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Lost in Transmission: The Use of Communicative Technologies to Affect Perception, Relationships, and Motivation in Adult Education

Rebekah Leigh Hannon

LOST IN TRANSMISSION: THE USE OF COMMUNICATIVE TECHNOLOGIES TO AFFECT PERCEPTION, RELATIONSHIPS, AND MOTIVATION IN ADULT EDUCATION

by

Rebekah Leigh Hannon

Bachelor of Science
Lander University, 2006

Master of Education
Columbia College, 2008

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Accepted by:

William Morris, Major Professor

Anna C. Clifford, Committee Member

Alison Moore, Committee Member

Lucas Vasconcelos, Committee Member

Cheryl L. Addy, Vice Provost and Dean of the Graduate School

DEDICATION

I am dedicating this dissertation to two of the strongest and gentle souls I have ever known. Two ladies, who meant the world to me. Although they are no longer here, their memories continue to guide me everyday. Very grateful to my grandmothers, Frances Taylor and Omega Cheek, together these two women with their beautiful spirits and infectious zeal for life taught me what it meant to be a strong, independent woman who follows her dreams.

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ABSTRACT

The purpose of this action research was to determine if motivation and perception of adult learners enrolled in a GED program at the Small Town Adult Education Center in South Carolina were affected by the use of communicative technologies and improved student-teacher relationships. This study focused on three overarching research questions. The first question sought to explore how the use of communicative technologies affect adult learners' perceptions of the educational environment for a GED program. The second question explored how and to what extent the use of communicative technology affects the quality of student-teacher relationships for a GED program. The final question sought to explore how the use of communicative technology influence adult learners' motivation in a GED program.

This action research study included a combination of mixed methods allowing for the integration of both qualitative and quantitative data (Creswell, 2014). Data collection tools used included the Motivated Strategies Learning Questionnaire, Student Instructor Relationship Scale, and participant interviews. An evaluation study with triangulation was employed using pre and post survey data and inductive thematic analysis of participant interviews. The study included 26 adult learner participants selected from the pool of newly enrolled students in the GED program for the 2019-2020 school year.

Four primary themes emerged from the qualitative data analysis. First, prior student experience affects perceptions and willingness to participate in Adult Education. Second, Adult Education program structure and organization influence perception and

willingness of adult learners to participate in Adult Education. Thirdly, adult learners' desire consistent dialogue and collaboration with Adult Education programs and instructors, and the final theme developed was adult learners' desire instructor access along with relevant and useful GED prep material. Participants' thoughts on previous educational experiences, barriers to learning, communicative technology integration, and student-teacher relationships were captured before and after the intervention of communicative technologies. This study revealed that previous experiences do influence students of which we as educators and program leaders may be unaware of when it comes to understanding our students. How to connect and understand the barriers that our adult learners face are questions that could help us better serve our students and make meaningful connections. Barriers are not examined on a deep level as future research could be beneficial in the area of barriers and finding out why students struggle with completion and what motivates them to continue despite these challenges.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

GED ..... General Education Development

MSLQ ..... Motivated Strategies Learning Questionnaire

SIRS ..... Student Instructor Relationship Scale

STAEC ..... Small Town Adult Education Center

STAEP ..... Small Town Adult Education Program

CHAPTER 1

INTRODUCTION

National Context

How to establish positive relationships and motivate adult students is an enduring question for adult education programs (Cercone, 2008; Donavant, Daniel & MacKewn, 2013; Kenner & Winerman, 2011; Knowles, 2005; Vella, 2002). After enrollment, retention of adult learners is one of the most important goals of adult education (Fincher, 2010; Vella, 2002). Improved retention does not only show an institution's efforts to retain enrollment, it demonstrates a program's communication of concern toward a student's educational advancement and success (Cercone, 2008; Donavant, Daniel & MacKewn, 2013; Kenner & Winerman, 2011; Knowles, 2005; Vella, 2002).

Adult learners possess unique learning goals, needs, and aspirations in addition to the challenges of juggling their time between school, family, work, and other commitments (Spellman, 2007). In regards to adult learning, no one theory explains how all learners learn best, but one of the more widely used theories of adult learning is Malcolm Knowles' andragogy (Cazden, 2001). Knowles' theory is based around a set of six assumptions, each providing characteristics of adult learners that are different from the traditional pedagogical assumptions about child learners. Knowles' concept of andragogy presents the individual learner as one who is autonomous, free, and growth-oriented (Knowles, 1980). Knowles' assumptions describe adult students as more inclined to be motivated when they understand what they are expected to learn. In

addition, adult learners are generally more intrinsically motivated to learn. By understanding Knowles assumptions, instructors can provide the necessary supports to create a learning environment that engages students and encourages them to be active participants. Knowles' theory stresses the importance of having a teacher who cares for their students' needs and strengths, and a teacher who holds a supportive relationship with his or her students, giving them the same chances and opportunities to participate in the learning process (Kearsley, 2010; Kenner & Weinermann, 2011; Knowles et al., 2015; Rans, 2014). The opportunities particularly make the adult learner feel comfortable and free to interact in the classroom and improve their academic skills (Knowles et al., 2015).

In addition to adult learners' unique learning goals, adults or nontraditional learners often bring with them a unique set of challenges. Family and work responsibilities, learning disabilities, economic limitations, and disconnection with campus life are just a few of the challenges faced by many adult learners (Fincher, 2010; Goddu, 2012). Within adult education, the components of student perception, student teacher relationships, and student motivation are forces that shape and often influence student persistence within adult education (Donavant et al., 2013; Epstein, 2016; Knowles, 2005; Marzano, 2003).

Epstein's (2016) study on student success found that students are more prone to earn higher grades, show improvement in their reading and writing skills, complete more course credits, set goals, achieve better attendance, come to class more prepared, and have fewer behavior problems when they feel more invested in the learning process. By building a supportive environment for learning, students classroom experience is one

with more excitement towards the learning process and aids in creating a safe environment while providing students confidence to work without pressure. Student perception of the learning environment is influenced by the teacher and student relationship. This relationship can lead to a learner becoming more motivated to learn and persisting in the face of challenges if perceived positively (Kearsley, 2010; Kenner & Weinermann, 2011; Knowles et al., 2015; Rans, 2014). Specifically, when students are exposed to positive emotional stimuli, they are better able to recall newly learned information (Nielson & Lorber, 2009). When the classroom is running as a safe and supportive environment, effective communication between teachers and students stimulates learning where students actively collaborate with teachers. According to Davis (2003), teachers have the ability to instill values in students by providing classroom contexts that stimulate students' motivation and learning and by addressing students' need to belong. An atmosphere of transparency builds a purpose of empowerment and support in the adult learner's academic journey and improves student perception (Donavant et al., 2013; Epstein, 2016; Knowles, 2005; Marzano, 2003).

The importance of communication between students and teachers has been studied and stressed for decades. One strategy is to build genuine professional relationships with students (Fincher, 2010; Goddu, 2012). Professional relationships require establishing an effective vehicle of communication as an informed student is an empowered and engaged student (Chatziefstathiou, & Phillips, 2011). Marzano (2003) studied the practices of effective teachers and determined that "an effective teacher-student relationship may be the keystone that allows the other aspects to work well" (p. 91). Teacher student relationships have an important role in fostering student's academic

growth. Positive connections between students and teachers in the school setting nurture positive social interaction and establish a supportive environment of trust and care. Relationships between students and teachers can influence students' persistence when faced with adversity or the desire to quit. By establishing positive relationships with students, teachers create an environment where students' motivation is increased. Students who are motivated and persist in their learning have proven to achieve higher success in the classroom (Baker, 2006).

An important factor in any learning, but that has particular prominence for adult learners, is motivation (Bekele, 2010). Motivation is the force that drives people to fulfill a need. It serves as the general desire or willingness of someone to do something. The adult learners' motivation in educational activities is a complex phenomenon involving situational, dispositional, and institutional factors, which are often linked to communication of program information (Fincher, 2010; Goddu, 2012).

Since the turn of the 21st century, scholars have researched the impact of communicative technologies, primarily e-mail, and how these technologies have changed the nature of student-teacher communication in schools (Thompson, Mazer & Grady, 2015). New emerging communicative technologies have provided students and teachers the opportunity to explore new ways of communicating and transferring information that allows for 24-hour access to grades and information about upcoming assignments and class information. This new technology has changed the nature and frequency of communication between students and teachers (Zieger & Tan, 2012). These new technologies range from electronic databases, smart phone devices, video and voice recording messaging, e-letters and blogs, and online learning management systems.

As information technology develops rapidly, a continuing trend in education is that e-communication is continuously replacing traditional paper communication. Research previously completed on the impact of increased communication between students and teachers along with studies on the effectiveness of email have been completed; however, minimal research has investigated the use of new communicative technologies that extend past emails (Bekele, 2010; Palts & Harro-Loit, 2015; Zieger & Tan, 2012). With the growing use and availability of smartphones and applications available for some devices a change in the way students and teachers communicate is occurring and is creating a need for additional research in the evolution of new communicative technologies. Rogers and Wright (2008) found that many times, technology was not utilized by students to communicate with schools because of a lack of knowledge of the technology used by the school and how the technology functioned. However, when informed of the technology uses and function, effective communication between all involved in the educational process did increase, leading to increased involvement and positive outcomes on student learning.

Emerging technologies can help facilitate better student-teacher communication and student engagement. These new technologies open a dialogue that extends outside of the traditional classroom. A caring teacher who tries to create a positive classroom environment is one whose students generally will respond to as aiding them in the learning process. These new mediums of communication allow for greater diversity and flexibility to encourage greater student-teacher communication (Palts & Harro-Loit, 2015).

Local Context

The Small Town Adult Education Program (STAEP) is a public adult learner program that operates six locations in South Carolina. The Small Town Adult Education Center (STAEC) served as the research site for this study, and is one of the six locations used by the STAEP. The STAEC used for this research study is located in one South Carolina school district and serves approximately 1050 adult learners annually, ranging in ages, all above the age of seventeen. These learners are served in a variety of capacities as they work to complete ready to work credentials, GED certificates, and future job placement. The program offers high school diploma completion, GED preparation, career readiness certification, English language proficiency, civics, and basic literacy. The program is the only free and public adult education facility in the county, and is an affiliate of the local school district. It serves adult learners and the citizens of a county that has approximately 168,000 residents.

The main campus of STAEP, STAEC, was established in the fall of 2018. The STAEC has approximately eight main teaching facilities that house classrooms for four full-time GED teachers and five part time teachers. The level of technology available does vary by program and site. The STAEC campus used for this research study has two main testing labs with 20 desktop computers, one GED approved test lab that has 10 computers, 4 GED classrooms each with 16 desktop computers, and 1 high school diploma classroom with 20 desktop computers. In addition, the campus has 12 laptops that are used interchangeably by all programs. These technologies help to increase technology use and the opportunity to increase student communication while promoting

digital literacy for every student so that substantial and supplemental instruction is provided on a consistent basis.

The school district's goal for student-teacher relationship is to establish a working professional relationship with students as it is believed to be an integral part in the promotion of academic growth and student success. Types of communication the school district expects and holds are school-initiated open houses, conference days, teacher initiated contact through phone and email to address concerns, and student initiation contact through phone and email. STAEP also encourages positive student relationships through the contact of students by phone and email early in the school year. This continuous communication approach to making routine student contact aids in the retention process and keeping students motivated to achieve success.

My experience in the classroom has allowed me the opportunity to understand the importance of the partnerships between students and teachers. Student-teacher communication or the partnership that is developed through consistent communication can help create a learning environment that ultimately affects student success. At the STAEP, student involvement often does not occur regularly, and the concern and improvement of student-teacher communication is a major goal to increase student retention, motivation, and persistence. Currently, student-teacher communication is often limited to traditional means of phone calls, email, and traditional mail, but the goal of my research was to find new ways of increasing communication levels between students and teachers using new emerging communicative technology. Understanding involved students working in partnership with a teacher influences student motivation and persistence in adult education is important for me. To understand the use of new

emerging communicative technologies and how the implementation of these devices can influence student perception of student-teacher relationships and motivation was my main objective for this research.

Statement of Problem

Student motivation is linked to many factors. Study after study shows teachers and students in education agree that efficient and effective communication proves to be a major factor linked to student success in terms of motivation and persistence levels (Henderson & Berla, 1994; Henderson & Mapp, 2002; Olmstead, 2013). My experience in the classroom over the last decade has provided me with the ability to see the impact first hand of how a successful student-teacher relationship can influence the motivation level of students. This effective communication between students and teachers is developed through consistent communication (Olmstead, 2013; Zieger & Tan, 2012).

Purpose Statement

The purpose of this action research was to determine if motivation and perception of adult learners enrolled in a GED program at the Small Town Adult Education Center in South Carolina were affected by the use of communicative technologies and improved student-teacher relationships.

Research Questions

The research questions for this action research study were:

1. How does the use of communicative technologies affect adult learners' perceptions of educational environment for a GED program?
2. How and to what extent does the use of communicative technology affect the quality of student-teacher relationships for a GED program?

3. How does the use of communicative technology influence adult learners' motivation in a GED program**?**

Researcher Subjectivities & Positionality

My experiences in the classroom over the last decade have provided me with a growing passion to improve my teaching practices and engage more students in the learning process. In order to accomplish this goal, I recognize that I must continue to advance my skills and stay innovative in my classroom. In 2015, I was awarded a grant through my school district called the Full Circle Initiative and was provided one-to-one technology in my classroom along with the professional development to maximize the use of the new technology. I absolutely loved the incorporation of the one-to-one technology in my classroom, as I was able to bring my curriculum alive while teaching my students digital literacy skills that helped them be successful in the 21st century. I set-up a course management system for all courses and utilized a variety of internet applications to build projects into my curriculum. I also had the opportunity to begin teaching virtually and create online curriculum. The blending together of content standards and the practice of integrating technology intrigued me and was a key factor in furthering my research studies in educational technology.

To me, an ideal educational technology professional is one who continuously strives to improve their practice by learning and exploring new pedagogical approaches and technologies to improve student learning through research and collaboration. Professionals of educational technology take the initiative and responsibility of teaching and practicing digital citizenship while advancing new digital resources and tools for learning. Throughout my career, I am always seeking to become more active and

participate in local and national professional communities in order to build a network of professionals. This network of professionals allows me to stay current with effective practices. Together all these traits are important, as I want to become an educational technology professional leader that advocates and advances the field of educational technology. Over the past four years, I have had the opportunity to present at multiple local conferences. These opportunities I feel embody educational technology professionals and are endeavors I want to continue as I progress through my research study of communicative technology and the impact it has on student-teacher relationships and student motivation for the adult learner.

My research included a combination of mixed methods and mainly focused on actions put into place during the study rather than antecedent conditions of a problem. In research, paradigms serve as a belief system used to help guide the research. The paradigm that I adhered to was the pragmatic world view. Common sense and practical theory of "workability" which brings about positive consequences serves as the basic principles of the pragmatic school of thought (Patton, 1990). For my research, the pragmatic world view allowed me to meet the needs of my students while allowing for the use of a variety of technology mediums to fit their need along with mine. In regards to my research, I challenged the traditional reality that existed for students in terms of motivation and perception levels. As the researcher, my bias lied in the use of technology and the importance it plays in the world today to be an important tool used to enhance student motivation and perception. This pretense is based on my own personal experiences with technology communications. The pragmatist world view allowed me the flexibility to use different pieces of technology to fit the needs of my participants as I

understood perceptions and experiences with technology was different for myself and my participants. For my research, I was seeking to gain knowledge that proved my hypothesis that communicative technology employed in the adult education setting influenced perception and motivation of learners. Thus, the research was influenced by mine and my participant's values of rating these communicative technology devices in high regard and the political influence that I have allowed me the affordability and access to these devices within my own classroom.

Definition of Terms

Adult learning*:* Adult learning is the act of engaging adults in purposeful and relevant learning experiences that lead to a change in attitude, beliefs, or behavior and that takes place over extended, or sustained, periods. Adult learning is about the attainment of knowledge and skills, not merely attendance at a training or workshop (Rothwell, 2008).

Communicative Technology: Olmstead (2013) defines communicative technology as 21st century ways for teachers to stay in communication with stakeholders using technology. In this study, the term refers to mobile applications used to communicate information to adult learners in a GED program (Ratheeswari, 2018).

General education development (GED): Some refer to the GED as the general educational diploma or the general equivalency diploma, but GED stands for general education development, which is actually the process of earning the equivalent of your high school diploma. The GED is also referred to as a general education diploma, general equivalency diploma, graduate equivalency degree, or good enough diploma for slang (Peterson, n.d.).

Motivation: The desire of learners as reflected in approach, persistence, and level of interest to participate in the learning process when the student's competence is judged

against a standard of performance or excellence. (DiPerna & Elliott, 1999; McClelland, 1961; Wigfield & Eccles, 2002).

Retention: Retention is often viewed as measure of the percentage of students who completed the course or earn a diploma award.

Student Engagement: Activities engage students' attention, curiosity, interest, optimism, and passion, which is showed throughout the learning process.

Student-Teacher Communication: Defined as establishing positive connections between students and teachers working as partners in the classroom.

CHAPTER 2

LITERATURE REVIEW

This chapter consists of a thorough review of significant research that is relative to the overall purpose of this action research project. Research encompassed various ways to evaluate the implementation of communicative technology on student perceptions, student-teacher relationships, and student motivation for a GED program at the Small Town Adult Education Center in South Carolina. This study addresses three research questions: (1) how does the use of communicative technology affect adult learners' perception of the educational environment of a GED program (2) how and to what extent does the use of communicative technology affect the quality of student-teacher relationships for a GED program, and (3) how does the use of communicative technology influence adult learners' motivation in a GED program.

The literature reviewed for this study was obtained from internet sources and print sources. The following databases were searched: *Academic Search Complete*, *Academic OneFile*, *EBSCOhost*, *ERIC*, and *JSTOR Journals*. The University of South Carolina Online Library Database provided access to many of these databases. Before beginning my literature search, I analyzed my research questions to identify key topics and descriptors to aid in my search. Advanced search features such as limiting the period of time and selecting only peer reviewed articles were used to help narrow and limit search results. The following keywords were included in the initial literature search: adult basic

education programs, barriers for adult learners, communicative technologies, Knowles' Andragogical Model, student-teacher relationships, and motivation for adult learners. Additionally, keywords were used in combination to narrow the focus of my search, and synonyms were used with the intent of identifying research related to my topic. Studies focusing on the use and integration of communicative technologies in the K-12 setting and studies on barriers in terms of student perception in Adult Education programs were plentiful; however, relatively few studies focused primarily on the use of communicative technologies and student-teacher relationships as evidence of increasing student motivation and improving student perception in adult education programs. Using the reference list of articles, I mined sources that were closely related to my research variables in order to locate related materials that aided my research. Through this research, I was able to determine the following main themes: perceived attitudes and perceptions of adult education, student teacher relationships in adult education, integration of innovative communicative technologies in education, and motivational factors for adult learners.

This literature review is organized around two central topics: (1) Adult learners and (2) Technologies to address adult learner barriers.

Adult Learners

The adult education system in the United States today refers to programs that offer adult learners various instructional programs including high school diploma equivalency, also referred to as the General Educational Development (GED), and college and career readiness certification. In the United States, a large majority of adult education programs operate as freestanding organizations or as a part of school districts,

community colleges, municipalities, or faith-based organizations (Adult Ed Facts, 2018). The GED test is designed for adult learners who, for various reasons, did not graduate from high school but want a certificate equivalent to the traditional high school diploma (GED, 2018). This section of the literature review focuses on defining adult learning and learners. In addition to reviewing a definition of adult learning and learners, barriers that exist for adult learners and challenges in adult education programs is also reviewed. A further break down of Knowles theory of Andragogy and important components to adult learners' continuation in adult learning programs is also discussed.

What is Adult Learning

Darkenwald and Merriam (1982) define adult education as a process where adults engage in organized learning activities in an effort to increase or make changes in their knowledge, attitudes, values, and skills.The theoretical framework to guide this research is Malcolm Knowles' (1980) theory of andragogy. Knowles introduced the ideas of andragogy to adult education, defined as the art and science of adult learning (Kearsley, 2010). In 1980, Knowles identified six key characteristics of adult learners that differ from the assumptions about child learners. The central ideas of andragogy developed by Knowles (1980) include the following: (1) the learner's need to know, (2) self-concept of the learner, (3) prior experience of the learner, (4) readiness to learn, (5) orientation to learning, and (6) motivation to learn. This section of the literature review focuses on explaining the principles and applications of andragogy, and its implication in adult education today as it relates to this study.

Principles of andragogy and adult learning. Knowles' work in adult education and andragogy began in the late 1960's (Knowles, 1980). Knowles' theoretical work has

been used by adult educators as an instrument that distinguishes the field of adult education from other areas of education (Merriam et al., 2007). Knowles discovered through his work with adults that instructors needed to show more care about the actual interests of learners instead of focusing on what instructors believed were learners' interests (Knowles et al., 2015). Knowles' believed the best educational experiences were cooperative, guided interactions between the teacher and learner with many available resources. During these experiences, the teacher helped guide the learner to develop his or her own potential (Knowles et al., 2015). Kenner and Weinermann (2011) addressed how adult learning theory helped instructors understand the uniqueness of adult learners while numerous researchers have concluded that andragogy has helped provide tools that have helped adult learners integrate into the educational environment and increased their chances for success (Kenner & Weinermann, 2011; Knowles et al., 2005; Knowles et al., 2015; Rans, 2014).

Although andragogy has been perceived as important in adult education and has played a critical role in adult learning, there are also some criticisms of this approach. One criticism is that andragogy does not consider social and political circumstances in an adult learning environment such as barriers to learning (Merriam, Caffarella, & Baumgartner, 2007; Rans, 2014). Another criticism about andragogy is that it does not have a standardized definition and is subject to various meanings and interpretations (Merriam et al., 2007; Rans, 2014). For example, according to Merriam et al. (2007), andragogy lacks the fundamental characteristics of a science because of the limited empirical evidence produced. Despite the criticism, andragogy has been a widely accepted philosophical and theoretical concept guiding the instruction of adult learners

around the world (Kelly, 2013). Refined over the past forty years, Knowles' work describes the necessary conditions for adults' cognitive development (Knowles et al., 2015).

Application of andragogy and adult learning. The application and adoption of andragogy has become popular among educators and researchers in many countries (Bolton, 2006). The andragogy model principles have helped promote trust between the student and the instructor and have enhanced self-awareness and confidence in students often leading to greater success (Bolton, 2006; Chan, 2010). According to Merriam (2001), andragogy contributed to the understanding of how adults learn and process new learning, while Chan (2010) identified Knowles' Andragogy Model as a tool that has shown improvement in communication between the adult learner and instructor. Houle (1996) identified that andragogy reminded educators to engage adult learners in their learning and to create conducive learning environments that helped them learn their best.

In adult learning programs, desire and motivation have been recognized as a key factor for success. In addition, teacher support has also been identified as playing a very important role in adult learner success (Shaw, Tham, Hogle, & Koch, 2015). Knowles (1984) six principals of andragogy revolve around the role of experience for the adult learner, self-directedness or ownership of learning, the adult learner's need to know, a readiness to learn, an orientation to learning, and the adult learner's intrinsic motivation. Knowles et al. (2015), stated, "adults need to know why they need to learn something before undertaking it." Knowles (1980) resolved that an adult spent a large amount of energy and time trying to understand the value of the new learning and often needed to be told or be led to discover why certain knowledge was worth learning (Knowles, 1980).

Learning environments, both physical and cognitive spaces, must include trust and respect both among learners and between teachers and students (Knowles, 2015).

Who are Adult Learners

Adult learners have traditionally been referred to as non-traditional students. Adult learner groups have different abilities and a wide range of educational and cultural backgrounds as they vary in age, demographics, and life experiences. Several definitions of adult learners exist throughout the literature. Knowles (1980) identified several characteristics that help define the adult learner. First, adult learners have been found to be autonomous and self-directed. Secondly, adult learners have accumulated a foundation of life experiences and knowledge that may include work-related activities, family responsibilities and previous education. Finally, adult learners have to see a reason for learning, and have to be motivated to learn by internal factors rather than external ones.

Vella (2002) also recognized that adult learners all come with different experiences and expectations. She concluded that no two adults perceived the world in the same way and stressed that adults needed to understand and feel in control of their learning and the learning process. At the same time, multiple definitions have arisen that identify adult learners' need to see the immediate usefulness of new learning or the skills, knowledge, and attitudes they are working to acquire (Donavant et al., 2013; Kenner & Winerman, 2011).

In spite of all these definitions and characteristics that seek to define adult learners, difficulties in arriving at a clear and simple definition of adults as learners exist, especially because of the complex and multi-faceted nature of their motives for learning

and the unique barriers that exist for each learner. The definition of an adult learner used in this research comes from the US Department of Education (2014) which defines adult learners as a diverse group with a wide range of educational backgrounds, adult responsibilities, and job experiences. These motivations and barriers often present adult education programs with challenges of recruiting and retaining students for the successful completion of the GED program (Donavant et al., 2013).

Challenges in Adult Education

The US Department of Education's National Center for Education Statistics (NCES) shows consistent increases in the number of adult learners (US Department of Education, 2014). The number of enrolled adult learners was projected to increase to 8.5 million in 2019 and to 9.3 million by 2024. Each of these adult students have extensive life and work experiences that are brought to their studies and into their classrooms. Individual learners each have different educational needs, expectations, and interests often very different than those of younger students in the traditional classroom setting (Fincher, 2010; Goddu, 2012).

To many adult education programs, a big problem concerning the success of the program has been retention. According to the national summary of the statewide performance report, a total of 1,537,160 participants entered into adult education programs across the US in 2014. Of that number, only 706,513 exited the program in the same school year with successful completion of the GED (US Department of Education, 2014). Reasons for withdrawing from adult basic education often link with the same reasons thought to impede eligible students from participating (Cercone, 2008; Donavant et al., 2013; Kenner & Winerman, 2011). Though the education of adults has been of

relevance for quite some time, for many years the adult learner was ignored (Knowles et al., 2005; Vella, 2002). Quigley (1995) concluded that although many reasons have existed as to why adult learners stop persisting in adult education programs, a great importance of additional support to sustain engagement are areas of concern.

Barriers Present for Adult Learners

Unlike students fresh out of high school, adult learners have many responsibilities that must be balanced against the demands of obtaining a GED certificate. The challenges of adult education in engaging adults in order for retention and successful completion of the GED (Fincher, 2010; Goddu, 2012), often first require removing barriers to learning in recognizing adult learners have more responsibilities and experiences (Cross, 2004; Ellu Saar & Eve-Liis Roosmaa, 2010; Knowles et al., 2005; Lee, 2017; Patterson, 2018). Being anxious and concerned about not being able to succeed in a new learning situation or manifesting negative perceptions of schooling and skepticism about the value of learning have also been noted as examples of internal barriers that many adult learners face (Lee, 2017; Patterson, 2018). In addition, dispositional deterrents or a lack of interest in education, health and disability challenges, low social trust, and difficulties in relating new ideas to real life have served as barriers for adult learners (Lee, 2017; Patterson, 2018).

According to many researchers (Cross, 2004; Lee, 2017; Merriam & Caffarella, 1999; Olmstead, 2013), two main barriers exist for the adult learner: external or situational, and internal or dispositional. External barriers typically have been defined as influences external to the individual or an influence beyond the individual's locus of control (Cross, 2004; Merriam & Caffarella, 1999). While internal barriers tend to be

associated with influences of personal attitudes, such as thinking one is too old to learn or lacking the ability to learn (Merriam & Caffarella, 1999). Examples of external situational deterrents include increasing age, low variable of role models, low income, work responsibilities, and family responsibilities. In addition, institutional deterrents involving the cost of education and work schedule flexibility have been identified as external barriers. Olmstead (2013) and Lee (2017) denoted that time has been one of the biggest barriers for adult learners as many students lacked sufficient time because of work and family obligations.

Motivation factors present examples of internal dispositional barriers. Internal barriers to learning normally include students lacking the willingness to explore new opportunities, adhering to myths or mindsets that undermine the process of learning, and the ability to stay focused on one thing at a time while also failing to grasp the end goal of combined efforts (Cross, 2004; Merriam & Caffarella, 1999; Tucho, 2000). Much of the research concerning adult education focuses on identifying the barriers to learning and concludes with identifying the teacher's role in understanding student barriers and how their role as the teacher influences the learner. The research often focuses on strategies implemented to reduce or eliminate barriers that are present for the adult learner, but little research has been done on how to address and overcome these barriers in particular student perception, student teacher relationships, and motivation in a GED program.

Important components to adult learners' continuation/completion. Despite the barriers of adult learners, research has shown that adult learners of any age can learn and succeed in their pursuits if they are afforded the opportunity, assistance, and support

they need (Knowles, 1980). As individuals participate in educational activities, they are likely to experience a shift in worldview and reflect on past and present experiences through new lenses (Kolb, 1984). It has been observed that adult learners are more likely to engage or participate in learning activities if they believe the journey will improve their lives (Courtney, 1986; Merriam & Bierema, 2014; Wlodkowski, 1985). Therefore, participation among adults is motivated by external factors or because of ingrained values of the importance of learning (Gover & Gavelek, 1997; Houle, 1996; Merriam & Bierema, 2014; Vroom, 1964). Prior learning is the best predictor for participation in adult and continuing education (Johnstone & Rivera, 1965), but importance of prior learning stems from the attitude and value placed on education and learning in early development (Darkenwald & Merriam, 1982, Freire, 1993). Merriam and Bierema (2014) suggested the educational attainment variable is consistently seen as the most powerful predictor of participation. Correlation between past perception of schooling experience indicates individuals with low educational attainment who have had negative experiences with their formal schooling will be unlikely to place themselves voluntarily in school-like settings again unless the reward they perceive clearly outweighs their negative expectations for experience (p. 9).

Perceptions. Vella (2002) mentioned the most important principle in teaching adult learners was to try to create a safe and supportive learning environment. A common theme in the research identified the need for adult educators to listen, observe, and design questions that would invite participation in a positive learning atmosphere (Chan, 2010; Merriam, 2001; Vella, 2002). Cross (2004) suggested that teachers try to establish a friendly, open atmosphere, which shows participants a positive and

meaningful educational experience. In addition, Cross (2014) advised feedback be specific and unique to the learner, not generalized to include all learners. Data collected in participation in adult education have shown that adult learners are more likely to have less positive attitudes toward education and are less likely to participate (Cardoza, 2013; Hayes & Darkenwald, 1990; Merriam & Bierema, 2014).

Adult learners' value of learning can be influenced by their environment. Still, research conducted to examine dispositional barriers, which assess beliefs, values, attitudes and perceptions about education or about oneself as a learner, is limited. The attitudes individuals develop toward an object or data will cause them to behave in a consistent way towards the object or data (Asiegbu, Powei, & Iruka, 2012). Siegel and Ramanauskas-Marconi (1989) explained attitude is "a learned tendency to react in a consistently favorable or unfavorable manner toward people, objects, ideas, or situations" (p. 28). An individual can develop or grow their attitudes towards an object or a situation and by extension an objection in a particular situation. Therefore, an individual may develop a positive or negative attitude toward learning through their previous educational experiences. One's attitude toward education and learning in a particular environment can shed light on factors that might determine participation in adult and continuing education but when analyzed together it serves as a better predictor for participation (Darkenwald & Merriam, 1982). Additionally, evaluation of attitudes toward adult and continuing education, should take into consideration both formal and informal learning environment.

Attitudes toward education can be understood as having positive or negative feelings toward educational activities. The challenge faced by educators and researchers

is to determine whether attitudes predict or influence participation in education. Values and attitudes change over time, as noted by Rogers and Wright (2008), "values are not held rigidly, but are continually changing" (p. 249). The experiences of the individual and his or her paradigm will influence the way learning in a formal or informal setting is viewed (Boeren, 2009; Freire, 1993; Kolb, 1984; Mezirow, 1997). While the research in adult education participation has been wide, Hayes and Darkenwald (1990) identify a major problem with the level and the extent of the research that has been done. Examining the concept of attitudes as it relates to participation in adult and continuing education is necessary as attitudes are intrinsically tied to an individual's values and beliefs (Kolb, 1984; Mezirow, 1997; Rokeach, 1968). This creates a necessity to have a better understanding of its impact on lack of participation in adult and continuing education. Boeren (2009) explains, "attitudes and beliefs about the behavior, in the case of participation in adult education, will lead to the development of an intention or non-intention to participate" (p. 371). Individuals' over time become comfortable with their lives as they are well engrained in their values and beliefs unless they are forced to by circumstances or external forces to examine new way of thinking, behaving, and living (Kolb, 1984; Mezirow, 1997).

Relationships. In Ankrum's (2016) study on communication in schools, it was noted that 85% of participants believed communication played a vital role in the success of learners. Researchers concluded that as communication has become a bigger part of the school experience and culture, learners have become more active-positive partners in the education process (Ankrum, 2016; Palts et al., 2015). Jensen (2011) noted that current practices and school policy often do not match the needs of the learners, therefore

not creating the most conducive environment for increasing involvement and improving relationships. Teachers communicated with learners through direct instructing, explaining, questioning, and eliciting in the traditional classroom setting (Yusof & Halim, 2014). Learning increases with a proactive type of student-teacher relationship; however, research has shown that due to the lack of common expectations for a positive student-teacher relationship, a disconnection occurs for some students (Battistich, Solomon, Watson, & Schaps, 1997; Modlin, 2008). Teachers must become more effective when communicating with learners (Baptista, 2013).

Courtney (1986) stated, "adult education is an intervention into the ordinary business of life – an intervention whose immediate goal is change, in knowledge or in competence. An adult educator is one, essentially, who is skilled at making such interventions." Implementation of these principles has often required the adult educator to be technically proficient in content and program planning; however, Galbreath (1990) summarized adult educators must also be highly competent in interpersonal and human relation skills which serves as a link to Knowles' Andragogy Model and the need for improved communication between learner and teacher.

Further, students who report close relationships with instructors are more confident and self-directed than students who perceive their instructors to be less supportive or threatening (Pintrich, Roeser, & DeGroot, 1994; Ryan, Ghoseen, Midgley, 1998). Therefore, building relationships is an important to the motivation process for adult learners (Eschenmann, 1991, Whitaker, 2004).

Motivation. Psychologists use the concept of motivation to explain why individuals do what they do. Educational research holds that student motivation has a

strong impact on student learning outcomes (Keller & Kopp, 1987; Wlodkowski, 1981). Before teachers can teach students how to learn, they must get them ready to learn. The largest portion of getting students ready to learn is getting them motivated. Research has shown that motivation may be the mediating factor between teacher behaviors and student learning (Christophel, 1990; Frymier, 1993). Motivation is grounded within various theoretical frameworks. Within the learning process, motivation is generally concerned with the learner's internal drive to succeed in academic tasks, and is often termed achievement motivation (Dweck, 1999). Research for achievement motivation focuses in explaining why a learner chooses, expends effort, and persists on learning tasks (Dweck, 1999; Nicholls, 1984). Regardless of socioeconomic status, students who do not feel valued and cared for or cared about may feel disenfranchised and deprived of educational opportunities. These students often have little motivation to persevere (Modlin, 2008).

Dweck (1999) defined internal or intrinsic motivation as an ability to engage in an activity because of real interest in the learning process and an aspiration to increase knowledge. In contrast, external or extrinsic motivation has been defined as a means to an end where engagement in a task is due to causes outside the individual such as a drive to outperform others or the potential to receive external benefits (Elliot & Harackiewicz, 1996; Middleton & Midgley, 1997; Pintrich, 2000). Creating classroom environments that promote positive cultures with healthy interactions can motivate students to channel their energies and desires to reach their goals. Masgoret and Gardner (2003) found students are persistent and attentive to the task at hand, have goals, desires and aspirations, and make use of strategies to aid in achieving goals. Lack of or low

motivation to participate in adult learning is best understood in how an individual views and values education, and their overall attitude towards learning.

Technologies to Address Adult Learner Barriers

Technology is pervasive in education settings throughout America (Arnone, Small, Chauncey, & McKenna, 2001; Gray, Thomas, & Lewis, 2010; Ruggiero & Mong, 2015; Zhao, 2007). Over the last several years, studies have been conducted on the frequency and importance of communication and have revealed an increase in learners' preference for new means of technology communication such as text messaging and social media (Ankrum, 2016; Langer, 1997; Thompson et al., 2015). New technologies are replacing most conventional modes of communication in tech-savvy countries and are already used in most educational settings as a mode of communication between the teacher and learner (Zieger & Tan, 2012).

Communicative technology provides two-way communication where an input from the user is requested to obtain an output response (Stumbo, Circe, & Lusi, 2005). Learners use a variety of technologies for additional communication as schools have been taking advantage of these communication tools (Vavrek et al., 2015). If provided with new technology and the opportunity to communicate, learners have shown to initiate conversations with teachers, which ultimately change the nature and frequency of communication (Zieger & Tan, 2012). This supports previous findings that the integration of technology has allowed adults to make use of previously difficult-to-use time and led to positive impacts on their learning (Agozzino, 2013; Byrne-Davis et al., 2015; Mao, 2014).

Veletsianos (2011) found that one of the biggest benefits of using communicative technologies in education include the ease, convenience, speed of the access and distribution of information. New communicative technologies have provided adult learners in adult education with the capability to receive information instantly in the palm of their hand along with other benefits of increased collaboration, participation, and communication between teachers and learners (Byrne-Davis et al., 2015). This section of the literature review examines what technology can do and what is currently available for the adult learner setting.

What Can Technology Do

Today, new communicative technologies facilitate communication between learners and teachers. A study conducted by Fox and Raine (2014) found that 87% of American adults used the internet with mobile devices like smartphones or tablets. The study also found that cell phone ownership by adults had risen from 53% in 2000 to over 90% in 2014 and smartphone ownership had more than doubled in this same time frame (Fox & Raine, 2014). In today's world, there is probably no more reliable way to get essential information to learners than through their cell phones. Personal mobile devices have proven to be viable technology that provides learning and useful support to adults and the many challenges they face (Muslikhah, Kamil, & Kamarubiani, 2018). According to Almeida, Bermudez, and Sanchez (2015), mobile technology has provided a way to connect teachers and learners anytime and anywhere.

Personal mobile devices such as cell phones, laptops, and tablets have been found to be a viable technology for providing learning and functional support to adults and the many of the challenges they face (Muslikhah et al., 2018). The ever-changing field of

mobile technology extends past learning self-help programs as many new technologies offer teachers new tools to communicate outside of the traditional classroom. According to Byrne et al (2015), the improvement of communication increases overall involvement in public education. In addition, Peck and Varney (2011) found strong ties associated with different usage patterns of cellphone texting and with personal mobile devices that allow users to download applications that aid in the learning process. The availability and popularity of these mobile applications or apps have been increasingly gaining acceptance as a medium of communication between students and teachers. The use of mobile phone messaging and the availability of mobile apps designed to make communication more efficient has been perceived useful and perceived to be easy to use with direct positive relationships between attitude and behavior for learners (Almeida et al., 2015; Fox & Raine, 2014; Muslikhah et al., 2018).

Fewkes and McCabe (2012) noted the use of communicative technologies in the adult education environment has led to many benefits. These benefits include an increase in learners' motivation, enthusiasm and confidence, and a positive association with the educational environment. In addition, the use of communicative technologies has expanded learning possibilities via collaboration, interaction and communication, and a potential for differentiation according to individual learner needs in addressing individual barriers to learning (92).

With the positive, there are also drawbacks and barriers to technology integration in adult education. Lack of computer access, and knowledge and skill in using technology and absence of interest in a new form of communication, by both teacher and learners has proven to be barriers to the integration of new communicative technology in

adult education (Veletsianos, 2011; Ziegar, & Tan, 2015). Despite these challenges, the application of communicative technology in education has been increasingly felt in recent years and benefits students with the appropriate utilization. With the advances in technology, communicative technologies have provided teachers additional avenues to communicate with students. Web based applications and mobile devices have provided teachers and learners connected to the internet the opportunity to connect with resources anywhere at any time (Friedman & Friedman, 2013).

What is Available

Communicative tools used in today's world include web-based applications, such as class webpages, social networking sites, and online learning management programs (Muslikhah et al., 2008). These applications have grown in number and popularity with the innovation of new technologies. They allow personalization of student experience, real time notifications, and improved engagement with learners (Devlin & McKay, 2016). Students today have many high tech devices like cell phones with digital cameras, digital videos, and texting ability. They play 3D and virtual reality video games, communicate via social media sites, and download music and music videos. They also upload videos to file sharing applications. The list of technological devices and their capabilities is endless (Fewkes, & McCabe, 2012). These systems have provided opportunities that otherwise might not be available, especially for nontraditional students like adult learners (James, Swan, & Daston, 2015). New technologies have the ability to enhance adult learning because of the potential to increase flexibility, provide access to expertise, facilitate discussion among learners who cannot meet face to face, reduce feelings of isolation often experienced by nontraditional learners, increase learner autonomy, and

support and promote constructivist and collaborative learning (Tighe, Barnes, Connor, & Steadman, 2013).

Technology integration has allowed teacher-learner interactions to be practical, positive and personal (Fewkes & McCabe, 2012). Technology mediated communications tools such as videoconferencing, phone conferencing, online chats, and emails have proven to be efficient mediums to enhance communication-allowing teachers and learners to stay connected and informed (Zieger & Tan, 2012). In the context of this study, communicative technologies mean systems that allow easy communication between teachers and students, which can include a wide range of technological tools from e-mail, electronic bulletin boards, chat, teleconference, smartphones, and web based applications. Two types of communicative technologies have been identified in this study. First, synchronous communicative tools such as chat or video conference allow for real-time communication while in contrast, asynchronous communicative tools such as email and text allows for a system in which exchange of messages between people at various time and places to occur (Davis, 2012).

How Does Technology Address Perceptions, Relationships, and Motivations

Adult education is constantly under a microscope in the United States. With ever changing federal and state legislation, adult education programs face a difficult task in meeting the changing standards, expectations, and needs of adult learners (Devlin, & McKay, 2016). Researchers have found improving the way teachers communicate has helped build positive relationships with learners, which have proven easier in the face of new communicative technologies (Antkinson, 2000; Sanacore, 2008). Devlin and McKay (2016) found that the use of a range of resources and media, facilitating

interactive and connected learning, enabling personalized learning and assuring high academic standards contributed to adult success. One way technology has changed education is by providing greater accessibility to teachers with greater availability to interact with students rather than old school methods of communication. Understanding the barriers present for adult learners and challenges in adult education programs, the availability of technology devices to both teachers and learners has allowed information to be communicated almost instantly with the use of communicative technologies (Baptista, 2013). This section of the literature review examines the impact of communicative technologies and the role they play in student perceptions, student-teacher relationships, and motivation of adult learners.

Perceptions: Kennedy (1994) states adult learners' participation is rooted in concepts of motivation, deterrents, and attitudes. Further, "an individual's beliefs, perceptions, values, and attitudes influence a negative or positive attitude toward participation in continuing education programs" (Kennedy, 1994, p. 27). The learning experience and environment of adult learners should be friendly and stress-free. Merriam and Bierema (2014) suggest promoting favorable learning attitudes involves removing learner anxieties toward failure, public humiliation, and inadequate feedback (p. 157). In today's education settings, student access to technology has become essential in the instructional climate as it often promotes personalization of the learning process. Technology empowers students, in almost any learning environment, to be actively engaged in the acquisition of knowledge and skills, which Knowles' Andragogical Model discusses as an important component of success for adult learners. When students are

engaged and empowered and when students have the tools to facilitate learning, they perform better (Fox & Raine, 2014; Tigh et al., 2013).

A positive classroom environment creates a social-emotional climate where a teacher establishes a positive experience for students and provides opportunities for the learner to see themselves as capable and confident members of the classroom community (Fox & Raine, 2014). Educational technology creates an instantaneous connection to the learner making them feel part of the learning process while establishing a positive relationship and promoting social development and self-esteem among students (Atkinson, 2000; Devlin & McKay, 2016; Sanacore, 2008). The Office of Career, Technical and Adult Education (2018) noted a high frequency of interaction among students and between students and the instructor has helped students develop a sense of community with their peers and the instructor, which consequently led to higher learning satisfaction with their course.

Relationships: Understanding the importance of student-teacher relationships and communication between learners and teacher has been an essential component of adult education programs. One way these relationships have been facilitated in recent years has been via new innovative communicative technologies. Hunter (2007) describes a number of changes in the way teachers interact with students in the classroom as technology is utilized. Under the conditions of the new digital age, new innovative communicative technologies are being utilized in a variety of approaches and practices. New innovative communicative technologies allow for a higher degree of communication capabilities and approaches to building relationships between adult learners and teachers (Fox & Raine, 2014; Tighe et al., 2013). Communicative technologies has allowed

instructors to reach students at a quicker rate and more effectively (Davis, 2012). Students' ability to connect with their teachers is one attribute that can make a great difference in students' learning achievement.

Pianta (1999) defines the student-teacher relationship as an on-going interaction with students that is based on emotions and experiences. When students feel that their teachers are supportive, trustworthy people, they tend to create a connection with their teacher and start to see their teachers as someone who is there to protect them and give them all the chance to enhance their learning and in the same time behave well. Regardless of socioeconomic status, students who do not feel valued and cared for or cared about often feel disenfranchised and deprived of educational opportunities. These students often have little motivation to persevere (Modlin, 2008). Open and honest communication and interaction helped to build relationships and relationships build trust (Cross, 2004). Student-teacher relationships have proven vital to successful learning and teaching as positive teacher-student relationships contribute to school adjustment and academic and social performance. Cankar et al. (2012) noted that teachers were mostly in agreement about the importance of communication; however, Graham-Clay (2005) also noted the lack of knowledge and skills of teachers to effectively communicate. More research focusing on challenges introduced with technology integration and the relationship between students and teachers is needed to truly understand its impact (Brinkley-Etzkorn, 2016; Nitza & Roman, 2017).

A significant part of building relationships has proven to be communication. The communication of important information proves vital to building relationships between teachers and students. In conclusion, technology has transformed the way people

communicate, it has created a big impact in the way schools interact and build positive, meaningful relationships with learners. When students are engaged and empowered and have the tools to facilitate learning, they perform better. If teachers take the time to build relationships, they can motivate their students to learn. Building relationships are important to the motivation process (Eschenmann, 1991, Whitaker, 2004). Creating classroom environments that promote positive cultures with healthy interactions can motivate students to channel their energies and desires to reach their goals.

Motivations: Motivation to return to school is different for each adult learner as are the barriers present for each learner (Graham-Clay, 2005). In order to motivate, teachers must encourage and challenge their students (Sanacore, 2008). Technology and teacher motivation have been found to have positive effects on student motivation (Atkinson, 2000). Researchers have found technology aids in the area of motivation through the increased quality of teacher student relationships and the positive emotional and behavioral engagement in school (National Research Council, 2004; Rosenfield, Richman, & Bowen, 2000). The motivated individual expends effort, is persistent and attentive to the task at hand, has goals, desires, and aspirations, enjoys the activity, experiences reinforcement from success and disappoint from failure, makes attributions concerning success and/or failure, is aroused, and makes use of strategies to aid in achieving goals (Beghetto, 2004). Beghetto (2004) found specific examples of motivational behaviors increased with the use of new technologies as students were more inclined to ask for assistance, took greater risks by asking questions, demonstrated greater

creativity, exhibited a more positive attitude, and expressed an increased interest in learning.

Conclusion

GED programs are not a major political agenda item, as only moderate optimism regarding adults returning to community colleges and training exist. According to Miller, Brady, and Izumi (2016), there was a perception that there is little alignment between high school equivalency programs, their own offerings, and job readiness programs. As adult education programs strive to meet the demands and needs of their students, communicative technologies have shown to allow for an effective communication tool making technology useful and relevant for teachers and learners (Shaw et al., 2015).

One prominent theme in the literature was the instructor's role with adult learners (Ellu & Roosmaa, 2010; Jensen, 2011; Pepka & Petya, 2018). The role of the instructor was that of a proactive mediator and facilitator of learning. The most valuable benefit for adult learning has been shown to be when the instructor is a collaborative colleague who shows respect and understanding to students, and empowers them in their learning (Jensen, 2011). In addition, Cercone (2008) pointed out that instructors who made the effort to develop personal connections with learners aided in easing learner anxiety, which helped the learner overcome psychological barriers from previous educational experiences.

Technology in adult education is based on lessons learned from a variety of multi-faceted experiences. While some adult education programs have been reluctant to adopt new communicative technologies, research and successful examples of the use of technology in adult education has drawn attention to a need that is often overlooked

(Cross, 2004; Fewkes, & McCabe, 2012; Inverso, Kobrin, & Hasmi, 2017). A good and supportive relationship is needed to create safe environments and give students confidence to work without pressure and become motivated to learn. When students are exposed to positive emotional stimuli, they are better able to recall newly learned information (Nielson & Lorber, 2009). Students feel motivated and stimulated to learn and actively collaborate with the teachers when the classroom is running in a safe and supportive environment.

In this review of literature, adult learners and technologies to address adult learner barriers were discussed. In addition to defining adult learning and learners, barriers and challenges were also discussed. This literature review provided examples of new innovative technologies to include a discussion on what and how these technologies affected the adult learner.

CHAPTER 3

METHODOLOGY

This chapter provides the methods of research used for the study. It includes the research design, settings and participants, innovation, data collection, data analysis, rigor and trustworthiness, sharing and communicating findings, and procedures. Methods for research embraced various ways to evaluate the implementation of communicative technology and student-teacher communication on student motivation and perception for a GED program at the Small Town Adult Education Center in South Carolina. This study addressed three research questions: (1) how does the use of communicative technology affect adult learners' perception of the educational environment of a GED program (2) how and to what extent does the use of communicative technology affect the quality of student-teacher relationships for a GED program, and (3) how does the use of communicative technology influence adult learners' motivation in a GED program.

Research Design

In this study, I used action research to evaluate the impact of communicative technologies and student-teacher relationships on student motivation and perception for a GED program. The goal of the research was to understand how the use of communicative technology affects adult learners' perception of the education environment, affects student-teacher relationships, and impacts adult learners' motivation. The results of this study will help guide my current and future teaching practices.

Action research is intended to provide further professional understanding, personal growth, and political empowerment (Noffke, 1997). Action research acts as a tool for teachers to study and understand their own students in order to improve the quality and effectiveness of their practice (Mertler, 2017). In regards to my action research, I planned to challenge the traditional reality of structured student-teacher communication that exist in education where communication takes place in one setting with both parties present. My research study involved expanding the use of technology to increase levels of communication between teachers and students that might lead to a positive impact on student motivation and improved perception of the educational environment. For my action research, I sought to gain knowledge that proved my hypothesis that communicative technology employed at an adult learning facility is an effective strategy to improve communication between students and teachers and will help facilitate an increase in student motivation and changed perception of the educational environment. My hope is that this research will lead to further professional understanding and growth that will directly influence my teaching and learning environment.

The use of action research in education differs from other methods of research as it provides the opportunity to connect theory to practice and improve educational practices with the main objective of school improvement, teacher empowerment, and increased professional growth (Mertler, 2011). Unlike other research techniques, action research deals with problems and struggles in one's own classroom, making the findings both relevant and practical. The action research approach allowed me to specifically identify problems within my classroom and then to conduct my own research in order to

improve instruction as it is timely and provides me with immediate results (Mertler, 2014). For my action research study, I was able to evaluate my experiences in a scientific manner where my thoughts and ideas for improvement among my own practice were backed up by data collection and analysis.

Mills (2011) described action research as research that is conducted by teachers, administrators, counselors, or others who have stake in the teaching and the learning process and whose intent is to gather information about their practice and environment. Johnson (2008) identifies action research as a systematic inquiry into one's own practice. Action research and in particular educational action research follows many of the same principles of the scientific method. A concern is identified and addressed, research questions are identified, followed by procedures being put in place that allow for the collection of data so findings and conclusions are drawn from the analysis of the data. One difference between scientific research and action research is the role of the experimenter. In action research, the researcher usually takes an active role in the studying of participants, settings, and programs being studied in hopes of explaining a phenomenon or enacting change within their scope of control. This is true of my action research as I hoped to evaluate the implementation of communicative technology and student teacher relationships on student motivation and perception for one adult education program.

Research methodology has been defined as a strategy in which the research maps out an approach to problem finding or problem solving. The choice of research methodology is based upon the type and features of the research problem being presented (Buckley & Chiang, 1976; Crotty, 1998). Johnson, Onwuegbuzie, and Turner (2007)

identified mixed methods research as a mixing or combining of quantitative and qualitative research techniques, methods, and approaches. In order to have diverse data, qualitative findings need to be supplemented with quantitative results making the research methodologies complementary to each other rather than incompatible.

My action research includes a combination of mixed methods. Mixed methods research incorporates elements of both qualitative and quantitative approaches and allows for the integration of both forms of data so a more complete understanding of a research problem can by concluded (Creswell, 2014). I implemented an evaluation study with a convergent parallel mixed method design using pre and post survey data and inductive thematic analysis (Creswell, 2014). Triangulation of data involved the use of multiple data sources converging together to produce research that is comprehensive and helps enhance the validity and reliability as multiple sources of data are used in data collection (Patton, 2001). Throughout the study, the use of a convergent design was used so both quantitative and qualitative data could be collected at the same time creating my mixed methods study. This data was collected simultaneously and triangulation was used to compare the information to determine the impact of communicative technology on the student-teacher communication, student motivation, and student perception of the learning environment. By using this approach, I was able to collect both qualitative and quantitative data to better understand the attitudes and perceptions of my students and compare different perspectives before, during, and after the innovation had been implemented (Creswell, 2014). Multiple data collection tools were used to assess the impact of communicative technology.

Setting and Participants

The site selected for this action research study was the Small Town Adult Education Center (STAEC) in South Carolina. I, as a teacher at this site, had access thus allowing me the opportunity to implement the intervention of communicative technologies within my own classroom. The use of communicative technologies were employed on an everyday basis to enhance communication with my students. The use of the new technologies kept my students informed of program updates, materials, and other pertinent information regarding the program. Demographic characteristics of my participants are seen in Table 3.1.

Table 3.1 *Demographic Characteristics of Participants*

Characteristic	***n***	**%**
Gender		
Male	9	34.6
Female	17	65.4
Age		
17-26	15	57.7
27-36	4	15.4
37-46	5	19.2
47-56	2	7.7
Ethnicity		
African American	10	38.5
Asian/Hispanic	2	7.7
Caucasian/White	14	53.8

Participants for this study were selected from the pool of newly enrolled students in the GED program at the site. The participants included twenty-six GED adult learners. The participants were selected through my direct interaction and availability to my problem of practice. These students were enrolled in the STAEC GED program course for the 2019- 2020 school year. The purpose of the STAEC GED program is to provide an opportunity for adult learners who did not complete a high school program of

instruction the opportunity to earn a high school credential. The program met for four days a week for approximately three hours a day. The participants for my study consisted of a culturally diverse background. Out of the total twenty-six students, there were nine males and seventeen females. Demographically, my study included ten African American students, fourteen Caucasian student, and two Hispanic students. Ages ranged from approximately 17 to 55. The most compelling reason the selected student participants were selected was because all were enrolled in the school and all were seeking their GED credential. Students were asked to voluntarily participate in the study with no consequences for non-participation and no privileges or rewards for participation. The Family Educational Rights and Privacy Act of 1974 (FERPA) regulates the privacy of students' educational records and data (Family Educational Rights and Privacy Act, 2018). For the purposes of my study, participants signed a consent form (see Appendix A) agreeing to participate in the study. Students also signed a rules and guidelines form of the proper use of text messaging and video services. Student records and test scores were never shared through the communicative tools, as the content discussed through these devices strictly related to course content, updates, and positive messages of encouragement. The information was not shared publicly and all issues, conditions, and risks associated with the tools were communicated with the participants at the start of the study.

I participated as a teacher and research practitioner by assessing students, providing instruction, and implementing communicative technologies throughout the course. I also collaborated with learners to determine the impact of communicative

technologies on student-teacher relationships, student motivation, and student perception in the program.

Innovation

With the proliferation of communicative technologies into the field of education, the potential of the new technological tools stands to revolutionize an outdated educational system (Bordbar, 2010). At the forefront of the technological revolution are students, who are among the most frequent users of technology, which is changing education (Kaiser Family Foundation, 2010). Communicative technology in the classroom provides easier facilitation of and access to information and aides in enabling efficient means of communication between classroom teachers and students along with the opportunity to extend classroom learning outside of the traditional brick and mortar setting (Boling, Castek, Zawilinski, Barton, & Nierlich, 2008; Thurlow, Lengel, & Tomic, 2004). In addition, communicative technology allows for flexibility and an ease of access that enables students to gain confidence as students develop critical thinking and decision making skills along with providing access to much more information and knowledge than would otherwise be possible (Allen & Dutt-Doner, 2006).

Text and video messaging are two types of mobile communication that are increasingly being used in educational settings. These forms of messaging refer to the sending of short, typed or recorded messages between mobile phones (Kasesniemi & Rautiainen 2002). The innovation for my action research study was the implementation of communicative technologies, which included the use of various technological applications that allowed for text and video messaging and access to course material for both students and teacher that extended outside of the traditional setting. These

innovations were utilized on an everyday basis where students had technological access to program updates and information, and received text/video alerts for pertinent class information both inside and outside of classroom. Motiwalla (2007) found that the popularity and support of mobile devices within the student population is so great that, ‘‘it would be foolish to ignore them in any learning environment’’ (584). The two technological innovations that were utilized in my study were the mobile applications of Google Voice and Marco Polo.

Students’ use of text and instant messaging for social purposes is well documented (Contreras-Castillo, Perez-Fragoso, & Favela, 2007; Harley et al. 2007; Reid & Reid 2004). Rau, Gao, and Wu (2008) found that when students receive text messages from an instructor, they felt a greater connection with and thought more positively about the instructor and classroom activities. Jeong (2007) also found that using instant messaging facilitated a friendlier student-instructor relationship. A significant feature of text messaging is the immediate capture of the recipient’s attention (Jones, Edwards, & Reid, 2009). Such attention getting may lead to an improvement in students’ focus and motivation (Martinez-Torres et al. 2007). Google Voice is a free internet based service created in 2009 that provides users a local telephone number with voicemail service (Warner, 2017). This technology tool provides features such as online voicemail, the capability to send and receive free text messages, options for delivering transcribed voice messages as text messages or as email messages, and the use of a single phone number that can be forwarded to any other number. In education, an area of concern for teachers is privacy and documentation (Can, 2016). Google voice allows teachers to connect with students without disclosing their personal phone number and features of the program

allow voicemails to be transcribed, saved, and accessed from multiple devices (Warner, 2017). Students can call the Google Voice number from their own phones and leave a voicemail up to three minutes long. The listening of the recorded voicemails can be done on any computer or phone as Google transcribes the message and responses can be either text or emailed back to the users. New modes of communication such as text messaging, social media websites (Facebook and Twitter), course management systems (Classroom Management Systems; Schoology and Edmodo), and online mobile photo and video sharing services (Skype and Instagram) have changed how teachers communicate with students and parents (Can, 2016). A study conducted by Young, Berube, and Perry (2008) found that the most widely used and accepted form of communication in education was email in obtaining and soliciting information, but new communication tools are also being utilized in the educational setting. Allen, Witt, and Wheeless (2006) found that an immediate response from the instructor increased students' motivation and the cognitive mastery of material.

The second innovation used in my action research project was Marco Polo, a social media video instant messaging app released in 2016 by Joya Communications that allows users to communicate via video messages either in real time or with a delay between messages (Barbee, 2018). In contrast to other video messaging applications like FaceTime or Skype, where users have to be present at the same time, the Marco Polo app allows users to have a video conversation on a delay. The major difference with this communicative technology and the first tool, Google Voice, is that Marco Polo allows video messaging. The app accesses contacts stored in a phone and will send invites to contacts upon the user's request. The sign up for the app requires users to list their name,

phone number, and email address. The homepage of the video app consists of rows of squares as each square represents a different contact or group of contacts that users can click and start a video chat. When video chatting on the Marco Polo app, users can see their chat history and tap on old videos to rewatch them. Users can respond to messages right away, like a walkie-talkie, or send a video reply when it is convenient. In addition, videos do not disappear after viewing, so users can rewatch if needed. The app allows users to send short video messages to other users, and respond to them at a time that is convenient to them. Other features include visual and voice filters and options to draw or add text to any video. All videos are stored online, so space is not used on the personal device (Barbee, 2018).

Across the world, and within education, the use of technology has grown. This growth has changed the methods of communication between teachers and students. Kosaretskii and Chernyshova (2013) noted that majority of educators in the United States are primarily using technology to communicate with learners. Thus, the innovations used for this study were utilized on an everyday basis. Students received an initial text message using Google Voice, which included a positive welcome message, class information, and username and password information. An example of communication is seen in Figure 3.1 and 3.2 below.

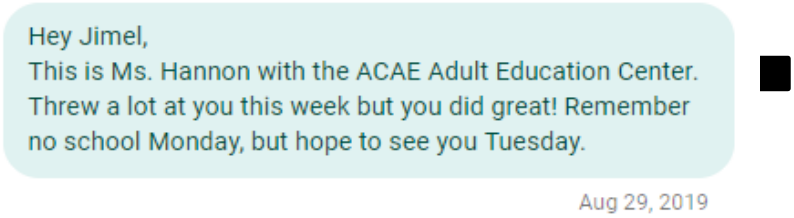


Figure 3.1 Introduction text sent to student

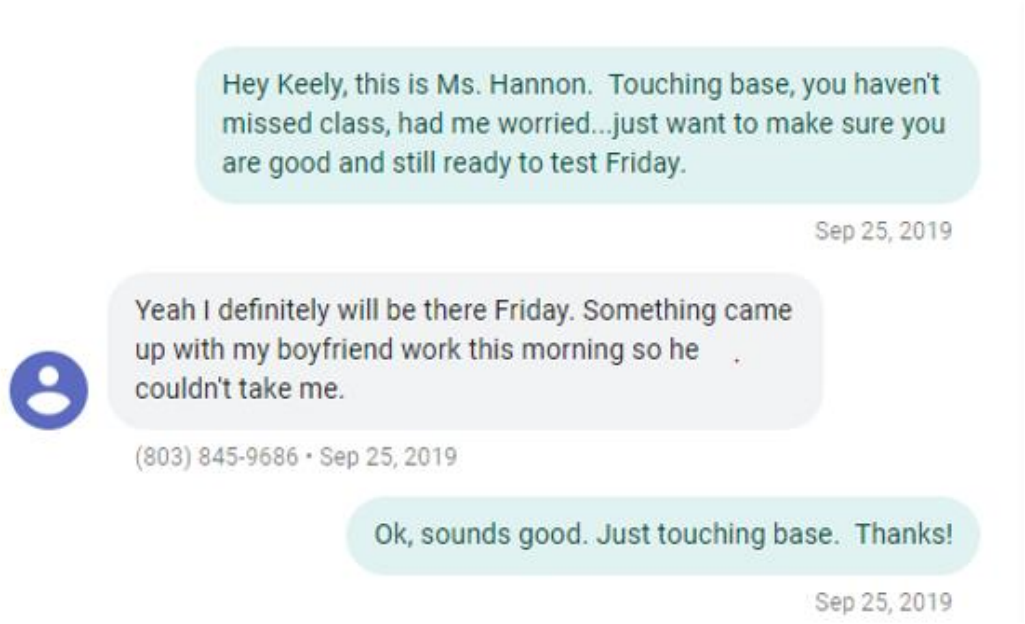


Figure 3.2 Student check-in text

Students were instructed on both the communicative tools upon entering the classroom. I did not provide a tutorial on Google Voice as no special action or download was needed by students to receive the text messages sent; however, the Marco Polo did require a separate download and for this I provided a tutorial for students. The tutorial is found in Appendix B . I texted students at a minimum of three days a week and video messages were attempted on a weekly basis for the 3 to 4 week period of research. Although there is still significant value held in face-to-face communication, technological advances in the realm of communication have eliminated constraints such as time and space (Yumurtaci, 2017). Stakeholders now have the ability to respond quickly via new communicative technologies such as Google Voice and Marco Polo. Both teachers and students are relying more heavily on using technology in order to communicate effectively as studies have shown that using technology has the ability to build

connectedness between the students to the school since communication can be instant. (Kosaretskii & Chernyshova, 2013; Yumurtaci, 2017).

Data Collection

My research focused around three research questions. The first research question sought to understand how the use of communicative technology affects adult learners' perceptions of the education environment for a GED program. The data collection instrument that was used for this question was participant interviews (see Appendices B, C, and D). The second research question examined how and to what extent does the use of communicative technology affect student-teacher relationships for a GED program. To answer this question participant interviews were again employed along with the Student Instructor Relationship Scale (SIRS) questionnaire (see Appendix F). The final research question sought to understand how the use of communicative technology facilitates adult learners' motivation in a GED program. For this question, the Motivated Strategies Learning Questionnaire (MSLQ) (see Appendix G) and participant interviews were used as the data collection instruments.

Traditional quantitative assessment often inhibits students' motivation for learning because testing situations that are evaluative, comparative, and not genuine can elicit inaccurate responses and can be counterproductive motivation and learning from students (Paris & Turner, 1994). Linnenbrink and Pintrich (2002) assert that such assessments can be misleading due to the fact that such evaluations do not take into account the multifaceted nature of student motivation. This view of student engagement supports qualitative measures of assessment including classroom observations, interviews, and self-measures. For my study, I employed both quantitative and

qualitative tools to assess the impact of communicative technologies when looking at student-teacher relationships and the impact on student motivation and perception of the educational environment.

Motivated Strategies Learning Questionnaire (MSLQ) Pre/Post Surveys. The MSLQ is a self-reporting quantitative assessment instrument that was originally designed to assess college students' motivations and their use of different learning strategies for college level courses (Pintrich et al., 1991). The MSLQ is one of the most widely used instruments used to measure self-regulated learning (Dinsmore et al., 2008; Roth et al., 2016; Zimmerman, 2008). It was developed by Pintrich et al. (1991) and uses fifteen subscales that are grouped into two subsections, motivation and learning strategies.

The formal development of the MSLQ began in 1986 as draft versions of the instrument were used at three cooperating colleges in the Midwest, and three data collection periods were completed with students from these institutions. These draft versions of the MSLQ were subjected to "the usual statistical and psychometric analyses, including internal reliability coefficient computation, factor analyses, and correlations with academic performance and aptitude measures" (Pintrich et al., 1991, p.6). Following each phase of data collection, items were revised and refined. The final version of the MSLQ was completed in 1990 and presented formally for the first time in the journal, Educational and Psychological Measurement (Pintrich et al., 1993).

The internal consistency, reliability and predictive validity of the MSLQ results indicate the MSLQ has relatively good reliability in terms of internal consistency. The general theoretical framework and the scales that measure it seem to be valid given the

results of confirmatory factor analyses. The six motivational subscales and the nine learning strategies subscales represent a coherent conceptual and empirically validated framework for assessing student motivation and use of learning strategies (Pintrich et al., 1993). The coefficient alphas for the motivational scale range from .62 to .93 while the learning strategy subscales range from .52 to .80. Of the total 15 subscales, nine have a coefficient alpha above .70. In addition, the subscales seem to show promising predictive validity. The motivational scales were found to be related to academic performance in the expected directions and the learning strategies scales were positively related to course grade (Pintrich et al., 1993). Since its inception, hundreds of researchers and countless instructors in numerous countries around the world have used the MSLQ extensively (Dinsmore et al., 2008; Duncan & McKeachie, 2005; Roth et al., 2016; Zimmerman, 2008). Its usability and flexibility allow for easy adaptation. In addition, the MSLQ has been translated into more than 20 different languages and has undergone formal assessment of validity and reliability (Duncan & McKeachie, 2005).

For my research study, the shorten version of the MSLQ was utilized. The full survey consist of two sections. It contains 81-items and uses a 7-point Likert scale (1 = not at all true of me and 7 = very true of me). The shorten survey utilized only the motivation section comprised of three components: a value component that includes scales of intrinsic goal orientation, extrinsic goal orientation, and task value; an expectancy component that includes scales for control of learning beliefs and self-efficacy for learning and performance; and an affective component that includes a scale for test anxiety. In total, there are six-motivation scales that are assessed. As a whole, the motivation section consists of 31 items that assess students' goals and value beliefs

for a course, their beliefs about their skill to succeed in a course, and their anxiety about tests in a course (Pintrich et al., 1991).

For my study, students were asked to fill out the initial pre-survey at the beginning of their enrollment with the GED program. At the conclusion of 40 hours of instruction, students completed a post-intervention MSLQ survey.

Small group interviews. Self-report measures such as participant interviews are commonly utilized to measure the cognitive, behavioral, and affective aspects of student motivation (Chapman, 2003). Self-reporting as an assessment of student motivation has the ability to capture people's statements and judgments about themselves (Pintrich & Schunk, 2002). One advantage to self-report measures is that they have the ability to indicate not only to what degree students are engaged in learning, but also why this is the situation. The interview process requires a researcher to present questions and the participant responds orally. The interview technique involves dialogue between the researcher and the participant. In order to have the interview data captured more effectively, recording of the interviews is considered an appropriate choice as handwritten notes are relatively unreliable, and the researcher might miss some key points.

Small group interviews were utilized to collect qualitative data at three separate intervals in the study. The initial interviews were conducted at the start of the program upon student enrollment while the second interview occurred approximately at the midway mark of the minimum 40 hours of instruction. The last round of interviews occurred at the completion of 40 hours of instruction. The small group interviews lasted approximately 20 to 25 minutes and took place in participants' classrooms before or after

school hours. Groups consisted of four to six students and student assent was requested to ensure the interviews were not interfering or burdening student course study. Each small group interview was recorded and participants were asked open-ended questions in a round table discussion.

The first round of interviews consisted of ten semi-structured questions (see Appendix C) asking students about their past educational experiences and their current perceptions of the educational experience. The second round of interviews, employed roughly at the half way mark of the study, consisted of five semi-structured questions (Appendix D) which focused on perceptions of program and student teacher relationships along with the role and influence of texting and video chatting. The final round of interviews, employed at the conclusion of the 40 hours of instruction, consisted of five semi-structured questions (Appendix E) and focused again on the changing student perceptions of program and student teacher relationships along with the role and influence of texting and video chatting. The interview protocols contained questions that asked students to reflect on perception, impact, and importance of the use of communicative technologies, student-teacher relationships, perception, and motivation. Examples of questions from the first round of interviews include, "What were your perceptions of the educational environment upon first entering the GED program?", "How does the student-teacher relationship impact your willingness and ability to learn based on your educational experience?", and "How does the educational environment impact your motivation to learn?" While examples of second and third round interview questions include "How has the use of texting/video messaging impacted you in terms of your perception of adult education?", and "How has your experience with adult education

differed from your K-12 experience?" Each interview lasted approximately 10 to 15 minutes and was digitally recorded and then transcribed. Each interview took place at the program site at a time that did not interfere with instruction. Data collected from the group interviews were compared with data collected from the surveys for further analysis.

Student-Instructor Relationship Scale Questionnaire (SIRS). Questionnaires are another form of self-reporting and involve presenting participants with open-ended questions or structured Likert type items that ask people about their beliefs and actions. Pintrich and Schunk (2002) recommend the use of interviews when researchers are interested in exploring beliefs and feelings in depth, but for covering a large amount of material efficiently in a short time frame, questionnaires are the instrument of choice.

Researchers have proposed theories on the variables that influence relationships between students and instructors, but one central obstacle in this discussion concerns the lack of a reliable and valid mechanism to assess these relationships. To address this issue, the SIRS was developed to assess college student-instructor relationships from the student perspective. The theoretical principal that guides the SIRS are central relationship qualities deemed significant across most student-instructor relationships. For example, feelings of connectedness or closeness as well as relationship anxiety are fundamental relationship provisions that appear to transcend important or close relationships (Collins & Read, 1990; Davis, 2003; Pianta & Stuhlman, 2004; Simpson, Rholes, and Phillips, 1996).

To test the reliability and validity of the SIRS, 139 college students at a Midwestern university were administered the survey. In an initial test, the SIRS was

assessed using the test-retest reliability and produced an aggregated internal consistency for the all subscales of .89 (Creasey, Jarvis, & Knapcik, 2009). An additional set of analyses examined the subscales of anxiety (Cronbach's α= .83) and connectedness (Cronbach's α= .89) scores and found a correlation with the connectedness subscale at a correlation alpha of .69 while the Anxiety subscale was .66. The aggregated internal consistency for both subscales was .89 (Creasey et al., 2009). The SIRS has its limitations. Few studies have been conducted using the tool and the lack of evidence contributes to a lack of validity; however, modification of the instrument has been used in countless studies (Collins & Read, 1990; Davis, 2003; Pianta & Stuhlman, 2004; Simpson, Rholes, and Phillips, 1996).

The Student-Instructor Relationship Scale is a 36-item instrument that asks participants to reflect on different relationship qualities with instructors on a 7-point, Likert scale (1 = Disagree Strongly; 7 = Agree Strongly). The survey ask questions about how connected or close students feel towards an instructor. For example, "It's not difficult for me to feel connected to this instructor" and "I feel comfortable sharing my thoughts with this instructor." These questions correlate with the Instructor Connectedness dimension; higher scores denote stronger feelings of connectedness and low scores communicate avoidance or a tendency to avoid a close relationship with the instructor. The second factor of the survey contains eight items that consist of items that reflect student concerns regarding instructor acceptance and their worthiness as a student. Examples of these questions include: "I worry a lot about my interactions with this instructor and "I'm afraid I will lose this instructor's respect." Because this factor contains items that reflect anxiety concerning the student-instructor relationship, this

factor is labeled the Instructor Anxiety dimension. Higher scores reflect a generalized anxiety regarding a relationship with the instructor; whereas, lower scores reflect less threatening perceptions of this affiliation. The instrument and scoring instructions are included in Appendix F.

Data Analysis

Qualitative and quantitative analysis each have their own significance and features that contribute and enrich research results and findings. The combination of both methods in data analysis is advantageous for researchers as quantitative research analysis allows for the identity of trends that is supported through concrete statistical data while qualitative analysis allows for an exploration into trends from participate perception and experience (Creswell, 2017). Conducting mixed methods research involves collecting, analyzing, and interpreting quantitative and qualitative data in a single study that investigates the same underlying phenomenons (Johnson & Onwuegbuzie, 2014). For my action research study, the data collection and analysis is presented below in Table 3.2 along with the alignment to each research question.

Table 3.2 *Data Analysis*

Research Question	Data Collection	Analysis
RQ1: How does the use of communicative technology affect adult learners' perceptions of the educational environment for a GED program?	Participant Interviews	Inductive analysis used to produce theme 2, 3
RQ2: How and to what extent does the use of communicative technology affect the quality of student-teacher relationships for a GED program?	Participant Interviews SIRS	Inductive analysis used to produce theme 2, 3, 4 Descriptive Statistics Inferential Statistics

RQ3: How does the use of communicative technology influence adult learners' motivation in a GED program?	Participant Interviews MSLQ	Inductive analysis used to produce theme 4 Inferential Statistics Descriptive Statistics

By using a mixed methods approach to my action research project, I had the ability to utilize multiple data collection tools thus employing data analysis methods from both quantitative and qualitative research approaches. For my research, I employed both deductive and inductive analysis to draw conclusions from the point of view of participants and determine relationships between my measurable variables of communicative technologies, student-teacher relationships, student perceptions, and student motivation. (Creswell, 2014). Through the use of multiple data collection tools I collected, analyzed, and interpreted the results through a variety of data analysis measures.

For my quantitative data collection tools of questionnaire data, I used descriptive statistics along with the analysis of inferential statistics to examine data. The descriptive statistics collected through these two data collection instruments allowed me to summarize my findings. The use of the questionnaires and their analysis aided in uncovering basic summaries about the sample population used for the study by condensing the data set into a smaller and more manageable grouping. The questionnaire data was also analyzed using inferential statistics as I sought to explore the impact between my variables and draw conclusions. Using inferential statistics to measure the difference between the pre and post MSLQ survey allowed for hypothesis testing and check to see if the difference between the pre and posttest means were significant. Once

this information was analyzed, I was able to measure the effect between using communicative technology and its impact on student motivation.

The qualitative data collection tool of participant interviews were analyzed using the inductive analysis process, which allowed for the development of themes. The amount of data collected during qualitative research can be daunting and thus the continual analysis and interpretation of the data is key (Creswell, 2014). Using the inductive analysis approach, coding and theme development of the interview transcription occurred through the reading of the data, assignment of codes to segments of the text, and the coding of the text to form themes that aligned with the research questions. These steps were repetitive and were often done simultaneously. The inductive analysis process began with open coding, where text segments were given codes (simple words, phrases, and/or numbers). Next, all codes were re-analyzed in search of ways to gather codes into categories. Finally, the categories were linked together to form emerging themes which helped in making sense of all of the data. (Bernar, Wutich, & Ryan, 2017; Patton, 2001).

The multitude of data that was gathered through the multiple collection tools helped ensure the rigor of the research. By utilizing both quantitative and qualitative methods assumptions and biases were checked and a more careful consideration of the statistical data was able to be conducted (Small, 2011; Yoshikawa, Wesiner, Kalil & Way, 2008). At the completion of all data collection and analysis, the use of triangulation occurred where both the quantitative and qualitative data were compared and contrasted so that a broader understanding of the research could occur and confirm

the findings. The use of triangulation provided strength to the conclusions along with identifying areas that may need further exploration.

Procedures

The procedures for this study are categorized into three phases. Table 3.3 summarizes the data collection procedures for this study.

Table 3.3 *Data Collection Procedures*

	Phase I (first 12 hours of student enrollment)	**Phase II (hours 12-40 of student instruction, approximately 3 to 4 weeks)**	**Phase III (Completion of program required 40 hours)**
Participant's Role	Upon entering program, students completed consent & assent forms. After return of the consent & assent forms, students completed MSLQ PreSurvey. Introduction of Communicative Technology, Google Voice sent welcome text message and important course information, Round one interviews were completed	Continued use of innovation of communicative technologies of a continual basis Completion of second round of interviews each interview round personalized depending on data gathered from previous interview. Completion of SIRS	Completed MSLQ Post Survey at the completion of 40 hours of class instruction Completed exit interview
Researcher's Role	Selected Participants Distributed consent & assent forms, Conducted MSLQ PreSurvey/Round one interviews, Implemented communicative technologies, sent welcome message through Google Voice and introduced how to use Marco Polo app	Conducted SIRS Questionnaire Conducted multiple rounds of interviews	Conducted MSLQ Post Survey Collected all data and analyzed to find common themes

In Phase I, newly enrolled GED program participants were distributed consent and assent forms upon their first day of attending classes. The consent and assent forms were distributed with the initial registration paperwork students were required to complete. Program requirements for the Small Town Adult Education Center called for

students to complete an initial entrance assessment in Reading and Math upon completing their registration paperwork and prior to attending classroom instruction. This assessment generally took students one to two days to complete. Upon completion, students began class instruction with the first day of class being an introduction and overview of course materials, requirements, and resource instruction that included providing usernames and passwords for essential website log-ins. Over these first three days, participants reviewed and completed the consent and assent forms. After the first three days of enrollment and the return of the necessary consent forms, students completed the MSLQ (Motivated Strategies for Learning Questionnaire) pre survey. The MSLQ measured academic motivation of participants. The implementation of the innovations, Google Voice and Marco Polo, were also employed in Phase I. On the first day of class instruction, newly enrolled students received a welcome text that included their usernames and passwords to the course websites commonly used in the course. In addition, over the first few days of enrollment, round one of small group interviews occurred. Phase I was conducted within the first 12 hours of student enrollment in the GED program. Classes met Monday through Thursday from 9 to 12am, so Phase I was conducted over an approximate one-week timespan.

In Phase II, round two interviews were conducted with small groups. During the middle of phase II, students also completed an adapted version of the Student-Instructor Relationship Scale (SIRS) to gauge the quality of communication behaviors present in their current learning environment and the relationship between themselves and the instructor. The SIRS was conducted between the second and third rounds of interviews, which were employed in phase III. Reflecting on the questionnaire and interview data,

modifications will were made for the third round of interviews. Throughout Phase II, the implementation of the innovation, Google Voice continued with students receiving and sending texts on a continuous basis. These texts included important course updates, positive messages of encouragement, testing schedules, and questions and answers proposed by the student. In addition to the implementation of Google Voice, the second innovation of the mobile application Marco Polo was also utilized. This app was not utilized as regularly as Google Voice texting as students mainly only used it to send video messages of specific course problems. The SIRS, interviews, and the continued use of the communicative technologies continued until the student reached the program mandated 40 hours of instruction. The Small Town Adult Education Center required students complete 40 hours of instruction before completion of their GED. At the conclusion of the mandated 40 instructional hours, students took a Post program assessment in Math and Reading to determine if they have made the necessary gains or had acquired the skill set necessary to pass the GED test. Depending on the student, students either completed additional hours of instruction for added preparation or completed their GED testing. The timespan for my research and Phase II of this study occurred within in this initial 40-hour program requirement and lasted approximately three to four weeks.

In Phase III and at the completion of the 40 hours mandatory classroom instruction, the participants MSLQ posttest was conducted. Participants also completed the final round of small group interviews. These final interviews were modified and created using the analysis of the previous interview and questionnaire data from Phase II. The collection of the post MSLQ survey and interviews were collected for analysis and

data cross referenced to develop a comprehensive understanding of the impact of communicative technologies on student perceptions, student teacher relationships and student motivation. Figure 3.3 shows the timeline for phase implementation.

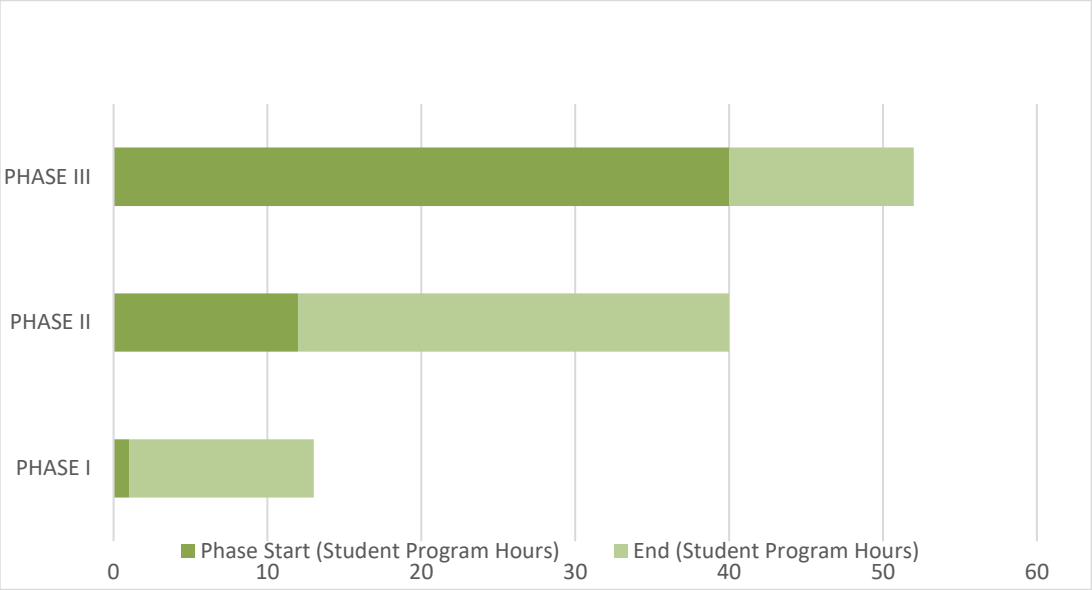


Figure 3.3 Timeline for Phase Implementation

Rigor & Trustworthiness

According to Stake (1995), researchers have a responsibility and obligation to pay attention, and draw conclusions from choices that are meaningful to colleagues and clients. For my research study, I employed a variety of data collection tools from both quantitative and qualitative methods that helped me draw conclusions and report my findings. To establish trustworthiness and rigor, researchers should use many methods to create strength and credibility for the research (Merriam, 1998). Through the collection of multiple pieces of data collection and analysis along with the comparison of data and interpretations, I hoped to strengthen the rigor and trustworthiness of my study. The use of multiple approaches helped enhance my ability as the researcher to assess the rigor of my findings and develop trustworthiness of my study.

One-way that I attempted to ensure the rigor and trustworthiness of my study was with triangulation. Triangulation of data is thought to increase rigor by collecting data from several sources that are then used to check for themes or patterns (Stringer, 1996). Creswell (2014) defines triangulation as "the process of corroborating evidence from different individuals, (e.g., principal and a student), types of data (e.g., personal field notes and interviews), or methods of data collection (e.g., documents and interviews) in description of themes in qualitative research" (p. 266). In this study, three sources of data were used in order to ensure triangulation. First, semi-structured interviews were used. Interviews were based on the standards of interview protocols and consisted of open-ended questions. The other two data sources, the MSLQ and SIRS were employed according to their protocols to look for corroboration on the content of the interviews. Using the methods of triangulation, the multiple data sources were all examined together to help build strong justification and definitions for the overarching themes that emerged from the data. These multiple data sources that were used to corroborate findings served as multiple data sources that strengthened the study. First, I administered the Pre MSLQ survey and analyzed the results. Next, I analyzed the transcriptions from round one of the interviews to find patterns of perceptions. Next, I administered and analyzed the transcription patterns against the preceding rounds of interviews once the innovation had been implemented. The SIRS questionnaire and post MSLQ survey were compared to reflect the participants feeling of relationships with the instructor and their motivation within the GED program. This process helped to verify the themes and codes that emerged from analyzing the transcriptions as well.

Another method of rigor and trustworthiness that I employed for my study was an audit trail to include the collection of interviews, notes, and coded documents. An audit trail is a paper trail that includes notes, raw data, and any other document or process that aids in the research decisions for the progression of the study (Halpern, 1983; Lincoln & Guba, 1985). An audit trail was used to document how the data were collected, how codes, patterns, categories and themes were derived, and how decisions were made throughout the study (Merriam, 1998).

Member checks were also conducted to ensure rigor and trustworthiness. Member checking, essentially participant verification is an on-going process that takes the data and tentative interpretations back to the people from whom they were derived (Merriam, 1998). The member checks in this study were completed by student participants that remained in the program after the completion of the study. Several students from the study had completed their GED by the time data analysis occurred and were unavailable to participant in member checking. For those remaining students, verification of the interview transcripts and review of the interpretations of the data occurred after data analysis. I provided each participant time to read the transcription from their previous interviews as well as allowed them a chance to change or clarify any information from the interviews.

In addition, a peer debriefer was employed to ensure rigor and trustworthiness. This process involved locating another person, a peer debriefer, who reviewed and asked questions (Patton, 2002). I utilized an advisor who aided in the process of correction and decision-making. My advisor was a university professor in the school's college of

education. My advisor checked the research and provided feedback during debriefing sessions.

The final methods of qualitative rigor checks that I used for my research was to clarify the bias that I as the researcher might exhibit. Yin (2009) suggested that qualitative researchers need to document the procedures of their studies and to document as many of the steps of the procedures as possible. With the use of multiple data collection tools, I was able to reflect on the consistency and exactness of my data thus creating an open and honest dialogue that demonstrated my interpretation of the data and allowed me to include my own experiences and background information that contributed and influenced my study. As in most action research, I as the researcher had a special investment in my participants and the setting. Action research involves an understanding that something worth knowing needs to be looked at from several points of view and comes with repeated encounters (Stake, 1995). I spent a prolonged amount of time with both my participants and the research site as I had many years of experiences at the site location and had knowledge of my participants from past experiences and past school records which will surface in my knowledge and approaches thus accounting for potential researcher bias.

To ensure the rigor and trustworthiness of my quantitative data I used confirmability and objectivity. These methods helped summarize the data and aided in the decision-making process of forming connections and uncovering themes within the study. The use of confirmability included the collection of electronically recorded data and hand written notes. These pieces of data allowed other researchers to verify my student data and show the multiple pieces of data collected illustrating the biases and

assumptions that were not made by the researcher. Objectivity showed a focus on facts and the development of themes developed with concrete statistical data. The use of this statistical data created a concrete picture of the data and allowed for the use of the findings to be presented objectively.

Plan for Sharing & Communicating Findings

Action research is intended to provide further professional understanding, personal growth, and political empowerment (Mertler, 2017; Noffke, 1997). Now that my action research study has concluded and I have analyzed the data, my expectations are that my research findings will continuously lead to additional research on the topic along with changes in my classroom practices. My hopes are that my research will begin to open doors and conversations on refinements in the practice of student-teacher communication and the motivation and perception of adult learners in GED programs. I plan to share and communicate my research findings with multiple audiences through collaborative conversations in both formal and informal settings. Informally, through open dialogue with stakeholders in my sphere of influence. I shared individual findings with the student participants at the end of the study, and I informally shared my overall findings and implications for teaching with my principal and fellow classroom teachers. Formally, I will also discuss my research findings through written publications and speaking presentations at conferences both at my local level through teacher in-services and regionally at professional conferences on educational improvement and change. I will also submit my study for possible publication in a relevant academic journal.

Careful consideration will occur when presenting my findings and its impact on classroom practices. I will be cautious in my presentations to provide for the confidentially of my participants as protecting their identity will be of utmost importance.

CHAPTER 4

ANALYSIS AND FINDINGS

The purpose of this research was to determine if motivation and perception of adult learners enrolled in the GED program at the Small Town Adult Education Center were affected by the use of communicative technologies and improved student-teacher relationships. It is expected that findings of this study will aid in understanding the student enrollment, participation, and retention of one adult education facility in South Carolina. The primary use of the findings within this study should be used to increase retention rates within the GED educational programs in an effort to increase the overall level of success for GED students earning their GED credential. This chapter presents findings from both quantitative measures (i.e., Motivated Strategies Learning Questionnaire (MSLQ) and Student Instructor Relationship Survey (SIRS)) and a qualitative measure (i.e., participant interviews).

Data collection was guided by three research questions:

1. How does the use of communicative technologies affect adult learners' perception of the educational environment of a GED program?
2. How and to what extent does the use of communicative technologies affect the quality of student-teacher relationships for a GED program?
3. How does the use of communicative technologies influence adult learners' motivation in a GED program?

Part one of this chapter reports quantitative results and findings obtained through MSLQ pre and post survey data and SIRS results while part two of this chapter reports on the qualitative results and findings obtained through participant interviews.

Quantitative Findings

Pre and Post MSLQ Survey Results

Pre and post surveys were conducted using the MSLQ at the beginning of the study and at the conclusion of the study, which served as the final benchmark of 40 hours of instruction. The MSLQ survey instrument included a seven-point Likert scale from one being "not at all true of me" to seven being "very true of me." The survey was completed by 26 students. These students completed the motivation section of the MSLQ, which consisted of 31 items divided into 6 subscales used specifically to assess a students' attitude about goals and value beliefs in a specific course. The subscales assess intrinsic goal orientation, extrinsic goal orientation, task value, control of learning beliefs, self-efficacy for learning and performance, and test anxiety. Descriptive statistics for each subscale, both pre and post intervention, are provided in Table 4.1. The table includes pre and post survey means for the different subscales of the survey.

Table 4.1 *Descriptive statistics of MSLQ Subscale Scores Pretest and Posttest (N=26)*

	Pretest		***Posttest***	
Subscale	***Mean***	***SD***	***Mean***	***SD***
Intrinsic Goal Orientation	21.385	3.430	19.077	2.799
Extrinsic Goal Orientation	23.423	3.215	23.615	2.228
Task Value	34.038	5.568	31.692	4.240
Control of Learning Beliefs	22.769	2.550	21.038	2.807
Self-Efficacy for Learning & Performance	46.462	5.833	42.692	3.865
Test Anxiety	20.192	7.122	24.885	2.762

Cronbach‘s Alpha test for reliability was also performed to strengthen the internal consistency of the results. The Cronbach‘s Alpha is a measure of the reliability of the particular scale and ranges between 0 – 1, with higher scores being a more reliable measure. It is widely understood in the social sciences that the ideal range is between .7 - .9 (Nunnolly & Bernstein, 1994). However, some researchers will use as high a range as .75 -.80 or be as moderate as to also include a range above .60. For this study, the results internal consistency were acceptable for all MSLQ items together (Cronbach’s α =.71). The Cronbach‘s Alpha revealed that because the Alpha for the intrinsic goal orientation and control scales fell below .7, the results are marginally less reliable which indicates that the results should be viewed with a degree of caution. Each subscale’s internal consistency is seen in Table 4.2.

Table 4.2 *Item Reliability Statistics (N=26)*

Subscale	***Cronbach’s α***
Intrinsic Goal Orientation	0.67
Extrinsic Goal Orientation	0.71
Task Value	0.64
Control of Learning Beliefs	0.68
Self-Efficacy for Learning & Performance	0.74
Test Anxiety	0.80

Going beyond descriptive statistics, inferential statistics were calculated to determine the significance of the quantitative findings. To assess normality of the data a Shapiro-Wilk test was first implemented. The Shapiro-Wilk test is a statistical test used to tell if a random sample comes from a normal distribution. When the significance values of the Shapiro-Wilk test are greater than .05, the data are normally distributed. If the *p* value is below .05, the data significantly deviate from a normal distribution. This number validates the criterion for making a mistake in the data. It is the number that

determines how much confidence researchers have in their results. Typically, an alpha level of .05 is acceptable (Mertler, 2017). These results for each subscale are displayed in Table 4.3.

Table 4.3 *Tests of Normality (N=26)*

	Shapiro-Wilk	
Subscale	***W***	***p***
Intrinsic Goal Orientation	0.96	0.35
Extrinsic Goal Orientation	0.93	0.07
Task Value	0.94	0.12
Control of Learning Beliefs	0.72	<.001
Self-Efficacy for Learning	0.98	0.85
Test Anxiety	0.92	0.05

Because the MSLQ contains 6 subscales and all subscales were tested under the same hypothesis, the Bonferroni type adjustment was applied to reduce the likelihood of discovering a false positive and reduce type I error rate. The Bonferroni correction helps to avoid reporting false positives as type I error rate will rise when multiple comparisons are being made (Streiner & Norman, 2011). To reduce the likelihood of discovering a false positive, the alpha level needs to be lowered to account for the number of comparisons being made (Streiner & Norman, 2011). For this study, an alpha level of .008 was used as the threshold for determining if the results of a test were statistically significant.

In order for a paired T-Test to be satisfied, the populations must be normally distributed. The two subscales, Control of Learning Beliefs and Test Anxiety were not normally distributed as determined by the Shapiro-Wilk test (see Table 4.3). As the nonparametric equivalent, the Wilcoxon Signed-Ranks can be used as an alternative to the T-Test when the population data does not follow a normal distribution. The

Wilcoxon Signed-Ranks test does not assume known distributions, as it does not deal with parameters, making it a non-parametric test (Hogg & Tanis, 2006). In my study, both Control of Learning Beliefs and Test Anxiety were below the normal distribution of .05. Because the data for these two subscales were not normally distributed, the use of the non-parametric equivalent of the paired t-test, the Wilcoxon Signed-Rank test was utilized. The results are displayed in Table 4.4 below.

Table 4.4 *Wilcoxon-Signed Rank Test (N=26)*

	Wilcoxon Signed-Ranks	
Subscale	***W***	***p***
Intrinsic Goal Orientation	3.817	<.001
Extrinsic Goal Orientation	-0.24	0.81
Task Value	242.50	0.01
Control of Learning Beliefs	189.00	0.01
Self-Efficacy for Learning	262.00	0.01
Test Anxiety	43.000	0.004

The following is a discussion of each individual subscale and the analysis of the results for each.

Intrinsic goal orientation. Goal orientation refers to how a student perceives their reasons for engaging with the course material and learning tasks. Intrinsic goal orientation means students are engaged and participating for reasons such as enjoyment, curiosity, or mastery (Pintrich et al., 1991). Examples of intrinsic goals might include the participant's personal challenges, curiosity, or just the mastering of the learning task. For this subscale, questions 1, 16, 22, and 24 were added together for each participant to get an individual participant subscale sum. These sums were then averaged together will all participants. These totals are seen in Table 4.1. Using the Wilcoxon Signed-Ranks, the intrinsic goal orientation subscale revealed a statistically significant ($Z = 3.817$, $p < .001$).

The intrinsic goal orientation subscale means changed slightly between the pretest (m = 21.343, SD = 19.077) and posttest (m = 19.077, SD = 2.799).

Extrinsic goal orientation. When a student's goal orientation is extrinsic, their reasons for engaging with the course material are external, including rewards like grades and approval of others (Pintrich et al., 1991). Examples of extrinsic goals include the participant's desire for grades, some type of reward expected, personal performance desires, a competitive desire, or personal evaluations by others during a learning task. Four items comprise the extrinsic goal motivation subscale, which includes questions 7, 11, 13, and 30. As can be seen in Table 4.5, the results of the Wilcoxon-Signed Ranks test showed there were no significant changes in the extrinsic goal orientation items because of the introduction of communicative technologies.

Task value. Task value assesses how students value the importance of the course content, including their level of interest in the material and how useful they predict it will be (Pintrich et al., 1991). Six items addressed the student-participant's perception of the value of tasks within the course. For this subscale, questions 4, 10, 17, 23, 26, and 27 were added together. Statistics evaluating the differences in the averages of student-participant responses on the pretest and posttest showed statistically significant differences ($Z = 242.50$, $p < .01$) after communicative technologies were introduced. The mean pretest scores (m = 34.038, SD = 5.568) were higher than mean posttest scores (m = 31.692, SD = 4.240).

Control of learning beliefs. Student perception of control of learning refers to student beliefs as to whether or not the effort that they exert in a course will result in a positive result (Pintrich et al., 1991). Examples of control of learning behavior goals

might include the participant's perception that his or her efforts to learn resulted in a positive outcome during a learning task. Four items comprise the control of learning beliefs subscale. For control of learning beliefs subscale, questions 2, 9, 18, and 25 were added together. The output from the Wilcoxon Signed-Rank test indicated that student pretest for the Control of Learning Beliefs subscale was statistically significant, ($Z = 189$, $p < 0.011$). The mean difference between pretest ($m = 22.769$, $SD = 2.550$) and posttest ($m = 21.038$, $SD = 2.807$) was a decrease of 1.731.

Self-efficacy for learning and performance. This subscale addresses student expectations for performance in the course and their own belief of whether they are capable of mastery in the class (Pintrich et al., 1991). These questions revealed the student's belief about his or her success while completing a learning task. Eight items comprise these two expectancy aspects. For this subscale, questions 5, 6, 12, 15, 20, 21, 29, and 31 were added together. The Wilcoxon-Ranks Signed test revealed a statistically significant difference ($Z = 262.00$, $p < .01$) between pretest ($m = 46.462$, $SD = 5.833$) and posttest ($m = 42.692$, $SD = 3.865$) scores.

Test anxiety. The final subscale assesses student test anxiety, and is included within the motivation subscales due to negative correlations found between test anxiety and student achievement and expectancy (Pintrich et al., 1991). For test anxiety subscale, questions 3, 8, 14, 19, and 28 were added together. For the subscale Test Anxiety, the output indicated that student posttest ranks were statistically significantly higher than student pretest of the same subscale ($Z = 43$, $p < 0.004$).

Student-Instructor Relationship Scale

Students who report close relationships with instructors are more confident and self-directed than students who perceive their instructors to be less supportive or threatening (Pintrich, Roeser & De Groot, 1994; Ryan, Gheen & Midgley, 1998). The Student-Instructor Relationship Scale documents two relationship dimensions, Instructor Connectedness and Instructor Anxiety. The SIRS provides scales that are tied to the presence of positive achievement orientations. High instructor connectedness is tied to more self-directed learning and high instructor anxiety is associated with less student confidence. It would be expected that students who feel highly connected to classes or instructors would report relatively low anxiety regarding participation in the program and exams, whereas students who felt threatened in these relationships would report more stress and anxiety.

The 36-item survey utilized in this study was distributed to participants at during the second phase of the study when students had surpassed the half way mark of the study. Students completed the survey anonymously. The first subscale, Instructor Connectedness contained eleven items that reflected how connected or close the student felt towards the instructor. Examples of these questions include, "it's not difficult for me to feel connected to this instructor" and "I feel comfortable depending on this instructor." The Instructor Connectedness subscale had a minimum score of 11 and a maximum score of 77. Higher scores denoted stronger feelings of connectedness and low scores on this scale communicated avoidance or a tendency to avoid a close relationship with the instructor. The second subscale, Instructor Anxiety contained eight items that consisted of items that reflected student concerns regarding instructor acceptance and student's

feeling of worthiness. Example questions were "I worry a lot about my interactions with this instructor", "I'm afraid I will lose this instructor's respect," and "I am nervous around this instructor." This subscale is labeled the Instructor Anxiety dimension because this it contained items that reflected anxiety concerning the student-instructor relationship. The Instructor Anxiety subscale had a minimum score of eight and a maximum score 56. Higher scores reflected a generalized anxiety regarding a relationship with the instructor, whereas lower scores reflect less threatening perceptions of this relationship. For this study, descriptive statistics are displayed in Table 4.5 below.

Table 4.5 *Descriptive Statistics for Student Instructor Relationship Survey (N=24)*

Subscales	***Mean***	***Standard Deviation***	***Minimum***	***Maximum***
Instructor Connectedness	59.542	11.624	39	77
Instructor Anxiety	15.625	6.977	8	38

Examining student scores for instructor connectedness, six students had scores in the first quartile (1-48), six students had scores in the second quartile (49-61), six students had scores in the third quartile (62-69), and six students had scores in the fourth quartile (70-77). For instructor anxiety, seven students had scores in the first quartile (1-11), six students had scores in the second quartile (12-15), six students had scores in the third quartile (16-19), and five students had scores in the fourth quartile (20-56). Individual student subscale sums are presented in Figure 4.1.

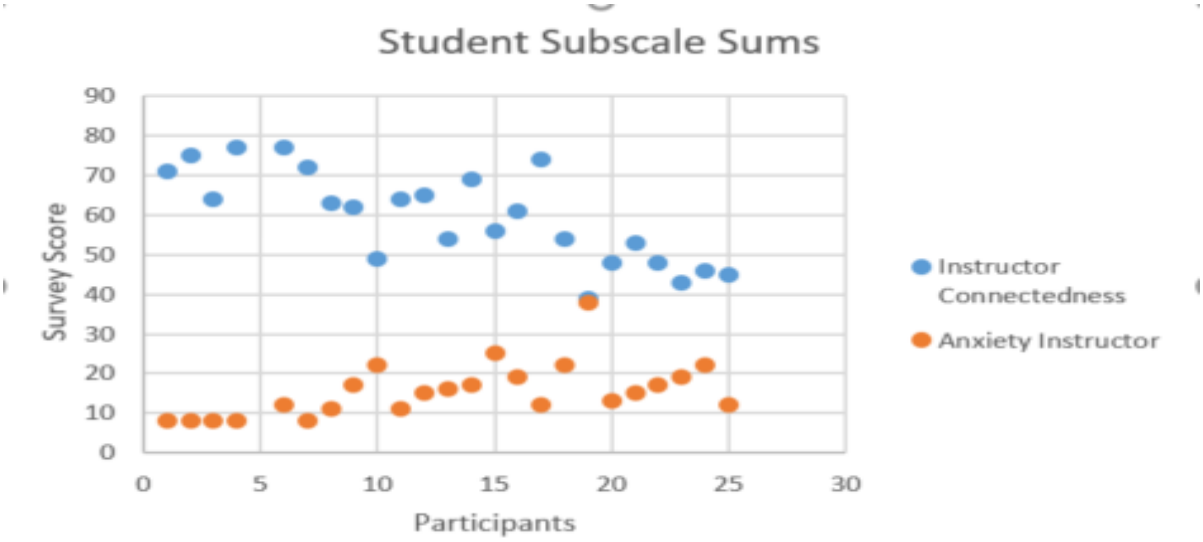


Figure 4.1: SIRS Student Subscale Sums

Qualitative Findings & Interpretations

A qualitative research study involves a continuous relationship between data collection and data analysis in addition to relying heavily on narrative summary and rich description (Creswell, 2017; Mertler, 2018). Continuous with the qualitative research approach, data analysis is ongoing in nature throughout the research study (Strauss & Corbin, 1990).

Participant Interviews

For my research study, recordings were transcribed verbatim in Microsoft Word as soon as possible after each interview. After transcription, I read each transcript to become familiar with the context of the interview. The transcribed interviews were compared to audio recordings to ensure accuracy and clarity. In addition, interviews were later shared with the participants for member checking. Delve coding software housed the uploaded Word documents where the transcriptions underwent multiple

rounds of coding to organize the data and identify common themes, patterns, and relationships.

Analysis of Qualitative Data

Participant interviews, which provided the qualitative data, were analyzed through inductive analysis to support findings for all three research questions. To begin analysis of data, interview transcripts were reviewed, data were highlighted and marginal notes indicated relevant initial coding categories. Coding is the process of analyzing qualitative text data by dissecting the data individually pulling it apart through organized synthesis before putting the data back together in a meaningful way (Creswell, 2013; Saldana, 2016). Richards (2015) believes that qualitative data needs coding at least three times: once with descriptive coding that gives information about that particular source; once with topic codes; and finally with analytical coding, the higher order codes that come through deeper analysis. Pieces of data "may be individual words or small or large chunks of the data" (Punch, 2014, p. 173).

For my study, I utilized a combination of descriptive coding methods and in vivo coding methods in first cycle coding. These methods allowed for the assignment of short word phrases to summarize the primary topic (Creswell, 2013; Mertler, 2018; Saldana, 2016). Descriptive coding and in vivo coding describes participant's intent of a statement or directly represents it in the participant's own words (Creswell, 2013; Saldana, 2016). Sentence by sentence coding was the unit of measure for all codes. With the functionality of Delve, the coding program supported the use of these units of measure. I read each interview two or three times to review coding notes. Throughout first cycle coding, analytic memos were also employed which allowed for the tagging of

data that was relevant to a particular point throughout the interview transcripts (Saldana, 2016). For example, a highlighted sentence from one participant received two codes: "fell behind in school" and "too much family drama." Initial coding samples are showed below in Figure 4.2.

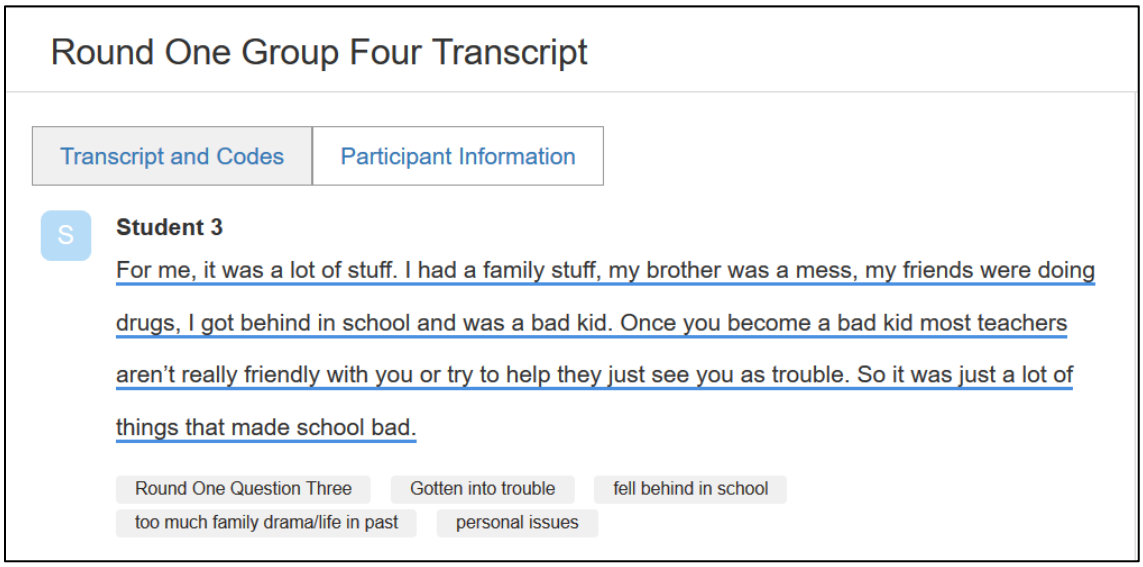


Figure 4.2: Delve Qualitative Analysis Software Interview Snippet

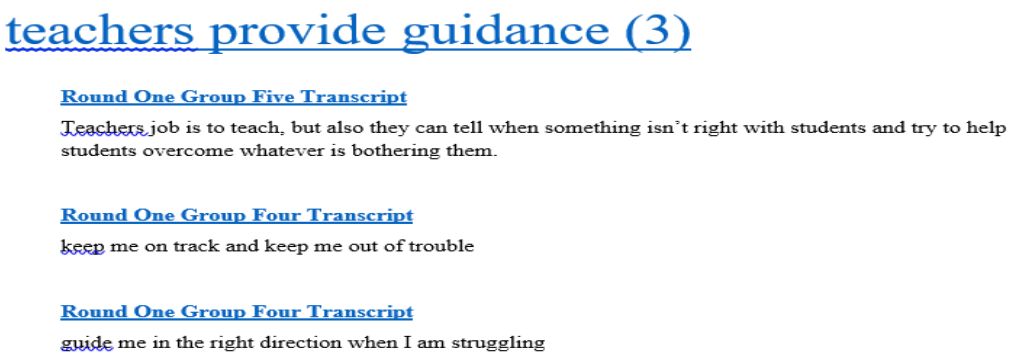
Developing codes in first-round coding resulted in a total of 342 initial unique descriptive and in vivo codes. Table 4.6 presents the quantity of qualitative data by source to highlight the richness of information obtained through participant interviews.

Table 4.6 *Summary of Qualitative Data Sources*

Types of Qualitative Data Sources	***Number***	***Total Number of Codes Applied***
First Round Interview Transcripts	5	181
Second Round Interview Transcripts	5	98
Third Round Interview Transcripts	6	63
Totals	16	342

For the second round of coding, initial codes were printed from Delve, cut apart, and annotated with initial thoughts about what potential categories could be (Creswell, 2013; Mertler, 2018; Saldana, 2016). Printed slips allowed for flexibility in sorting and category creation. Initial codes were regrouped by corresponding interview round and interview questions to keep all data organized. Eclectic coding combined the multiple coding styles into synthesized groups (Creswell, 2013; Mertler, 2018; Saldana, 2016). Initial category creation was an open process determined by my assessment of key features of the code.

Third cycle coding was more interpretive, requiring some degree of inference beyond the data (Mertler, 2018; Saldana, 2016), and was more focused coding where the goal was to find thematic/conceptual similarity. This method involved pulling together the established codes and condensing them into more meaningful categories (Creswell, 2013; Mertler, 2018; Saldana, 2016). During a third cycle of coding, I took the codes for each round of interviews and questions, and began to refine and combine them. One example of code refinement included the combining of "teachers provide guidance" and "teachers provide support." These codes were combined because sentences under each code both identified the same idea of the teacher providing help for students. An example of the code refinement process can be seen in Figure 4.3.



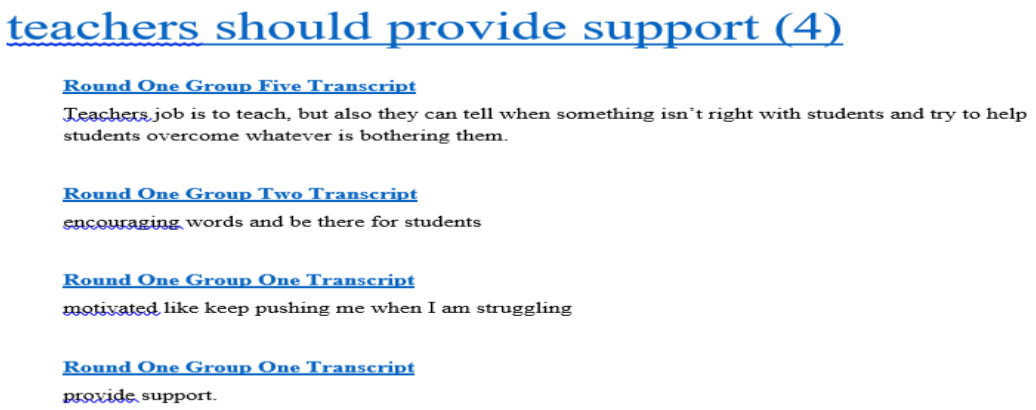


Figure 4.3: Delve Qualitative Analysis Software Code Combining

Each time codes were combined, I recorded an analytic memo in Delve to track my thinking, assertions, and analysis about the codes' underlying meaning (Bazeley, 2013; Mertler, 2017; Saldana, 2016). For example, student responses "age played a factor" were provided with more description as it was used in various context as either a contributing factor to joining the program or hindering factor to joining the program. Using analytic memos and more specific codes, I defined clear and distinct categories. Categories were analyzed for commonality to find the most descriptive wording to reflect interrelationship among initial codes (Creswell, 2013). Grouping, reviewing, and refining initial codes into categories and subcategories encumbered a great amount of time. Certain data was determined to lack purpose or relationship to the research (Creswell, 2013). Removed codes were placed aside but were saved so they could be reviewed after each round of coding to determine if any applicable category had arisen. In all, 14 major categories emerged.

After this streamlining of categories, I reviewed each coded line to ensure alignment between statement, code, and category. The information was compiled in a Microsoft Word Table and can be seen in Figure 4.4.

"I got hurt playing football and after that I felt like no one really cared about if I did good or not. I fell behind and no one really helped." "I am nervous because it has been so long since I have been in school and I never went to high school so I know I might be here for awhile, but I am not going to give up." "I don't know, I mean I really didn't feel anything. School was ok, I was kinda bored and felt like if you weren't part of the "in" crowd no one really cared about you." I loved school when I was there, the class were just boring. I just felt like it was a lot of stupid work that had to get done for no reason, like doing just busy work doesn't make you smart. I was just tired of all of it." "I think the school was too strict, like they treated us like children so treating us like adults and giving more freedoms would have helped me."	Liked School (Friends/Sports) (9) Didn't like school/bored (5) Didn't fit in socially (3) Felt stupid in school Just had personal issues Felt happy, but sad too stayed in trouble HS anxious Teachers didn't like me Hated School	Perceptions of feelings towards education at the start of Adult Education

Figure 4.4: Microsoft Excel Chart Organization

Using these refined categories and codes, I began to identify themes. Themes have been written as narrative descriptions using rich details as well as several quotes from participants taken from both reflections and interviews. Themes and descriptions from this inductive analysis supported findings for research questions. Comparing statements from before and after the intervention led to the assertion that participants experienced positive changes in perceived feelings towards school and instructor relationship. I used existing research to support the importance of this assertion, finding support from prior studies that in adult learning programs, desire and motivation play a key factor for success in addition to teacher support (Shaw, Tham, Hogle, & Koch, 2015). Subsequent categories were analyzed for themes and assertions using a similar process. Themes, assertions, and categories were organized into a display table (Creswell, 2013), and can be seen in table 4.7.

Table 4.7 *Themes, Assertions, and Categories from Qualitative Data*

Themes	Assertions	Categories
Prior student experience affects perceptions and willingness to participate in Adult Education.	Participants' experiences in K-12 school affect perception of educational environment, and participation readiness to enter Adult Education.	• Prior experiences in K-12 school and factors leading to the unsuccessful completion of attaining a high school diploma • Current perception of educational environment and participation readiness to enter Adult Education.
Adult Education program structure and organization affect perceptions and willingness of adult learners to participate in adult education.	Institutional standards and established course of actions increases motivation and persistence for adult learners.	• Perceived needs not met in K-12 education • Perception of feelings toward education at initial start and first benchmark in Adult Education • Perception of Instructor-student relationship at second benchmark in Adult Education
Adult Learners desire consistent dialogue and collaboration with adult education programs and instructors.	Proactive communication and supportive rapport with adult learners helps increase motivation and persistence.	• Perception of the role of teachers at initial start of Adult Education • Differences in Communication between K-12 school and Adult Education • Examples of text/video communication and perceived impact of text/video communication used during enrollment in Adult Education
Adult Learners desire instructor access along with relevant and useful GED prep material.	Availability of instructor support through communicative technologies and pertinent study material increases students perceived success.	• Factors that deter student progress • Perceived components to be successful in adult education

The assertions, categories, and subcategories were shared with participants as a form of member checking for accuracy in interpretation. Analytic memos, notes, and my

display table were also shared with Dr. Morris, dissertation chair, for feedback and discussion as part of peer debriefing. These assertions were elaborated upon through rich, detailed narratives (Mertler, 2017). Each assertion was supported with prior research and participant statements. Each narrative was shared with Dr. Morris for feedback, and after I made revisions, these narratives were sent to participants for feedback and to again ensure the writing accurately described their experience. These narratives of themes and assertions are detailed in the next section, research findings.

Research Findings

According to Creswell (2013), the ultimate phase of the data analysis entails an examination of the results. The primary objective of this study was to determine if motivation and perception of adult learners enrolled in the GED program at the Small Town Adult Education Center were affected by the use of communicative technologies and improved student-teacher relationships. The presentation of the findings includes percentages, rich quotes, and summaries of the participant's statements during the interview process. I, as the researcher, engaged in the process of inductive reasoning in order to code data and identify themes. I reread the coded data multiple times to ensure accuracy of the themes. Consequently, the following themes emerged from the data: (a) Prior student experience affects perceptions and willingness to participate in Adult Education, (b) Adult Education program structure and organization impacts perceptions and willingness of adult learners to participate in Adult Education, (c) Adult Learners desire consistent dialogue and collaboration with Adult Education programs and instructors, and (d) Adult Learners desire instructor access along with relevant and useful

GED prep material. Each of these themes is explained in detail below. Any quotations are verbatim from participants' verbal interview responses or written reflections.

Theme 1: Prior student experience affects perceptions and willingness to participate in Adult Education. Adult learners bring extensive life and work experiences with them when entering an adult education program. Individual learners each have different educational needs, expectations, and interests often very different than those of younger students in the traditional classroom setting (Fincher, 2010; Goddu, 2012). Being anxious and concerned about not being able to succeed in a new learning situation or manifesting negative perceptions of schooling and skepticism about the value of learning have also been noted as examples of internal barriers that many adult learners face (Lee, 2017; Patterson, 2018). Interview analysis revealed adult learners' experience in K-12 school affect perception of educational environment, and participation readiness to enter Adult Education.

Theme 1 is thus divided into two categories. The first category examines students' prior experiences in K-12 school and factors leading to the unsuccessful completion of attaining a high school diploma. The second category examines adult learners' current perception of educational environment and participation readiness to enter Adult Education. Reasons for not completing high school diploma requirements, factors that deter student progress, and factors influencing participation in adult education were important to understand student's current perception and reasons for joining the GED program. Previous research identified prior learning stems from the attitude and value placed on education and learning in early development (Darkenwald & Merriam, 1982, Freire, 1993). Over 50% of students interviewed identified that K-12 school was

boring and pointless to them or that they fell behind in school for various reasons such as pregnancy, family moves, marriage, or outside influences of drugs and depression. Vantoria from focus group 3 stated, "Once we moved some of my credits didn't transfer and I would have had to restart 11th grade. I didn't want to do that plus I was going through some family drama so I just didn't go back to school." Merriam and Bierema (2014) suggested correlation between past perception of schooling experience indicates individuals with low educational attainment have had negative experiences with their formal schooling will be unlikely to place themselves voluntarily in school-like settings again unless the reward they perceive clearly outweigh their negative expectations for experience (p. 9).

Student participants identified factors involving social cultural components such as family, lifestyle, religion, and various other habits as essential aspects in their educational journeys whether affecting past performance or influencing current attitudes and willingness to participate in an adult education program. Siegel and Ramanauskas-Marconi (1988) explained attitude is "a learned tendency to react in a consistently favorable or unfavorable manner toward people, objects, ideas, or situations" (p. 28). An individual can develop or grow their attitudes towards an object or a situation and by extension an objection in a particular situation. Therefore, an individual may develop a positive or negative attitude toward learning through their previous educational experiences.

Additional factors identified by student participants that have in the past and are ongoing struggles that influence student progress are transportation, family, and personal issues. In addition, students identified current perception and attitude towards adult

education were influenced by not knowing what to expect, where to go to seek help, and not having someone push them to continue their education. In first round interviews, students identified participation in adult education was initially influenced by the appeal of earning a high school equivalency certificate in a shorter amount of time than traditional school, and the adult education program was free and close to home. Kurtis from focus group 4 stated, "I never really knew you guys existed and I really had no desire to go back to school, but then I had friends come here and like it so I decided to give it a try." One's attitude toward education and learning in a particular environment can shed light on factors that might determine participation in adult and continuing education but when analyzed together it serves as a better predictor for participation (Darkenwald & Merriam, 1982).

Theme 2: Adult Education program structure and organization impacts perceptions and willingness of adult learners to participate in adult education. Despite the barriers of adult learners, research has shown that adult learners of any age can learn and succeed in their pursuits if they are afforded the opportunity, assistance, and support they need (Knowles, 1980). As individuals participate in educational activities, they are likely to experience a shift in worldview and reflect on past and present experiences through new lenses (Kolb, 1984). Pintrich (2002) found that creating classroom environments, which promote positive cultures with healthy interactions, can motivate students to channel their energies and desires to reach their goals.

Through participant interviews theme 2 emerged which signaled the need for institutional standards and established course of actions for the adult learner. Theme 2 was divided into three categories. First, perceived needs not met in K-12 education,

second, perception of feelings toward education at initial start and first benchmark in Adult Education, and third, perception of instructor-student relationship at second benchmark in Adult Education.

The first category identified was the perceived needs not met in K-12 education. Participants identified perceived needs that were not met in K-12 education as a factor to their decreased motivation and persistence in education. These needs included more concern, more choice, more help, more freedom and flexibility. In addition, students identified their former schools did not check up on them and they lacked helped in balancing school and life. Amber, Melanie, and Juan from focus group 2 provided responses to an interview question that asked about needs needed to be successful in education, "more one on one help", "small classes so I can get the help I need," and "caring teachers with less distractions in school."

Through the identification of needs students felt were not met while in K-12 school, category 2 from theme 2 were identified. Category 2 identified student's perception of feelings toward education at the initial start and first benchmark in the study to determine if feelings were changed by the implementation of the communicative technologies in the study. At the initial start, students had various opinions on their feelings towards education. Approximately 33% of participants stated they liked school and felt happy about going to school while approximately 60% of students stated they did not like school, and felt it was boring and stupid. Leigh from focus group 3 stated, "I loved school when I was there, the classes were just boring. I just felt like it was a lot of stupid work that had to get done for no reason, like doing just busy work doesn't make you smart. I was just tired of all of it." These students expressed feelings that they did

not fit in socially, and school made them anxious. Kim in focus group 3 stated, "I think the school was too strict, like they treated us like children so treating us like adults and giving more freedoms would have helped me." Regardless of socioeconomic status, students who do not feel valued and cared for or cared about often feel disenfranchised and deprived of educational opportunities (Dweck, 1999). These students often have little motivation to persevere.

When asked in second round interviews, student perception of feelings towards education indicated they felt adult education was more straightforward where they as students were treated like adults and they received help in the subject matter. Leigh from focus group 3 stated, "I feel like I can come in, do what I need to do but still have time to look up other stuff and focus on that tool." While Garen in focus group 3 stated, "In (high) school, I was always real quiet and I guess here to, but I do feel like I know more what I have to do to get my GED than what I knew I was doing in high school." The final category that emerged from Theme 2 examined the perception of student-instructor relationships at the second and third benchmark in Adult Education. In the second and third round of interviews, students were asked to describe the relationship between the student and instructor in the adult education program. Students expressed feelings of comfort and a real relationship with the instructor. Student responses indicated an overall friendly, caring relationship that had been established which allowed a desire to want to do good and motivation to complete their GED. Terry from focus group 5 stated, "…I mean you care and want us to do good so that helps me stay positive and want to do good." Alma from focus group 5 stated, "Definitely different, you keep it real. Like you are just more honest and blunt than any other teacher I have ever had. You actually act

like you care and want to help me." Jason in focus group 5, "Yall just keep trying and trying and helping me find stuff that will help me learn this stuff." Student responses and change in perception and attitude led to the assertion that institutional standards and established course of actions increases motivation and persistence for adult learners.

Theme 3: Adult Learners desire consistent dialogue and collaboration with adult education programs and instructors. Research on communication in schools by Ankrum (2016) found majority of participants believed communication played a vital role in their success of the learners. Researchers have concluded that as communication has become a larger part of the school experience and culture, learners become more active-positive partners in the education process (Ankrum, 2016; Palts et al., 2015); however, Jensen (2011) found current practices and schools' policy often do not match the needs of the learners, therefore not creating the most conducive environment for increasing involvement and improving relationships.

Through data analysis, the third theme that emerged from student interviews showed that adult learners often have a desire of autonomy, but needed open and consistent dialogue and collaboration with instructors and program leaders. This theme was divided into three categories. Category 1 identified the perception of the role of teachers at initial start of Adult Education. Category 2 examined differences in communication between K-12 school and Adult Education, and the final category included examples and the perceived impact of text/video communication used during enrollment in Adult Education.

One prominent idea in the literature was the instructor's role with adult learners (Ellu & Roosmaa, 2010; Jensen, 2011; Pepka & Petya, 2018). The role of the instructor was that

of a proactive mediator and facilitator of learning. First round interviews, identified students have a strong predisposed perception of the role of teachers at initial start of Adult Education. These perceptions included needs that students often felt were not met in traditional K-12 education. Linda from focus group 4 responded, "Attitude, help make students feel like they are special and can do it. They (teachers) help keep students in line and on track with their work but they also have to have a good attitude." The most valuable benefit for adult learning has been shown to be when the instructor is a collaborative colleague who shows respect and understanding to students, and empowers them in their learning (Jensen, 2011). Student responses overwhelming stated that teachers needed to provide help to everyone, be nice and show care along with understanding. Students also felt a teacher's role included setting the tone, helping keep students on track, and encourage along with motivate students. In addition, Cercone (2008) pointed out that instructors who made the effort to develop personal connections with learners aided in easing learner anxiety, which helped the learner overcome psychological barriers from previous educational experiences.

At the second round of interviews, students were asked to identify examples of text/video communication used through Adult Education participation. These examples served as a springboard for student discussion and helped identify the perceived impact video/texting made during their enrollment in Adult Education. Examples of text/video communication included attendance checks, test date confirmations/reminders, welfare checks, positive messages, website and log in help, math homework help, class updates, and test scores/score report help. Kerry from focus group 2 response included, "you told me congrats on passing my test" and Amber from focus group 2 responded, "…

mainly when you just tell me I haven't seen you in a while, when you coming to class." At the first benchmark in the study, the second round interviews took place where students overwhelmingly perceived the impact of the video/texting created a level of comfort and made it easy to talk with the instructor. The use of mobile phone messaging has been perceived useful and perceived to be easy to use with direct positive relationships between attitude and behavior for learners (Almeida et al., 2015; Fox & Raine, 2014; Muslikhah et al., 2018). Overwhelming, over 50% of students expressed that texting created a sense of belonging, showed care and concern, and made coming to class more enjoyable.

Cross (2004) suggested that teachers try to establish a friendly, open atmosphere which shows participants a positive and meaningful educational experience and suggest feedback be specific and unique to the learner, not generalized to include all learners. Matt from focus group 4 stated, "… it makes me feel like a part of the program if that makes sense. I was always real quiet in school so I never really felt like I belonged but here I do." At the second benchmark of 40 hours, the third round interviews revealed similar comments on the perceived impact. Several responses indicated texting helped to motivate and helped keep students on track. It also helped ease anxiety, and it showed teacher care and concern. During this round, Matt from focus group 4 responded, "It made me more accountable I think because I knew exactly what I was working on and had to do, everything was clearly laid out." Meg from focus group 5, "I think it just shows a genuine concern and desire to really want to help students." Consistently students identified key differences in communication between K-12 school and Adult Education.

These differences revealed communication in adult education allowed for more real conversations where students felt like they were treated more like adults and were more in control of their learning. Students who report close relationships with instructors are more confident and self-directed than students who perceive their instructors to be less supportive or threatening (Pintrich, Roeser, & DeGroot, 1994; Ryan, Gheen, Midgley, 1998). Building relationships are important to the motivation process (Eschenmann, 1991, Whitaker, 2004). If teachers take the time to build relationships, they can motivate their students to learn. Kayla and John from focus group 1 stated, "…easy to talk to and I feel comfortable," and "I can actually talk to you" when asked about their relationship with the instructor. Kayla stated, "In high school, I felt like my teachers didn't care and I was left on my own, but here you are easy to talk to." Through the analysis of the interview data and prior research, the third theme led to the assertion that proactive communication and supportive rapport with adult learners helps increase motivation and persistence.

Theme 4: Adult Learners desire instructor access along with relevant and useful GED prep material. Lastly, the findings of this research show students desire relevance and accessibility of useful GED prep material. New technologies have the ability to enhance adult learning because of the potential to increase flexibility, provide access to expertise, facilitate discussion among learners who cannot meet face to face, reduce feelings of isolation often experienced by nontraditional learners, increase learner autonomy, and support and promote constructivist and collaborative learning (Tighe, Barnes, Connor, & Steadman, 2013). Technology integration has allowed teacher-learner interactions to be practical, positive and personal (Fewkes & McCabe, 2012).

These systems have provided opportunities that otherwise might not be available, especially for nontraditional students like adult learners (James, Swan, & Daston, 2015). The final theme was broken down into two categories. The first category looked at the overall factors that deter student progress, while the second category identified the perceived components need to be successful in adult education.

Through the analysis of interview data, factors that deter student progress and perceived components to be successful in education were derived at the start of the adult education program in the initial round of interviews. Students identified factors such as transportation issues, family moves and personal drama, and bullying issues in high school. Students also stated different curriculums in school made it hard to stay on task and not knowing how to get back into school were all factors that deter student progress. One way technology has changed education is by providing greater accessibility to teachers with greater availability to interact with students rather than old school methods of communication. Understanding the barriers present for adult learners and challenges in adult education programs, the availability of technology devices to both teachers and learners has allowed for information to be communicated almost instantly with the use of communicative technologies. (Baptista, 2013). It has been observed that adult learners are more likely to engage or participate in learning activities if they believe the journey will improve their lives (Courtney, 1986; Merriam & Bierema, 2014; Wlodkowski, 1985). These students also identified the need of having more flexibility, various time options technology and relevant content programs as perceived components to be successful in education.

At the second benchmark, the final round of interviews identified differences in factors of successful education environment between K-12 school and Adult Education. Students stated they felt adult education really wanted to help and everyone worked together. They also stated there was no judgement in Adult Education, they could work at their own pace, and they felt they had a sense of belonging. Masgoret and Gardner (2003) found students are persistent and attentive to the task at hand, have goals, desires and aspirations, and make use of strategies to aid in achieving goals when engaged in the learning (p. 128). Technology empowers students, in almost any learning environment, to be actively engaged in the acquisition of knowledge and skills, which Knowles' Andragogical Model discusses as an important component of success for adult learners. When students are engaged and empowered and when students have the tools to facilitate learning, they perform better (Fox & Raine, 2014; Tigh et al., 2013). Garen from focus group 3 stated, "Teachers in regular school are just real busy and never really have time to work with students one on one. Educational research holds that student motivation has a strong impact on student learning outcomes (Keller & Kopp, 1987; Wlodkowski, 1981). Through student interview responses and research, theme four lead the researcher to the assertion that the availability of instructor support through communicative technologies and pertinent study material increases students perceived success.

Summary

Chapter 4 has presented the findings of this action research study and the analysis of the data collected. While the findings of the MSLQ did not show an increase in student participant motivation after the introduction of communicative technologies, the findings did provide me with other positive, valuable data to use as I refine the use of

communicative technologies in my adult education classroom. These findings are instrumental as I consider how to improve the introduction, organization, and duration of student collaboration for upcoming school years. Action research in its very design has the "purpose to improve one's own professional judgment and to give insight into better, more effective means of achieving desirable educational outcomes (Mertler, 2014, p. 13). Chapter 5 will discuss in more detail the results of these findings, including the implications of the current study, as well as suggestions for future research into communicative technologies in my future classes and the limitations present in this current study.

CHAPTER 5

DISCUSSION, IMPLICATIONS, AND LIMITATIONS

In this chapter, the findings from this study and their relation to literature on communicative technologies within adult education, and the perceived impact on perception of educational environment, student-teacher relationships, and motivation will be discussed. The intent of this chapter is to present an interpretation of the research findings described in chapter four, referring back to the literature review in chapter two that provided the theoretical foundation for this study. The purpose of this action research was to determine if motivation and perception of adult learners enrolled in the GED program at the Small Town Adult Education Center were affected by the use of communicative technologies and student teacher relationships. It is expected that findings of this study will aid in understanding the student enrollment, participation, and retention of one adult education facility in South Carolina. Data from both quantitative (i.e., MSLQ and SIRS) and qualitative methods (i.e., multi-round interviews) were collected and subsequently analyzed. Four primary themes emerged from the qualitative data analysis (see Table 4.8). Participants' thoughts on previous educational experiences, barriers to learning, communicative technology integration, and student-teacher relationships were captured before and after the intervention of communicative technologies. The (a) discussion, (b) implications, and (c) limitations of this research are examined in the following sections.

Discussion

A full understanding of results from this study requires interpreting them through existing research on adult learners, communicative technology integration, and student-teacher relationships. To answer the research questions, the data were combined and viewed through an understanding that the goals of action research are to inquire and discuss ways to improve instruction and increase student achievement (Creswell, 2014). The discussion is organized by the three research questions.

Research Question 1: How does the use of communicative technologies affect perception of educational environment?

This research question stemmed from wanting to discover if the use of communicative technology impacts adult learners' perceptions of the education environment for a GED program. To answer this question, I referenced existing research identifying characteristics of effective classroom environments and program structures for adult learners, and administered three rounds of small group interviews at various benchmarks throughout the study to understand the impact of the implementation of communicative technologies.

Adult learners often arrive in classrooms with preconceived notions of learning that are hard for them to let go (Chulp & Collins, 2010). Factors such as prior experiences in high school play a role in student's perceptions of their abilities to succeed in class (King, 2012). For this study, interviews sought to assess student perceptions of the traditional educational environment in order to uncover if experiences changed after student participation in the adult education program, and if students felt the use of communicative technologies were beneficial in changing these perceptions. As a result

of this study, answers to question one are presented as (a) decreasing barriers through accessibility, (b) surmounting institutional barriers, and (c) perceived impact of video/texting communications.

Decreasing barriers through accessibility. According to Tyler and Lofstrom (2010), students are unsuccessful because they are unmotivated, academically challenged, and/or economically disadvantaged. Small group interviews provided student voice to express some of the obstacles that inhibit students from obtaining their education. Through my research, student participants identified situational barriers such as family problems, childcare, job responsibilities, and lack of transportation that have hindered their educational experiences in the past. One example of these situational barriers came from Meg from focus group 5. When asked about K-12 school and her reason for dropping out, Meg stated, "We moved around a lot. I never knew my dad and so my mom was always with different family. My sister and I both just fell behind so that is why we are both working on getting our GED." When asked what would improve their educational experiences today this same student stated, "…I just got to stick with it. I know I can do it, but sometimes I just don't feel like coming or get discouraged so I guess I would really just say it is all on me." This correlates with Goodwin's (2002) findings that suggested students' issues often prevent them from attending class and passing the GED exam. Overall students expressed desires of having more flexibility with attendance and useful, relevant content in order to help decrease barriers in the GED program.

With time constraints and responsibilities, barriers in place and the knowledge that GED students possess diverse needs, many administrators and instructors work to

accommodate them (Olesen-Tracey, 2010). Participants identified a need for flexibility that would help to balance their personal responsibilities and maximize their time for learning. When asked in first round interviews what students felt would make their educational experience better at this stage in their life, Kim from focus group 3 stated, "Definitely not forced to go. Like I want to do school on my own time." When asked at the second benchmark how or if student perception had changed since joining the adult education program, Kim now stated, "Pretty good so far. I mean I didn't really know what to expect when I first came, but I like that I can work from home and still get hours. Plus, everyone here really wants to help." Kurtis from focus group 4 said, "…very helpful, you we always text about school and questions I have. With my kids and work I need to know what is going on and be able to fill you in too."

The collection of data in second round interviews revealed participants did find the introduction of the communicative technology to be beneficial, not only for the flexibility it created but also for the sustained increase presence and availability of on demand help and access to pertinent study resources. Terry from focus group 5 stated, "…everything seems to roll together here and there is a set order to do things." Jason from focus group 5 added, "I like that you have a plan to help, like when I failed the first pretest you knew exactly what I needed to work on so I didn't have to waste time on stuff I didn't need." Overall, participants seemed to find the experience a positive one, and voiced positive recommendations for the implementation of the communicative technology to continue even after the conclusion of the research as the technologies helped to provide the needed flexibility in attendance and continuous access to study materials and pertinent program information.

Surmounting institutional barriers. In addition to situational barriers that are often highlighted for adult learners, one of the less obvious barriers that came through the small group interviews were participants statements on institutional barriers. Institutional barriers were identified by students as practices or procedures of the educational setting that discourages or excludes adult learners from participating (Goodwin, 2002). Examples of these barriers highlighted by student participants included a lack of concern by previous school personnel and insecurities with the school environment.

The most profound change during my study came between round one and round two of the interview process. In round one, students shared previous needs they felt were not met in K-12 education. These included the school not checking up on them and a lack of concern by the school and staff. Tommy from focus group 1 expressed, "(I need) programs that are going to help get my GED not just waste my time" while this same student when asked what their perception of the role of teachers and schools were at the start of the program stated, "I don't know, I guess just help keep students on track and help motivate and provide help when needed." In addition to these needs not being met in their K-12 educational experiences, students overwhelmingly stated a need of more care, understanding, and assistance from teachers and the school as a pivotal component needed for their success. This was furthered evidenced by student responses throughout the multiple rounds of interviews. Melanie from focus group 2 stated, "Attitude helps make students feel like they are special and can do it. They (teachers and school leaders) help keep students in line and on track with their work so they have to have a good caring attitude." Vantoria from focus group 3 also stated attitude and willingness to help as a

driving factor to a necessary need. "Teachers need to have a good attitude and help all students. It makes me feel like they care and want to help me. That helps me try harder."

Overall, the qualitative data illustrated the majority of students did not feel positively about the education environment at the start of the study as prior experiences and insecurities with the educational environment were voiced in round one interview responses. In the case of many adults, the recollection of the classroom is a place where one is treated with disrespect and the notion of failure is so intense that it becomes a major barrier to their becoming involved in adult education (Thomas, 2011). According to Thomas (2011), students may transfer from their previous experiences or education the perception that they lack intelligence. These insecurities with the educational environment are often barriers that students must overcome when entering a GED program. Ryan from focus group 4, "I never really have liked school, like I just felt it was not important and the content they were going over didn't really relate to what I wanted to learn or needed to learn." After the intervention of communicative technologies were employed second round interviews at the first benchmark in the study revealed a positive change about the adult education environment as a whole. There were significant changes from their previous perceptions of former educational environments. The increased communication through the implementation of communicative technologies between students, teachers, and program led to ensuring students felt welcomed into the school environment, and felt supported as well as missed when they were absent all leading to a positive outcome for some students to begin to feel valued in the adult education environment. At the conclusion of the intervention, students were asked how their experience with adult education differed from their K-12 experience.

Keri from focus group 1 stated, "It (Texting/Video messaging) made the program a lot easier. Like we can't always make it to school because of work and life so being able to work from home and stay in contact with you has helped a lot and made this program a lot better than regular school." Juan from focus group 2 also stated, "….It has been much better this time around because we all work together and you are willing to help." These results coincide with the mission of many adult education programs of helping to ensure longevity of vital programs that service the needs of the adult learner (Hegarty, 2011).

Perceived impact of video/texting communications. Through personal experiences and the collection of data, results revealed that adult learners are likely to leave a class if they feel that their academic needs are not being met. These needs have been highlighted throughout the exploration of this research question. During the second and third benchmarks of the study, students were asked specifically about the impact of texting and video chatting. When asked about the perceived impact of video/texting communication, students identified a several beneficial outcomes like creating a feeling of comfortableness and providing an ease of access to the program.

First, a comfort level was created with the use of communicative technologies that helped students feel cared for and wanted in the GED program. Amber from focus group 2, "Here is so much better, there is no judgement here and I feel really comfortable…." Garen from focus group 3 spoke on the level of comfort the innovation created. "Definitely made for a positive experience. I didn't know what to expect and was nervous about the whole thing but you always help encourage me and keep me upbeat." According to Goodwin (2002), "the cause of low participation is connected to student's negative attitudes about school, self, or to life circumstances that are difficult to change"

(p. 21). Matt from focus group 4, “It shows you actually care if I show up and you want me to get this done….”

Another positive outcome with the use of communicative technology was the ease of access it created with student experiences in adult education. Terry from focus group 5 stated, “Here (adult education class) you get a straight answer and you don’t have to schedule meetings and all that.” Gopalakrishnan (2008) suggested that learners are likely to disconnect from GED programs within the first few weeks of direct instruction without direct intervention. Kerry from focus group 2, “It makes it easy to get in contact with you and easy to schedule test and figure out class schedules along with help when needed with working from home and studying.” Linda from focus group 4 stated, “I like it (texting) because I know I can text you if something comes up or I have a question.” Overall, students shared positive reactions to the implementation of text and video communication throughout their adult education experience.

Research Question 2: How and to what extent does the use of communicative technologies affect the quality of student-teacher relationships?

This research question stemmed from wanting to examine how and to what extent does the use of communicative technology impact student-teacher relationships for a GED program. To answer this question, participant interviews were again employed along with the Student Instructor Relationship Scale (SIRS) questionnaire to gauge the impact of communicative technologies. I referenced existing research identifying characteristics of effective student-teacher relationships and the components needed to build supportive and positive relationships with adult learners. Earlier research studies found that student perception of the learning environment is influenced by the teacher

and student relationship and can lead to a learner becoming more motivated to learn and persisting in the face of challenges if perceived positively (Kearsley, 2010; Kenner & Weinermann, 2011; Knowles et al. 2015; Rans, 2014). As a result of this study, answers to question two are presented as (a) open dialogue and consistent communication, (b) supportive and encouraging rapport, and (c) regular help and guidance.

Open dialogue and consistent communication. Knowles' adult learning theory stresses the importance of having a teacher who cares for students' needs and strengths, and who holds a supportive relationship with his or her students, giving them the same chances and opportunities to participate in the learning process (Kearsley, 2010; Kenner & Weinermann, 2011; Knowles et al., 2015; Rans, 2014). These supportive relationships make the adult learner feel comfortable and free to interact in the classroom and improve their academic skills (Knowles et al., 2015). The results of this study indicate that there are positive changes in student perceptions and attitudes for teachers who take the time to invest in the relationship-building process with their students particularly through communicative technologies. The use of communicative technologies increased student teacher interaction, and created communication that was more straightforward, real, and easy to understand.

Increased student teacher interaction was apparent throughout the study as students expressed differences between K-12 and adult education experiences. Students Keri and Kayla from Group 1 stated, "…easy to talk to and I feel comfortable, and I can actually talk to you. In high school, I felt like my teachers didn't care and I was left on my own, but here you are easy to talk to." Building relationships are important to the motivation process (Eschenmann, 1991, Whitaker, 2004). If teachers take the time to

build relationships, they can motivate their students to learn. Again, speaking about differences in communication from their initial experiences in K-12 education to adult education Kerry from focus group 2 stated, "It is way different for me because I never really communicated with my teachers in high school and my parents never could come to all the teacher conferences and stuff. Here I have to speak up for myself and schedule stuff with yall but it is all really easy." Student statements seemed to coincides with earlier studies as previous researchers concluded that as communication has become a bigger part of the school experience and culture, learners have become more active-positive partners in the education process (Ankrum, 2016; Palts et al., 2015). Further, students who report close relationships with instructors are more confident and self-directed than students who perceive their instructors to be less supportive or threatening (Pintrich, Roeser, & DeGroot, 1994; Ryan, Gheen, Midgley, 1998).

In addition to increasing student-teacher interaction, students identified texting and video messaging made communication more straightforward, broken down, and easy to understand. Melanie from focus group 2, "Communication here is much better. You get a straight answer. I know everything I have to do so no jumping around or going here and there." This reinforced existing research that stated, when students build relationships with their teachers, they too become invested in the learning process and their sense of worth is supported (Kearsley, 2010; Knowles et al., 2015). Consistently, students identified key differences in communication between K-12 school and Adult Education. These differences revealed communication in adult education allowed for conversations that are more real where students felt like they were treated more like adults and were more in control of their learning. Amber from focus group 2, "Here we

have real conversations. We don't have to be all proper and everything. I mean there is still a line of respect, but things are a lot more real." Another student, Kim from focus group 3, "Here, I know what is going on, what to expect, and if I need to find something out I don't have to go through a whole bunch of people." Through the research study, it appears proactive and transparent communication with adult learners helps to positively increase the relationship between students and teachers.

Supportive and encouraging rapport. This study supports results from previous research that the development of close, non-threatening relationships with instructors have valuable implications for students and adult education programs. That is, one of the goals of many adult learning programs is to find ways to make meaningful connections between students and instructors in order to foster a sense of belongingness and ultimately influence student satisfaction, academic progress, and retention.

The data from the SIRS surveys showed that students who reported connected, non-threatening relationships with instructors reported less anxiety than their counterparts who felt less connected, or more anxious. Out of 24 students, 17 reported an overall mean average of 50 or above on the Instructor Connectedness subscale. The Instructor Connectedness subscale's highest mean score possible was 77 while a lowest possible mean score of 11. Higher scores denoted stronger feelings of connectedness and low scores on this scale communicated avoidance or a tendency to avoid a close relationship with the instructor. The high mean scores of 50 or higher indicate students had a positive rapport with the instructor. These students all agreed strongly with questions that asked, "I feel comfortable sharing my thoughts with this instructor," "It's easy for me to connect with this instructor," and "I usually discuss my problems and concerns with this

instructor." The Instructor Anxiety subscale saw a total of 18 out of 24 students report a mean average of 19 or less. This subscale had highest mean score possible of 56 with a lowest mean score of 8. Higher scores reflected a generalized anxiety regarding a relationship with the instructor, whereas lower scores reflect less threatening perceptions of this relationship. These low mean scores indicate students did not feel threaten or uncomfortable with their instructor. Sample questions for this subscale include, "This instructor makes me doubt myself," "I'm scared to show my thoughts around this instructor; I think he or she will think less of me," and "I worry that I won't measure up to this instructor's standards." SIRS findings as seen in Table 4.6 showed a high overall mean (m=59.542) for Instructor Connectedness while Instructor Anxiety showed a low overall mean (m=15.625). Earlier research confirmed that students who had connected, non-threatening relationships were related to positive achievement outcomes (Pintrich, 2003).

Regular help and guidance. Insightful student remarks from interviews provided key findings for the study. A common theme that seemed to surface on multiple question responses was the importance of support in terms of help and guidance. First round interviews, identified students have a strong predisposed perception of the role of teachers at initial start of Adult Education. At the second benchmark of 40 hours, the third round interviews revealed similar comments on the perceived impact with help and guidance playing a key role for students. Throughout the interview process, over 50% of students mentioned the need for teachers to provide valuable support mainly through providing help and showing care and concern as detrimental components to their education.

Student responses overwhelmingly stated that teachers needed to provide help to everyone. Students felt a teacher's role included helping keep students on track, and encourage along with motivate students when they struggled with coursework and life challenges. Tommy from focus group 1, "Help, just in general having a teacher that is willing to really help and go over stuff always makes learning easier to think." John from focus group 1 also stated, "…Teachers job is to teach, but also they can tell when something isn't right with students and try to help students overcome whatever is bothering them." Several responses indicated texting helped to motivate and helped keep students on track. Alma from focus group 5 responded during this round, "…You helped calm me down when I get frustrated and help me overcome my struggles."

Throughout the study, students also noted that a teacher needed to show care and concern for students and with the help of communicative technologies; this was visible in their adult education experiences. Jason from focus group 5, "I think it just shows a genuine concern and desire to really want to help students." Kim from focus group 3 stated, "If you knew how nervous I was about this program before you would understand. Things are a lot, lot better here." Student responses throughout the small group interviews and responses on the SIRS revealed student-teacher relationship is an important dimension of the educational process at all levels of education and the use of communicative technologies in adult education help to foster these relationships along with overcoming psychological barriers from previous educational experiences.

Research Question 3: How does the use of communicative technologies facilitate adult learners' motivation in a GED program?

This research question stemmed from wanting to understand how the use of communicative technology facilitates adult learners' motivation in a GED program. To answer this question, I referenced existing research identifying characteristics of effective motivational strategies for adult learners along with analyzing current areas of concern within the Small Town Adult Education Program. The literature helped to provide a framework for the survey and interview questions that I posed to students, and the themes from the literature review did prove to apply to student situations. Themes like family support, classroom support, motivation, goals, family responsibilities, time constraints and job responsibilities all showed up in conversations with students and in survey results. The literature review helped to direct in the understanding of adult learner motivational factors, but interview data where students were able to speak freely from their own perspective was where the most valuable and authentic information was discovered.

Adult learners have various motivations, many revolving around having an improved standing in life. I utilized the Motivated Strategies Learning Questionnaire (MSLQ) along with participant interviews for data collection to examine the influence of communicative technologies on motivation. To address this question, I administered the MSLQ before and after student-participants completed 40 hours of instruction. Throughout the hours of instruction, communicative technologies were employed. The results of the pretest and posttest were compared through statistical analyses and the use of descriptive and inferential statistics were presented in detail in chapter four. Overall,

student changes are described through (a) motivating factors for the GED student, (b) perception of success for GED assessment, and (c) student persistence.

Motivating Factors. Though research on motivation has persisted for many decades, research on adult learners is a relatively new phenomenon (Hegarty, 2011). Goto and Martin (2009) defined academic motivation as "enjoyment of school learning of challenging, difficult, and novel tasks" (p. 525). Student participation in adult learner programs is often centered on the belief that education increases access to items one desires (Gopalakrishnan, 2008). It was evident from the data that students encounter a variety of factors that can both support their learning and also be barriers to their persistence. Interview data revealed both positive and negative motivating factors that influenced student participation in adult education. Scheduling conflicts, goals of a better life, and positive reinforcement greatly affected participants.

Scheduling conflicts such as time constraints and busy agendas serve as a deterring motivational factor for many participants. Terry from focus group 5, "… I came up last year and registered but never really came back. I just had a lot going on so I couldn't focus." Alma from focus group 5 noted, "work and kids schedule have always messed me up from coming to class." Small group interviews were very informative to hear more details about student struggles and elements that hindered student success. Getting beyond life's barriers, bettering oneself and family despite circumstances, and finishing or completing a major goal were features of motivation highlighted by all adult student participants during their interviews.

Goto and Martin (2009) discovered that some students were motivated by the expectation of having a "better life" (p. 13). A number of other motivational factors can

be included: financial achievement, better employment opportunities, and a higher quality of life for themselves and their families. Students seemed to identify dreams of a better life and proving their abilities to themselves and family as motivating factors for enrollment in the GED program. Keri from focus group 1, "I want to open my own business and do hair so I need to finish this and go to college." Kayla from focus group 1 identified, "I need it for a better job and now that I have my baby boy I want to finish for him and show him that his mommy didn't just quit."

One's attitude toward education and learning in a particular environment can shed light on factors that might determine participation in adult and continuing education but when analyzed together it serves as a better predictor for participation (Darkenwald & Merriam, 1982). Seemingly, student perceptions were impacted greatly between first round interviews and second round interviews. Students shared desires for a better life, but students also identified positive reinforcement as a motivating factor to continued persistence. Amber from focus group 2 stated, "It (texting) helped a lot, you always made me feel better and I knew I had someone pulling for me so I really appreciated that and all your help." Kurtis from focus group 4 stated, "If it wasn't for you guys and keep checking on me through text and making me laugh I would have probably quit." Student responses and change in perception and attitude led to the assertion that institutional standards and established course of actions increases motivation and persistence for adult learners.

Perception for success in program. Motivation has been linked to having and achieving goals and is seen as a significant factor that can influence persistence of GED students (Goto & Martin, 2009; O'Neil & Thomson, 2013; Shaw et al., 2015).

Comparison of the pretest and posttest MSLQ data indicated negative changes in student motivation after the implementation of communicative technologies. Although these results were not the results that I had anticipated, it is still important to note. Student comments related to these subscales provide conflicting results and shall be reviewed together to provide a clearer picture of student perceptions of success in their program.

The biggest change with the MSLQ was seen in the Test Anxiety subscale, which showed an increase in overall pretest scores (m=20.192, SD=7.122) versus posttest scores (m=24.885, SD 2.762) of student anxiety or nervousness in regards to testing. This subscale measures how much students worry about tests and how often they have distracting thoughts when taking an exam. In contrast to other scales, a high score on this subscale means that students are more anxious in testing situations. Student responses in small group interviews shed light on the potential increase in overall test anxiety. Students sometimes enter the adult education program unaware of the requirements in completing the GED and the level of rigor the newly align common core test entails. Juan from focus group 2 stated, "I didn't know what to expect when I started, like I didn't even know the test was 4 parts. The test we had to take the first few nights were a lot harder than I thought."

The next subscale with the largest change in overall mean averages was student-efficacy for learning with a reported pretest mean (m=46.462, SD=5.883) lower than posttest mean (m=42.692, SD=3.865). Student-efficacy is one of two subscales that comprise the expectancy component of the MSLQ. The other subscale for this component is Control of Learning Beliefs, which showed very little changes in pretest and posttest means. These two subscales assess student perceptions for potential success

in their study and the self-confidence for understanding the course content. Knowles (1981) notes that adult learners have high expectations and desire to learn things that will be useful and provide immediate results. Kerry from focus group 2 stated, "…the test are so hard. You see how long it took me to get through that math. It has been forever since I was in school so I know I am so far behind." Several student responses indicated negative thoughts of their individual capabilities, which potentially coincides with the negative change in student pretest and posttest MSLQ results for the expectancy component.

The remaining subscales, Intrinsic Goal, Extrinsic Goals, and Task Value, make up the Motivation Interest Component of the MSLQ survey. High scores for these subscales indicate student likeness of the subject matter and high student interest in the content of the class. Overall, these subscales showed a statistically significant negative change from pre to posttest data after communicative technologies were implemented. These results may suggest that there was a decrease from the start of the program to the 40-hour benchmark in student perception of tasks being useful. The MSLQ items related to these subscales address concepts regarding students' preferences regarding coursework level of difficulty, achievement of high grades, and interest level of coursework. The small group interviews and literature review findings suggest that motivation interest for students also includes aspects of family influence, peer support, and career aspirations, which the MSLQ does not fully capture in the questions generated on the survey (Pintrich, 1988). The MSLQ does not use norms, reflecting the assumption that students' responses may vary as a function of the task, situation, course, or school context (Roth et al., 2016). Consequently, students likely access long-term memory and make

generalizations about what they believe they do in a particular situation (Pintrich et al., 2000). Although the results of the MSLQ do not show a positive impact on student motivation for the GED course following the implementation of communicative technologies, students still seemed to have positive interaction with the technology.

Student persistence. Understanding what motivates adults to learn is linked to adult learners' persistence. If students are motivated to learn, then stakeholders would expect them to persist in their educational journey (Kim & Frick, 2011). O'Neill and Thomson (2013) stated, "As motivation wanes, volition or will take over to support motivation and bolster persistence in pursuit of a goal" (p. 164). Although motivation helps students, they often require extra effort to assist them with following through of tasks. Student interviews do appear consistent in statements of positive interactions and positive feelings from the use of video and texting to encourage persistence within the program.

When asked at the conclusion of the study what the perceived impact of video/texting made, several students commented that texting helped to motivate them to not give up or quit the program. Garen from focus group 3 stated, "… it (texting) kept me motivated because I knew you would be texting and calling and counting on me to come in to test and stuff." Kim from focus group 3 also stated, "It definitely made for a positive experience. I didn't know what to expect and was nervous about the whole thing but you always help encourage me and keep me upbeat with the positive text." The positive interaction students had with the communicative technology had a positive effect on student persistence. Leigh from focus group 3, "It (texting/video chatting) made the

program a lot easier. It helped me stay in touch with you and keep me in the class when my crazy life got in the way."

This section has presented the findings of this action research study and the analysis of the data collected. The findings showed a positive increase in student perception of the educational environment and student teacher relationships after the introduction of communicative technologies, as was anticipated. However, the data showed the introduction of communicative technologies did not have an overall positive impact on student motivation in the GED program.

Implications

This research holds implications for me as an educator in adult education along with other researchers examining the impact of communicative technology in adult education particularly for student-teacher relationship, student perceptions, and student motivation. In the following section, three categories of implications are discussed in greater detail: (a) personal implications, (b) implications for adult education programs, and (c) implications for future research.

Personal Implications

I began this program as a high school social studies teacher for the Aiken County Public School District and ended as an adult education teacher with the same district. While the population of students I serve has changed, the role of teacher-student relationships and student motivation has remained at the heart of my research. This study yielded three implications for me as an educator that I will continue to implement and practice in my classroom. These implications are (a) approaching a problem as a

scholarly practitioner, (b) application of data collection and analysis, and (c) benefits of sharing and communicating findings.

Approaching a problem as a scholarly practitioner. As a result of this study, I have grown tremendously academically and as a researcher. I first entered adult education as a part-time teacher, and eventually filled a newly created full-time position for the school district. Working full-time, I recognized a problem within adult education of making meaningful communication in an ever-changing educational environment. I immediately wanted to begin building relationships that employed new technologies and allowed for increased interaction between the instructor and students. Connections that could aid in motivating students who previously had negative experiences with education. A more methodical approach to a problem come through using action research (Cochran-Smith & Lytle, 1993). During this action research process, I reviewed existing relevant research to guide my process of data collection. The process of conducting research began with a literature review, which provided me with a knowledge base for motivational strategies and the principles of learning for adult learners. By merging theory with my practice, I was able to implement my research study of implementing new communicative technologies into the classroom designed to improve student-teacher relationships and impact motivation. Whereas my previous implementations of communicative technologies were attempts at solving the problem, they did not have accompanying data to monitor their effectiveness. Herr and Anderson (2005) note, "formalizing the puzzles of practice into research is a way of working better, rather than doing more of the same only harder" (p. 73). Going forward, I plan to utilize a scholarly practitioner approach toward other instructional problems to identify supporting research

studies, design and implement interventions, and use evaluations of their effectiveness as a basis for decision-making. The research process has been one of discovery while seeking to implement positive interactions for adult learners in their quest to complete their GED.

Application of data collection and analysis. In addition to learning the practical implementation of conducting a literature review, I garnished knowledge of quantitative and qualitative data collection and analysis. Prior degree programs had exposed me to these research principles, but I had never completed an action research project. I was able to experience the mixing and sorting that mixed methods research requires to triangulate quantitative and qualitative findings (Creswell, 2014; Mertler, 2014), and develop a lens through which I analyzed and interpreted collected data, ultimately leading to a refined action plan to address the problem (Carr & Kemmis, 1986; Mills, 2001).

Overall, I gained a toolbox of knowledge to utilize for data collection and analysis. For instance, I learned the importance of quality interviews and follow up questions to produce useful data. Through inductive analysis, I learned the measures, digital tools, and coding processes necessary to develop thematic interpretations of findings. Prior to conducting my study, I was not familiar with the quantitative software and statistical understanding needed to be successful with data analysis. Growth in this area included an understanding of the principles and uses for descriptive and inferential statistics. I employed and gained a knowledge behind the use of a dependent paired *t*-test, a nonparametric Wilcoxon Sign-rank normalcy test, and a Cronbach's alpha reliability test. The limitations of conducting this research as such a novice will be described in a subsequent section.

Benefits of sharing and communicating findings. In many ways, this study creates many new questions. I am pleased with the overall study and answers it offered, but I have learned the process of action research is truly cyclic. I have completed the first cycle that did produce positive results, but also results I did not anticipate. I now have the tools and will adjust and seek to improve my research study to begin another cycle.

Through my study, I gained a wealth of knowledge of the insights of my students in terms of their needs and how their prior educational experiences have influenced them. A lot of work and time went into completing this action research project and seeing it come together. Although it has its flaws, I am satisfied with the result. It creates or at least highlights more avenues for future research to provide a fuller and clearer picture of my students' needs and wants in their educational experiences. I learned a lot from listening to students' perspectives and their open dialogue. One area of success with this project is how much it can mean to build a supportive environment and meaningful relationship with my students. Although this study does not examine student success or overall retention in adult education, forming a safe, engaging, and positive school environment can influence students in positive ways that change prior negative mindsets of the educational experience. At times, we underestimate the impact that our educational institutions and we as teachers have on forming connections that inspire and support our students. Overall, this process was informative, humbling and inspiring. To hear the stories of students: the struggles and obstacles many have overcame, the meaningful relationships formed through the positive rapport communicative technologies help construct, and the changing of often negative perception of education for my students was all enlightening and motivating. I came into this process perhaps

naïve on the challenges and barriers that are present for my students, but after the completion of this project I have a better understanding of the importance of what it means for them to succeed and I can see more clearly what they go through and struggle with in their educational journey. I realize that making connections and being accessible for my students is important for them, but also to have empathy to understand their experiences and challenges they face. All of this is very humbling and inspirational and makes me feel admiration for students in our program and ready to help combat and share these insights.

Implications for adult education

Findings from this study revealed that the introduction of communicative technologies were beneficial to learning and can lead to implications for everyone involved in planning, implementing, and providing learning opportunities for adult learners, including (a) participating educators and (b) GED programs.

Participating educators. Educators at all levels assume a wide range of roles as they find ways to foster student success and provide instructional support. As an adult learner educator, one of the main tasks is being in charge of motivation. In education, the term motivation is synonymous with engagement. GED students do not lack motivation. This was evident through data collection where students identified many factors motivating them to enroll in the GED program, from their families to strong desires to better themselves. I discovered through interview conversations with students that they have a strong desire to be successful and overcome challenges and barriers, but also thrive for meaningful, positive interactions where support and guidance are provided. Adult education educators can do more to foster this engagement by continuously

communicating with students through positive messages and open dialogue about program requirements and procedures. The building of positive and meaningful student-teacher relationship is thus the responsibility of educators as it helps to transform student mindsets (Knowles, 1980). Adult learners definitely attributed a portion of their previous challenges in education to the lack of support they felt and relationships they lacked from school leaders and family members. . Knowles (1980) identifies relationships as an underlying principle of several of his assumptions and for adult learners, trust, empathy and mutual respect are vital. Through the use of communicative technologies, building these support systems becomes more accessible. Dialogue can help deconstruct assumptions and clarify misunderstandings. Adult learner educators can increase and improve interaction with learners through the utilization of text messaging and video chatting. Respecting the life experience of adult learners, promoting their personal motivation, engaging them with strategies and processes that foster engagement, and building meaningful relationships is the framework that can best support the persistence and ultimately the perseverance of these students. I might not have found a single solution to the problem of adult learner persistence and motivation, but I uncovered ways to help address them through the use of communicative technologies in building meaningful relationships between teachers and students.

GED programs. Through the analysis of prior research and my current study, it is evident that adult learners enter the adult education environment motivated to learn (Knowles, 1980). Through my study, a theme that consistently emerged was the desire of adult learners to have a learning environment where there is support and help, and a place where they can learn information that will be beneficial to their everyday responsibilities.

For GED programs, this equates to the building of an educational environment where adult learners gain confidence in the educational system and have the ability to learn in a non-threatening environment. Adult learners face many barriers as evidenced in prior research and in small group interviews conducted in this study. These barriers include previous negative experiences with education, family and personal responsibilities, and many other restraints that hinder their academic progress. An atmosphere of transparency builds a purpose of empowerment and support in the adult learner's academic journey and improves student perception (Donavant et al., 2013; Epstein, 2016; Knowles, 2005; Marzano, 2003). When reflecting on this intervention design, participants found value in the implementation of the communicative technologies as they expressed a desire for continued use and interaction. Participants repeatedly commented on the support and guidance they received during their time with adult education. Most of the participants stated they lacked this level of support in previous schooling, which was a key contributor to them dropping out of the K-12 system. All of this suggests adult education programs need to consider committing to a continued implementation of communicative technologies. Open and honest communication largely shapes a learner's experience. It creates an environment of safety and respect in which participants can learn. Majority of the student participants seemed to be seeking ways to improve earlier learning experiences, and adult learners, by nature, have a much larger repertoire of experiences to draw upon over time. Therefore, GED programs that build a supportive environment for learning that includes relevant, useful, and helpful learning experiences with the use of communicative technologies may lead to students being more invested and potentially aids in creating a safe environment while providing

students confidence to work without pressure. The dialogue created through the use of the implemented communicative technologies can help deconstruct assumptions and clarify misunderstandings. Leaders must create a climate of trust, security, and empathy in order to facilitate change in negative perceptions of the educational environment.

Implications for Future Research

Conducting this study offered an opportunity for reflection on potential extensions or adjustments to learning more about the implementation of communicative technologies and there role in changing student perception of educational environment and student teacher relationships along with examining student motivation. Implications of this study include the possibility that knowing more about our students and their circumstances might help us serve them better. The study revealed that previous experiences do influence students of which we may not be aware of as educators and program leaders. How to connect with our students and to understand what they are going through are questions that could help us better serve our students and make meaningful connections. The findings from this study might contribute to the existing body of literature on increasing participation in adult education rests heavily on removing barriers, especially dispositional barriers such as unfavorable attitudes toward adult education and lack of trust in one's ability to succeed in education (Bariso, 2008). Barriers are not examined at a deep level, as future research could be beneficial in the area of barriers and finding out why students struggle with completion and what motivates them to continue despite these challenges. It could be beneficial to interview students who had to stop coming to our program to see what factors caused them to not persist. In reality, this study looked at supports in the form of communicative technologies much more than barriers.

While I did not see a significant change in motivation as measured by the MSLQ in this study, I believe future implications in collaboration to motivate my students may be a necessary avenue for research. My action plan includes continued implementation of communicative technologies with prospective adult learners.

Limitations

There are limitations and delimitations to this study that could be improved upon in future research. These limitations are organized into those related to (a) methodology, (b) research instruments, and (c) the researcher.

Methodology

As with all research, there are limitations particular to the method and context. The design of this study limits the generalizability of results beyond a local context. A small sample size and the short duration of this study potentially limit evidence of change in participant beliefs or practices (Ottenbreit-Leftwich et al., 2010; Rives, 2012). This study was conducted over approximately a four-week total where student participant progress varied and a study lasting longer may better capture motivational changes and changing student perceptions.

Another limitation comes in the collection of interview data. This study used interviews to gain rich qualitative data through participant explanation of student thoughts and experiences with the use of communicative technologies, but the presence of the researcher in the interviews may have influenced participants' responses (Adams, 2015). Creswell (2014) also noted limitations of using interviews include information reported through participants' perceptions, occur in a contrived setting, and the quality of information shared may be inhibited by participants' ability to articulate their thoughts.

Participant's willingness to provide honest responses to the interview questions may have influenced them to not adequately answer the research questions (Merriam, 1998).

A small sample size (n = 26) only represented one class of adult education students, not an entire student population of the adult education program. Seeking to affect this group of students as participants, the use of a control group did not occur (Metz & Page, 2002). Readers of this research can review the methods and findings presented to gather ideas for their practice, but little more.

Research Instruments

Beyond the limitations of the methodology, the measures used also presented limitations to the study. The measures used, including the MSLQ (Pintrich et al., 1991), SIRS, and interview protocol (Zimmerman & Martinez-Pons, 1986) were based on prior studies. However, they had to be adapted to fit the content of this research. Particularly, seven items within the MSLQ subscales used in this study were reverse coded. For some students, this presented difficulty with answering questions. Some students had questions about what the questions meant when they were completing the items. I am unsure if students accurately represented themselves or just put numbers they thought looked good. For this research, the MSLQ showed no motivational gains after the implementation of communicative technologies. Traditional quantitative assessments often inhibit students' motivation for learning because testing situations that are evaluative, comparative, and not genuine can elicit inaccurate and can be counterproductive motivation and learning from students (Paris & Turner, 1994). Linnenbrink and Pintrich (2003) assert that such assessments can be misleading because such evaluations do not take into account the multifaceted nature of student motivation. In addition, spacing the pretest and posttest so

closely together within approximately four weeks of each other (40 hours) could have led to the threat of repeated testing. The threat of repeated testing indicates students are sensitized to the questions, already seeing them previously and therefore their answers are biased. These low values are due, in part, to the small number of items that make up each subscale. Additionally, some of the constructs measured by the MSLQ are notoriously difficult to assess.

Furthermore, because students knew they were participating in a research study, the opportunity for student-participants to provide biased answers is always a threat. Students were informed their participation was voluntary and they were told their MSLQ submissions and SIRS questionnaire was completely anonymous. While actions were taken to prevent this, bias is a concern in any research study.

Researcher

As mentioned above, one limitation is the role of the researcher in an action research study, when he or she "is the primary instrument of data collection and analysis" (Merriam, 1998, p. 42). The primary instrument for data collection and analysis in action research is the researcher. As a researcher advances through the research process, the examiner must recognize he or she is a human instrument and the chief research tool. It is imperative for researchers to consider their own biases, limitations, and views throughout data collection, analysis, interpretation, and the reporting phases of the process.

Myself, as the researcher for this action research project has many years of teaching experience in the public school sector and teaching adult learners. As the researcher, I recognized that the study was being conducted during a time when teacher

expectations are a new high as my position as a full time teacher in the adult education program is relatively new. I utilized semi-structured interviews to ask questions from the participants, and listened actively to their responses. Having worked in the adult education program as a part time teacher for over 5 years, I had a grasp of the phenomenon of study. It is important to note that I was present in these GED classrooms as both the teacher and researcher. As part of the action research, my sustained presence may have allowed students to feel relatively comfortable with the researcher, as rapport had been established within the classrooms throughout the year. To help combat my own bias and abide by research regulations, I completed the training required for the Institutional Review Board process to establish that participant's rights and ensure they were protected in the study. In addition, I had all participants sign a letter of consent and they received a copy of it.

Still I can play a very subjective role and human perception can be "very selective" (Merriam, 1998, p. 95). Qualitative research assumes that the researcher's biases and values affect the outcome of any study (Merriam, 1998). However, triangulation through the use of interviews, MSLQ, and SIRS survey results helped ensure any potential researchers bias would still be brought to my attention (Creswell, 2014). Member checking of transcripts and findings was also used to ensure accuracy in representing student perceptions and experiences (Creswell, 2014). Additionally, while confidentiality measures were all instituted to aid in a willingness to respond openly and honestly, there is the potential that my presence in data collection could have influenced responses in both surveys and interviews. Lastly, being a developing researcher, I found the statements provided from the participants only scratched the surface of the depths of

choices and processes students used. When conducting research in the future, the use of better quality questions and more quality follow up questions would be helpful (Zimmerman & Martinez-Pons, 1986).

The results of this research should be considered with these limitations, although as mentioned earlier, there are various sources of data, which attempted to both minimize the limitations and provide in-depth insight into student's motivation and perception from different perspectives.

Closing Thoughts

As a candidate in the doctoral program, I feel that I have grown professionally as a student, practitioner, and researcher. As a professional educator, this process has provided a vehicle of clarification about adult basic education. My experience with teaching adult education courses over the last five years led me to the problem of practice. I saw adult learners were more prone to challenges and barriers to their learning and therefore withdrew or did not achieve academic success in completing their GED. Many factors that drive adults in learning have been identified through research and one factor is through motivation (Bekele, 2010). The adult learners' motivation in educational activities is a complex phenomenon involving situational, dispositional, and institutional factors, which often are linked to communication of program information (Fincher, 2010; Goddu, 2012). I found in my study, participants were often seeking ways to improve earlier learning experiences. Adult learners, by nature, have a much larger repertoire of experiences to draw upon over time. Once they have them, these perceptions can be hard to change. Overall, students in this study strongly believed that a positive relationship with their teachers and educational environment helped to

motivate them and engage them in instruction. Through my action research, I found the implementation of communicative technology generates the possibility of improving the relationship between learner, environment, and teacher as the use of communicative technologies provided support in positively changing student perception of the educational environment and student-teacher relationship.

Overall, I come away from this study with a better understanding of how to communicate with my students using characteristics that meet the needs of adult learners and will incorporate these in future course programs. As a result, when planning future learning opportunities, I will prioritize introducing them in the context of communicative technologies.

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APPENDIX A

PARTICIPANT CONSENT FORM

UNIVERSITY OF SOUTH CAROLINACONSENT TO BE A RESEARCH SUBJECT
Use of Communicative Technologies to Improve Perception, Relationships, and Motivation in Adult Education

You are invited to volunteer for a research study conducted by Rebekah Hannon. I am a doctoral candidate in the Department of Education, at the University of South Carolina. The purpose of this study is to improve motivation and perception of adult learners enrolled in a GED program at the Small Town Adult Education Center in Graniteville, SC through the use of communicative technologies and improved student-teacher relationships. You are being asked to participate in this study because you are a current year student participating in the GED program. This study is being done at the Small Town Adult Education Center and will involve approximately 25 volunteers.

Unless required by law, information that is obtained in connection with this research study will remain confidential. Any information disclosed would be with your express written permission. Study information will be securely stored in locked files and on password-protected computers. Results of this research study may be published or presented at seminars; however, the report(s) or presentation(s) will not include your name or other identifying information about you. Participation in this research study is voluntary. You are free not to participate, or to stop participating at any time, for any reason without negative consequences. In the event that you do withdraw from this study, the information you have already provided will be kept in a confidential manner. If you wish to withdraw from the study, please call or email the principal investigator listed on this form.

I have been given a chance to ask questions about this research study. These questions have been answered to my satisfaction. If I have any more questions about my participation in this study, or a study related injury, I am to contact Rebekah Hannon at 864.663.3535 or email rhannon@acpsd.net. I agree to participate in this study. I have been given a copy of this form for my own records. If you wish to participate, you should sign below.

_____ _____
Signature of Subject / Participant Date

_____ _____
Signature of Qualified Person Obtaining Consent Date

APPENDIX B

TUTORIAL FOR MARCO POLO APP

Steps to Using the Marco Polo App:

1. The first step is to download the app from the App Store on your IPhone or the Google Play Store on your Android device.
2. Once downloaded, you will be asked to make an account with a name and profile picture (optional).
3. Next, you will put in your phone number. This is an important step because the app syncs your contacts to see which friends are already using the app.
   If you do not have my number saved in your phone, I will not pop up on your friend's list. It is important to save my number, 864.663.3535.
4. Once you have connected with contacts from your phone, you will have the ability to save chats with them and see if they are active. You can send invite to contacts who are not currently using the app.
5. Marco Polo app allows users to connect, record, and send video messages to users to visit at their own convenience. Video messages are saved like text messages and can be viewed when most convenient for the user.

APPENDIX C

PARTICIPANT INTERVIEW QUESTIONS (ROUND ONE)

1. At what age did you stop attending school and why? Was it your decision to leave school? Was there a problem at the time?
2. How did you feel when you were in regular school for instance did it make you feel happy, mad, sad, alone, anxious, etc?
3. What do you think would have made school participation better you? Do you think more support from teachers, parents, family, etc would have made your experience better? If multiple factors, which do you believe played the biggest influence and why?
4. What do you think would make your educational experiences better for you at this stage in your life and your educational career? What is your current attitudes and beliefs about adult education classes and the program you have enrolled?
5. What is your current attitudes and beliefs about adult education classes and the program you have enrolled?
6. What impact do you feel the teachers and program leaders play in creating an environment that is inviting, engaging, and motivating for students?
7. Why are you participating in adult education classes?
8. What are the essential components to your learning environment? To what extent do these components influence your learning outcomes or performance and behavior?
9. What are the factors that helped you decide to attend the Small Town Adult Education Center and obtain your GED? What factors have hindered you in the past from joining the program and pursuing your GED?
10. How does having a sense of motivation and supportive relationships affect your educational experience?

APPENDIX D

PARTICIPANT INTERVIEW QUESTIONS (ROUND TWO)

1. How has your perception of adult education changed over the course of time you have been attending the program?
2. How has the use of texting/video messaging impacted you?
3. How has the use of texting/video messaging has impacted you in terms of your perception of adult education?
4. How has communication been different in adult education versus traditional school?
5. Describe specific occasions between you and the instructor (me) in adult education and the impact it had on you.

APPENDIX E

PARTICIPANT INTERVIEW QUESTIONS (ROUND THREE)

1. How has your experience with adult education differed from your K-12 experience?
2. How did the use of communicative technologies (text/video messaging) impact your perception and motivation?
3. Describe your past relationships with K-12 teachers and any ways that your current relationship with your teacher has differed.
4. How has/did your relationship with the adult education instructor differ from your traditional school teacher relationships?
5. What impact did the relationship between you and the adult education instructor impact your motivation and perception of the program?

APPENDIX F

STUDENT INSTRUCTOR-RELATIONSHIP SCALE

The following statements concern how you feel about your relationship with your instructor. Respond to each statement by indicating how much you agree or disagree with it. Fill in the corresponding number on the Optical scan from using the following rating scale.

1 2 3 4 5 6 7
Disagree Strongly Neutral/Mixed Strongly Agree

1.	I wish this instructor were more concerned with the welfare of students.	1	2	3	4	5	6	7
2.	I find it difficult to allow myself to depend on this instructor.	1	2	3	4	5	6	7
3.	The instructor is concerned with the needs of his or her students.	1	2	3	4	5	6	7
4.	I'm afraid that I will lose this instructor's respect.	1	2	3	4	5	6	7
5.	I worry a lot about my interactions with this instructor.	1	2	3	4	5	6	7
6.	It's not difficult for me to feel connected to this instructor.	1	2	3	4	5	6	7
7.	This instructor makes me doubt myself.	1	2	3	4	5	6	7
8.	I am nervous around this instructor (s).	1	2	3	4	5	6	7
9.	I find that the instructor does not connect well with students.	1	2	3	4	5	6	7
10.	The instructor seems to only appreciate certain students.	1	2	3	4	5	6	7
11.	I feel comfortable sharing my thoughts with this instructor.	1	2	3	4	5	6	7
12.	I find it relatively easy to get close to this instructor.	1	2	3	4	5	6	7
13.	Sometimes this instructor's mood is unpredictable.	1	2	3	4	5	6	7
14.	This instructor shows favoritism to some students.	1	2	3	4	5	6	7
15.	This instructor seems uncomfortable interacting with students.	1	2	3	4	5	6	7
16.	I prefer not to show this instructor how I truly think or feel.	1	2	3	4	5	6	7
17.	It's easy for me to connect with this instructor.	1	2	3	4	5	6	7
18.	I get uncomfortable when instructors try to get too friendly with students.	1	2	3	4	5	6	7
19.	I rarely worry about losing this instructor's respect.	1	2	3	4	5	6	7
20.	It makes me mad that this instructor does not seem to pay attention to the needs of his or her students.	1	2	3	4	5	6	7

21. I am very comfortable feeling connected to a class or instructor.	1	2	3	4	5	6	7
22. I'm scared to show my thoughts around this instructor; I think he or she will think less of me.	1	2	3	4	5	6	7
23. I usually discuss my problems and concerns with this instructor.	1	2	3	4	5	6	7
24. I don't feel comfortable opening up this instructor.	1	2	3	4	5	6	7
25. I'm afraid that if I shared my thoughts with this instructor that he or she would not think very highly of me.	1	2	3	4	5	6	7
26. I do not often worry about losing the respect of this instructor.	1	2	3	4	5	6	7
27. I find it easy to depend on this instructor for help.	1	2	3	4	5	6	7
28. If I were to get into trouble in this class, I do not think this instructor would be very motivated to help me.	1	2	3	4	5	6	7
29. I could tell this instructor just about anything.	1	2	3	4	5	6	7
30. I feel comfortable depending on this instructor.	1	2	3	4	5	6	7
31. I worry that I won't measure up to this instructor's standards.	1	2	3	4	5	6	7
32. I worry that this instructor does not really care for his or her students.	1	2	3	4	5	6	7
33. I prefer not to get too close to instructors.	1	2	3	4	5	6	7
34. I often worry that my instructor doesn't really like me.	1	2	3	4	5	6	7
35. If I had a problem in this class, I know I could talk to the instructor.	1	2	3	4	5	6	7
36. I know this instructor could make me feel better if I had a problem.	1	2	3	4	5	6	7

Scoring: Instructor Connectedness Items: Add items 3, 6, 11, 12, 17, 21, 23, 29, 30, 35, and 36. Higher scores denote stronger feelings of connectedness and low scores on this scale communicate avoidance or a tendency to eschew a close relationship with the instructor. Instructor Anxiety Items: Add items 4, 5, 7, 8, 22, 25, 31, and 34. Higher scores reflect a generalized anxiety regarding a relationship with the instructor, whereas lower scores reflect less threatening perceptions of this affiliation.

APPENDIX G

MOTIVATED STRATEGIES FOR LEARNING QUESTIONNAIRE (MSLQ)

Your instructor is participating in an action research project examining the use of communicative technologies on student-teacher relationships and motivation and persistence. I would like to ask for your participation in the study. As part of the study, over the course of 40 instructional hours, you will be asked to fill out several questionnaires related to your motivation and learning in this class. YOUR PARTICIPATION IS VOLUNTARY AND NOT RELATED IN ANY WAY TO YOUR SUCCESS IN THIS CLASS. You may decide to participate now but you can withdraw from the study at any time during the course of the research with no penalty. All your responses are strictly confidential and only I will see your individual responses. The attached questionnaire asks you about your study habits, your learning skills, and your motivation for work in this course. THERE ARE NO RIGHT OR WRONG ANSWERS TO THIS QUESTIONNAIRE. THIS IS NOT A TEST. Respond to the questionnaire as accurately as possible, reflecting on your own attitudes and behaviors throughout your educational career. Please sign below if you would like to be involved in this study. Thank you for your cooperation.

Name (Print):

_____

Signature:

_____

Today's Date:

_____

DEMOGRAPHIC INFORMATION

1. Gender (circle one). Male Female

2. Ethnic background (circle one).

Afro-American or Black Asian- Caucasian Hispanic

Other American Spanish Speaking

Part A. Motivation

The following questions ask about your motivation for and attitudes about this class. Remember there are no right or wrong answers; just answer as accurately as possible. Use the scale below to answer the questions. If you think the statement is very true of you, circle 7; if a statement is not at all true of you, circle 1. If the statement is more or less true of you, find the number between 1 and 7 that best describes you.

1 2 3 4 5 6 7

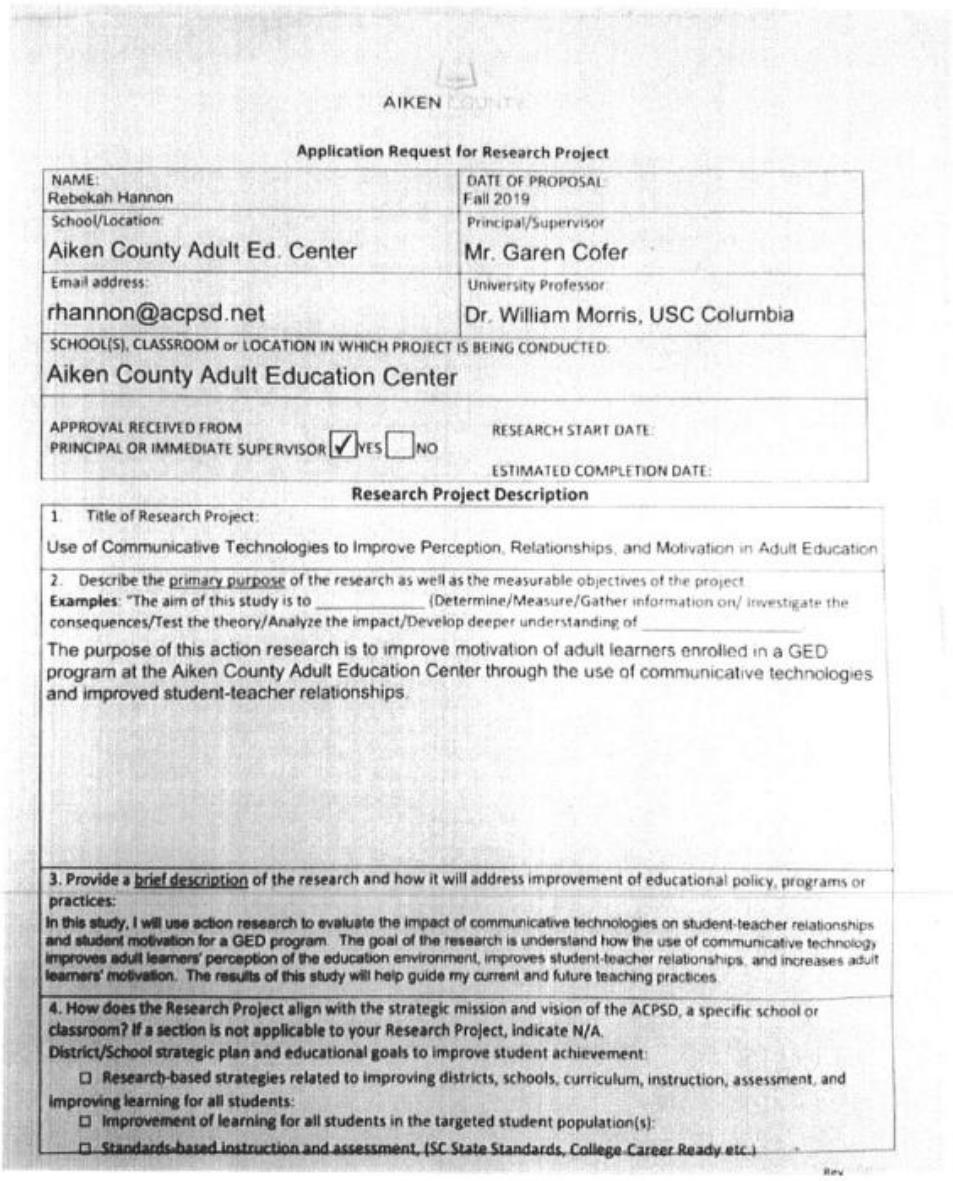
Not at all true of me Very True of me

1.	In class like this, I prefer course material that really challenge me so I can learn new things.	1	2	3	4	5	6	7
2.	If I study in appropriate ways, than I will be able to learn the material in this course.	1	2	3	4	5	6	7
3.	When I take a test I think about how poorly I am doing compared with other students.	1	2	3	4	5	6	7
4.	I think I will be able to use what I learn in this course in other courses.	1	2	3	4	5	6	7
5.	I believe I will receive an excellent grade in this class.	1	2	3	4	5	6	7
6.	I'm certain I can understand the most difficult material presented in the readings for this course.	1	2	3	4	5	6	7
7.	Getting a good grade in this class is the most satisfying thing for me right now.	1	2	3	4	5	6	7
8.	When I take a test I think about items on other parts of the test I can't answer.	1	2	3	4	5	6	7
9.	It is my own fault if I don't learn the material in this course.	1	2	3	4	5	6	7
10.	It is important for me to learn the course material in this class.	1	2	3	4	5	6	7
11.	The most important thing for me right now is improving my overall grade point average, so my main concern in this class is getting a good grade.	1	2	3	4	5	6	7
12.	I'm confident I can learn the basic concepts taught in this course.	1	2	3	4	5	6	7
13.	If I can, I want to get better grades in this class than most of the other students.	1	2	3	4	5	6	7
14.	When I take test I think of the consequences of failing.	1	2	3	4	5	6	7
15.	I'm confident I can understand the most complex material presented by the instructor in this course.	1	2	3	4	5	6	7
16.	In classes like this, I prefer course material that arouses my curiosity, even it is difficult to learn.	1	2	3	4	5	6	7
17.	I am very interested in the content area of this course.	1	2	3	4	5	6	7
18.	If I try hard enough, then I will understand the course material.	1	2	3	4	5	6	7

19. I have an uneasy, upset feeling when I take an exam.	1	2	3	4	5	6	7
20. I'm confident I can do an excellent job on the assignments and tests in this course.	1	2	3	4	5	6	7
21. I expect to do well in this class.	1	2	3	4	5	6	7
22. The most satisfying thing for me in this course is trying to understand the content as thoroughly as possible.	1	2	3	4	5	6	7
23. I think the course material in this class is useful for me to learn.	1	2	3	4	5	6	7
24. When I have the opportunity in this class, I choose course assignments that I can learn from even if they don't guarantee a good grade.	1	2	3	4	5	6	7
25. If I don't understand the course material, it is because I didn't try hard enough.	1	2	3	4	5	6	7
26. I like the subject matter of this course.	1	2	3	4	5	6	7
27. Understanding the subject matter of this course is very important to me.	1	2	3	4	5	6	7
28. I feel my heart beating fast when I take an exam.	1	2	3	4	5	6	7
29. I'm certain I can master the skills being taught in this class.	1	2	3	4	5	6	7
30. I want to do well in this class because it is important to show my ability to my family, friend, employer, or others.	1	2	3	4	5	6	7
31. Considering the difficulty of this course, the teacher, and my skills, I think I will do well in this class.	1	2	3	4	5	6	7

APPENDIX H

SITE APPROVALS



AIKEN COUNTY

Application Request for Research Project

NAME: Rebekah Hannon	DATE OF PROPOSAL: Fall 2019
School/Location: Aiken County Adult Ed. Center	Principal/Supervisor Mr. Garen Cofer
Email address: rhannon@acpsd.net	University Professor Dr. William Morris, USC Columbia
SCHOOL(S), CLASSROOM or LOCATION IN WHICH PROJECT IS BEING CONDUCTED: Aiken County Adult Education Center	
APPROVAL RECEIVED FROM PRINCIPAL OR IMMEDIATE SUPERVISOR ☑ YES ☐ NO	RESEARCH START DATE: ESTIMATED COMPLETION DATE:

Research Project Description

1. Title of Research Project:

Use of Communicative Technologies to Improve Perception, Relationships, and Motivation in Adult Education

2. Describe the primary purpose of the research as well as the measurable objectives of the project.
Examples: "The aim of this study is to _____ (Determine/Measure/Gather information on/ investigate the consequences/Test the theory/Analyze the impact/Develop deeper understanding of _____

The purpose of this action research is to improve motivation of adult learners enrolled in a GED program at the Aiken County Adult Education Center through the use of communicative technologies and improved student-teacher relationships.

3. Provide a brief description of the research and how it will address improvement of educational policy, programs or practices:

In this study, I will use action research to evaluate the impact of communicative technologies on student-teacher relationships and student motivation for a GED program. The goal of the research is understand how the use of communicative technology improves adult learners' perception of the education environment, improves student-teacher relationships, and increases adult learners' motivation. The results of this study will help guide my current and future teaching practices.

4. How does the Research Project align with the strategic mission and vision of the ACPSD, a specific school or classroom? If a section is not applicable to your Research Project, indicate N/A.

District/School strategic plan and educational goals to improve student achievement:

☐ **Research-based strategies related to improving districts, schools, curriculum, instruction, assessment, and improving learning for all students:**

☐ **Improvement of learning for all students in the targeted student population(s):**

☐ **Standards-based instruction and assessment, (SC State Standards, College Career Ready etc.)**

Rev

- ☐ Professional development and support for instructional or support staff:
- ☐ Supervision and evaluation of instructional staff (and non-instructional staff, if applicable)
- ☐ Diverse learning needs of students:
- ☐ Use of technologies designed to enhance teaching and learning,
- ☐ Creating a safe, nurturing and orderly school environment that is conducive to learning for all students
- ☐ Engaging Parents, Community or Business partners

Data Requests: Please describe in detail any data or information that you are requesting from the District. This would include requests to administer surveys, conduct observations etc. Please be as specific as possible.

I will participate as a teacher and research practitioner by assessing students, providing instruction, and implementing communicative technologies throughout the course. Data collection tools will be used including the Motivated Strategies Learning Questionnaire, Student Instructor Relationship Scale, and participant interviews. An evaluation study with triangulation will be employed using pre and post survey data and inductive thematic analysis will be employed. The estimated number of participants will be 25 adult learners selected from the pool of newly enrolled students in the GED program at the site. I do not anticipate requesting information from the district.

Other Relevant Comments:

1. How does the use of communicative technologies affect adult learners' perceptions of educational environment for a GED program?
2. How and to what extent does the use of communicative technology improve student-teacher relationships for a GED program?
3. How does the use of communicative technology increase adult learners' motivation in a GED program?

My signature below certifies that:

- I have received a copy of the *Guidelines and Procedures for Conducting Research Affiliated with Aiken County Schools* and that I will comply fully with the policies and procedures outlined as part of my research
- I have reviewed all relevant policies and procedures as outlined in that document related to responsible conduct in research including those related to ethical conduct and confidentiality.
- I understand that while working as a researcher under the supervision of an Aiken County School District employee, I may have access to records and files that contain confidential information and that it is the employer's obligation to protect the rights of these files and/or individuals and that
- I will follow the operating practices and procedures required while handling these records and will not inappropriately access or disclose this information.
- I acknowledge that if I misrepresent or omit any information as requested on this application I have jeopardized my continued association with Aiken County School District and is cause for forfeiture of consideration

Researcher Name: Rebekah Hannon
Print or Type name

Researcher Signature _____ Date 5/09/19

Reviewed by:

Signature: _____ Date: 8/15/19
Principal (if applicable)

Signature: _____ Date: 8/29/2019
Director, Office of Accountability & Assessment or Chief Officer of Administration

APPENDIX I

INSTITUTIONAL REVIEW BOARD NOTIFICATION

OFFICE OF RESEARCH COMPLIANCE

INSTITUTIONAL REVIEW BOARD FOR HUMAN RESEARCH
DECLARATION of NOT RESEARCH

Rebekah Hannon

[redacted]

Dear Ms. Rebekah Hannon:

This is to certify that research study entitled ***Use of Communicative Technologies to Improve Perception, Relationships, and Motivation in Adult Education*** was reviewed on **5/24/2019** by the Office of Research Compliance, which is an administrative office that supports the University of South Carolina Institutional Review Board (USC IRB). The Office of Research Compliance, on behalf of the Institutional Review Board, has determined that the referenced research study is not subject to the Protection of Human Subject Regulations in accordance with the Code of Federal Regulations 45 CFR 46 et. seq.

No further oversight by the USC IRB is required. However, the investigator should inform the Office of Research Compliance prior to making any substantive changes in the research methods, as this may alter the status of the project and require another review.

If you have questions, contact Lisa M. Johnson at lisaj@mailbox.sc.edu or (803) 777-6670.

Sincerely,

Lisa M. Johnson
ORC Assistant Director and IRB Manager