week program is approximately $1,400. All of the practical information included in this article was useful as the Leadership and Technology Researchers planned their research. The inclusion of cost was very helpful and allowed them to realize that a weeklong camp was the most cost effective since they did not have a budget.

Camps and Socioeconomically Disadvantaged Students

  Murakami (2019) offered more general information for working with socioeconomic disadvantaged youth. They provided specific strategies to work with students who are from socioeconomic disadvantaged backgrounds. The Kaul et al. (2016) study researched 89 gifted students from low-income backgrounds who participated in a summer enrichment program for three years to gauge the effectiveness of it. According to Kaul, et al. (2016) student achievement gaps between higher and lower income students are evident early, and unfortunately, the research shows these gaps widen in high school, which is why supplemental educational opportunities are so important. The need for summer enrichment

programs is undisputed, as most students from lower socioeconomic backgrounds are unable to attain the same academic success as their peers, thereby impacting their lives adversely.

Elements for a Successful Summer Program

Kaul et al. (2016) wanted to understand what elements determined the success of these experiences, as participating students reported overall positive effects in almost every facet of their lives from having participated in these enrichment activities, including a positive generational impact. After analyzing the information from these 89 participants, Kaul et al. found there are several required elements for a successful ongoing enrichment program: stability (these students come from instability and need stable programs to ground them); attendance is vital, and they had to persist that these students kept showing up. Further, location matters, and if the program can be located on a college campus, that is even more advantageous. Family support is essential for success. In addition, students who are isolated socially need added support to continue with gifted programs, and a diverse network of adult professionals to mentor and lead students is imperative. As the Leadership Researcher and the Technology Researcher work to create their own summer enrichment program, they need to be mindful of these elements and strive to incorporate them.

Service-Based Projects That Connect Community and Schools

Further, Travis (2019) explored ways that inquiry, service-based projects can create connections between the community and institutions like schools. This research provided useful ideas about ways to create a strong relationship between the schools in Jackson County and the researchers. Ahmad (2019) also offered additional guidance about ways one can build a strong partnership with the school system. Despite the useful nature of these studies, the Leadership and Technology Researcher still needed more concrete information

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on how researchers measured the success of their summer programs, and specifically ones for

socioeconomically disadvantaged students from rural North Carolina.

Influence of Instructional Technologies

A plethora of research exists regarding various instructional technologies and their

impact on student learning. For the purposes of this study, though, the Technology

Researcher focused on three main areas of research: current instructional technologies used

in the classroom and the Google suite of products, specifically for website creation (Google

Sites), word processing (Google Documents), and graphic design (Google Draw).

Over the last decade, the use of instructional technology has exploded in the

classroom. These technologies have complemented the curriculum and enabled students to

learn life skills. Dube and Wen (2021) found that during that decade, maker technologies and

games were used early on, while analytics and mobile technologies were used consistently

throughout the time period. Maker technologies are hands-on technologies for makerspaces,

robotics, and 3D printing. Analytics are adaptive technologies used to supplement instruction

that identifies a learner's strengths and weaknesses. Mobile technologies consist of phones,

tablets, apps, and wearable technology. They also predict that virtual and augmented reality

technologies and artificial intelligence are the tech trends of the future. According to the

research, Dube and Wen (2021) found that mobile technologies had the greatest impact on

education from 2011 to 2018. Further, they explained, "Thus, the meteoric increase in

educational technology discourse seen here could benefit students but only if the discussion

considers who is included and who is excluded" (Dube & Wen, 2021, p. 1952). It is

important to note that technologies can create a larger divide in terms of socioeconomic class

for students, and it is important to consider this when the researchers are planning for

technology use. The intention should always be to provide students with technologies that will benefit them and will support the International Society for Technology in Education (ISTE) standards. It seems individualized applications and augmented/virtual reality technologies have the most potential but unfortunately, the Technology Researcher was unable to integrate these technologies within her research. At best her students were able to use a Chromebook or laptop to design web sites, logos, etc.; however, these technologies still allowed for student academic growth.

Instructional Technologies Over the Last 30 Years

Similar to Dube and Wen's research, Ross (2020) examined what technologies have impacted education over the last 30 years. They began by explaining the Apple Classroom of Tomorrow initiative of the 1980's in which Apple tried to find innovative ways to use computers in classrooms. Since then, the proliferation of technology in education has soared. In 2002 Maine began a one-to-one laptop initiative for its students, and researchers found that achievement scores improved in all subjects after this initiative. It is the largest study of its kind and the most comprehensive to view technology as a learning tool rather than a teaching device. Other studies followed in Texas and in Michigan. In each of these initiatives, researchers were impressed with the critical thinking skills presented and work students created using technology. Ross (2020) found:

> Whether or not raising student achievement is a primary goal of technology infusion initiatives, recent research suggests its potential for such impacts as a consequence of increasing student interest, active learning, and lesson quality. …The results of this meta-analysis showed statistically significant, small to moderately strong effects on student achievement in the five subject areas examined... (p. 2010)

Overall, technology had a positive impact on student achievement; however, it is difficult to attribute the improvements solely to the technology or to the interventions provided by the technology. Further research is needed to determine that outcome. This research supports the importance of technology in impacting student learning positively, which has been relevant to the Technology Researcher's work.

Google Suite of Products

A vital element of the Technology Researcher's study centered around the Google Suite of products, specifically Google Documents, Google Sites, and Google Draw. The Yim et al. (2016) case study examines the efficacy of Google Docs in terms of collaboration in a middle school English language arts class set in Littleton, Colorado. Few studies exist in which the Google suite of products are analyzed so this was unique and applicable to the Technology Researcher's work. Unfortunately, the students within this study represented a higher socioeconomic level than the Technology Researcher's targeted students, but it did provide some useful insight. Yim et al (2016) said:

> Most importantly, the perceived affordances and challenges of Google Docs for writing instruction have a significant implication. In a postindustrial knowledge economy and network society, skills of communication, collaboration, and horizontal networking play a prominent role. K-12 educators are increasingly attempting to integrate technology to teach these essential skills. (p. 25-26)

In this regard, Google Docs appears to have some relevant real-world application and proved very beneficial to the research study as students advocate for possible change to rural education in North Carolina and for themselves as they assert their leadership skills. This tool will empower them and their advocacy efforts.

Maqbool's (2016) work supported the importance of the Google suite of products in educational endeavors. They evaluated how Google Sites and Docs in particular helped collaboration for group work. The study was completed at a university in New Zealand, and it found that people participated more equally and felt safer while working in an online environment. Despite its focus on postsecondary students, instead of K-12, the study was helpful to this work. They found that Google Sites is not an easy app to use on a Smartphone, and students need a Gmail account to use the Google suite of products. As the researchers planned for their research, these were important facts to remember. These minute details are always important to know when planning for classroom technology use, especially when younger students are involved. If technology is cumbersome and difficult to use, people will hesitate to use it; therefore, being cognizant of these issues prior to implementation are vital for success.

Digital Literacy Curriculum

Digital literacy means, according to the American Library Association's Digital Task Force, "the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills" (American Library Association, 2021, first subheading). Ever since the printing press, there have been media and the need for information and media literacy. Newspapers and books were the main means of information dispersion until the advent of the 20th century when travel (due to the automobile and the airplane inventions) and the invention of motion pictures. Several years later, governments made use of the motion picture technology to disperse propaganda related to the world wars. During those years the radio became the major medium, entertaining and informing American audiences. Several years later television

had another great impact on the American consumers' understanding of media. Since the early 1900s media technology has rapidly evolved creating a legitimate need for information (and later digital) literacy. Nothing, though, has had as profound an effect as the internet. The internet and social media have created a greater and more intense need for information literacy education and now digital literacy, as well as a curriculum to support it. No medium has proven as great a threat to the United States' democracy as the impact of the internet, compounded by widespread ignorance exacerbated by the lack of digital literacy skills. Although information literacy has an extended history, the Technology Researcher focused specifically on digital literacy in her research.

The digital literacy field is a relatively new field and may not have been as widely studied as some other aspects of education. Further, America has provided less research and instruction to its students regarding this curriculum than the rest of the world in spite of having more of its population online than many other countries. The United Kingdom, Europe, Australia, and the Middle East have been more proactive with their research and study of digital literacy than America has been (Klein, 2020).

There are fewer leading experts in the field of digital literacy because scholars are not drawn to the field. According to Wineburg, who was only one of 50 scholars recently recognized who studies digital literacy, "Disinformation has eaten away at the fabric of democracy. Yet, in schools of education, you can't find more than a handful of scholars studying how students become informed citizens using the devices that occupy eight hours of their waking day" (Hess, 2021, para. 4). Wineburg's assessment explains a great deal about why there are so few experts in this field.

Contemporary Scholars and Their Digital Literacy Theories

In spite of Wineburg's assessment, several theoretical approaches to digital literacy do exist. In fact, Wineburg himself is a current advocate for determining how online reading needs to change because of society's use of the internet. He explains the process of lateral reading:

> Rather than dwelling on an unfamiliar site, they [fact checkers] take a quick peek, leave it, and then open up multiple tabs to search for information about the group or organization behind the original site. They return to the original site only if it checks out. In other words, they learn about a site by leaving it to consult the broader web. (as cited in Hess, 2021, para. 9)

Wineburg acknowledges that "lateral reading" is contrary to everything students are taught when learning to read, i.e. looking at details and fully consuming the information. Lateral reading encourages students to look quickly and scan the information prior to leaving the site to search another one. Nonetheless it is a skill that is relevant and greatly lacking in today's students and adults today, and why it was taught at this camp.

McGrew and Byrne's (2020) work regarding digital literacy education also echoes that of Wineburg's concept of lateral reading. In addition, they have done extensive work on understanding how high school students evaluate online information and ways to improve their research skills. This information is pertinent to the study at hand because it enabled the Technology Researcher to better understand how students processed this information during the summer camp.

In addition, Hobbs (2010) has developed a list of skills that exhibit digital competencies for researchers to use for formative assessments. These skills include finding

credible information and sharing those ideas; evaluating information and recognizing author, purpose, and point of view, producing their own digital artifacts, and reflection regarding their digital presence and communication. All of these skills are vital for digital literacy competence. Further, Hobbs and Jensen (2009) assert that being digitally literate goes beyond assessing, and just reading and writing based on technology; it also applies to producing media. The junior researchers present at the summer camp produced work, as well as evaluated sources. They also used critical thinking skills in their assessments and comparisons of sites, which Hobbs (2020a) explored in her book *Mind Over Media: Propaganda Education For a Digital Age* regarding propaganda in media.

Participation Gap

Jenkins (2006) also explored the importance of educating students about digital literacy, in which he explained the "participation gap." According to him, the United States not only has a "digital divide" of individuals who have access to online technologies, but also a "participation gap" in which you have individuals who are information literate, and those who are not, hence the "participation gap." Many Americans have access to the internet, but they do not have the necessary digital literacy skills to navigate it successfully.

High School Students' Digital Literacy Skills

Recently Stanford University published a national study about the state of the country's higher schoolers and their digital literacy skills (Hess, 2021). This study said professors examined research from almost 3,500 high school American students who were representative of the country's demographics (Hess, 2021). When charged with real-life online tasks, they displayed inadequate abilities to decipher fact from fiction (Hess, 2021). The article espoused the need to teach students how to approach the internet like professional

fact checkers (Hess, 2021). The findings were telling and supported the premise that digital literacy is a necessary and vital curriculum that needs to be taught.

Americans have a difficult time deciphering fact from fiction online, including teens who spend the majority of their time online, according to McGrew et al. (2017). They found:

> The Internet dominates young people's lives. According to one study, teenagers spend nearly nine hours a day online...Today's students are more likely to learn about the world through social media than through traditional sources like print newspapers. It's critical that students know how to evaluate the content that flashes on their screens. (McGrew et al, 2017, p. 5)

There is no question that "fake news" exists online, and with teens spending so much time online, it is imperative they are equipped with the tools needed to fight this misinformation. High schoolers were easily duped when tasked with three specific types of digital literacy tasks that involved civic reasoning (understanding a political or social issue) including: the source of the information, analyzing the information presented, and researching what other sources said about the same topic (McGrew et al., 2017). Teens failed to understand "native advertising," a relatively new type of media, in which ads look like news (McGrew et al., 2017). The article concluded with this dire warning:

> Credible information is to civic engagement what clean air and water are to public health. If students cannot determine what is trustworthy—if they take all information at face value without considering where it comes from—democratic decision-making is imperiled. (McGrew et al, 2017, p. 7)

Despite being several years old, this research is still very relevant.

Kletter (2021) put the lack of digital literacy skills into perspective with their

ominous admonishment:

> As the coronavirus began to spread across the world, Tedros Adhanom Ghebreyesus,
>
> director of the World Health Organization (WHO), issued a warning: Along with the
>
> pandemic, we are experiencing an "infodemic" of misinformation. "Fake news
>
> spreads faster and more easily than this virus, and is just as dangerous," Ghebreyesus
>
> said in February. (para. 1)

For the World Health Organization to recognize the danger and prevalence of

misinformation, the situation was and is dire, indeed. After Kletter's (2021) attention-

grabbing introduction to this prolific issue, they explained how the push for media literacy

education legislation and ramped up efforts to educate today's youth about social media and

other avenues of misinformation are trying to contain the problem. Kletter (2021) mentioned

how methods like the CRAAP (currency, relevance, authority, accuracy, and purpose)

checklist test for students is no longer viable given the amount of misinformation available

on the web (2021). Instead, they, like others, suggested that individuals need digital literacy

education, and should be taught the skills of professional fact-checkers (Kletter, 2021).

Algorithms

Understanding how to screen web sources is equally as important as understanding

how algorithms personalize ads and news articles on social media, helping propaganda to

proliferate (Hobbs, 2020b). Hobbs explains how algorithms work:

> Today, algorithmic personalization is present nearly every time users use the internet,
>
> shaping the offerings displayed for information, entertainment, and persuasion. Three
>
> routine and common types of algorithmic personalization that people experience in

everyday life are filtered search results, targeted advertising, and differential pricing.

(Coen et al., 2016, as cited by Hobbs, 2020b, p. 523)

Sadly, most students and adults do not realize they are being targeted by these algorithms. According to the same study, "Depending on their previous online behaviors, some users are presented with mainstream information sources, and others are presented with special interest media" (Hobbs, 2020b, p. 523). This type of technology makes it very easy for propaganda and other untruths to spread quickly. Hobbs (2020b) further explained the importance of educators making digital literacy a priority to prepare students to recognize how search engines and other facets of the internet are targeting them and providing biased information because of these algorithms.

Understanding how to tackle issues of online propaganda and algorithms are not enough, though, we must also support students in understanding how new forms of technology can purposely or unintentionally alter the country's democratic practices. Miller's (2018) work discussed different types of the digital divide (not just equitable distribution of technology), including filtering software (that filters out LGBTQIA sites to students, creating a non-inclusive, inequitable environment for students). These issues are important for students to know about and to question to be sure they are garnering all of the information on a specific topic.

How This Research Topic Fits Within Existing Scholarship

This topic fits within the existing scholarship because there is a need to explore the impact of the current K-12 curriculum on the socioeconomically disadvantaged student. Using Bourdieu's theory, this research will study how these students are conditioned by school and their backgrounds to conduct themselves and learn in a specific way. The goal of

this work was for students to recognize that their public education may not be the same in their rural area as others throughout the state and they can make a difference. The objective was also to help students and their parents to understand there are opportunities beyond the curriculum that will benefit them and broaden their academic and career options. Further, this work will be shared with district and state level policymakers to hopefully begin the process of implementing much needed change within the educational system of the state to make a positive difference for these students in rural, poverty-stricken areas.

Asset vs. Deficit Lenses

While much of the literature points to a deficit view and lack of opportunity in rural and socioeconomically challenged educational communities, the intent of this research study was to highlight the assets of one rural North Carolina community and how these assets could lead to advantageous opportunities for these students and ignite excitement regarding their education. Through the involvement of community mentors, this study encouraged the co-researchers to establish lasting relationships and to lean on the support of these mentors as these students continue their educational advocacy. Further, the co-researchers utilized technologies to collaborate and communicate to create deliverables that would assist in their efforts to enact change. By utilizing an asset-based lens, this study showcased the available opportunities that can positively impact rural students, such as the ones in Jackson County.

Chapter 3: Methodology

The methodology this research study will implement is Youth Participatory Action Research (YPAR), a branch of action research. Action Research demands that action and research happen continuously to perpetrate improvement within a social situation, but sometimes it becomes something larger for society. Somekh (2005) explains:

> Action research starts from a vision of social transformation and aspirations for greater social justice for all. Action research is not value neutral; action researchers aim to act morally and promote social justice through research that is politically informed and personally engaged. (p. 7)

This methodology is often used with critical theory because it can emancipate, thus highlighting its tendency toward social justice. Researchers who use AR are always motivated to make something better, and sometimes that research becomes a cause for social justice. The research for this dissertation implemented youth into its methodology, thus becoming Youth Participatory Action Research. Furthermore, the goal for this project was improvement for education; therefore, the Leadership and Technology Researchers encouraged institute participants who advocated for change in their school.

This chapter will provide an overview of this methodology, and how the researchers implemented it. YPAR empowers youth to explore their environment, reflect on issues within that environment that require change, determine ways to improvement, and consistent, ongoing reflection to ensure these youth are moving forward effectively and positively. YPAR is an ongoing cycle, and it empowers youth to enact change to improve their own situations. The adult researchers/practitioners act more as guides and facilitators actively helping youth to make the change they wish to see.

Research Setting and Context

As self-identifying interpretivists, the Leadership and Technology Researchers understand and believe that one's truth and reality exist based on one's perspective and experiences. Interpretivism underscores the emphasis placed on multiple realities and the importance of those realities being used in the research process, which only added to the integral need for action research as an accessible means of completing research. Perhaps the most important aspect of this methodology is the emphasis on collaboration between the researcher(s) and the participants - or as Gilbert labeled them, "co-researchers" (2022). Gilbert was not the only one to encourage fair and just collaboration between researcher and co-researcher though, Adelman (1993) also believed that research should, "raise the self-esteem of minority groups, to help them seek independence, equality, and co-operation" and action research was seen as the way to offer that opportunity.

Interpretivism sets in place that reality is not only made up of multiple realities, but that reality is socially constructed and is seen a lot in community life. When completing research, it is important for the researcher(s) to be aware of their own positionalities towards and within the group they are working with, understanding that there may be socially constructed expectations that only the co-researchers can expect and understand. In his presentation, Gilbert (2022) said, "Most people want to fill gaps in the research, but action research 'fills gaps in reality.'" This concept of "filling gaps in reality" drives home the concept that action research is tied to an individual's reality and thus can change the reality of oppression through action. Including youth in research opens up the possibility to allow more research to be conducted and enables a young person to experience research earlier in life. Hudson et al. (2020) write, "Adolescence is a critical period for prosocial development, and

educating students to recognize and act upon their responsibility as interdependent members

of a democratic society is an essential outcome of education at both the college and K-12

levels" (p. 10). This means that during adolescence, the opportunity to complete research can

impact the future development of the students. Hudson et al. (2020) defines prosocial

orientation as:

> The development of attitudes, dispositions, and values that foster and sustain positive
>
> engagement within one's community and larger society, and related prosocial
>
> behaviors such as volunteering have been found to be positively associated with
>
> perspective taking and sympathy/empathy for others, a preference for equitable
>
> outcomes (i.e., justice and fairness) over individual competition and gain, and
>
> stronger levels of mental health and well-being. (p. 10)

All of which is what one would hope to gain from this youth participatory action research

project. To improve the lives of adolescents or youth means improving not only society's

future as people inhabit spaces with these students but their own, through decisions and

changes they make and interactions they host.

Jackson County Demographics

Leadership skills are important in youth development and special programs or

summer programs can assist in building those skills. What seems to be a common missing

thread to these studies is the demographic makeup of the youth and students that are

participating in these programs. That missing piece is a large part of this research and part of

the reason that the research is taking place in the location that it is. Morell (2008) explains:

> Most PAR [participatory action research] projects are conducted with or on behalf of
>
> marginalized populations (such as inner-city youth) with the goal of understanding

and intervening in real social problems…A major goal of YPAR is youth development, but equally important focus is the development of students' literacies through innovating and empowering classroom curricula and pedagogies. (p. 158-159)

The focus of this research is set in southern Jackson County, which is located in the western portion of North Carolina. This county has limited racial diversity within individual towns housed in the county. Demographics, as of the 2021 census, are shown in Table 1 (U.S. Census, 2021, table 3).

Table 1

Jackson County Demographics

Race	Percent in Jackson County
White	84.6
Hispanic or Latino	6.8
Black or African American	2.4
Indian American	8.8
Asian	1.2
Pacific Islander	0.1
Two or More Other Races	2.5

The ethnic breakdown of Jackson County is more than 15% non-white, and over 6% of the population speak a language at home that is not English. As of the 2021 U.S. Census Bureau, over 20% of the Jackson County population was 18 years or younger, meaning a fifth of the people living in the county are considered youth. That is a large number of people who are developing skills and sharing ideas on how to better their community.

The community is not particularly wealthy either as the median income per capita is $28,040, and 18.7% of the population lives below the poverty line (North Carolina Department of Health, 2020). The poverty line for a family of four in North Carolina is

$52,400 (NC Department of Health, 2020). The average household income in the 2016-2020 range was only $46,820 for Jackson County (U.S. Census, 2021). While these statistics are concerning for populations in remote areas, such as Jackson County, a goal of this research was to provide resources for communities such as this one.

There are numerous individuals and families that are not counted on the U.S. Census. Some do not fill out the paperwork because they do not feel it is important or a need. Others do not fill out the paperwork because they are not in the country legally; while others do not fill out census forms for a variety of other reasons. It is the same reason we have many families not complete free and reduced lunch forms; they are nervous of who might see the paperwork and cause immigration issues for the family. While Blue Ridge School has an address of Cashiers, North Carolina, the make-up of the school and community is vastly different from those who own second and third homes in the area. This skews much data about who lives in Jackson County, what the cost of a home is, and living expenses.

The average household income in Cashiers is $81,589 with a poverty rate of only 2.06%. These are vastly different data points compared to the county as a whole. The racial makeup of Cashiers is also very different to the county as it comes in at 97.94% white and 2.06% other races (U.S. Census, 2021). It makes one wonder how this average income skews the county income rate, meaning how much would the county average drop if the Cashiers' income was not included? Blue Ridge School (BRS), the homebase for this research and where the Leadership Researcher is currently employed, has demographic data that shows just how skewed the data is in comparison to the town itself, due to income disparities, government data, and the differences between the makeup of the youth compared to the adult

residents. During the 2020-2021 school year there were 158 students enrolled in BRS. Table 2 represents the breakdown of races.

Table 2

Blue Ridge School Racial Demographics

Race	Percentage at BRS
White	62
Hispanic	34
American Indian or 2 or more races	Less than 4

Approximately 52.5% of the students were eligible for free or reduced lunch meals, and the school receives Title 1 funding. When comparing BRS to other schools in the county, there are large differences in demographics. The other schools have 75% or more of their students identified as white and all other races put together made up just over 25% of their student population. All the schools in the county receive Title 1 funding and have a large number of students eligible for free or reduced lunches (Institute of Educational Sciences, 2021).

Jackson County, overall, has a large low-socioeconomic population but BRS, as seen through the statistics above, faces large disparities within their own community. Located 19 miles away from the next closest school in the county, it faces a lack of community involvement. Through the research institute these researchers taught participants about youth leadership and community development and involvement. By including youth in the process of research as junior researchers, they had a say in the identification of community and school concerns. When involving community members and leaders in the research process, it was paramount that they were as diverse as the youth who comprise the research team as they needed to understand who they were looking at to influence their leadership roles.

Within the county there are five public elementary schools, two high schools, and one alternative school. These schools provide access to a majority of the public within this county

and offer many different services and resources to their students and families. Some services include: summer school, after school tutoring, free and reduced meals, Mountain Area Nutritional Needs Alliance (MANNA) packs, access to dental clinics, and many others. This research focused on the needs of the Jackson County community with specific interest in the Cashiers/Glenville area. This area is particularly complicated when looking at demographics and needs assistance because the families that go to school in the southern portion of the county come from low-income families. Though the typical family in the towns of Cashiers, Sapphire, and Glenville are considered low-income, they see high living costs due to the tourist pull to the area. These towns host families in their second and third homes during the "peak seasons," summer and early fall. This increase in living costs causes the full-time residents to struggle financially, with childcare, and with educational needs, all because of situational factors. Research, like that of this study, attempted to showcase the areas of educational need for these families. This research also attempted to begin to build student knowledge about how they can use their voices to improve their stations in life as they proceed through school and eventually into the work world.

Because this research project occurred within rural Jackson County, North Carolina, several values and opinions were expected regarding education. The research attempted to focus on individuals of low-socioeconomic status within the area and how that impacted the supplemental educational opportunities of the students in public K-12 schools. The reason for fewer supplemental educational opportunities for students of low-socioeconomic status is based on the lack of funds and transportation. Further, many of these children have to attend summer school to advance to the next grade, which means they do not have time to attend camps during the summer. For many in the area, school is viewed as something completely

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separate from home lives, thus familial support for education is almost non-existent. Because families must often work more than one job and both parents must work, parents are not as involved in school as they are in more affluent areas where there are stay-at-home parents and there is not a need to work multiple jobs. Understanding that this view of education is vastly different from what they, the researchers, grew up with, as white females in a middle-class family where a four-year university was not only the goal but the expectation, it is not these researchers' place to tell these families they are incorrect. The researchers' opinions do not hold a place in their societal views, but their opinion can offer another viewpoint for them to experience and observe if they so choose. The value for many of these families is spending time with their children or focusing on work to bring home enough money to give their children a chance at success. These ideals and values cannot be changed with a week-long research institute that this research offered. The research institute, however, did provide an opportunity to these families to see what other options are available in terms of supplemental education for their children and families as a whole and how the current public educational system could offer more beneficial and different lessons than are currently being mandated. The knowledge of opportunities is what is lacking from many of the families in this area, and for a research project to be both action oriented and interpretivist in nature it must follow what Hudson et al. (2020) wrote, "Participatory Action Research requires active rather than passive knowledge production" and "takes a critical approach to knowledge" (p. 6). Participants had to consistently reflect and ponder what they were doing, and it impacted the overall goal of the group. Knowledge must be built and interpreted based on experiences for it to be truly interpretivist, meaning for the knowledge to be created, the people must experience it. This is why a research institute, such as the one the Leadership and

Technology Researchers created, took a critical look at the public educational system and how supplemental educational opportunities could ameliorate that system's shortcomings aligned with participatory action research.

There is a level of trust and risk involved with creating a summer institute with the collaboration of youth leaders and community members. Ultimately, the research is located in the same community that the Leadership Researcher works in, meaning the risk and trust is even higher. Collaboration and understanding are underpinned themes required to complete research such as what this project attempted. Collaboration and understanding matter so much because students learned leadership skills and they had to use these skills to collaborate in order to create a successful deliverable to advocate for the change they wanted to see. Like much of the research already found, educational research is dependent on the happenings of an organization and their supporters. The support of the community, the school system, and the students and parents were integral in making this project successful. Everyone had to support it in order for it to occur. Without the joint efforts of the community, this camp would never have happened and would not have been as successful as it was. In this research, the biggest supporters were the students, advocating for themselves, community leaders, those willing to assist and mentor students, and the school district, for allowing the space for discussion and action. It is a multi-tiered process to complete collaborative research which was the goal of this research study.

Research Site

The physical location of the research institute was at the public library, a space easily accessible to all. The expectation was that families would drop off their children for the length of the institute on each given day. The researchers would host a communal meeting at

the start of each day and the participants would then be broken into groups for the day's activities. These activities were held in the same building, but the participants moved between activities for a more fulfilling and productive day. The research institute lasted 5 days, which was determined by the availability of space and participants' time. During these research days, participants worked with each other, a guest speaker, as well as the main researchers to craft a solution to the problem within public education they identified at the beginning of the week.

The institute was hosted at the Albert Carlton - Cashiers Community Library, located near several other community resources such as, the public recreation center, post office, and the Boys and Girls Club of the Plateau. The summer research institute took place from 9 a.m. to 2 p.m., Monday through Friday on the dates of June 26-30, 2023. Our meeting space was a large conference room with one large table and mobile chairs spread out around it. There was one white board in the room, which was utilized for presentations, but no other technology was housed in the room. The researchers brought personal laptops to complete necessary work. The institute also utilized the library's outdoor space that included picnic tables, a garden, a pavilion, and a lake.

The Chosen Research Strategy

This research focused on using action research as a research methodology (Morrell, 2008). The premise behind action research is to allow co-researchers and their lived experiences to advocate for change in their situation, which becomes the research (Morrell, 2008). The researcher acts more as a guide or facilitator while the participants work toward an actionable change or solution to a problem (Morrell, 2008). There is a branch of PAR called youth participatory action research (YPAR), and it is the methodology the researchers

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used. Including students in the research process can be difficult when using methods that do not have the space for more than one researcher or for different tools to be used; however, YPAR allows for flexibility. Students can work to facilitate the changes they want to see made.

This study intended to improve the lives of the youth who live in Jackson County, as they had an opportunity to actually participate in working toward positive changes affecting their education. They began to see the deficits in the educational system and the importance of supplemental educational offerings, such as this camp. The main purpose of YPAR is to understand and to improve a situation where a specific group is denied or oppressed in some way.

Due to YPAR being focused on student empowerment and developing their knowledge through research, the researchers believe it was the best methodology for this project. The Leadership and Technology Researchers hoped to begin to cultivate students' leadership skills, and by participating in this research study students developed important civic skills.

The researchers hoped these students could transfer some of the skills such as analysis, action, and reflection into their classwork. This methodology has the potential to have powerful consequences for these students. Additionally, Morrell (2008) says:

> YPAR, they argue, is an important pedagogical and social action tool that affirms youth as transformative intellectuals and involves an important and often-neglected population in the process of collecting and distributing information intended to inform, persuade, and ultimately transform oppressive social realities. (p. 159)

YPAR positions the researcher as a facilitator, working alongside the students. Because the researcher and the participants work as a team, the participants' input is actually more valuable than those of the researcher. Nonetheless, the researchers had to recognize that they were still working with children, so as facilitators, they had to dedicate more time and effort to teaching these students how to conduct this research. This process was so important. Morrell (2008) explains, "YPAR is an approach to research for action and change that conceptualizes youth as legitimate and essential collaborators. In addition, positioning youth as researchers offers important and unique insights into some of our most serious social ills that disproportionately affect young people." (p. 158) The input of youth is invaluable because, essentially, they are the most affected and deserve to have a voice.

Further, reflexivity was imperative for both the researcher and the participants in order for them to understand their biases from the start and for them to understand how their preconceived ideas and biases may impact their understanding of the research. Somekh (2005) explains, "Action research involves a high level of reflexivity and sensitivity to the role of the self in mediating the whole research process" (p. 7). The researchers had to be honest with themselves and the participants about their motives. That was an imperative element to ensure their work was authentic. Moreover, it was imperative that the researcher took the time to teach students how to practice reflexivity. The researchers did this by asking questions after every activity. They varied the ways they asked the questions, sometimes having students write answers and other times having them discuss their ideas. They had to begin to examine themselves honestly and understand how their biases may have impacted their responses throughout the process.

Youth Participatory Action Research uses the same process as Action Research. Stringer (2014) explains it on a basic level, "A simple 'look-think-act' routine encapsulates basic action research processes" (p. 4). This process is just the beginning of a cycle that repeats again and again, until improvement is achieved. The process of YPAR is cyclical, and each day they must continue to question, inquire, and discuss. Fine (2008) explains what makes PAR unique:

> PAR is, however, a radical epistemological challenge to the traditions of social science, most critically on the topic of where knowledge resides. Participatory action researchers ground our work in the recognition that expertise and knowledge are widely distributed. PAR further assumes that those who have been most systemically excluded, oppressed, or denied carry specifically revealing wisdom about the history, structure, consequences, and the fracture points in unjust social arrangements. (p. 215)

Students from a lower socioeconomic class and from remote areas are normally discounted and not considered when school reform or curriculum changes are considered. Fine (2008) explained, why their voices matter so much and how their knowledge helps provide the knowledge the researchers seek. The youth participant is involved in every facet of the research and has an influential role to play. Scott et al. (2015) defines YPAR even further as, "a collective and collaborative endeavor… is multivocal…takes a critical approach to knowledge…is emancipatory and visionary…requires active rather than passive knowledge production" (p. 139-140). Communication, collaboration, and reflection are key pieces of this methodology. Without these elements, the process fails.

During this research project, these young co-researchers (participants) also had to "unlearn" things as they progressed, and they began to see the world through a different lens. Cannella (2008) says, "As a process of inquiry into dominant narratives and destructive paradigms, increasing awareness of our own filters presents the chance to unlearn those that dehumanize others and ourselves" (pp. 190-191). Essentially these students began to understand that school can be different because it is different for other students throughout North Carolina. They began to question, and dialogue ensued. Further, Cannella (2008) says, "Project design reflects that students inhabit multiple politicized spaces; these spaces will affect how students appropriate and re-create meaning from the material offered" (p. 191). This understanding about identity explains how students will make meaning of what they learn and how they may interpret this experience based on their backgrounds. Bourdieu's theory of class can definitely be applied to this facet of YPAR. Bourdieu explained that one's *cultural capital* (a person's experiences, background, etc.) helped people move beyond their habitus (understanding of the world), which enabled them to advance from the socioeconomic class in which they were born. This YPAR study provided seeds of cultural capital to these participants in terms of leadership and digital literacy that might someday enable them to grow beyond the class in which they were born. A weeklong camp was not enough time to develop enough cultural capital to move from one class to another, but it definitely planted seeds within these young minds.

Sampling Strategies

This research project used a mix of purposeful sampling due to the nature of questions the research hoped to answer and who it needed to involve. Sampling centered around both typical sampling and the most common form of purposeful sampling, network sampling.

Typical sampling results in participants that are normal or average to the situation. For this research project that included rising fifth, sixth, and seventh grade students from Jackson County. The typical sampling may naturally lead to network sampling as the work would be completed in a small town, naturally lending itself to "small town talk" or spread through word of mouth. According to Merriam and Tisdell (2015), network sampling is based on a few key participants that then refer or bring other participants to grow the study. It also leads to more information necessary to build this research case.

This research project used paper and pencil surveys about a month prior to the beginning of the summer research institute to gauge interest among students. The researchers asked no more than five questions to garner names of prospective junior researchers. Upon finding at least 10 interested students, the researchers sent informed consent forms to parents/guardians of the interested students as well as the children themselves to sign. These forms were sent via a printed copy.

Participant Recruitment

For this research project, participants came from active recruitment of rising fifth, sixth, and seventh grade students in Jackson County. Flyers were sent home with students once they were approved by the Jackson County School District. These students were asked to identify the grade they would be entering during the 2023-2024 school year, their interest in leadership, mentorship, or instructional technology, and if they would be available during the dates of the summer research institute. This information determined their eligibility for the research institute. This study's sample size should have been no more than 25 students and no less than 10. Unfortunately, there were only six participants, but additional research was conducted to offset this issue. The summer research institute was held June 12-16 in

Cashiers, North Carolina. Other data came from feedback from the adults (parents, guest speaker, and principals participated in round two of the data collection) participating in the research institute as well, the community members or visitors that are assisting with the program implementation.

The participants' relationships to the researchers were varied, depending on whether they were working with the Technology Researcher or Leadership Researcher. If the participants were working with the Technology Researcher, many of the participants had no prior relationship. If the participants were working with the Leadership Researcher, many had a prior relationship as the sample included prior students of hers. Due to the nature of the county, many of the participants already knew each other so it was imperative that any documentation of the participants was kept private to ensure confidentiality.

Data Collection Tools for Action Research

A strength of action research is the tools that can be used across the many branches of the methodology. While heavily emphasized under improvement science, fishbone diagrams, driver diagrams, and the Plan, Do, Study, Act (PDSA) cycle can share overlap with other areas of action research (Adelman, 1993). When looking at participatory action research these tools could have been used to assist the participants, or co-researchers, in what Adelman (1993) deems as active participation, "carrying out the work in the exploration of problems that they identify and anticipate. After investigation of these problems the group makes decisions, monitoring and keeping note of the consequences" (pp. 9). Using tools to assist in answering action research questions is common in improvement science as outlined in Perry et al.'s (2020) *The Improvement Science Dissertation in Practice*. The concept of improvement science pushes a solvable problem through a cycle of research, beginning with

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finding root causes of the problem which is helpful but not as useful on its own when it does not include possible solutions. The driver diagram is the follow-up piece of the cycle that allows for the researchers to change a cause into a potential proactive solution (Adelman, 1993, p. 91).

The reason the researchers recommend this process and these tools to be used by not only the primary researcher, but the co-researchers as well is because they offer the opportunity for everyone to discover root causes, both internal and external, and potential solutions that are justifiable by all involved. For action research to be successful it needs to be helpful to all involved and the importance of collaboration needed for this methodology cannot be forgotten or underutilized. The bridge between improvement science and participatory action research is how information is gathered which is a primary principle of participatory action research. An example of merging these two branches entails having the co-researchers complete the fishbone and driver diagrams. This practice would allow for the participatory practice of information gathering but using the improvement tools that can lead to a more actionable research project. Although the researchers did not use the specific diagrams from action research, students did brainstorm and create their own versions of steps to make change, and reflection was a large aspect of this summer research institute.

Hall et al.'s (2015) *The Toolkit for Participatory Action Research* offers many insights into participatory action research. No matter the branch of action research that a researcher uses or focuses on, the method is centered around the concept of creating change and figuring out what works and what does not. This is completed through the use of research and project cycles, qualitative research methods, and a lot of reflective practices. Within this work, the Leadership and Technology Researchers used the following data

collection tools: observations throughout the length of the institute; surveys sent prior to
institute beginning, during the institute, and after its ending; informal interviews with co-
researchers; reflections from co-researchers; review of existing data regarding the community
and school demographics; and photovoice used during some of the institute activities to
generate discovery of issues and discussions to determine ways to enact change.

When the summer research institute began the researchers used a variety of data
collection techniques to gather information. These instruments included field notes, informal
one-on-one discussions and group discussions, reflection notebooks from students and
researchers, photos students actively collaborating and creating, and student work (printed
and done via Google Drive). Further, upon immediate conclusion of the summer research
institute, a post survey (either via Google Forms or printed copy) was distributed to
participants for their final reflections on the institute. Additionally, as noted previously, due
to the institute having less than the anticipated 10 participants, post-camp interview questions
were sent to all participants, their families, the guest speaker, and the principals at both
schools that were represented at the institute. Interview questions were sent to all but only
those identified later in the results chapter were returned.

Table 3

RQ/Data Source Alignment

Research Question Alignment	Data Collection Method	Timing	Justification
1. How can instructional technologies successfully provide leadership and mentorship opportunities to children located in	Field Notes Group discussion Photos (with student images blurred)	Days 1-5 of camp	These methods will enable the researchers to see how various technologies provide leadership and mentorship opportunities in their community. These

Research Question Alignment	Data Collection Method	Timing	Justification
remote areas of North Carolina?	Student work Reflection Notebook		interactions and artifacts will show how participants utilize the tools they have been taught throughout the duration of the camp.
2. In what ways can educators build strong digital citizens through supplemental educational opportunities?	Field Notes Group discussion Informal personal conversations with students Student work Reflection Notebook	Days 1-5 of camp	Each of these methods will provide pertinent evidence of how participants are implementing the digital literacy skills they are learning throughout the camp.
3. How can these supplemental opportunities, like this camp, build a stronger understanding of credible information so students can become more knowledgeable consumers of online information?	Field Notes Group discussion Student work Reflection Notebook	Days 1-5 of camp	Each method will provide insight regarding how well participants can decipher credible information online.
4. How might students recognize factors in which supplemental educational opportunities enhance their knowledge beyond what is offered by their traditional education?	Group discussion Student work Reflection Notebook Survey	Days 1-5 of camp Post-Camp	Each one of these methods will show what participants are thinking regarding this camp and its effectiveness for these children.

To help the reader better understand the methodology of this study, the researchers have

included Table 3 with research questions and data source alignment from the outset. YPAR is

the methodology that was employed, which is very fluid; nonetheless, this is a basic outline

of how data was gathered, and which research questions were answered. As noted earlier in

the chapter, YPAR is contingent on the work done by the participants, which is why the

agenda fluctuated. The participants were actively engaged, and they guided the work done

throughout the week.

Analytical Tasks

Each research session is an opportunity for data collection and analysis. Nofke and

Somekh (2009) explain:

It [data analysis] is not only a collaborative process, it is an on-going process, integral

with reflection during data collection. The development of action strategies and their

implementation, based on the findings of the initial stage of the research, need to be

followed by further data collection to evaluate. The validation of action research

outcomes involves multiple means, but emphasizes the testing out of conclusions

through new actions to see if the expected improvement results. (p. 97)

Since the data was qualitative, the analytical tasks of AR included organizing and then

coding the data by themes. Further, ongoing reflection on the findings directed adjustments

made to the research.

An important characteristic of the AR cycle is reflection. Without reflection, the cycle

breaks down, as there can be no improvement without deep consideration. Somekh (2005)

says, "Action research engenders powerful learning for participants through combining

research with reflection on practice" (p. 8). Other methodologies use reflection to review data, but AR is unique in that the researcher and the participants reflect on the actions and data to improve the process and to continue the work. The connection of method to methodology is that for PAR the participants need to feel involved and by having clearly defined communication strategies such as interviews and focus groups, the participants are having a chance to guide the conversation. St. John et al., (2017) conclude that, "Interviews and focus groups provide a means of gaining insights that inform improvement in support services and student advocacy" (p.78). This solidifies that if a goal of this research is to improve educational resources, then the need for participants' input is expected.

During the research institute, data was collected in a variety of ways. These included: field observations, surveys, reflections, and visual documentation. Identifiable names or characteristics of the minors were removed or hidden prior to accepting the completed data sets. Due to the nature of participatory research, some of the data analysis took place simultaneously with the research. As the co-researchers made decisions, chose the problem they were finding a solution for, or as they discovered new technology, analysis had already begun. Each of the decisions that a researcher made were documented and added to a flow chart to keep track of the progress and work being completed throughout the week.

At the conclusion of the research institute analysis of all data collection took place. The Technology and the Leadership Researcher compiled all the data into Google documents and sorted based on if the data was relevant to the technology or leadership research questions. The data was coded using a color system to identify which researcher would be using which part of the data. From there the data was analyzed based on the impact of the research institute and its ability to move the research forward, in other words, did the data

answer the research questions? Any identifiable data was removed and if it was not possible to remove identifiers that data was not used within the research going forward. Once the dissertation and research process has been completed all research materials with minors' names or identifiable information will be permanently deleted from the Google accounts or shredded if on written documents in order to protect the confidentiality and safety of all research participants.

Consideration of Possible Ethical Issues and Action Research

Discussing ethics begins by identifying the researcher and their role, and in action research the researchers are usually considered insiders to the research, which can create the idea that the research is biased. As Noffke and Somekh (2009) point out in their chapter on action research and ethics, this method of research has changed the look of research ethics and validity. How can one create unbiased and subjective research when they are living within these situations? Perhaps this is one of the unsolvable questions that arises from action research, one that will continue to be investigated and pulled apart. The researchers of this study would have to agree with Noffke and Somekh (2009) that the bigger concern with action research ethics is for the researcher to assume two roles simultaneously, the practitioner and the researcher. Both the leadership and technology researcher, they had to fulfill both roles throughout the research process. They were the practitioner by upholding the expectations and requirements of action research, in so, allowing change to be made while working with participants. They were simultaneously also the researchers as they were actively reflecting on their own practices within the realm of action research. In other words, they were researching what they were doing as action researchers.

The Leadership and Technology Researchers believed that the underlying ethical issues were validity, responsibility, and confidentiality. As Gilbert (June 2, 2022) mentioned in his presentation, the level of risk an educator takes varies upon the research project, but nevertheless, there is always a risk. For those completing research in their own organizations, the risk goes up as the research now rests upon their career and position within the organization. For the Leadership Researcher, this could have been a potential issue, as she is employed by Jackson County Schools. The researcher had to decide if their responsibility to the research outweighed their responsibility to their organization or in other words, their level of commitment to solving the research problem. Action research ethics almost lies predominantly on the lines of: commitment, responsibility, and risk. Each of these characteristics of research are simultaneously at play during the action research process.

When completing an action research project, it is important to frame discussions and questions in a way that does not put blame on the community and/or people involved with the research. They are participating in the research process in order to help make a change, they are already aware of the issues facing them. Respect and dignity must be considered as much as safety and privacy when it comes to completing ethically sound action research. Because this is a small community in which most people know one another, the Leadership and Technology Researchers had to be cognizant and dedicated to protecting the identities of their students. Confidentiality and privacy were vital to ensuring trust and ethically sound research.

As representatives from the university community, the Leadership and Technology Researchers had to be mindful of their positions of authority and how that could have

impacted interactions with the youth. They had to develop a good rapport with the co-researchers and build a climate of trust with them.

Prior to beginning this research, both researchers reflected on their own biases to ensure that reflexivity occurred prior to them beginning their work. Furthermore, they continuously reflected with one another and by journaling online daily to ensure reflexivity was continuously practiced and did not interfere with the research being conducted.

To ensure the privacy of students would be protected, both researchers took the following steps. All printed copies of materials (surveys and/or institute work) were stored in a locked box that is housed at the Leadership Researcher's home until the dissertation work is completed. At which time, all materials will be shredded and properly disposed of. For all photos of work taken during the institute by researchers with their personal phones, the faces of students have been blurred, as has any other identifying information. Original photos with identifying information have been deleted upon blurring of said information and faces. Any student work done via Google Drive has been secured by Google in the cloud and done under the account of the student, thereby password protected. Even when students shared with the Leadership and Technology Researchers their work remained password-protected and the researchers ensured the anonymity of the student by not sharing and deleting said file upon completion of the dissertation work.

Credibility and Trustworthiness

Trustworthiness came from a variety of different sources during the research but one of those was community partnerships. As outsiders of the community, not someone who was born and raised in Jackson County, the two researchers had to build relationships and partnerships. Being part of the public school system offers credibility to this research. Both

Leadership and Technology Researchers work in K-12 schools and have backgrounds in working with youth and research. Both researchers have master's degrees and have worked with the Internal Review Board (IRB) prior to this research project. Another aspect of credibility for this research is the types of methods the Leadership and Technology Researchers used. By using interviews, observations, surveys, and including the participants as co-researchers, the research came precisely from those who want to see change. Both trust from the community and the credibility of background and responses from participants built upon the need for community change needing community voices.

Due to using an interpretivist lens for this research project, an acknowledgment of the researcher(s) bias and assumptions had to also be made. Any prior relationships, outside factors such as parental involvement, demographics that may set participants apart in ability level, and anything else that could factor into the project's success, according to the research criteria, was noted at the beginning of the research. Completing research with youth can be a very difficult task. Youth must be taken seriously while also allowing the researcher achieve validity in their work. The IRB ensured that the research with youth did not break any research ethics standards or harm the youth in any way. Researchers also attained parent and guardian permission to record, photograph, or document anything about these youth.

How Threats Were Handled

Threats to the study's credibility were addressed primarily through building relationships built on mutual respect and trust among all researchers, reflexivity, and constant reflection on the work being completed. Validity is one area of concern that critics have found with YPAR. Many have discounted the methodology because it focuses on those who are not university trained (Traianou, 2014). Despite this being a concern, it is also one reason

YPAR is such a viable research method, precisely because it includes the very people who are affected. If people worked collaboratively with a university liaison, then they are indeed integral to the research process, and they are not only empowered, but they are also there to help the researcher decipher the data collected. Relationships built on trust and mutual respect mitigated this threat to the study's research.

     Others have criticized the methodology for the way power dynamics impact participants. Researchers often represent the university and enter a community as an outsider. Due to their dominant role, researchers have been criticized for imposing their ideas onto the group with whom they are working. Instances like this could potentially impact results. Further, AR has been criticized for the researcher and participants thrusting their biases into the research and analyses. Sometimes this happens due to a lack of reflexivity. Traianou (2014) argues that "qualitative research has been criticized for creating or prompting the answers it needs. Further, the power dynamic of the researcher/researched relationship has been criticized as another form of colonization, as Western ideas have often superseded the cultural practices, especially in understanding what deems consent and by whom, of the indigenous participants" (p. 69). Traianou (2014) also cautions that researchers must be careful not to try to identify with the subject so much that they overlook the differences they share. The boundary between researcher and participant is a very fine line. The Leadership and Technology Researchers had to practice reflexivity and reflection to combat these potential threats to the research.

Because the relationship between the researcher and participant is very important, a real understanding of one's identity and self is extremely important when doing this research. The researcher must be extraordinarily careful that they do not impose their ideas onto their

participants, and they must include and listen to the participants. As trained teachers, the researchers must be careful that they allow students to voice their ideas and be careful not to influence them. Youth can be impressionable, and because of that, the importance of reflexivity and reflection cannot be overstated.

YPAR's Implications for Inequity and Supplemental Educational Opportunities

Anyone in a classroom knows that there is not enough time in the day to cover all the standards required by the state and every parent knows that there is not enough time in the day to teach every life lesson to a child. These concerns become greater the further into a lower socioeconomic area one travels. That is where alternative educational support and resources can play an important role. Through educational events and programs and community research, the answer to how to fix this concern, may be easier to obtain than the researchers expect. Whether it is support for certain subjects, after school programs, leadership opportunities, or any other area that a student may be lacking, the community could be the solution in of itself. Through educational opportunities, the possibilities to support families within the community are endless. With some strong leadership, valid and reliable research, support from schools, support from parents, and a willingness from students, community education and experiential learning practices could become the next move of strength for the education field. Learning environments that are flexible and have a sense of relevance to 21st century life is the direction that education and educational research needs to be headed in.

The significant issue this study's research addressed is how youth from lower socioeconomic classes may have been impeded culturally and academically by the test-mandated curriculum in North Carolina. The purpose of this study was to empower the

students who attended the summer research institute , and that empowerment came from what they learned about leadership, mentorship opportunities, digital literacy and instructional technologies, such as Google Site and Google Draw. The students and their experiences were tantamount to understanding how this curriculum had impacted them and why there is a need for enrichment opportunities such as this institute.

Through the nontraditional educational offering of a camp, Canella (2008) begins to see how the public school system does not always support a well-rounded education and is instead based on standardized tests. Further, this work enabled these students to see the ways that nontraditional educational opportunities, such as the one the summer research institute provides, increased their cultural capital in terms of education, which broadened their perspectives of the world and enabled them to compete more equally with students from higher socioeconomic backgrounds. Cannella (2008) says:

> These projects create alternative spaces for young people to construct meaning and knowledge and stand in harsh contrast to federal educational policies, as enacted by NCLB's attempts to simplify…Through inviting students into alternative learning processes, PAR embodies a faith in young people's intellect and humanity. This faith defies the policies of punitive accountability and standardization that undermine young people in their efforts to become educated, active members of their communities. (p. 208)

This institute and this research study are "alternative learning processes," and the researchers believed these students who participated were empowered and their lives were positively impacted.

In this YPAR study, the researchers surveyed students who attended school in rural Jackson County, North Carolina, before, during, and after they attended an educational institute that infused leadership, mentorship, digital literacy, and technologies to extend the traditional curriculum for digital literacy and leadership offered in public schools. In order to critique traditional education, the researchers provided emancipatory educational opportunities to these students who represented a lower socioeconomic class. The purpose of the study was to enable these students to see that the curriculum as it currently exists in public school is stagnant and inflexible because of the focus on testing, but supplemental educational opportunities, such as this institute, can help them to move beyond a working-class education. YPAR is the optimal methodology for this research because these students were able to experience the difference between their traditional curriculum and the institute. Further, they were instrumental in understanding and reflecting on how to improve public education and how to utilize supplemental enrichment opportunities to further their education and to improve their attitude toward learning.

One of the goals was for students to see that schools should be learning organizations; places students learn to love learning. Because of this hope, AR was the only methodology that could help us attain the goal. Calhoun (2019) says:

> This action research creates knowledgeable and skilled distributed leadership. This sense of agency by individuals and groups seeking to change educational institutions into learning organizations is necessary in pawing toward an "ideal" conception of educational institutions as learning organizations. (p. 421)

These researchers wanted students to recognize school as a learning organization and not just a babysitting entity or somewhere where they are forced to endure monotonous teaching for a

test. School is about learning, and learning can and should be fun. Part of this research was to show students this difference between what school is and what it could be.

Further, the researchers of this study hoped these students would realize that the education they are receiving is subpar compared with others like them in more urban and suburban areas of the state. By seeing what education can be, they demanded change, which included sharing the work they have created to draw attention to various concerns regarding their education. Stringer (2014) says, "The deeper purpose of research is to extend people's knowledge and understanding, enabling them to make more informed choices and judgements about the complex issue embedded in their professional lives" (p. 3). The researchers hoped these students learned why they should demand more, and hopefully these participants grew from this enrichment program. Fine (2008) says, "PAR floats new air into unjust systems, circulating possibilities for different tomorrows" (p. 217). It is the hope of these researchers that these students will find a new tomorrow filled with hope and one that will enable them to be successful in spite of their current socioeconomic situation.

Appendix D outlines daily activities; however, because this study used a YPAR methodology, these activities were fluid, and the researchers included interactive daily activities to build excitement and engagement. These activities led to changes and discussions. By engaging students in multimodal ways, it allowed the students to break apart the depth of some conversations that took place during the study.

In summary, this YPAR project enabled these students to see the need for change and advocate for change, and thereby improve their educational situation as they sought more equity from within the system. Further, their participation in this summer research institute broadened their appreciation and demand for supplemental educational opportunities.

Conclusion

This qualitative study included elementary aged students who were recruited within Jackson County, North Carolina. The Leadership Researcher is a current teacher within the county, and acted as the main participant recruiter for the study. The first step of the recruitment process was reaching out to former students who were in the fourth grade (ages 9-10). This was followed by the recruitment of the Leadership Researcher's current students in the sixth grade (ages 12-13). The target number of participants was ten, yet these first two recruitment efforts only provided two students from Blue Ridge School. With the need for more participants, the Leadership Researcher next posted on personal social media channels to connect with other parents and teachers in the area. She also reached out directly to parents of former and current students. Both researchers met with employees of the Boys and Girls Club of the Plateau in Cashiers to advertise to even more students. After all of these recruitment efforts, the final number of research participants was six, four from Blue Ridge School (Cashiers) and two from Cullowhee Valley School (Cullowhee).

An adverse impact on recruitment efforts was lack of transportation for the participants, as stated by several students when asked if they were going to be signing up for the institute. With the institute beginning at 9 a.m., most parents needed to be at work by 8 a.m., leaving little to no opportunity to bring their child to the institute. The same issue occurred when the institute ended at 2 p.m. leaving no way for parents to pick up their child either. Through the recruitment process, researchers learned as well that a large number of summer camps were being hosted in the area during the same week. This dwindled the pool of participants to draw from as well.

Throughout the recruitment process, both researchers were aware of the impact that a lower number of participants would have on the final results of the research study. After the preliminary research was completed during the week-long summer research institute, both researchers agreed that a second round of data collection would be necessary to boost the impact of the data from the overall research. The second round of data collection focused on the durability and longevity of the research institute. The data is centered around the impact of the institute activities and lessons on the participants (students) and adults (parents and principals).

All participants in this study are referred to through the use of pseudonyms for safety and ethical purposes. The participants, all female, were rising fifth to seventh graders who attend schools in Jackson County, North Carolina. The ethnicity of these students varied from white to Hispanic, with first languages being English and one participant whose first and primary language was Spanish, though she has been learning English since 2022. Four of the participants have only ever attended public school in the United States, while Brenda had attended a parochial school, and Lucy attended school outside the United States prior to 2022.

Due to the lack of technology in the space, the Leadership and Technology Researchers asked that each participant supply their own personal devices. Lucy used a school Chromebook supplied by the Leadership Researcher, as she did not have a personal device of her own. The other participants had personal laptops. The participants, being students of Jackson County Public Schools, utilized their school Google accounts, which included access to email, documents, and other Google Suite products. This allowed the participants to share and access materials with each other throughout the week.

As this chapter continues, the data that was collected will be analyzed and shared. This includes data from all activities and lessons taught during the summer institute to all the participants. Due to the nature of intertwined data, separating the data collection method into individual topics was difficult.

Chapter 4: A Leadership Perspective of Results by R. Watkins

Review of Purpose of Study

The purpose of this research study was to present the problem of inequality in North Carolina's rural schools, summarize current research about it, and lastly propose how the two researchers for this project would address the educational issue through the completion of a week-long summer institute. The research explored how supplemental education impacts students and their ability to understand and learn leadership and digital literacy skills. The study addressed the assumption that K-12 students in rural North Carolina public schools are not receiving the same leadership and technology opportunities as their counterparts in more urban areas of the state. For students to be successful they need to become active participants in the education process, which was one of the main goals of the summer institute. The researchers paid special attention to surveying the participants about personal perspectives on leadership, if they had learned and/or utilized digital literacy skills, and how instructional technology can assist them in both building leadership skills in the classroom and becoming a better digital citizen through digital literacy. Upon completing the research summer institute, the two researchers analyzed the data and present this data in the results chapter. Due to the nature of each researcher analyzing the data through different perspectives, one looking at leadership, and one looking at digital literacy, there are two results chapters in this dissertation. This chapter is dedicated to analyzing the leadership results. This analysis will be organized by research questions.

How Can Instructional Technologies Successfully Provide Leadership and Mentorship Opportunities to Children Located in Remote Areas of North Carolina?

The most valuable data for this question was collected from field notes, student interviews, and reflection notebooks. In the reflection notebooks, students explained how their leadership skills were improving through the technology use and opportunities being provided to them. In the field notes, several accounts of students utilizing instructional technology skills and resources to complete leadership activities and improve their overall understanding of how a student in rural North Carolina could reach further geographic areas and make a difference, are documented.

In Brenda's (one of the co-researchers) reflection notebook she wrote, "lead presentations and lead projects online," in response to the question, how can I use technology to become a leader? This came after the students began discussions on how to create a project and get it into the hands of other leaders. In my field notes I documented how Brenda stepped up to create the project website after realizing she was the only one in the group to use Google Sites. Up until this point, Brenda stayed relatively quiet and reserved. In the field notes was an asterisk noting "utilizing personal skills to lead the group on technology activities." Brenda was not the only one who chose her part of the project based on personal interests. Her choice stood out due to the limited technological skills of the other participants. Each participant did want to take an active part in the project, which does account for the amount of effort put into each part.

Figure 2

Documentation of Participant Choice
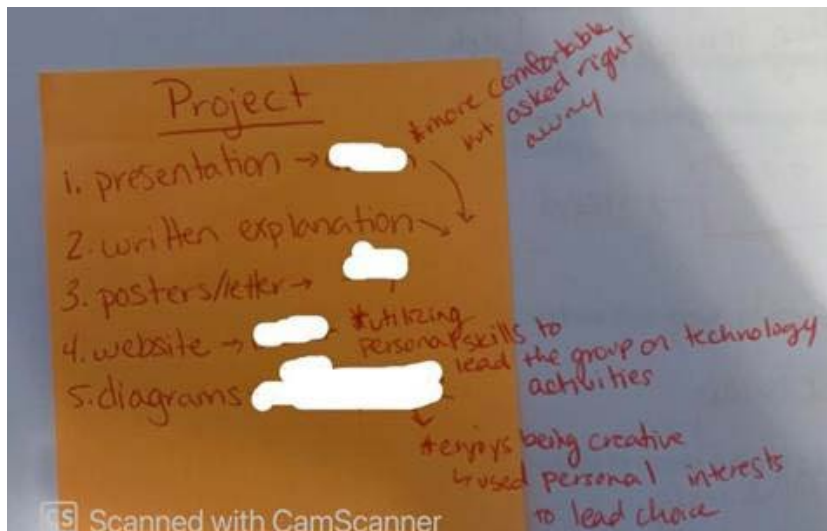
Figure 2 shows documentation from the field notes where the participants experienced choice and were choosing their part of the project and the discussion documentation. For the participants to have taken initiative and recognized their personal skill sets speaks to their innate leadership skills. The fact that they were so comfortable utilizing them so early in the institute was beneficial to the continuation of the project. A conversation was held about their personal skills and why highlighting those skills makes a person more of a leader and will allow them to further reach their future goals. This discussion continued when the guest speaker, mentioned later in the analysis, shared that struggles and passions are additional driving forces for leadership.

In Mary's (a co-researcher) interview she disclosed that ways she could start to make change was through, "writing a letter to the principal, making a presentation to the school, creating a website, vlog - making people aware." Vlogs were one piece of technology that were not discussed but Mary took the idea of technology and leadership and put her own twist on making people aware. Mary was not the only participant to pick up on instructional

technology being connected to making people aware, because in Rachel's interview she said digital literacy was, "researching and finding out what's going on in the world around you." This also connected to Rachel's thoughts on what it means to be a leader which was, "to be responsible, get along with people, and have good communication." Communication and looking out for others were common threads throughout group discussions, interviews, and field notes. When asked, "what leadership skills did you learn during the camp," each participant identified good communication as a quality that leaders have and then noted that communication was a skill they either gained or improved during their time at the institute.

There were other moments where the participants started increase their understanding of how to use technology to build their leadership skills. This was apparent when Mary documented wanting to make a website and write a letter for the community and then took it a step further by mentioning vlogs and blogs which were not something that was discussed during the institute. In her reflection notebook she made notes to herself as she answered the questions on using technology to build leadership. She went on to explain, to other participants, what a vlog is and the difference between vlogs and blogs for those who did not know. Mary continued to explain how she would use those technology tools to reach a wider audience when it came to leadership opportunities.

Figure 3

Student Reflection on Tech and Leadership
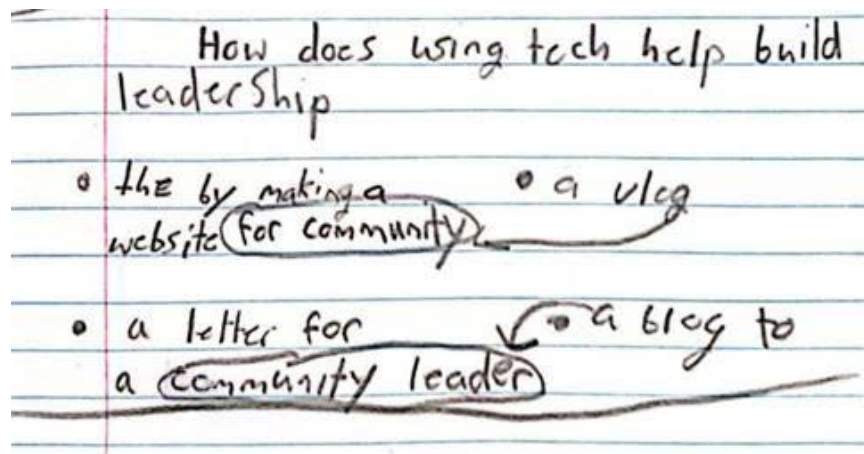
When the participants were asked their thoughts on the summer research institute and what their favorite part was, a common theme was the project and how they utilized it to make change and become a leader. Sonya wrote, "the most fun was the big project and the Story walk activity." Sonya was not the only one to mention this in her interview but when asked what the most impactful activity they completed during the summer institute (final survey), three participants stated the group project and one (Mary) stated, "leadership means the most." She followed that with an answer to "why was it impactful," with, "It means the most because I didn't know what it meant at first and now I do."

The final project, a digital deliverable on Google Sites, indicates that providing instructional technology created a platform for students to utilize leadership skills. Several Google suite products were used by the students, and throughout the field notes and group discussions it was noted that the ability to use these different products ranged vastly. The project became a platform for the student's advocacy on flexible seating in schools and the importance of creating a space for students who benefit from differentiated seating opportunities. The students utilized Google documents to write letters to the North Carolina

governor, someone they identified as being helpful and an outlet for leadership. Mary was more than happy to write her letter and as documented in the field notes, she "spent extended time asking questions on wording and grammar to get the letter just right." Lucy then wrote her letter to the governor in Spanish as that was her native language and the group, as a whole, felt like submitting the letter in a second language would reach more people. The participants' main goal was for their principal and superintendent to see the project and present it to them. While presenting to these school leaders was not possible due to ethical boundaries for the participants, the presentation, and website, was shared with the principals. For the sake of their anonymity, presenting was not an option. This push for the principals to see the presentation came from the group discussion on who they viewed as leaders able to make change.

Figure 4

Interactive Activity Listing "Who Can Help You Make Changes?"
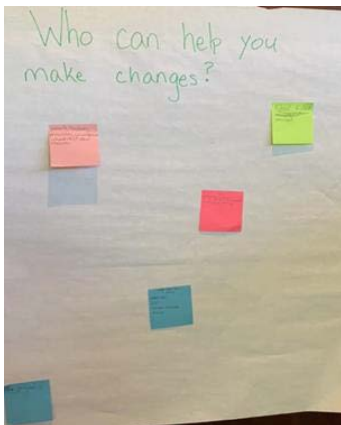
Figure 5

Example of Student list
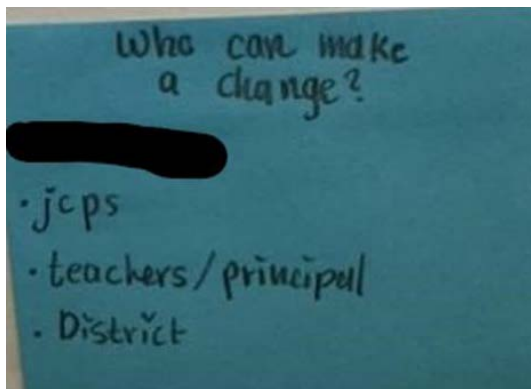
These images were from the sticky note activity the participants completed on who can help them make changes. For purposes of anonymity, the section blacked out is the name of the district superintendent and JCPS is the school district acronym. The creation of the final deliverable, the technology utilized for the project, and the discussions of how and why they were completing the project impacted the participants' understanding of leadership as a whole.

Mary stated in her post institute interview that one way the institute was different from school is communication, which as stated before is a key leadership skill. She stated, "We don't get to communicate unless it is for a specific group activity in class." Rachel also indicated in her post institute interview the impact that leadership from the institute had on her. Her answer to the question, "Have you used any of the leadership skills you learned during camp? If so, how did you use them," was, "Kinda. I used them to plan my future." The Leadership Researcher saw her use these skills in the classroom as the classroom teacher. The class was discussing why education was important and how it is never too early to start preparing for your future, even as sixth graders. Rachel took it upon herself to ask for a one-on-one lunch so she and the Leadership Researcher could talk about her future and

what kind of leadership activities she would need to do before applying to college. This was completely unprompted, and she made a list of the things she wanted to accomplish before her junior year to better prepare herself. It was exciting to see one of the participants taking the initiative in their own leadership and begin looking for those kinds of opportunities. Rachel's parent also noted in their post institute interview that Rachel "felt the leadership side of camp would be extremely beneficial if taught to her entire class, during regular curricula." It is in these follow-up questions that the impact of leadership from the institute was truly acknowledged and understood.

In What Ways Can Educators Build Strong Digital Citizens Through Supplemental Educational Opportunities?

Field notes were the most heavily used data collection tool for this question as it pertains to the digital skills the participants were using and their connection to leadership while taking part in the supplemental educational opportunity that the summer institute offered.

Student advocacy became a large aspect of the digital project that the students were working on, and through that advocacy they began to identify successful and safe ways to carry themselves online and while doing research. Group discussions on why the participants valued the institute work compared to schoolwork often came back to the participants having the freedom to choose and make their own decisions at the institute which is not often allowed in a school setting. These discussions, led by the participants, often gave responses such as, "at school we have to do our project exactly how the teacher tells us" or "we don't have a choice in what we do our project on at school." When it came to the institute project

the students were allowed to choose which Google suite product they were going to use and explain how it would benefit the group and the project.

During the advocacy activity that the participants took part in, students were asked to research videos and websites that advocated for a specific topic and highlight what pulled them into that specific project. The idea was for them to see how other organizations used digital tools to advocate for their needs so the participants could then build their ideas around that. The participants were not given parameters as to what the organization had to be as we were continuing the conversation of freedom in decision making.

Greta researched the organization Common Ground which she explained as, "Searching for common ground is an organization that is protecting tons of refugees that had ran away and they also are trying to find peace in the world." When she presented to the group why she picked this website she stated, "they were trying to make a difference for people, and they showed real stuff happening." It seems that she was drawn in by the realness and seriousness of the needs of other people. Much like Greta, Mary chose an organization that also worked to assist people, she wrote, "Prevent Child Abuse America is dedicated to ensuring all children, families, and communities live in safe, stable, supportive, nurturing environments that are equitable, inclusive, fair, free of violence, and the threat of violence." When Mary presented to the group, she asked to share the YouTube video she had found and when asked why the video stood out to her more than other videos, she said, "it was because they used a variety of languages in the video to reach more people about their important organization." The use of digital tools and safe research led these students to find other organizations that had utilized digital tools to reach their audience. The participants often referred to this activity when working on their project.

Another important activity that the participants completed was writing an advocacy letter to the North Carolina Governor. They used their computers to find his address, his name, and correct title. Mary and Lucy were the two in charge of writing the letter and they also researched what an advocacy letter looked like. From that point on these two participants worked diligently on the letter to make sure that it outlined the importance of flexible seating in their school. Mary continuously referred to this letter as being the biggest and most memorable part of the institute for her. The letter to the governor had to be sent via the participants parents as the researchers and participants could not send it with the student's names attached per ethical boundaries. The parents, however, could make the decision to send the letter with the student's name and personal address for a response. Chapter 5 will acknowledge the follow-up response to writing this letter from the participants and the parents. As of the completion of this dissertation, no response had been received from the Governor.

How Can These Supplemental Opportunities Build a Stronger Understanding of Credible Information?

An aspect of being a leader includes understanding how to receive credible information from the internet and how to use it appropriately. Through both leadership and digital literacy activities the participants grew their understanding and built their knowledge on how to utilize online resources and content to build their leadership skills to better suit their goals of becoming better leaders for their communities. The final survey and individual participant interviews documented what the participants gained from the week of activities.

Greta wrote in her final survey, "During the week I learned how to be a good community leader and how to think critically when doing digital literacy." She was not the

only one who had clear responses in their final surveys about the impact of the week. Rachel wrote, "[I learned] how to be safe online, how to find reliable websites, how to be a good leader, and how to be a community leader." When asked what impact the week had on the participants, Sonya wrote the following, "Giving people the correct information and being willing to listen." Providing correct information and being willing to listen are key elements to good leadership, showing Sonya did learn key aspects of leadership. The participants continued to showcase their leadership skills through digital literacy as they worked on the final project. One aspect that was discussed by the participants and noted in the daily field notes was that Rachel continued to advocate for e-readers and audio books for her classroom. She felt like access to digital materials would assist some to learn more because the materials were in a different format. While Rachel was focused on specific technology access, she was more than willing to agree to a different topic for the final project. She and Greta were both in favor of different final project topics but after the participants completed the negotiation activity, both Rachel and Greta were appreciative of the topic that was chosen as it was still going to help others and assist learning in their classrooms. The negotiation activity was one leadership activity that the Leadership Researcher was hesitant on due to not knowing how student-aged participants would react to agreeing and disagreeing on topic choice but because research on topic choices was encouraged, it turned out to be a great learning activity for both the researchers and the participants.

While Rachel was thinking critically about what learning meant to herself and others and how it should look like students in the classroom, Brenda was very aware of digital literacy and continued to point out to both researchers and the other participants that a large part of the digital literacy is critically thinking and analyzing what they are consuming

online. These conversations led Sonya to find more resources for her flexible seating

suggestions and diagrams that she drew.

Figure 6

Diagram 1 and 2 of Sonya's Flexible Seating Options
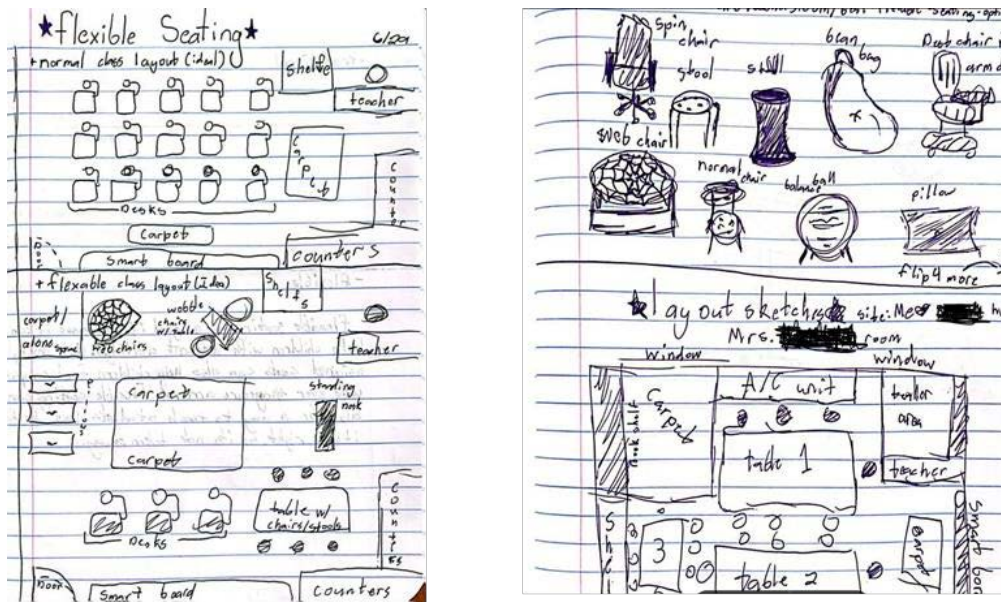
The continued collaboration between the participants was regularly documented in

the field notes. It was often stated verbally and in their reflection journals that the participants

felt like they were learning communication skills and that they needed those to become a

good leader. Brenda wrote in her daily reflection questions that one thing she learned was,

"just how important communication is." Mary also documented in her reflection journal

during the guest speaker lecture that the important skills for a community leader to have are,

"communication, being helpful, responsibility, and patience." While working on the digital

project and the participants were collaborating, those are the exact skills they were utilizing.

The participants also practiced negotiating with each other to decide upon the topic

for the final deliverable. Prior to the negotiation activity, they had to research their topic

online using the digital literacy skills previously taught by the Technology Researcher. They

had to come to the negotiation with facts from their research and then calmly and concisely discuss why they were making a stand for the topic of their choice. When it came down to the final two choices the team who agreed to put their topic on hold, agreed that flexible seating was a good choice for them to continue to research and advocate for. They saw the need for students with disabilities and began to see it as a change for their school. Mary wrote that flexible seating would improve her learning because it would help her focus and bring up her grades. When she was asked what other students would benefit from the digital projects they created she wrote, "I can help them with their fidgeting and some of their disabilities. And it can show them that anyone can make a change." After Sonya did more in-depth online research into flexible seating she wrote, "Flexible seating is a good idea because it will help children with different abilities. Not having assigned seats can also help children feel comfortable with whoever they are around. Flexible seating can also be a way to teach students how to treat items right so it's not taken away." In Sonya's reflection notebook she noted websites that she used and organized her research by the source that she was using, something that no other participant did.

Figure 7

Sonya's Notes from Flexible Seating Research
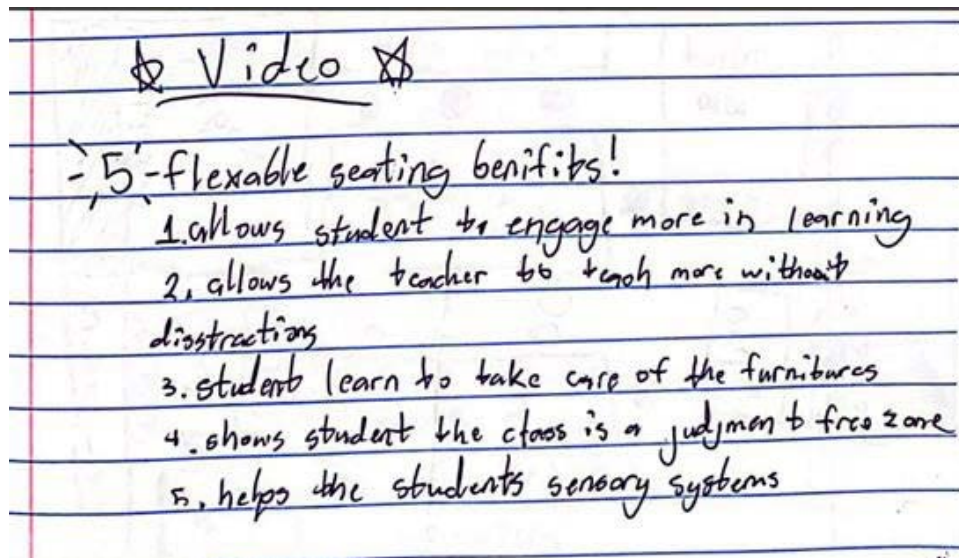
While the institute was not focused on flexible seating but on digital literacy and leadership skills, the topic the students personally chose gave them an opportunity to build these skills around something that mattered to them.

Allowing the participants the opportunity to move around and collaborate while researching and working on the digital project, allowed them more engagement with each other. As previously stated, the flexibility in the day, seating, and decision making led the participants to feel as though they had more freedom that they do not typically see in a traditional classroom. Greta wrote in her reflection journal, "This camp has helped me learn by letting me be more free to move or let me make more choices. The things I learned here I could not have learned at school unless I were to ask." Being able to speak up for themselves and want to enact change while utilizing correct digital literacy skills built leadership experiences these students do not typically receive in their traditional classrooms. Sonya and

Rachel both stated in their final reflections aspects about the summer research institute that allowed them to have more engagement with each other and the project. Sonya wrote that due to the smaller number of people in the group there were less distractions and Rachel stated, "I liked this camp a lot because everyone was so nice and we were allowed to make a lot of the decisions."

How Might Students Recognize Ways Supplemental Educational Opportunities Enhance Their Knowledge Beyond Traditional Education?

The expectation for gaining insight on how students would recognize the impact of supplemental educational opportunities was to utilize group discussions, reflection notebooks, and final surveys. The researchers were able to use these research tools along with field notes and student work to gain a fuller understanding of this concept.
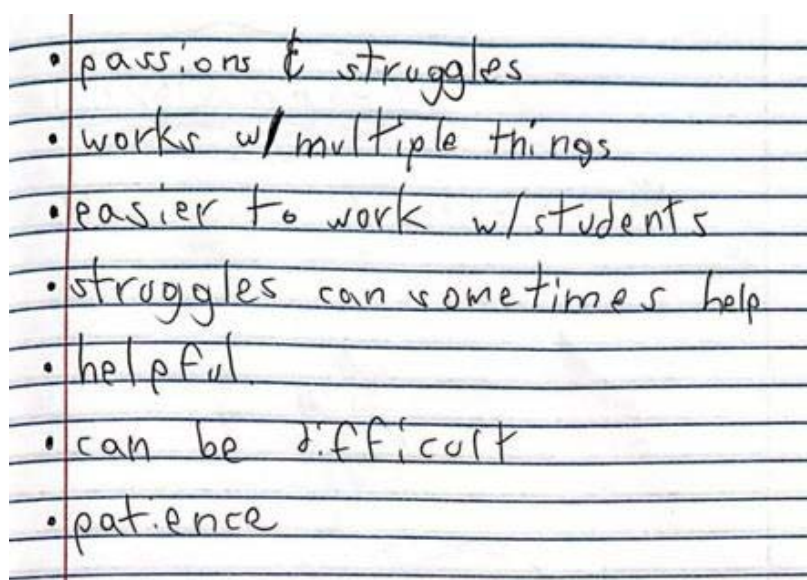
Students repeatedly discussed the difference the institute had on their learning compared to that of traditional classroom education. The participants regularly noted how much more comfortable they were in the 'boardroom style' work area, the flexibility in plans if they needed to get up and take a walk, or the freedom they had in choosing the project, negotiating with their peers, and being in a smaller space with fewer people. Rachel wrote in her reflection notebook that the "chairs, environment, and less people" were the biggest differences while Greta wrote, "This week has been different because we have more freedom but at school all we can do is sit and listen." Brenda also noted that "[there were] not as many distractions." In her final survey, Mary wrote, "We got to use more technology. Rather than at school there is a Promethean Board, but this week we didn't have one so we shared the documents with one another." She went on to write, "I want a school room to be like this with moveable chairs and a big table and few kids." Being able to identify these differences

was important as it ultimately led them to hone in on their final project topic, flexible seating for JCPS. This project topic stemmed from the environment they were in, the conference room of the library. The participants also shared seeing some students in their classrooms have access to different type of seating on occasion as well.

After the participants met with the guest speaker, a well-known community leader who is involved in several non-profits and is a tutor at Blue Ridge, more reflections and answers to leadership questions became apparent. The participants started to identify ways in which their current role in the community and their current situation in life, even if it is difficult or full of struggles, would lead them to leadership if they followed their passions. Mary wrote that "[one leadership skills I learned about] is passion because it leads to your leadership." Rachel included a list of bullet points in her notebook from the community leader talk about how struggles can help and how leadership can be difficult, but patience and passions are a part of any leadership activity.

Figure 8

Rachel's Notes from the Guest Speaker Activity

The students truly gained key insights on how their role as a student leader could have just as much impact on their community as an adult who went through similar experiences growing up.

By the end of the institute, the participants were documenting in the final survey why the institute was impactful and Sonya noted that, "[it was impactful because] it was student-led, and we made all decisions." This documentation indicates that the participants were noticing the importance of student leadership and decision-making skills throughout the week. Rachel also noticed on important leadership skills such as critical thinking as she wrote in her final survey, "It was impactful because it was letting us think critically about the things we were doing." These are continuous examples of how the participants were thinking deeply about the institute and why it was important to them and to the community. Other participants listed leadership skills as their takeaway from the institute. Mary wrote in her final survey that, "Passion, struggles, patience, responsibility, helpfulness, and communication" are all skills that she learned from the week-long summer research institute. Monkman and Prowller (2016) identified some of these main skills as part of their leadership work as well. "Leadership experts agree that leadership is a personal and developmental process aimed at enhancing individual competencies in communication, intrapersonal and interpersonal skills, critical reflection, decision making, and positive community involvement" (p. 181). Which is exactly what these participants were noticing about their own skills as they developed and became apparent throughout the week. Others, such as Lucy, wrote that it takes leadership to talk and stand up for others.

Follow-Up Data Collection

Approximately three months after the summer research institute, additional data was collected from the participants, parents, principals, and the guest speaker. The goal of this additional data collection was to see if the institute had a lasting impact on those who were directly connected to it. Out of the participants who were part of the original institute, four were available for follow-up interviews and of those four we received follow-up communication from each of their parents as well. We also received information from one of the two principals, and we had success getting a follow-up interview with the guest speaker. All of these follow-up interviews provided insight that allowed both researchers to see the results from hosting the week-long summer institute and encouraging the participants to continue building their skills.

Shortly after the institute came to an end, the final deliverable was emailed to both principals that were identified by the participants. The Leadership Researcher encouraged the principals to examine the work these students (no identifying information was included) completed and to share their thoughts on the work and if their opinions of flexible seating were changed or influenced from the student-designed project. One principal followed-up several weeks later saying, "I believe this is a great student lead opportunity!" When the researchers continued to communicate with her regarding longevity, she was excited at the possibility of offering students a platform to advocate for their needs. There is now discussion that the school may begin a student council or classroom led leadership activities.

The principal was not the only person at the school that shared excitement about having student leaders and working on projects that are student led. The guest speaker, who works at one of the schools, also wants to begin working on community projects with the

students due to being impressed by their work at the institute. She explained in her follow-up interview when asked if there was something from the institute that was encouraging her to include students in the community projects, she said, "The students were very engaged in the camp and I am still planning on following up with a poetry writing group for the Story Walk committee." She went on to discuss some of the leadership she was already seeing in some of the students at school, who attended the institute. "I see her [one of the participants] exhibiting leadership in the reading group by attending to tasks and encouraging those at her table to do likewise." It is a positive moment, as a researcher, to see that some of these skills practiced during the institute are being actively used several months later. During the institute we could not address every single leadership skill so the guest speaker was asked what leadership skills she felt might be lacking from students at the school she works in. Her response was in some ways surprising because of how in-depth her thinking went but also not surprising due to the nature of the region she works in. "The leadership skills lacking are maturity and responsibility, especially owning up to their actions." She followed this up with a discussion on parenting and the fact that many parents having to work multiple jobs, which leaves little time for consistent parenting. This is very similar to the reasons the researchers struggled to get participants for the institute.

Additional observations of student interactions were made as well once the school year began. One of the most important interactions was Mary asking for the governor's letter that she wrote so that her mom could send it. We had the discussion during institute that parents would have to send it and why. The participants were very understanding of this and were patient in knowing they would have to continue some of their goals from institute, outside of that one week. It was the first day of school when Mary asked for the letter and

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showed great excitement in continuing the conversation they had started back in June. This request for the letter was unprompted and she sought it out herself, meaning she had been thinking about the work done at institute throughout the summer. Mary was not the only one to start the school year off with leadership interactions. As previously stated, it was shortly after the school year began when Rachel reached out, wanting to discuss her future plans (college and career readiness) and to utilize leadership skills successfully. Both observations of student-prompted leadership work demonstrated the reach and longevity of the summer institute and this research project.

Conclusion

While the number of participants for the study was smaller than expected, with the additional data collection, the researchers came away from the summer research institute with a much stronger understanding of what supplemental education can do for students in rural North Carolina. These opportunities can have a large impact on student learning when examining student leadership and digital literacy. The final chapter of this dissertation will provide more analysis of these findings and indicate the interest in additional research to support these students.

Chapter 4: A Digital Literacy/Instructional Technology Perspective by A. Myers

Introduction and Background

This study researched how supplemental education impacted students in terms of learning leadership and digital literacy skills while using instructional technologies. Throughout this one-week summer research institute the Leadership and Technology Researchers provided experiences and asked probing questions for these students to consider what leadership means to them, what they understand about digital literacy, and how instructional technology can be used to further leadership and digital literacy skills. Further, researchers provided activities to teach students important skills related to the institute's topics, while also allowing students to guide their own learning and deciding on a cause to improve their education and to use their learned skills to advocate for it. Students chose the issue of attaining flexible seating at their schools to improve their education. This chapter will explain what data was found during this institute (including a second round of follow-up data collection approximately two and half months afterward) and how this information applied to each of the research questions proposed for the study.

The remainder of this chapter will explore what data was collected. Each of the institute's activities taught leadership skills, as well as digital literacy skills and integrated various instructional technologies. For clarity's sake, the data will be presented in individual sections focused on each research question for the remainder of this chapter.

How can instructional technologies successfully provide leadership and mentorship opportunities to children located in remote areas of North Carolina?

For the first research question, the data that the researchers planned to collect that they believed would be the most helpful were the field notes, group discussions, student

work, student photos, and reflection notebooks. The data that actually was the most insightful to their understanding of how these technologies provided leadership and mentorship opportunities to children located in remote areas of North Carolina was found in the final survey results, student work, and reflection notebooks.

Final Survey Results

In those final survey results students provided ideas about how technologies provided leadership. Brenda said, "[instructional technologies allow people to] lead in group projects, zoom calls for important things, etc." This student applied what she learned that week and linked it to a technology that we had not even discussed during the institute: Zoom. Another student, Sonya, in the final survey said, "[technology would] let them reach out to more people and get the correct info." Sonya acknowledged how important communication is for leadership, as well as accuracy. Rachel said, "Tech can help them find good resources to help them learn with." Rachel understood the relationship between the remote area in which she lived and technology's ability to connect a person, especially a leader, with important resources.

Reflection Notebooks

In the reflection notebooks, students showed an array of thoughts regarding the importance of instructional technologies in providing leadership and mentorship opportunities. In her notebook, Rachel wrote, "Meeting with people online to discuss said problem. Research." Rachel understood that technology allowed for communication and research to lead. Mary wrote, "I can use tech to become a leader to do the right thing for example, a fundraiser and a meme. Tech can lead to change if you did a fundraiser because it can change someone's life and memes can too, because with memes there can be merch and

you can earn money from that merch." Mary's idea of leadership involved invoking change

by raising funds for a specific person or cause, and she saw technology as a viable way to do

that. Brenda said she could use technology to "lead online presentations and projects." This

connection between technology and work online indicated leading from anywhere regardless

of location, and technology allowed one to do that. Mary also wrote that one could use

technology to lead by creating a vlog, blog, or to write a letter. Greta wrote, "I can use tech to

become a leader by giving me new experiments and giving more opportunities." She seemed

to believe that technology opened up doors beyond her location.

Final Deliverable

The student work on the final deliverable, which was a web site filled with student

work to advocate for flexible seating, illustrated how instructional technologies provided

leadership opportunities for these students. They used several of the Google suite of products

to create a web site to advocate for something they felt would improve their education:

flexible seating in their classrooms. These students used Google Documents to write two

letters, one in English and one in Spanish, to the governor of North Carolina. These letters

enabled them to articulate their reasons for needing and wanting flexible seating. Lucy, who

struggled with English, wrote her letter in Spanish, which demonstrated leadership in her

civic advocacy. The participants also used Google Sites to build the actual web site, which

enabled them to reach a broader audience. Another participant created a slideshow using

Google Slides to aid them when presenting information in person to principals and other

invested parties. This slideshow also offered additional reasons for their idea. Further,

another student used Google Draw to create a banner for the web site. Without these

instructional tools, these students would have had a much harder time providing information

to pertinent individuals in the school system. These technologies expanded the students'

abilities to reach a larger audience and their ideas could be communicated in detail while

being preserved for multiple viewings.

In What Ways Can Educators Build Strong Digital Citizens Through Supplemental

Educational Opportunities?

The data from the summer research institute that the researchers collected and

expected to answer this question included: field notes, group discussions, student work, and

reflection notebooks. All of these tools provided very useful information, as did the daily

observations and final survey results that the Technology Researcher recorded regarding each

participant.

Field Notes

The field notes offered thoughtful postulations about how educators can build strong

digital citizens through supplemental educational opportunities. One of the main ways this

institute did this was by giving students voice and choice in regard to the Google product

they used to advocate for an issue. Unlike most classroom assignments, this institute allowed

students to pick a tool they either felt most comfortable using or wanted to learn more about.

For example, Rachel really wanted to try Google Draw because she had never used it before

and she loved art. Greta, on the other hand, wanted to use Slides because it was familiar to

her. These students collaborated, recognized, and encouraged one another's strengths to build

a final digital deliverable. Oftentimes in traditional educational settings, students are assigned

a specific tool to use and groups do not usually work very well together. Because this group

discussed the tools and explained why each person wanted to use a specific tool and

everyone understood what the tool was being used for prior to starting the project, it was a

seamless process. They were able to help one another and build their digital skills as they worked to build a product.

Group Discussions

Group discussions also provided very insightful ideas about what it meant to be digitally literate. In one of the group discussions Rachel mentioned online games and how to behave online. This comment led to a conversation about the caution students needed to use with their behavior online and how they can never be too trusting because internet personas are not always real. Student privacy and caution are an extremely important part of digital literacy, so it was important that we discussed this topic. Online games were a topic that all of the students could relate to using, as was TikTok, which was also discussed. In another group discussion that centered on the definition of being digitally literate, Brenda was the only student who actually knew that digital literacy included critical thinking and evaluation. Brenda is also the only student who had ever attended a non-public school. Other students indicated that they knew it had something to do with being online and reading information, but they could not quite connect all the components of the term. The Technology Researcher shared the definition for digital literacy from the American Library Association, which, "defines digital literacy as "the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills" (American Library Association, 2021, first subheading). Participants were surprised to learn that digital literacy encompassed so much. That was truly an astounding moment because they realized how broad the term was. In this same discussion, participants explained that most had not had any formal lessons about digital literacy. A few had been taught by the school librarian about online privacy, but no one had taught them the full definition.

Final Deliverable

The students' final deliverable also proved how they had developed their digital literacy skills within the span of this week and their growth as digital citizens. Several of the students used technology in a different way than they were used to using it and some even used new technologies. Rachel had never used Draw before but she was eager to try it and created a very engaging banner that matched the web site. Brenda, though she had used Sites before, expanded her abilities by adding more to the page than she had done in the past and worked to make it aesthetically pleasing and professional as she considered her intended audience for the finished product. Because most of these students had never considered production/creation as part of digital literacy, it was a great opportunity for them to understand its role and the multifaceted layers of digital literacy.

Reflection Notebooks

Also, very important to the data collection were the reflection notebooks. Rachel indicated that on the day we discussed digital literacy she learned to stay safe online and to be accurate in her research. Both were invaluable for her digital skill set. Brenda wrote down her understanding of digital literacy prior to our discussion in her notebook, saying it means to "read, annotate, notes, share." She clearly understood how multifaceted digital literacy is. She was also one of the older students and had gone to private school for at least one grade level. Greta said that she learned "DL [digital literacy] can be very dangerous but also very helpful." It was interesting that she was able to recognize the dangers and advantages of technology, which truly strengthened her skills as a digital citizen. Further, Greta said, "In the future, I will use DL (digital literacy) to ensure my safety." Obviously, she understood that knowledge improved her ability to stay safe online, which is an imperative life skill.

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Observations

As mentioned earlier, observations and final survey results were not originally considered data collection tools that would be significantly helpful for this question, but they proved otherwise. From the observations, the Technology Researcher was able to see how she had enabled Mary to grow her digital literacy skills. This student had not understood what digital literacy meant at all but by the end of summer research institute that day she had a better sense of its meaning after the Tech Researcher had clarified it. The Tech Researcher had likened digital literacy to reading online and all the nuances that belonged to reading printed materials but with evaluation, writing, etc. The Tech Researcher explained that unlike books, digital material had to be evaluated and analyzed due to anyone being able to post material online. Mary seemed to comprehend the term better after the explanation. The Tech Researcher also instructed Mary on how to create a custom size on a Google slide for a poster. The student had never seen this done before and was eager to begin creating a poster using this instructional tech tool in a different way than she had been used to using it. In addition, Mary learned on the subsequent day how to insert a hyperlink to text. She had never done this before, again widening her digital literacy skills, and she was eager to use this skill for later projects. On the web site that the Tech Researcher created for students regarding digital literacy she included a QR code for students to scan to get to the web site. Greta, one of the older students, had no idea how to scan one, while Mary, the youngest, exclaimed, "It's like what you use at a restaurant to see the menu." It was astounding to see the difference in how these participants understood something as simple as a QR code. Nonetheless, this institute exposed Greta to the technology, and she learned how to use it, building a life skill for her.

Final Survey Results

Final survey results were also very helpful in deciphering ways participants became stronger digital citizens through this supplemental educational opportunity. Greta indicated that the institute taught her "...how to think critically when doing digital literacy." Critical thinking is an invaluable skill and necessary when exercising digital literacy. Her ability to recognize the thought processes involved in finding good information and staying safe online showed growth. Another participant, Sonya, said she could become a better digital citizen after what she learned at the institute because she could ensure she was "giving people the correct information and being willing to listen." Sonya became a stronger digital citizen because she recognized the importance of finding and sharing correct information. Again, she learned the multifaceted components of what it meant to be digitally literate.

How Can These Supplemental Opportunities Build a Stronger Understanding of Credible Information so Students Can Become More Knowledgeable Consumers of Online Information?

The data that the researchers collected and expected to answer this question included: field notes, group discussions, student work, and reflection notebooks. All of these tools provided very useful information, as did the individual student interviews, observations, and the final survey results.

Field Notes

The field notes explained that the Tech Researcher taught participants about how to determine if a site is credible. She showed them a video and went over the key points to consider when evaluating a web site: authorship, date of creation, purpose of the site, target audience of the site, what is left out of the message and why. After this discussion, she put

students in groups of two and gave them six sites to look at and determine if they were credible or not. The field notes indicated how engaged and thoughtful each group was about the site. The participants discussed reasons why each site was credible, and some groups had to be gently coaxed along to finish up in time because they were so engrossed in the analysis. Perhaps they viewed it as a competition to see who could figure it out and that is why they were so engrossed in it. They also really seemed to enjoy it because they were able to debate why they believed a site was true or fake. They were able to reason through their choices verbally, which they seemed to like. Students overwhelmingly expressed enthusiasm for this activity and interest in determining if they were correct in their guesses. They also indicated they had never done this in school before.

The group discussion about credible sources uncovered how little students knew about determining what was legitimate information online. Participants said they were aware that everything online is not true, but they indicated very little knowledge beyond that. The Tech Researcher asked if they knew the difference between the end of the URL address or the domain suffix, i.e. .com, .org, .edu, etc. Only one student, Mary, knew the difference between .com and .org, which she explained was "company and organization." The tech leader asked if this was from a lesson, and Mary said she and her teacher had a conversation one day and the subject came up. The Tech Leader went on to explain the difference between .com (company or commercial) and .org (organization), which included her explaining that .org usually stood for a nonprofit, but that it and .com could be for any group, person, business, or organization. The researcher asked if they had ever had lessons about credible web sites, and no one had. She proceeded to go over the elements of determining what people needed to evaluate to determine legitimacy.

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As mentioned previously, students worked together to determine what web sites were true or fake. In this exercise, there were two web sites (a true one and a fake one) for three topics for a total of six sites that had to be evaluated. One topic was about selling a book about Earth, another was about a bear chasing a person, and another about endangered species. Brenda analyzed a Scholastic site, which was credible, so intensely that she convinced herself and her partner it was fake because it had advertising on the side. This mistake led to a discussion about how she could have used other methods, such as the lock symbol in the web site URL to determine its authenticity. The importance of correct grammar and spelling to determine a web site's credibility was also discussed. Interestingly enough, Lucy, a non-native English speaker, was the only student who thought one site was fake and it really was. She and her partner differed on their assessment of that site, but she accurately determined it was fake, while other students were sure it was credible. She relied more on how the video of the bear chasing the snowboarder looked rather than the language, which may be why she accurately determined it did indeed provide fake information.

Reflection Notebooks

Another collection tool the main researchers had planned on providing thoughtful insights was the student reflection notebooks, and they did. When asked what she learned the day of the web site exercise, Sonya said "how to tell if a web site is fake." That was the most important lesson she learned that day in spite of the other activities and discussions participants had about other topics. Lucy wrote that what she learned about credible web sites "is fun and cool." This statement indicated that the institute not only made learning about a fairly mundane subject fun, but also worthwhile. Mary said she could use what she learned about credible sites so, "I don't watch nonsense." And lastly, Greta wrote about the lesson on

credible web sites, "I think what we learned was great to know." Greta's and Mary's reflections indicated that they were able to connect the value of learning about credible web sites to real life.

Final Survey Results

The Leadership and Technology Researchers had not anticipated the importance of the final survey results, observations, or students' interviews being as useful as they were, but they were very beneficial. The final survey results showed how impactful the web site credibility activity was. Lucy, who struggled with the language, wrote that she learned "the app real or fake." She was definitely impacted, as she remembered this aspect as the most important part of the institute. Brenda indicated the most impactful activity she participated in during the institute was the real vs. fake web site activity. Sonya indicated the part she learned the most about digital literacy was "how to tell if a web site is fake by looking at the URL." These responses were evidence that the activity about web site credibility was relevant, useful, and necessary.

Observations

The observations from days one, two, and four were especially helpful in understanding how learning about web site credibility allowed students to become more knowledgeable consumers of online information. On day one Greta exhibited an understanding of the importance of good, reliable web sites for research. She also reiterated the importance of privacy and being safe. Further, on day two when students participated in the fake vs. true web site activity, all students were very engaged in evaluating the sites and were eager to share their reasons for believing certain sites were credible and others were not. Students showed genuine interest and an eagerness to learn more. They soaked up this

information and it was evident they wanted to know more about how to be knowledgeable

consumers of online information.

Student Interviews

Sonya answered that "fake web sites [and] .org and .com [definitions]" were new and

useful skills to her. Further, Mary and Greta reiterated the importance of learning about how

to distinguish from credible and fake web sites. Greta explained the computer skills learned

at the institute would enable her to "use for future work, how to present things to people, and

how to make sure I'm safe and others are protected." For Greta, understanding the credibility

of web sites was more than merely knowing what was truthful, but it also included ensuring

she was safe, which could have included health information and/or connecting with dishonest

individuals online.

How Might Students Recognize Factors That Enhance Their Knowledge Beyond What

Is Offered by Traditional Education?

Initially the researchers of this study thought group discussions, student work,

reflection notebooks, and final surveys would provide insight into how supplemental

educational opportunities enhance students' knowledge beyond traditional educational

offerings and these data collection tools did, as did student interviews and field notes. All of

the tools provided much insight into this research question.

Group Discussions

Group discussions resulted in students proclaiming how much different and better the

institute was from their normal classrooms. Student responses ranged from the mobile

seating being better than normal class, to the group being in a smaller space with fewer

people, to having choice and voice in what they were doing, to learning information, such as

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credible web sites, that they normally did not learn in class. Students also liked that they were able to take frequent outside breaks and to use technology in practical ways that they realized enhanced their learning. This was a key element regarding technology because Greta even mentioned that too much technology often strained her eyes and she was thankful for only using technology when it was needed. One noticeable discussion that was missing from group discussion was the lack of complaining or misunderstanding when technical difficulties arose from recording the final video. Students never said anything negative about having to record their responses several times. They persevered and recognized that technical difficulties were normal and to be expected.

Student Work

Student work exhibited how supplemental education differed from traditional education in multiple ways. One example was the Story walk, institute participants were asked to pair up and write a story and to create a design that fit the story. For example, one group designed their story in the shape of a quarter moon. Participants sat outside and wrote their stories so they could imagine or even determine the best designs for their stories. Oftentimes this type of creative outlet is not provided to students in a traditional classroom simply due to space constraints or because of student behaviors. Institute participants noted repeatedly in discussions and in interviews how much they appreciated the flexibility of seating and change of environments throughout the institute. Further, when the guest speaker, Ms. Plush, came and heard about their stories, students were given the opportunity to submit their stories to the library to be showcased in a Story walk. These types of real-world opportunities do not often occur in the classroom. The institute's access to a smaller group, and the leeway to infuse creativity with outside resources, enabled students to have a

multifaceted experience that allowed them to showcase their stories, develop their creativity and encouraged their love of writing and reading.

Another example of how student work proved how this supplemental educational opportunity enhanced student knowledge was through the final deliverable. Students negotiated and chose to work on different pieces of the final project, building on their strengths. Everyone contributed and provided important parts to the final web site. Students were able to appreciate what everyone contributed, and they realized that true, authentic group work can occur when negotiated and distributed evenly and wisely. Oftentimes in traditional classrooms this does not happen. Group project work is often unevenly performed, and arguments ensue. None of that occurred in this case because institute participants appreciated what each person brought to the final project. With guidance from the Leadership and Technology Researchers, participants were able to determine for themselves which students needed to perform specific tasks. The leadership skills they learned during the week enabled them to proceed in this fashion, and exposure to the various technologies earlier in the institute also enabled them to do this successfully. The institute enhanced participants' knowledge of their own skill sets in ways traditional classrooms may not because students were freer to experiment and discuss openly and honestly what they wanted and were capable of completing.

Reflection Notebooks

The reflection notebooks offered useful insights regarding how this summer research institute increased learning for participants in ways that traditional education doesn't, especially in terms of how the virtual field trip worked. Students were able to travel to the Smithsonian's National Zoo and view web cams of several animals of their choice, including

the giant panda, the naked mole rat, the lions, elephant, and black-footed ferret. Unlike an in-person field trip where students may read information about animals or may hear what a tour guide says, a virtual field trip provides information at one's fingertips to learn more about an animal. The Technology Researcher completed a KWL activity with students for the virtual field trip. She had students write what they already knew (K) about the animal they chose, what they wanted to know (W), and what they learned (L) after going on the virtual field trip. Rachel's ideas expressed in her notebook showed how the virtual field trip helped increase her knowledge because she wrote down what she learned about the lions, including some very specific facts about the lion. She said, "[lions] are vital to the ecosystem." She may not have known if she had gone on a traditional field trip with her class or if she had not been given this supplemental educational opportunity. In addition, Rachel wrote in her notebook that the institute enabled her to learn more about credible web sites and staying safe online because they are only "sometimes" taught in school. Mary said virtual field trips were actually better than in-person because you learned more, but she admitted they were lacking because you did not get to experience it in person. Brenda indicated that you could not see as much with a virtual field trip, but added they are a cheaper alternative. Despite not seeing as much as she would have liked, Brenda's notebook reflection did indicate she learned quite a bit about lions based on her entry. In her notebook Sonya noted all of the practical positives of a virtual field trips, such as "not losing anyone," but she also said the experience could be adversely affected by wifi and the stability of that connection. Greta, like the other participants, noted the practicality of the virtual field trip experience, but also acknowledged how it just wasn't the same as experiencing something live. Her entry, though, did exhibit that she learned little known facts about her animal, the panda.

Final Survey Results

Another data collection tool, the results from the final survey, proved equally important in providing insight into the experience of the institute versus traditional education. When asked what was different in the institute than in their normal classroom, Sonya explained working with a smaller group and having less distractions made a big difference. Greta said, "This week I had more freedom to do what I wanted to do during the learning but at school you have to sit still and just listen." Voice and choice seemed to be a reason Greta preferred learning at the institute to traditional education, which enabled her to be more engaged, thereby increasing her interest and investment in learning. Mary indicated, "We got to use more technology. Rather than at school there is a Promethean Board, but this week we didn't have one. So, we shared the documents with one another. I want a school room to be like this with moveable chairs and big table and few kids." Mary's comments suggested that she, like Greta, felt more engaged because she wasn't being "taught at" but rather she was a part of the learning process. Additionally, her comments echo the thoughts of others about their ability to move more freely, which helped them to be more engaged, thereby increasing their ability to absorb information and expand their knowledge.

Student Interviews

Student interviews and field notes also provided additional insight into the way this supplemental experience expanded the knowledge of these participants in ways traditional school does not. In Mary's interview she indicated she had a positive view of her school and enjoys it, but she acknowledged she did learn some skills, especially in terms of technology, that she had not in traditional school. Additionally, Greta indicated the summer research institute environment had been "calm and had a good vibe." She also said the institute had

been "free from distractions," which helped her to learn more than she could in a traditional classroom setting. Additionally, she added the movable chairs were conducive to her learning experience. Rachel noted what enhanced her ability to learn was being "able to make decisions" unlike traditional school. The interviews reiterated what students had said early about how the institute's environment and structure enhanced their learning process.

Field Notes

Lastly, the field notes also offered vital insight into how the institute helped enhance knowledge beyond their traditional education. Mary said institute was better than normal school because they were more active. Greta added the freedom for the group to work outside helped her learn more. In addition, Rachel said it had been "more fun than school." These statements are significant because they represent how supplemental educational opportunities like this institute can provide an enriching learning experience for students in ways that the traditional classroom currently does not offer.

Follow-Up Research

The participants and their parents were interviewed approximately two and a half months post-institute, which demonstrated how much the participants retained the leadership and digital literacy skills they learned during the institute. The participants seemed to remember the topics of leadership and digital literacy, but many have not had the opportunity to use their digital literacy skills because they have been out of school for the summer. They all did seem to agree that the digital literacy skills they learned at the institute were not something they were taught regularly in a traditional classroom setting.

Rachel, one of the participants who used technology sparingly at home, said that the institute was different from traditional school because, "We normally don't learn about

digital literacy." She added that she hadn't really used the digital literacy skills she learned at the institute, but her mother said the family does not use the internet a lot. Rachel seemed to understand that digital literacy was important, but she had not had ample opportunity to utilize the skills since the institute.

Greta, another institute participant, remembered, "Digital literacy is being able to protect yourself online and know what fake information is and what is true information." She said she will use the digital literacy skills she learned at the institute while at school when doing research or helping someone. She also said that the institute taught her about being safe online, since that is not something that is taught very often at school. Greta understood the importance of digital literacy and planned to use what she had learned when given the opportunity.

Greta, as well as another participant Mary, cited the flexibility of the learning environment as an important difference between the summer research institute and traditional school. Both liked having mobile chairs, varied activities, going outside, and using technology. Mary said that she had used the digital literacy skills acquired during the institute when playing games and making TikToks. Further, she specifically cited digital literacy as one way that the institute was different from traditional school, and she said she would definitely go to the institute again if given the chance. Mary's mom indicated that the institute had really impacted Mary, saying, "She loved her time at camp with them. She enjoyed what she had done and the research she did and put together. She still talked about it well into August to where we sent the letter off to the Governor." Mary seemed to exhibit ongoing excitement about the final digital deliverable. Further, in terms of digital literacy, Mary's mom said her daughter had talked about digital literacy since the institute ended. She

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said, "She [Mary] has said something about how a website may not be real and to double check it." Mary's experience from the institute regarding digital literacy appears to have been positively impactful.

Brenda, another tech savvy participant, defined digital literacy as "Knowing the difference between the good, truthful websites and the bad, junky ones." She also said that she had actually used the digital literacy skills she learned at the institute to "find really good information about carnivorous plants for a science project." She, too, indicated that digital literacy had not been taught in her traditional education. Brenda's mother indicated that she had talked about the institute, and the digital literacy aspect in particular, nonstop because at school they are creating a digital newspaper. Further, her mother said that the institute experience was "very beneficial to her [Brenda's] current schooling and future!" Brenda was probably the most tech savvy participant at the institute, so her exuberance about continuing to utilize the digital literacy skills is not surprising. It is refreshing, though, to know that in spite of her technological knowledge, she is still eager to learn and grow in her digital literacy awareness.

In addition to understanding how well the participants retained digital literacy skills from the institute, the researchers also wanted to know what school leaders thought about how digital literacy is taught in their schools. The principal from Blue Ridge School responded, and she shared her thoughts, saying:

> I have seen some teachers teach digital literacy while others wait for the media coordinator to do it. This is indicative of a global lack of responsibility for digital literacy. I have observed a widespread lack of ownership for who is responsible for teaching digital literacy. Teachers and parents abdicate their roles. Students end up

learning from 'Johnny on the bus'. The educational setting has taken on the role, but

there is a need for parents to take the reins of establishing appropriate digital literacy

skills at a young age. Some parents have stated that children who are able to navigate

a cell phone can navigate the computer, internet and social media. This is not

accurate. There is also a concern with the ever changing tech how do we keep up?

It seems as though there is no accountability in how digital literacy is being taught, which is

contributing to a lack of consistency in teaching these skills. Because there is no

accountability, there is no one person responsible for teaching the skills. The educational

system lacks accountability, and many parents seem to lack the understanding of the depth of

digital literacy.

Conclusion

Findings from this institute reflected in each of the data tools were significant and

allowed the researchers to grasp a better understanding of how supplemental educational

opportunities could impact student learning, especially in regard to leadership, digital

literacy, and instructional technology. The next chapter will provide more in-depth analysis

of these findings and explain ways this study could spur additional research, which include

students' preferences for informal learning over their traditional educational settings, as well

as the novelty of learning about digital literacy.

Chapter 5: A Conclusion of the Leadership Perspective by R. Watkins

Introduction

This chapter covers the analysis of results from the research study in conjunction with literature on the topic of leadership and supplemental educational opportunities for students in rural areas. Following the analysis of findings including follow-up data collection analysis, constraints on the research are noted, the impact of the study's conceptual framework, youth participatory action research and future recommendations for research are addressed. This is also the place to acknowledge that while the research was based on Bourdieu's theory of cultural capital, the end result of the research proved that in a week-long research institute was not enough time to see a complete shift in a youth's social class. What the institute was able to do was create a change in mindset for the co-researchers. These participants began to identify the impact their community has on them and how they themselves impact their communities. One can hope the participants will take that mindset forward with them as they look for leadership opportunities and enter a stronger citizenship role.

Analysis of Data Utilizing Current Literature

Technology, Digital Citizenship, and Leadership Skill Building

There were several instances where the participants were exhibiting digital citizenship and leadership skills throughout the summer research institute without realizing that was what they were doing. Some of these instances may have been because of outside influences that the participants experienced in their personal lives. For example, Brenda had the highest level of digital skills and understanding of digital citizenship. This may have been due to her prior experience of digital literacy as she is the only participant who has attended a more affluent school (parochial school) from a young age until late elementary school. She also

exhibited the ability to explain many of the digital concepts to her peers and led discussions

on them. Through this higher level of experience Brenda was able to share with her peers and

guide them to the final product on a Google Site, which she was the only participant who had

used that program before. MacNeil and McClean (2006) include several times in their

research that leadership is learned and continue to express the need for learning experiences:

> Arguments for the need for youth leadership development, often emphasizing how
>
> those learning experiences might be structured, implemented, and measured. Within
>
> this context of youth development, youth leadership development can be defined as
>
> the provision of experiences, from highly structured to quite informal, that help young
>
> people develop [a set of competencies that allow young people to lead others over the
>
> long term]. …We must frame our programs so that youth have opportunities not only
>
> to develop skills and knowledge but also to apply them in meaningful and authentic
>
> ways. (p. 30)

Teaching leadership skills is not enough; because we must also provide space and

opportunities for the students to showcase and use these skills. So, while Brenda had learned

many of the digital literacy skills due to her life experiences, it was not until we gave her the

opportunity to share them that leadership skills of demonstrating and leading discussions

were viewed and acknowledged.

Having access to digital literacy skills and equipment is just one avenue to students

being able to showcase leadership skills. As the school year came to a start, the Leadership

Researcher was able to witness some of the participants back with their regular group of

peers. Mary started the school year off by bringing her personal iPad to school and was

showing other students at her breakfast table different programs she learned how to use at the

research institute over the summer. While the extent of her skills with the digital programs is unknown, the fact that she was introducing them to her peers and showing how she continued utilizing them after the institute was over shows a level of leadership and willingness to learn that is not seen in many students her age.

Rachel wrote in one of her reflections that leadership is, "knowing what is going on in the world around you" and how that is what it took to be a community leader. This reflection came after meeting with the guest speaker and discussing what it took to become a leader within the community and that you could do it at any age. This experience drew large connections for the participants to understand their civic responsibility to the community and to their school. As the discussion for the final project continued, both the school community and the Cashiers/Sylva community became the focus for the participants. The students' interest in the Story Walk activity and the potential for creating something for their community is when the observations of leadership skills began to come to the forefront of the summer institute.

One of the questions that was asked to the participants was, "what does it mean to be a leader?" and every single participant identified communication as a key aspect of what it means to be a leader. Some documented that it was communication with the community or with principals, while others stated that it was communication with each other. Three of the participants acknowledged that the negotiation activity was the most important activity they completed because they had to utilize communication and explain their thoughts for others to understand. Another aspect of communication that the students identified being important was when they were working on the Story Walk activity and Lucy was writing her story in Spanish, her native language. Instead of the other participants complaining that they could

not read it or pointing out that it was different than theirs, they recognized the importance of having community resources in more than one language. They discussed this topic for a bit and then moved on until it came time to write the letter to Governor Cooper. The group decided that Lucy should write the same letter as Mary but put it into Spanish. They discussed that Governor Cooper probably does not read Spanish but since the letter was being put on the web site, it would allow the letter to reach more people if they had it in more than one language. The sheer understanding that these participants were learning about communication for the sake of others was astonishing. That was an important moment of understanding for the participants as well as for the researchers when documenting what the participants were experiencing and gaining from the institute.

While leadership is a more abstract concept, there were ways of being able to document leadership skills being taught. This was done through the discussions and observations between the participants and researchers or the participants and each other. Being able to do some follow-up observations and interviews also solidified the opportunity to see if those skills were utilized past the week-long summer institute. When Brenda's parent was asked if Brenda had spoken about leadership or leadership skills since the institute she said, "Leadership has been a top topic of conversation since the camp because she also was voted Captain of her Cheer team and attended leadership camp for that. She learned a lot at both camps that she is using for school projects." Brenda attended the cheer camp after the research institute, which is important to note, to see that the skills taught and discussed during just one week of the institute had a lasting impact on the participants. When Brenda was asked her thoughts on leadership since the institute ended, she said, "At cheer camp I was Captain and I led warmups, exercises, stunt groups, routines and small groups. I actually

won the Golden Bow Award at cheer camp this summer for leadership skills with the team."
This was just another example of her utilizing leadership skills and while it was not for
academics it still was impacting her working with others and both Brenda and her parent
credited the institute for having something to do with it.

Supplemental Education and Building Knowledge

Building knowledge through supplemental education is an important aspect of this
institute and this kind of research. This is also a difficult task to measure or document but our
participants did a great job of showcasing skills that they were learning, and we were able to
identify key areas that they were building both skills and knowledge in. When the
participants were discussing their final project they realized they needed to know the 'why.'
Several of the participants were stuck on the idea that flexible seating would benefit them
because they could move around, be more comfortable and focus better. They were all in
agreement, but it wasn't until Mary spoke up and said flexible seating could help students
with disabilities learn better and they should want that for all the classrooms at school the
other participants started thinking more broadly into what ways their project could help
others. Observing and documenting these conversations was a moment of clarity for the
researchers as the students were building their knowledge of other abilities in live time.

Sonya continued the course of building knowledge when she started researching
different flexible seating options and their uses. While the students continued working on the
project Sonya was drafting up classroom layouts with zones and what seating would work
best in each zone. She wanted to make sure those who were using the seating could do so and
still learn. The amount of thought the students were putting into this project was

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incomparable to any project the Leadership Researcher had seen from students their age in her own classroom.

Supplemental Education vs. Traditional Education

When analyzing the data regarding the students' perspectives of the education they received through the summer research institute and the education they receive through their home schools, it was clear that there are discrepancies. One aspect of the summer research institute that the students continued to discuss over the entire week was how they were allowed to make most of the decisions. This was a key methodological decision that the researchers made when choosing youth participatory action research, which was having the participants, or junior researchers, assist in designing each day. In her final survey, Rachel wrote, "I liked this camp a lot because… we were allowed to make a lot of the decisions." This was the first time many of these participant's were experiencing an adult listening to their thoughts and ideas. As they made suggestions the Leadership and Technology Researchers made notes on how the rest of the day or the next day would need to be structured. These co-researchers were experiencing the feeling of youth empowerment in real time. If schools and traditional education were to leave space for these kinds of discussions and opportunities, imagine the amount of educational empowerment student's might experience. She was not the only participant to write something along the lines of freedom, decision making, and having a say in what their day looked like. The participant's response to the freedom of choice really impacted the level of engagement throughout the research week. Sonya also identified that the final project and the Story Walk activity were her favorite and the most impactful. Both of these projects were hands-on, and the participants had choice and freedom when working on them. The observations that were taken during

different activities showed the same level of excitement when students were allowed to choose partners, lunch spots, and set the goals for the following day.

Field notes were especially helpful when analyzing what was being seen during the institute that is not typically seen in a traditional classroom as a public-school teacher. The most surprising observation was seeing how cohesive the group was when working on the final project. The Leadership Research has been teaching in a public school for three years and until this summer institute she had never seen a small group work so well together. They were communicating, assisting each other, asking questions of each other, and overall showing stellar collaboration skills. These are all skills that are encouraged in her classroom but the sheer number of students in a traditional classroom and the space utilized in a traditional classroom makes this much more difficult. Monkman and Proweller (2000) wrote that in their studies the definition of leadership should include collaborative activities as it is the root of youth leadership. They explained, "Through qualitative inquiry, we explore the ways in which 'leadership' is understood and engaged in by the youth, demonstrating that traditional authoritative models of leadership are rejected, and more collaborative and relational approaches are embraced" (p. 180). It should be noted that when working on the projects, the final and the Story Walk, the participants had the choice of where to work and how to work. For the Story Walk, the students chose to work outside and spread themselves out. They also decided to work with partners for added support. When working on the final project they spread out within the conference room where the institute was held. Some participants sat on the floor, some in chairs, and some sat directly next to each other to collaborate on their part of the project. Examples of this workspace are shown below in the images of participants working outside on the ground and students working inside the library.

The flexibility of work time showcased an entirely different feel and productivity level that is not often seen in classrooms at school. This was noted several times through discussion with the participants.

Figure 9

Figure 9: Participants Chose to Sit Outside Or on the Floor During Collaborative Activities

Another aspect of traditional classrooms compared to supplemental education space that came up was the students' interest in having a say in their space. The participants spoke in-depth about how their classrooms were not comfortable and how they would like to set up their classrooms if given the opportunity. Lucy spoke about how "uncomfortable chairs are during end-of-grade (EOG) testing and how sitting for three hours isn't fun and she doesn't get much work done." The other participants backed her up and Greta followed that discussion up with how "it is painful to get your hair stuck in the back of the chairs and there is no way to get it out." Mary also made several comments about "its hard to focus when I have to just sit and listen, and I'm not allowed to get up and move around all day." These discussions were a driving force for their final project topic decision. An activity they completed on the first day was to list what they wanted their classroom to look like if they were the teacher. In the discussion notes it was clear that they wanted zones, comfortable

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seating, choice in where they sat, and less overhead lighting. They also had the opportunity to

draw out their ideal classroom after reviewing some images of what classrooms around the

world look like and discussing what some of the supplies, furniture, and spaces were used

for. These drawings are shown below where participants documented what their dream

classroom would look like and what they would include. It is important to note that the image

on the left includes a note about having students working together and having a more active

room compared to sitting work.

Figure 10

Mary's List of Things She Would Do as a Teacher And Participant's Drawing of What an

Ideal Classroom Would Look Like
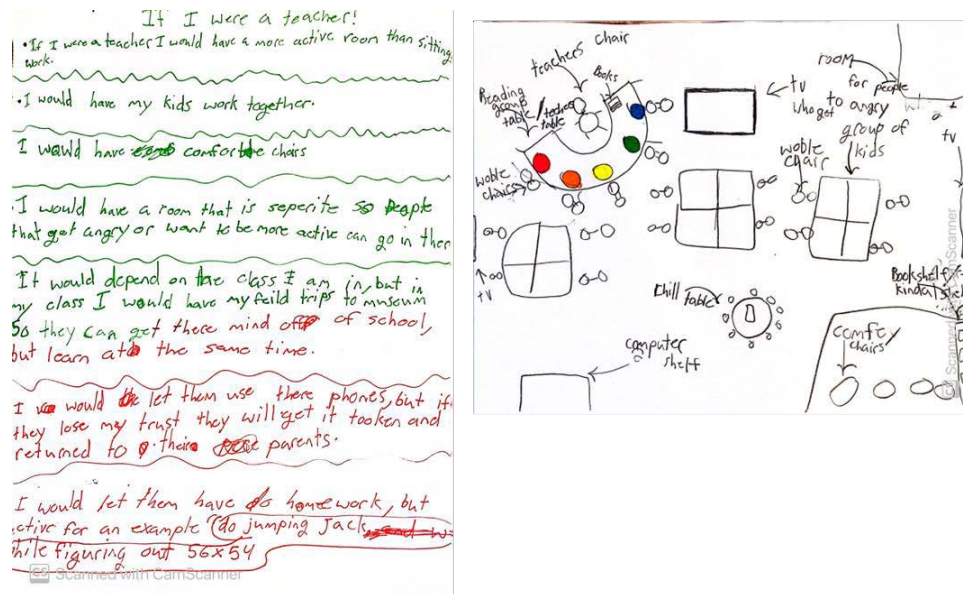
As a teacher, none of this was surprising to the Leadership Researcher as her

classroom students frequently say the same thing. This summer institute did open up the

realization that students should have some say in the space that they spend almost 40 hours a

week in. This group of participants utilized their communication skills, explained, and

vouched for their reasonings as to why. They also identified who needed to be reached with

their explanations and how those people could assist them. By the end of the week, they had created their presentation and made a list of who they wanted to reach: principals, school board, superintendent, and teachers.

One of the participants this school year has made the choice to stand up for this viewpoint and explained at the beginning of the year that during certain subjects she would like to sit on the floor to do her work and during some lessons she would like to sit on the floor closer to the board. It has not been a concern in the traditional classroom setting and she has shown significant improvement in her work and the other students have not paid any attention to where she is sitting. Two other students, who were not participants at the institute, followed her leadership and requested different seating options and have shown significant behavior improvements since the beginning of the year as well. Showcasing this type of leadership in the classroom after the discussions and activities of institute, shows me that the summer institute was a success because the participants felt comfortable enough with their skills to bring it into the classroom almost three months later. Providing the freedom of choice and the skills to communicate openly with educators was an additional, and very important, realization that came from this research project.

Another successful aspect of the summer institute was the work the participants completed as part of the Story Walk activity. The participants had an unexpected opportunity arise in relation to this activity. On day two the participants were asked about the local Story Walk that was created in Cashiers during the COVID pandemic. This was enacted by the public library, whose space we were utilizing for the summer institute and was designed to keep families reading when they could not physically come into the library. We discussed with the participants why it was put up, why it was put into both English and Spanish, and

why it is important that the library kept it going after library visitors were able to return to the physical library. Right away the discussion turned to the topic of accessibility and opportunities for the community. Mary was one of the first participants to make the connection between multilingual resources for her community and that it made reading accessible to those who may not be comfortable in the library or who cannot read in English or Spanish. From there, the students began to work on designing a story walk themselves where they designed the path, the story, and the artwork. Most of the stories were fiction and animated which was exciting to read and see but what stood out the most was that Mary wrote her story about a little girl with disabilities and how she stood up for herself. Below is an image of the short story she wrote during the activity time. She told us that it was not a perfect story and it needed to be fixed but when reading the short story and discussing it with Mary it was clear that she was writing the story from experiences she saw and heard at school. She wanted to write something that would help someone in the community who might also feel this way about their disabilities. When the guest speaker read this story, she was impressed and stated that when the school year began, she would like to start a writing group at the school because of the possibility of getting more stories like Mary's. The other important note about the Story Walk activity was that Lucy used the fact that she was the only participant proficient in Spanish and wrote her story in Spanish for the community.

Figure 11

Example of Story Walk Activity in Spanish

Figure 12

Example of Story Walk Activity About Disabilities

There once was a girl that loved to read, and her name was Faith. At the time she was 6 years old, but there was a little problem. She has ASD. You might be like, "How is that a problem?" Well she gets bullied a lot because of that reason, and she doesn't tell her parents.

One day Faith was heading to school but there was another problem! When she was walking her bullies Anna and Zoey! Faith was getting pushed around and called an ASD girl. " Ugh," Faith said, " what did you say?" Zoey said, but it was too late. Zoey and Anna couldn't do anything and they ran. Faith was relieved. But she got detention.

Faith never forgot these times. Now she was 23. She became a successful person, but her bullies were unfortunately not. She realized that a bunch of people have disabilities and get bullied and she wasn't alone ,but she noticed that her struggles bring her to her passion which is being a librarian and reading to kids.

While this was just an exercise to have them start thinking about community resources and how even as students, they could participate in creating something that could benefit others, each participant was engaged and worked hard on the activity. Villani and Atkins (2000) wrote, "our view of community-based education focuses on the student's pursuit toward the betterment of his or her surrounding community." The more these participants become involved with their community, as leaders, the better the community becomes, whether that is their school community or town community.

The unexpected opportunity that arose from this was on day three of the institute when the guest speaker came to talk about what it takes to be a community leader and how students can become a leader easily. What was unknown was that the guest speaker sits on the Story Walk committee for Cashiers. She was ecstatic about the students creating these stories and asked if she could take the idea of letting students create a story walk to the committee board. The Leadership Researcher agreed under the condition that students could not be identified, and she agreed. She later received word that the board is excited about the opportunity to work with the students and have a new Story Walk put up in another part of town that is all student created. The stories written for the institute could not be used due to ethical responsibilities of not including the participants real names, but the guest speaker is planning to host luncheons at Blue Ridge School for students who are interested in continuing this community project. The participants that attend Cullowhee Valley School showed interest in reaching out to their principal to see if it could be an option for them to start a Story Walk in Sylva and/or Cullowhee. The summer institute and guest speaker gave the students a first look into what being a community leader is like and due to the nature of it

being a smaller group of students at the institute, they were able to have small group

discussions with the speaker and share their personal experiences of leadership with her.

Follow-up Data Collection Analysis

Throughout chapter 4 and chapter 5, additional data collection was included. Most of this

data was identified as "follow-up" data. Continuing data collection after the institute, most of

which took place just shy of three months after, was intended to examine the longevity of the

institute and to see if the skills learned in June continued well into September. The hope was

that each participant and parent felt that the institute was a strong skill building and

supplemental educational opportunity. Both parent and participant feedback, from the

second-round of data collection, proved this to be correct. One parent shared that, "She

definitely learned different things that are not normally taught in school. She was able to

understand why some kids may fidget more than others. She also seemed to be interested in

the fact that schools need more financial support, which surprised me." Other parents also

expressed their excitement that their children were discussing what they learned and were

showing more initiative about their future and their schooling. Participants were also

interviewed post-institute, and Mary ended her interview by asking if we would be doing the

institute again because if so she wanted to make sure she told her mom because she wants to

come again.

While both this summer institute and research project were just snapshots into youth

leadership and supplemental educational opportunities, there was substantial interest from the

participants and their parents these kinds of lessons and opportunities. If given the chance,

hosting another institute with more participants, or even an on-going program, would be

beneficial to the students in this area. To provide continuous programming or community

opportunities takes time and funding which is a struggle for many educational endeavors but with the impact from this one institute and the findings from the research, perhaps there understanding for the need for students to gain leadership skills and provide rural, low-income areas with opportunities.

Research Constraints

Regardless of the impact of the research findings and the longevity of the skills learned from the summer institute, this project was not without its constraints. The first limitation of the institute was the struggle of recruitment due to the competition of other summer camps. In this specific area, numerous summer camps are offered. Most non-profits, schools, and some businesses offer camps and activities each weekday during the summer. This is a community need and should not be seen as a negative repercussion for the students in Jackson County. The reason there are so many camps is due to the need for childcare and organizations trying to support families who need to work. That being said, many students who would have been expected to participate in a leadership camp or a supplemental educational opportunity did not have the chance to because of lack of transportation provided by the researchers. With the institute beginning at 9am and ending at 2pm, parents and caregivers were already at work when it began and had not gotten off work when the institute ended, in other words, they could not transport their child to and from the camp. There were even some days of the institute that the researchers were walking participants to different locations as a support for parents who wanted them to participate but could not otherwise pick them up on time.

Transportation to the institute was difficult for many participants. With it only being a weeklong, the camp had limitations as to what could be completed in that time. Had

the institute been longer, more activities, more skills, and more learning could have occurred. The institute was held during the specific week of June as it was between the weeks of summer school for the local schools. Due to the limitations of transportation and time frame participant numbers also suffered. The original goal was 10 participants that was a mix of girls and boys. The official count for the institute was six participants, all girls, ranging from ages 10-13. During the institute there were students whose first languages were English and Spanish which ended up being both beneficial and challenging. It was beneficial in the sense that we had multiple viewpoints and some activities were able to be completed bilingually. It became a challenge when some words were difficult for the Spanish speakers to comprehend. But like any other challenge we were able to adapt and created bilingual vocabulary sheets for important words so that all participants could take part in discussions and have a more successful time at the summer research institute.

Impact of Conceptual Framework

Youth Participatory Action Research (YPAR) was noted as the conceptional framework that guided the design of this research project. This framework offers a critical lens on promoting change within a given population and encouraging the lived experience to be a driving force behind that change. The design process for the project was heavily influenced by the participants to be the ones designing each day of the institute as they saw fit and utilizing this freedom to meet their own educational and leadership goals. Advocating for their own education was the goal the researchers wanted for them and as they worked through the institute, the participants were able to build their own skills to advocate for what they deemed as most important. Through the creation of their final deliverable, which was all student designed, they found more ownership in the work and decision-making process. To

allow the participants to choose their research topic made the researchers slightly nervous as they were unsure of the level of seriousness the students may continue. I for one, expected their issue of choice to be something material based such as wanting better technology, lunch, or recess time. When the participants landed on the topic of flexible seating to assist all students, the Leadership Researcher was shocked by the level of care and determination this topic held.

By allowing the participants the freedom of choice and then further the freedom to set daily goals and express their needs throughout each day, the institute became more centered around the participants and instead of fighting for engagement and participant throughout the day, they guided us as to what needed to be done. Based on these observations, the recommendation for traditional educators and education practices would be that freedom of choice needs to be integrated into daily teaching practices. The goal of YPAR is for the students to design and lead the research process and with the exception of prior set questions and tasks that had to be completed, they had all the choice and freedom they wanted. The impact of this was stronger collaboration, engagement, participation, attention to detail, and longevity of what they learned.

Future Research Recommendations

Additional research is needed to examine the long-term impact of providing leadership opportunities to rural students outside of school compared to inside the school. School leadership teams, parents, community partners, and students need to be involved in the discussion and participation in these activities to have a fuller image of the impact that youth leaders have on schools and their communities. With leadership not being a standards-based learning objective, it is hard to identify in school settings without having observations

taking place each day in and out of the traditional classroom. By designing a youth leadership rubric there may be a chance for educators and researchers alike to identify key leadership skills that take place and what skills are lacking and may need to be supplemented.

Continuous research regarding community involvement in leadership is necessary for the understanding of keeping leadership opportunities open to students. The rural community is the perfect backdrop for continuing education during summer months and ensuring that students continue to build strong community networks for themselves and future generations. When rural communities lack opportunity, strong leaders disappear and migrate to urban areas that offer more possibility (Sobel, 2013). To keep these communities strong and places where young leaders can thrive, community leaders must be willing to work with and mentor youth. These are all opportunities for future research to breakdown and examine in hopes of reshaping and rebuilding rural communities.

Recommendations for youth educations, both traditional and nontraditional, is to begin incorporating a level of choice into educational practices. This research showcases the impact that freedom of choice has on engagement, participation, and interest for youth. This could be in the form of classroom projects and seating but also in community opportunities. Allowing youth to have a voice and to advocate for their wants and needs proved to be beneficial when creating a deliverable for their school community as well as the Story Walk exercise which was for their community at large. The Leadership Researcher has already begun incorporating some of these practices into her own classroom and personal practices. The level of engagement in classroom work has increased as has the understanding of learning objectives centered around the topics of choice. Going forward she will continue to

put these educational practices to use in hopes of building more leadership and advocacy skills to her students as she prepares them to become 21st century learners.

Conclusion

Youth leadership is an educational topic that is often overlooked as it seems to be spoken about with a level of abstractedness. Leadership skill building can begin at a much younger age than most believe. Due to the limited understanding of youth leadership outside of academia, these skills are often ignored all together. As educators and administrators there is still a chance that this can be included in both daily education and supplemental educational opportunities. The first way this should be done is by building student confidence. If a student does not believe in themselves or that they can make a difference, half the battle of youth leadership is already lost. By allowing students the chance to engage and advocate for their education they will take ownership of what actions take place. The more the student's believe in their own ability of choice the better they will get at making those choices. Guidance will always be necessary for youth but their ideas are invaluable and should be incorporated into their education so that it becomes a learning and skill building opportunity.

Encouraging students to take on leadership roles begins by listening to the student. Every student idea may not be feasible but by providing a guiding hand, it is possible that they will begin to see what they can accomplish as a youth leader. The opportunities must also be there for students to participate in. In a traditional classroom providing these kinds of leadership opportunities may not exceed past the generic phrase "classroom leader" that many teachers are known to write on report cards. This is when supplemental educational opportunities and working with the community come into play. Bringing in people who may

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have the funding needed or the space and time available to host these activities can make all the difference. One of the biggest things learned from this research project, the summer institute, and this group of participants, is that all student leaders want is to have a voice and a little bit of freedom in their education. It is important to acknowledge that letting a student sit on the floor to complete work, doodle while they listen to a lecture, or choose the design of a project, is just the beginning of student choice. This summer research institute highlighted these thoughts when the participants actively took ownership of their project and identified all the other people they were helping through the project. The buy-in of the project from the students boost productivity and excitement over something they may not have typically been interested in completing. The next steps need to be listening to their ideas and needs and giving them the space, confidence, and materials to make those ideas a reality. When students feel the ownership of their education, they begin to nourish and grow it.

Chapter 5: A Digital Literacy/Instructional Technology Perspective by A. Myers

Introduction

The summer research institute was a success and had a positive impact on the participants. Participants provided strong data regarding the ways in which supplemental educational opportunities benefit students and the importance of teaching digital literacy. This chapter will provide analyses of the findings from the study in conjunction with the literature surrounding the topics. Following these analyses, limitations of the study will be addressed, followed by a reconsideration of the conceptual framework: youth participatory action research. Implications of the study will then be provided, and lastly, recommendations for future research will be suggested.

Analysis of the Data in Conjunction with Current Literature

Impact of Supplemental Educational Opportunities

The positive impact of supplemental educational opportunities cannot be denied, and evidence, such as the Kaul et al. study (2018), supported its advantageous effects on one's academic performance. The residual effects of this Jackson County study were no different post-institute research showed students retained information about the institute several months later and were positively impacted. Further, as the Jackson County study unfolded, both the Leadership and Technology Researchers were mindful of any potential negative ramifications. The Kaul et al. study (2018) cautioned how negative camp experiences could result in less-than-optimal results. The Technology and Leadership Researchers for this particular study treated each student respectfully and attempted to ensure they felt appreciated for their individual gifts. For example, they encouraged Lucy to integrate her Spanish into the various projects, asking her to provide Spanish versions of her Story walk

story and the letter to the governor. All students' abilities were recognized as strengths throughout the week. The Kaul et al. study (2016) emphasized the importance of attendance, camp location, and family support to the camp's success. These components proved especially important to this institute's success as well. Without the parents' willingness to transport the participants to this institute every day, neither the students nor the institute would have been successful. Further, in order for students to receive the maximum benefit from the institute, they had to come every day, as ideas and the work built on itself from day to day. Also, location made a difference, and since the institute's location was at the public library, centrally located in Cashiers, it was actually a positive component of the institute. The Kaul et al. study (2016) suggested that the optimal location for a camp is a college campus for enduring results for gifted students. Despite not being on a college campus or being directed at gifted students, this institute had the perfect location in the public library because students were able to easily get to the institute, and it offered a great environment for students to learn and research as needed. In addition, the library offered flexible chairs, room for small group work, and an outside environment conducive for collaboration and learning. Further, the wifi was stable and strong, which was very important for the technology component of this institute's success.

Another important element for a successful institute experience that the research uncovered was the importance of service-based projects. The Travis study (2019) explored ways that inquiry, service-based projects can create connections between the community and institutions like schools. This study intermingled community and school in a myriad of ways. The fact that this institute, which was led by two teachers, one of whom taught in the county, was held at a community agency, the public library, was one way school and community

mixed. The guest speaker, who was a school volunteer and a community advocate was another connection between school and community. Additionally, students were working on an advocacy project to better their education, which improved their community with an upgraded school setting. And lastly, the students were involved in creating a Story Walk, a public library initiative in which these camp participants were asked by the guest speaker to submit their stories to be displayed as Story Walks.

Digital Literacy in Schools

All but one institute participant understood that digital literacy consisted of more than merely reading online material. When asked to define digital literacy most of the participants knew it had something to do with online behavior, protecting oneself, and not trusting everything they read on the internet, but they were unsure beyond that. Most did not know that evaluation and creation were vital parts of digital literacy. It was imperative they had a more comprehensive understanding of digital literacy; therefore, the research strategies suggested by Hobbs (2010) were important to share with the students. Her strategies included evaluating information and recognizing author, purpose, and point of view. Further, the institute integrated production of one's own digital artifacts reflection regarding one's digital presence, and communication. Students were taught how to discern truth from fiction using author, purpose, and point of view by carefully evaluating several web sites that were given to them. Half of the six sites were fictional and the other half represented truth. Most of the participants had no idea how to apply these concepts to digital media until this summer research institute. Reflective discussion followed this activity and students understood why each component was important, how it applied to each site, and understood how to do this exercise on their own. This activity also followed along with much of the work of Hobbs

regarding propaganda (2020). Students critically assessed specific sites to determine if they were legitimate.

Brenda, one of the participants, incorrectly guessed the legitimate Scholastic site was fake. She relied on how the site looked and did not look further at the organization that sponsored it. If she had considered the author's purpose (Scholastic) and looked further to determine it if was legitimately Scholastic, per one of the tactics Hobbs advocated using, she may have been more successful. Lucy, though, used context clues in the video for another site to correctly determine that the video was fake. She was the only one to accurately assess this video, and she is a non-native English speaker. She evaluated all parts of the video, which showed a brown bear chasing a snowboarder. Unlike the other students, she realized this did not look right and suggested it was fake.

Further, participants were given the opportunity to create their own digital deliverables and to reflect on that deliverable and their digital presence. Throughout the institute, participants repeatedly echoed how they were not consistently taught these digital literacy skills at school. Some participants had picked up various ideas from different places but there was no consistency, despite the state's mandated curriculum.

Evaluating websites for credibility is an important component of digital literacy but also one that institute participants were not proficient in achieving. The findings of this institue supported a Stanford University study conducted by Wineburg (Hess, 2021), which indicated that today's youth are not adept at adequately evaluating web sites for credibility. In response to his study, Wineburg proposed integrating lateral reading as a technique to combat the issue. This idea of "lateral reading" in which one compares the same topic on various sites was discussed at this institute as cited by Hess (2021) in his article about the

Stanford study conducted by Wineburg regarding American high school students and their use of technology and digital literacy skills. Participants understood the idea, but more time would have been needed for students' to adequately learn this technique, especially since these students had very little digital literacy skills prior to the institute and because they were fairly young. It was very interesting, however, that the one non-native English speaker was the only one who recognized the fake web site of the snowboarder being chased by a bear. The Technology Researcher had to surmise that this student was analyzing the components of the video, such as lightning, speed, etc. rather than just language, which enabled her to successfully navigate between the fictitious site and the real site. Lucy, who was the only ELL student at the institute, and did such a good job completing the truth or fiction web site evaluation activity, may actually support findings from the Shideler et al. study (2020). Their research explored how ELL students remained on grade level via a summer program. It is highly probable that Lucy's success with this activity will enable her to grow confidence in her digital literacy skills, and to implement those skills into her academic pursuits in order to be successful.

In addition, the results of this study supported additional literature. The lack of a consistent digital literacy education gave validity to Jenkins' theory (2009) regarding the "participation gap." To reiterate, this gap refers to individuals, oftentimes those in remote areas and/or representing lower socioeconomic classes, lacking the required digital literacy skills needed to navigate the internet successfully. The students in this study who represented a remote area of North Carolina did not have a deep understanding of digital literacy. They had been taught to be cautious but had not been given the tools to be successful while online. Additionally, the "digital divide" that Jenkins also referred to in his work, which suggested

that not all people have adequate access to the internet, was also evident in the study. Many of the participants said their internet service at home was mediocre at best and even at school it was not always reliable. Evidence from the institute supported the theories of the "participation gap," and the "digital divide." These individuals who live in a remote, mountainous region of North Carolina, did lack the skills to be as knowledgeable about digital literacy as their counterparts elsewhere in the state and the nation, and their subpar digital infrastructure, which adversely impacted their internet service, was also a factor.

As mentioned previously, students understood protecting their privacy as part of digital literacy. Most said they know not to talk to strangers online, but admit they were not being taught more than this in school. It was interesting that the crux of their digital literacy education centered around privacy and safety but little else. This was a remarkable finding because it supported Bourdieu's theory, which reasoned that school was one factor that perpetuated social classes as cited by Kleanthous (2013). He argued that people were conditioned by schools and their backgrounds to conduct themselves in a specific way. He also suggested that schools taught students a particular way based on their social class. The institute participants all knew that protecting their privacy online was of the utmost importance. This was remarkable in terms of Bourdieu's theory because these students were from a very remote area of North Carolina, and many people from such areas are cautious of outsiders. Their protection of their online identities seemed indicative of the fear of others that so many in remote, more rural areas harbor toward people they do not know. Further, they seemed to have similar knowledge of digital literacy and how to use the Google products. The only anomaly was the two girls who had attended the more affluent school actually did seem to know more about what it meant to be digitally literate, and they had used

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Google Draw and Sites, whereas the other students had not. Many factors may have

contributed to this, but regardless, the evidence from this summer research institute supported

Bourdieu's theory. The digital literacy knowledge exhibited by the students who attended

more affluent schools supported Bourdieu's theory because they had been exposed to more

tools than their less affluent counterparts; therefore, their cultural capital was deeper and

richer. Nevertheless, this institute and its supplemental offerings may make a difference for

the students who would not have been exposed to this information and technologies without

this institute, which would further provide credence to Bourdieu's theory.

Influence of Instructional Technologies

The Technology Researcher looked at two main types of instructional technologies:

the Google suite of products and virtual field trips. The Google products, which included

Google Draw, Slides, Documents, and Sites were the primary focus of this study. All

students were extremely proficient in using Documents and Slides, but it was obvious that

Sites and Draw are underutilized in schools. The two students who attended the more affluent

school actually had experience using those two products, but the others had no idea how to

use them. Even Mary, who was very tech savvy and created Tik Toks often in her free time,

was unaware of how to build a Google Site. Perhaps it was based on age, since the two

students from Cullowhee Valley were the oldest in the group. Nevertheless, it was impossible

to know without delving deeper into more research.

During this study students used the Google products to collaborate and to create their

digital deliverable about flexible seating. With the collaboration component of the Google

products, the institute would not have been possible. This component also enabled students to

circumvent the school system restrictions, which did not allow students to share work with

anyone but a Jackson County teacher (The Leadership Researcher, a Jackson County teacher, had to then share the Documents, Slides, etc. with other students). This restriction was another way the county sought to protect students, rather than implementing a consistent digital literacy curriculum that would teach students how to remain safe but less encumbered. Additionally, Maqbool's (2016) research, which supported the importance of the Google suite of products in educational endeavors, was evident in the outcomes of this institute. The institute participants collaborated and communicated using several of the Google products and were able to create a deliverable to advocate for flexible seating.

The Maqbool (2016) study evaluated how Google Sites and Docs in particular helped collaboration for group work. They found students felt less inhibited in expressing themselves online. Institute participants were confident in their work and each one participated. Oftentimes students participated more in the Google product work than they did in answering questions in their notebooks or by participating in the group discussions. These instructional technologies gave students a way to communicate without having to talk, which helped them to build a strong deliverable. This was especially helpful for the more introverted students.

The virtual field trip was another important instructional technology that this study evaluated. Students digitally visited the Smithsonian's National Zoo, which provides a virtual field trip for several of its animals. Student preferences echoed the findings of the Han study (2021) regarding online trips. They indicated that this virtual field trip was useful in terms of practicality, i.e. cost and time, but seriously lacking in terms of interactions that make field trips such valuable experiences. It seemed that this experience was appreciated by participants, but they recognized that it just was not the same as actually visiting a zoo in

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person with their classmates. Nonetheless, the Hodges study (2017), which indicated that supplemental educational opportunities are very important for students in low-income areas, supported the usefulness of virtual field trips. Without the financial resources, there was no way students could have visited the National Zoo, but this technology made it possible. The institute participants seemed to recognize that although visiting the zoo in person was the preferred method, they were still grateful for the opportunity that technology afforded in terms of a virtual field trip. Further, the Guffey et al. (2020) study indicated that lower income students benefited tremendously from supplemental summer enrichment programs, which further lends credence to the importance of virtual field trips to students who represent this socioeconomic class.

Mobile technology was instrumental to the success of this institute, which supported Dube and Wen's study (2021) that surmised mobile technology would be an ongoing trend in the tech world. Students used their phones and Chromebooks to participate in the technology portions of the institute. The camp was not located in a computer lab, so without these mobile technologies, students would not have been able to complete this portion of the institute. Further, these technologies enabled students to work on the project anywhere in the building and even at home. One student, Mary, created a Google Slides presentation after the institute about an animal that she was researching and shared with the Leadership Researcher one evening after the institute had ended. Students also indicated they used their Chromebooks a lot at school, but the older iPads that students in earlier grades used were not as helpful. Institute participants cited the age of the iPads as problematic because they did not work correctly most of the time, which suggests that even if a device is mobile, if its internal

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technology is not up-to-date then it is less useful to students. Mobile technology must be up-to-date, and wifi must be reliable.

Limitations of the Study

Despite uncovering some interesting findings regarding digital literacy and instructional technologies, this study was not without its limitations. Firstly, the summer research institute was only one week. The length of the institute would need to be extended or become an ongoing club in order for the research to be considered more than a mere snapshot in time. Further, there needed to be a larger number of participants. The goal was 10, but only six students came. All six of the students were girls. A diverse mix of boys and other ages would benefit the study's outcomes. The recruitment process was intense, but despite all the efforts to recruit more participants, the study only yielded six interested students. The institute was competing with a myriad of factors, such as increased competition with other camps, less than ideal times for drop off and pickup, no transportation, and no meals could be provided. Lack of funding for the institute was a major limitation.

Another major limitation of the study was the background of most of the participants was not representative of the lowest socioeconomic level represented in Jackson County. The participants may have been less affluent than their counterparts in a major city in North Carolina, but they were still better off financially than many of their fellow classmates in Jackson County. They probably represented a cross section of Jackson County students, but to get more intensive research regarding low socioeconomic students a larger group would be needed. Furthermore, as mentioned previously, there were limited resources to support the institute. The researchers had to find a free location, which was the library. They also had to provide any technology that participants did not bring themselves. Furthermore, they were

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unable to provide transportation or lunch. The most impoverished children probably would have at least required transportation to the institute site each day. Food would have been an enticement for others, as well.

In addition, this was a Youth Participatory Action Research study, which means the main researchers were supposed to integrate themselves into the community for some time. The Technology Researcher was unable to do this prior to institute or after institute; nonetheless, she did as much as she could to build trust and a strong rapport with the participants. Lack of financial resources and time constraints were a major limitation regarding this aspect of the project. Understanding the limitations of this study would help to create more successful non-traditional educational opportunities for students in the future.

Reflections Regarding Youth Participatory Action Research

As mentioned previously, Youth Participatory Action was the conceptual framework of this study, which is grounded in critical theory, and promotes change for a population spurred by the people who are actually living the experience. From the outset, this study centered around enabling students to think critically about their education through a leadership and digital literacy lens. The summer research institute used choice and voice in allowing students to determine what they would change about their education, and students were encouraged to advocate for what they felt was needed to improve education in their schools. The implementation of choice and voice contributed greatly to the success of the institute and to the empowerment of the students. These participants were invested in the work because they felt they were being heard, and the Leadership and Technology Researchers were listening and adjusting the schedule based on their needs. The students were able to advocate for flexible seating, which was something they decided to do on their

own. They owned the entire process from the beginning of the institute to the final deliverable. They created a deliverable to advocate for the issue of their choosing, which was flexible seating in their classrooms. The students felt strongly about this initiative, which was surprising to the Technology Researcher, who truly expected students to want newer technologies or more display/interactive boards within their classrooms. Although students indicated these technologies would be useful, they were content with the current level of technologies the schools offered. When presented with the web site and its content, the Blue Ridge principal was extremely impressed and indicated an inclination to act on their request. Empowerment is an offshoot of critical frameworks, and if these students can achieve flexible seating for their schools, they will definitely feel empowered.

Implications of the Study

The implications of the study are not generalized, but rather are focused on these students in this small, rural community. Nonetheless, there were several important implications that must be highlighted. Firstly, based on this study it does not appear that digital literacy standards are being taught consistently throughout Jackson County. Principals need to attempt to understand how teachers are approaching digital literacy and all stakeholders need to work together to find a consistent way to teach these standards. The Blue Ridge principal seemed to grasp the reality of this situation, but other leaders may not be as perceptive. The state's digital literacy standards, which are basically ISTE's standards, are as important as any other, but the focus has not been on them. The North Carolina Department of Public Instructions needs to know because it may spur them to check on how other districts are teaching these standards. The local entities should be concerned that their students are not learning what they need to know to be successful in the future.

Unfortunately, sometimes non-public schools offer more instruction on digital literacy because they are less constrained by curriculum and testing than their public-school counterparts.

Secondly, another interesting finding from this institute was that these students felt like they had enough "regular educational" technology in their schools, but they would like to see other technologies like e-readers, Alexa lights, etc. to enhance their education beyond Chromebooks and Promethean boards. For many years educators have looked mainly at how technologies can enable teachers to project or share lessons, and which technologies would enable students to complete or to produce work. It is important that the school board, district level personnel and principals are made aware of this implication in order for them to consider new technologies to help diverse learners who may need more than the basic Chromebook or projection device to learn successfully. They need to begin to look beyond the ways technology has been utilized historically and begin to investigate ways it can supplement and enhance education for diverse learners.

Additionally, school system online restrictions, which are intended to keep students safe in a digital environment, often inhibit learning or make it more difficult for them to collaborate with others. To prepare students for a global workforce they must be able to protect themselves digitally, but they also must be aware how to work collaboratively and to communicate with others. This paradox could potentially be solved if digital literacy was taught more consistently and in earlier grades than it is currently being taught. Perhaps if it were taught often and each year to all students, then maybe there may be less of a need to place such stringent restrictions on student devices. This is an issue that the district office personnel, teachers, and principals need to address because they have the power to

implement these changes and ensure students know how to protect themselves. Student privacy and protections are non-negotiable, but the cost to student experiences and learning must be addressed and innovative ways to help students provide protection for themselves.

Overall, the post-institute interviews indicated that participants retained pertinent information from the institute, and the parents were impressed with what they learned. One conclusion that could be drawn from the post-institute information is how the students who were less tech savvy at the institute, had parents who did not seem to understand how their child may or may not have utilized the digital literacy skills they acquired at institute. The disconnect regarding the importance of digital literacy seems to somewhat correlate between adults and children. This finding is something that deserves further research. It may even help to explain why some teachers integrate digital literacy skills within their traditional curriculum, while others place little to no emphasis on it.

Another valuable finding that arose from this research is how students did not correlate the production/creation of a digital product to digital literacy, and they still had much to learn about digital literacy. They understood that digital literacy involved evaluation and analysis of material on the web and the importance of privacy, but more time would be needed to teach the entire digital literacy curriculum. Their lack of a complete understanding of what digital literacy is provides clear evidence that the digital literacy curriculum is not being taught with fidelity in their schools. More research would need to be done to understand if this is a phenomenon that is specific to Jackson County or a problem throughout the state of North Carolina.

Recommendations for Future Research

Research Regarding Accountability for Teaching the Digital Literacy Curriculum.

More research is needed to see if other North Carolina school systems are also inconsistently teaching digital literacy as part of the curriculum. Students need to be surveyed, instead of adults, to ensure accuracy of answers. Unfortunately, there is no accountability to ensure that the digital literacy standards for North Carolina are being taught consistently or in a way that students can retain the information. Students are getting bits and pieces of a digital literacy curriculum throughout their academic journey, but it is not consistent. The Blue Ridge principal reiterated this in her responses. School librarians, who are also charged with teaching this curriculum, are often inundated with technology troubleshooting and/or have fixed scheduling, which exacerbates their ability to interact with all students, grade levels, and to teach every student pertinent lessons. School and district level instructional technology facilitators often experience similar difficulties, as they work to ensure students' privacy rights are protected and instructional tools are used safely. Those liabilities override the digital literacy curriculum. Additionally, teachers are focused on standardized testing results; therefore, digital literacy, which is not tested, is oftentimes seen as a less relevant or less important component of the curriculum. Like other subjects that are not tested, digital literacy is viewed as not as important despite research that suggests it is vital for survival in a globally connected world.

Ongoing research about the consistency of teaching digital literacy within classrooms is imperative. As news becomes more blurred by bias and social media, students need to have a firm foundation in deciphering fact from fiction online. Without ongoing education, the United States risks growing a populace of ignorant individuals unable to think for themselves

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and/or ones who do not know how to critically evaluate online materials. Such possibilities

risk creating voters who are misinformed, threatening democracy, which survives on an

understanding of the issues and the candidates they endorse.

Do Technology Restrictions Negatively Impact the Use of Technology in Schools?

More research is also needed to understand if school system restrictions intended to

protect student privacy (but sometimes actually hinder learning) are worth the cost. Students

are supposed to be prepared for a global digitally connected world, but these controls often

interfere with using the technology in a precise, direct manner. Educators and students are

left experimenting with various routes to circumvent the system to achieve their goals.

During the course of this study, the researchers had to use various tools to create the final

deliverable and video because of different controls placed on the student Chromebooks.

Student privacy is imperative, but the digital literacy curriculum should be just as vital, and if

students have a more complete understanding of digital literacy, then the need for ongoing

restrictions might be lessened and more tools could be at their disposal for use.

Why Do Students Seem to Persevere Through Technology Issues?

When these researchers encountered various technological problems while creating

the video for the final deliverable, the participants were patient and accommodating. This

behavior was interesting and worth noting because it would be useful to know if this is a

phenomenon specific to this area because these students are used to dealing with antiquated

devices or poor wifi reception, or if it is linked to their culture. Further, it could also be

correlated to their generation since they have dealt with technology since birth; therefore,

technology issues are considered the norm and nothing to become alarmed about. Because it

could be attributed to various reasons, it is definitely something worth further research.

Final Recommendations

Digital literacy is a relatively new subject when compared with the classic disciplines, and because technology changes so quickly, many academics have not viewed it as more than a mere fleeting fad. Because of these issues, there is less research regarding digital literacy, the consistent implementation of the curriculum, and its impact on education than on many other subjects such as English or math. Digital literacy is a sound, vital discipline that deserves the same kind of consideration as math, English or any other traditionally taught subject. In fact, in today's world digital literacy may actually be an even more important curriculum than others because the digital world impacts almost every facet of our lives, and most of us are self-taught digital navigators. To ensure future success for students, education, and the country itself, academia must embrace the digital literacy curriculum and value the research surrounding it as much as it does any other branch of study. Studies, such as the one conducted for this dissertation, are imperative for education and for the continuing understanding of this discipline.

Practical Recommendations for Teachers and Community Youth Leaders

The power of choice and voice cannot be emphasized enough. Students who feel heard, feel empowered and that has major implications on how they learn and invest in their education. Choice and voice are powerful for any individual who works with youth. Regardless of a child's age, allowing them a certain amount of control and autonomy makes a huge difference in their perspective and their approach to tackling challenges. Furthermore, providing the necessary leadership tools to work with others is integral. The participants in the institute integrated the leadership skills they learned in terms of listening to others, negotiation, and collaboration to build an impressive deliverable to advocate for something

they felt strong about. Additionally, ongoing reflection is imperative when attempting to build young digital leaders. This reflection is not only necessary for youth but for adult educators as well. Reflection gauges where a student is academically and socially, allowing them to better understand how to move forward positively and constructively.

Conclusion

Digital literacy is still a relatively new curriculum and one that is nebulous to many educators. Because of its relative novelty and the lack of accountability in assessing students' understanding of this concept, digital literacy is not taught consistently, and many schools are not preparing students to be successful global or digital citizens. Further, based on this study, it appears that students are not receiving a comprehensive digital literacy curriculum. Because of this, it is imperative that state and county-level stakeholders provide a curriculum for each grade level that can be implemented easily and to ensure it is being taught either through a separate assessment or by integrating it within the English Language Arts end-of-year tests. It is time that digital literacy be given the same importance as subjects, such as English and math, to ensure students are prepared for tomorrow and beyond.

The Future Implications of This Research

The findings from this research study support the premise that supplemental educational opportunities are needed, especially in more rural, remote areas of the state. Because the traditional education curriculum is so constricted, there is little time to focus on leadership and digital literacy skills. Both of these skills are imperative for student success in the future. The schools do not have time to consistently teach these skills, and because students in Jackson County do not have access to opportunities that would teach these skills, more work is needed to ensure students can move beyond their habitus. To solve this

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quandary, the Leadership and Technology Researchers hope to create an eventual non-profit to focus on these areas of concern.   Additionally, more work needs to be done, not just in Jackson County but statewide, to draw attention to the lack of consistency with which digital literacy is being taught in traditional education. This is an area of immense concern because lack of understanding in this field has a direct impact on not only these students, but our country as a whole. In a democracy, educated citizens who think critically and have the tools to do so are integral. Furthermore, leadership skills that include identifying a need, communicating, and collaborating are also invaluable for the success of our government.

The work began during this one-week institute was vital and too important to disregard and to discontinue. This was an intensive collaboration that provided a valuable opportunity to a few students who not only learned life skills, but were also positively impacted. It is the hope of these researchers to continue the work that began with this dissertation and to build on it to help more students in other remote areas within North Carolina

Epilogue

Youth Participatory Action Research is grounded in ongoing reflection. As scholarly practitioners, Amy and Rebekkah have internalized this practice and reflected a great deal about how this research has impacted their professional work in the school. As educators, they have become strong advocates for student choice and voice. They have witnessed firsthand how powerful these two facets, are and both of these educators have implemented them in their classrooms. It has become second nature to these teachers after seeing how empowering the summer institute research was for those participants. When students feel they are heard, and that they have a choice in their education, they naturally become invested. In addition, when students see themselves as valuable members of a community, whether it is a school community or the community at large, then they behave differently and invest their time, resources, and abilities within it.

Choice and voice are important, but so is reflection. Students and educators who reflect consistently on their practices improve the work they are doing. Further, reflection keeps them grounded in their goals and supports successes. Upon completing this work, Amy and Rebekkah realized how invaluable reflection, choice, and voice are to improving the educational process. It is their hope that others who read this dissertation will also implement choice, voice, and reflection into their daily work in the classrooms. If practicing educators can grow professionally from this research, then perhaps the positive impact Amy and Rebekkah had hoped to achieve within public education will extend well beyond a one-week summer research institute.

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Appendix A

Internal Review Board Exemption Status

Department: Leadership & Edu Studies, Graduate Students

Re: HS-23-209 - Initial: Notice of Exempt Research Determination

STUDY #: HS-23-209
STUDY TITLE: A Summer Camp's YPAR Study of Public Education in Rural NC: How a Supplemental Educational Program of Instructional Technologies, Digital Literacy, Leadership and Mentorship Offerings Tested Bourdieu's Theory on Socioeconomic Class and Education & Empowered Youth to Advocate for Educational Change
EXEMPTION DATE: March 18, 2023
EXEMPTION CATEGORY: Category 1. Research, conducted in established or commonly accepted educational settings, that specifically involves normal educational practices that are not likely to adversely impact students' opportunity to learn required educational content or the assessment of educators who provide instruction. This includes most research on regular and special education instructional strategies, and research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.

Department: Graduate Students, Media, Career Studies & Ldrshp Dev

Re: HS-23-209 - Modification: Notice of Exempt Research Determination

STUDY #: HS-23-209
STUDY TITLE: A Summer Camp's YPAR Study of Public Education in Rural NC: How a Supplemental Educational Program of Instructional Technologies, Digital Literacy, Leadership and Mentorship Offerings Tested Bourdieu's Theory on Socioeconomic Class and Education & Empowered Youth to Advocate for Educational Change
EXEMPTION DATE: September 4, 2023
EXEMPTION CATEGORY: Category 1. Research, conducted in established or commonly accepted educational settings, that specifically involves normal educational practices that are not likely to adversely impact students' opportunity to learn required educational content or the assessment of educators who provide instruction. This includes most research on regular and special education instructional strategies, and research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.

Recruitment Materials

LIDERAZGO ESTUDIANTIL Y ALFABETIZACIÓN DIGITALDESARROLLO DE HABILIDADES

Debe estar cursando el 5th grado o mas durante el año escolar 2023-2024

Investigación Para

Rebekkah Watkins
Maestra de 6th grado

Instituto de Investigación de Verano

Fechas tentativas: junios 26-30

Horas: 9am - 2pm

preguntas por correo electrónico:
bekkahwatkins@gmail.com

Para ser parte del campamento, los estudiantes deben dar su consentimiento para participar en la investigación.

Interested in participating? Fill out the information below:

Student Name: _____

Student Grade (23-24 year): _____

Parent Name: _____

Daytime Phone Number: _____

Parent Email: _____

Is the student able to participate in the entirety of the research program? (Yes/No)

The student will need to bring a home lunch each day - is this possible? (Yes/No)

*Required parent meeting to be held in May

Interesado en participar? Complete la información a continuación:

Nombre del estudiante: _____

Grado del estudiante (23-24 año): _____

Nombre del padre: _____

Número de teléfono durante el día:
_____

Correo electrónico de los padres:
_____

¿Puede el estudiante participar en la totalidad del programa de investigación?
(Sí/No)

El estudiante deberá traer un almuerzo a casa todos los días, ¿es posible?
 (Sí/No)

*La sesión de padres requerida que se llevará a cabo en mayo

Research Institute Materials

Day 1: Monday, June 26, 2023

9:00-10:00: Welcome
1. Introductions
   a. Warm Up Activity
      i. What do you like about school?
      ii. What you don't like about school?
      iii. What does leadership mean to you?
2. Background Information
   a. Junior researchers title
   b. Opportunities in Jackson County
   c. Student leaders/ideas
   d. Notetaking/Notebooks

10:00-11:00: Background Activities/Photovoice (small snack)
1. Photovoice
   a. Students draw or find online photos of what their school looks like in terms of technology and resources
   b. We give them a photo of a classroom outfitted in technology and with new furniture (from another country possibly)
      i. Notetaking
      ii. Discussion

11:00-12:00: Leadership
1. Have students pair up (groups of 2-3) draft/draw their ideal classroom and share out
   a. Include:
      i. Technology
      ii. Types of lessons
      iii. Field trips
2. Have students use a moving sticky note activity to create a list of people they believe could help them make these changes
   a. Guiding Questions:
      i. Who was the first person you thought of?
      ii. Was your own name on the list?
      iii. If so, why?
      iv. If not, why?
3. Have students draft a list of ways they can make these changes
   a. Is technology bad?
   b. How can technology help us become leaders?
   c. How can technology lead to change?

12:00-12:30: Lunch

12:30-1:30: Technology
1. Introduce them to digital literacy
   a. Define digital literacy

After students leave Rebekkah and Amy fill in day 4 with goals

---

Day 4: Thursday, June 29, 2023

9:00-10:00: Welcome
    1. Thoughts on day 3?
        c. Reminders of goals
        d. Agenda for the day

10:00 -12:00: Leadership Meeting
    1. Laura Plush coming to talk/discuss
        a. Background
        b. Importance of student advocacy
        c. Why is she a community leader
        d. How would she support a student leader?
        e. Q&A

12:00-12:30: Lunch

12:30-1:30: Technology Connections
    a. Students choose a Google tool to advocate for their targeted issue. They need a pre-determined issue and audience
    b. Students begin building their advocacy product.

1:30-2:00: Reflections
    3. Give guiding questions
        a. Allow time to write responses to questions
        Discuss goals for day 4
        b. Document goals and start day 4 with how these will work into the day

After students leave Rebekkah and Amy fill in day 5 with goals

---

Day 5: Friday, June 30, 2023

9:00-10:00: Welcome (small snack)
    3. Thoughts on day 4 and the week so far?
        a. Reminders of goals
        b. Agenda for the day
10:00-12:00: Digital Creation

        b. What is the targeted issue to use leadership skills toward?

1:30-2:00: Reflections
    2. Give guiding questions
        a. Allow time to write responses to questions
        Discuss goals for day 4
        b. Document goals and start day 4 with how these will work into the day

1. Students work on their digital product and possible presentation to their community leader.

12:00-12:30: Lunch

12:30 to 1:30:
1. Contacting community members to schedule a presentation/Sharing deliverable

1:30-2:00: Reflections
1. Give guiding questions
2. Post Survey/Final Reflections

Date:
Time:
Site:
Duration of interaction:
Participants:
Materials Involved:
What leadership skills are any of the students demonstrating?
What technology skills are students demonstrating?
What came out of class discussions? Topics? Ideas?
Were there any "a-ha" moments? Describe them and the conversations.
Did students seem empowered? If so, in what ways?

Daily Reflection Diary

Date:
What did you do today?
What did you learn?
What do you think about what you learned?
How can you use what you learned?

Final Reflections

The research camp has now concluded - please provide us with your final reflections. Complete each question to the best of your ability.

First and Last Name

Short answer text

What grade will you be in when the 2023-2024 school year begins?

◯ 5th grade

◯ 6th grade

◯ 7th grade

What did you learn throughout this week?

Long answer text

What was the most impactful activity you completed during this summer camp?

Long answer text

Why was it impactful?

Long answer text

What did you learn the most about digital literacy? Please explain in detail.

Long answer text

What did you learn the most about leadership skills? Please explain in detail.

Long answer text

How can technology provide leadership opportunities to children located in remote areas of North Carolina?

Long answer text

How can you become a better digital citizen with what you learned this week?

Long answer text

What was different about your learning this week than your learning during the school year (at your school)?

Long answer text

If given the chance, would you participate in this camp again?

○ Yes

○ No

○ Maybe

If you said yes or maybe, why? What makes you want to participate again?

Long answer text

Appendix D

Summary Research Institute Daily Plans

Date	Activity	Data Collection Instrument	Ethics to Consider
1 month pre-Institute	Interest survey to student Informed consent agreements to parents & students	Survey to rising 5th to 6th graders. Print letters for signatures.	Confidentiality of student identities. Agreement to participate from guardian/parent & child.
Day 1 Institute	Introduction to week's topics: technology, digital literacy, leadership, educational advocacy Explain how they will be junior researchers Ask them what they like or don't like about school; what would they change and why Activity: Photovoice–have them draw or find online photos of what their school looks like in terms of technology and resources Activity: We give them a photo of a classroom outfitted in technology and with new furniture (from another country possibly) and have students discuss it Activity: have groups of students draw their ideal classroom and share out.	Field Notes Group discussion Informal personal conversations with students Photos (with student images blurred) Student work	Confidentiality of student identities. Printed student work will be kept in a locked box.
Day 2 of Institute	**Agenda for the day and then divide into groups**:	Field Notes Group discussions	Confidentiality of student identities.

Date	Activity	Data Collection Instrument	Ethics to Consider
	Station 1: Info literacy–article of ed funding 2 perspectives. Followed by discussion **Station 2:** Leadership: have virtual guest speaker or several in person Have students write in notebooks to reflect on the day and what they have learned. **Reflection** **Group meeting:** discuss "aha" moments of the day. What do these topics mean to their education and their futures? What can they do to change things?	Informal personal conversations with students Photos (with student images blurred) Student work Reflection notebooks	Printed student work will be kept in a locked box.
Day 3 of Institute	**Agenda for the day and then divide into groups:** **Station 1**: Info literacy–Information Credibility activity. Followed by discussion **Station 2**: Leadership: have virtual guest speaker or several in person Have students write in notebooks to reflect on the day and what they have learned. **Reflection** **Group meeting**: discuss "aha" moments of the day. What do these topics mean to their education and their futures? What can they do to change things?	Field Notes Group discussions Informal personal conversations with students Photos (with student images blurred) Student work Reflection notebooks	Confidentiality of student identities. Printed student work will be kept in a locked box.
Day 4 of Institute	**Agenda for the day and then divide into groups**. As a group ask students: What are we going to do about changing education	Field Notes Group discussions	Confidentiality of student identities.

Date	Activity	Data Collection Instrument	Ethics to Consider
	based on what you've learned and observed this week? What are some funding opportunities? How can we advocate for change? Build a web site? What is a small-scale thing they can do with leaders? Use leadership skills and info lit skills to write to a legislator or city council, etc. Build a web site or PowerPoint for them. Have students write in notebooks to reflect on the day and what they have learned. **Reflection** **Group meeting**: discuss "aha" moments of the day. What do these topics mean to their education and their futures? What can they do to change things?	Informal personal conversations with students Photos (with student images blurred) Student work on paper Student work on computers (web site or typed letters) Reflection notebooks	Printed student work will be kept in a locked box. Google Drive work secured there.
Day 5 of Institute	**Agenda for the day**. Use leadership skills and info lit skills to write to a legislator or city council, etc. Build a web site or PowerPoint for them. Maybe present virtually to a school board member and/or the superintendent Have students write in notebooks to reflect on the day and what they have learned **Reflection** **Group meeting**: discuss aha moments of the day. What do these topics mean to their education and	Field Notes Group discussions Informal personal conversations with students Photos (with student images blurred) Student work on paper Student work on computers (web site or typed letters)	Confidentiality of student identities. Printed student work will be kept in a locked box. Google Drive work secured there.

Date	Activity	Data Collection Instrument	Ethics to Consider
	their futures? What can they do to change things?	Reflection notebooks	
Post-Institute	Survey students	Survey to participants	Confidentiality of student identities.

Vita for Amy L. Myers

Amy L. Myers has been a school librarian for grades K-12 in North Carolina for more than 19 years. She holds a bachelor's degree in journalism from the best *public* Ivy League school in the country – the University of North Carolina at Chapel Hill. She has a master's in English from North Carolina State University and a Master of Library Science from East Carolina University. She is a native North Carolinian and a wife and mom. Attaining her doctorate has been a lifelong dream, and she is excited to finally reach this goal.

Professionally, she hopes to eventually start a non-profit to build on the work of this dissertation, write a book someday, and to find a new adventure beyond K-12 education, perhaps in museum education or at the university level. Her interests include instructional technology and digital literacy. Personally, Amy enjoys spending time with friends, family, and her four dogs; reading; going to concerts; and traveling.

Vita for Rebekkah L. Watkins

Rebekkah L. Watkins has been a continuing student in higher education for the past ten years. She began her higher education at the University of Nebraska-Lincoln where she received a bachelor's degree in journalism in 2018. She also completed a second major in Classics and Religious Studies. She found her passion for public education in the nontraditional realm by assisting in the first annual Homerathon hosted by the Classics Department at UNL where she made education accessible to the public.

From there she transitioned to a master's program at Appalachian State University where she received her master's degree in public history with a concentration in museum education in 2020. She completed her master's thesis, *The Comparative Museum Experience of Atypical and Typical Learners*, centered around making museum education accessible. Immediately following, she began her doctoral program in Educational Leadership at Appalachian State University where she continued to focus her work on accessible education in different formats.

Rebekkah now works in a PreK-13 public school as an elementary teacher. Professionally, she hopes to start a non-profit that allows youth in rural areas to build their leadership and academic skills. She is also interested in teaching at the university level. In her free time, Rebekkah enjoys reading for leisure and would also like to begin a blog showcasing accessible and low-cost travel opportunities.