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The extent to which emotional intelligence, locus of control and self-efficacy contribute to the perception of online learning

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The Extent to Which Emotional Intelligence, Locus of Control and Self-Efficacy Contribute to the Perception of Online Learning

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Dedication

My recognition goes to my father, the late Honorable J. Samuel K. Smith, who taught me to believe in myself and understand that whatever the mind believes, one can achieve. He taught me that with hard work anything is possible. My father always reminded me to live in faithfulness to God, knowing that the significance of our life will extend beyond our lifetime.

Secondly, I dedicate this project to my three children, Victor Ahmed Abraham, Jonathan Lorne Abraham, and Laurece Eliza Abraham. Walt Disney describes, "All our dreams can come true if we have the courage to pursue them." Never allow anyone to tell you that you cannot accomplish anything in life. If you are willing to dream, take the risk, prepare, and always go the extra mile, you will always do the impossible. I hope my children learn the value of education and understand that goals can be accomplished during the chaos of life and work. The phrase "the race is not to the swift but he that endured to the end" is evident. The rewards will outweigh any sacrifice you may have made. My children's love, support and prayers helped me to maintain my focus while pressing on with this tedious goal. I hope my perseverance, despite all the challenges, showed them how prayers, patience, and determination can get you through any earthly endeavor.

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ivate me to persevere during those sleepless nights balancing work, school, kids, and time management. Finding the balance was a challenge but having my siblings love made it possible.

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Abstract

Online learning is now entrenched in the mainstream educational system and continues to provide educational opportunities for millions of Americans. However, as online education increases, there is a need to improve the quality of education. This dissertation examines the extent to which emotional intelligence, locus of control, and self- efficacy contribute to the perception of online learning. The applied research methodology was a quantitative cross-correlational design. The statistical population was 156 online students selected from a Midwest university. A survey containing 21 items with Likert-type responses was developed to assess students' overall perceptions of online learning. The research questions for this study integrated emotional intelligence, locus of control, and self-efficacy concepts. The result indicated a statistically significant correlation for males and is inconsistent with extant literature that has examined students' perception of online learning. Additionally, study findings indicated a statistically significant relationship among emotional intelligence, locus of control, and self-efficacy with regard to students' online learning. This will help learners cultivate emotional intelligence, locus of control, and self-efficacy, and importance of competence in students' success in online learning.

Key words: online education, emotional intelligence, locus of control, self-efficacy

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Chapter 1: Introduction

The purpose of this study is to investigate the relationship among students' emotional intelligence, locus of control, and self-efficacy and their perception of learning in an online environment. The extant literature has indicated that online learning has become a dominant mode of education. Nguyen (2015) noted that the traditional classrooms are starting to lose its monopoly as the place of learning: "The internet has made online learning possible, and many researchers and educators are interested in online learning to enhance and improve student learning outcomes" (p. 309). It follows that, online learning is no longer considered a fad in the educational arena. Online learning is now entrenched in the mainstream educational system and continues to provide educational opportunities for millions of Americans. The number of students enrolled in online courses has increased rapidly since the 1990s. According to the U.S Department of Education, National Center for Education Statistics (2016), during the 2000-2001 academic year, there were 2,876,000 students enrolled in online courses. These numbers increased significantly, accounting for 12.2 million and 18 million students enrolled in online learning courses by the 2006-2007 and 2014 academic years, respectively.

Online learning is predominant in higher education. For example, Kentnor (2015) reported that 6.7 million students took at least one online course, representing an all-time high of 32% of higher education. Because of this, a growing and extensive body of literature has emerged on online learning: "Despite the attention of researchers to online learning, traditional methods of teaching have been the most prominent form used to educate students" (Nguyen & Tabak, 2013).

Traditional methods of teaching dates to colonial America and is one of the oldest methods of education. The traditional classroom provides a unique opportunity for students to have face-to-face interaction with their professors in real-world campus environments. Likewise, Bowens (2013) noted that traditional education helps students to develop a social network with their peers and provide a structure that many students need to complete their course of study. In a study on traditional education, Chickering and Gamson (as cited in Stern, 2004) provided seven practices of good traditional education. They maintained that good practices: (a) encourage contact between students and faculty, (b) encourage cooperation among students, (c) encourage active learning, (d) give prompt feedback, (e) emphasizes time on task, (f) communicates high expectations, and (g) respect diverse talents and ways of learning. Advocates of traditional education firmly believe the use of the traditional method of teaching is not possible over the internet and that online learning will never meet the potential of live human interaction in the classroom (Tabak & Nguyen, 2013)

While many educators were affirming the traditional system, a newer type of education—distance education—was emerging on the horizon. With the advent of the print media, the first form of distance education began in the form of correspondence course study (Anderson & Simpson, 2012; Courtney & Wilhoite-Mathews, 2015; Perry & Pilati, 2011). Researchers observed that distance education had a tremendous impact on dispersed communities located in areas lacking geographical access to traditional institutions of higher education (Anderson & Simpson, 2012; Courtney & Wilhoite-Mathews, 2015; Perry & Pilati, 2011). In their pioneer study, Anderson, and Simpson (2012) agreed that distance education was further enhanced with the introduction of second-generation technologies such as radio and television. These technologies were integrated into distance education and made a significant impact on the mode of delivery. However, it was the advent of the internet that

changed the trajectory of distance education, resulting in a change from a fringe activity on the university campus to a major stage in higher education. (Tabak & Nguyen, 2013). The internet is becoming a driving force in pedagogical approaches to education in the twenty first century. "Despite the rapid increase in the number of college courses offered either fully online (e.g., Dillon, 2008; Golden, 2006) or in a blended (hybrid) format where at least 50% of the course is delivered online (e.g., Ross & Rosenbloom, 2011; Rossett, 2006), research on the factors that determines student performance in such environments is still not fully understood" (Tabak & Nguyen, p.1) More specifically, answers to question such as the following are still unknown: How are effective online learning environments designed? What type of student is more likely to succeed in online or courses? Are there particular student characteristics that would differentially impact the process of learning and course success for traditional, face-to-face courses versus online courses?

Given the limited information available regarding determinants of student performance in online settings, this study seeks to examine if a relationship exists among emotional intelligence, locus of control, and self-efficacy, in relation to students' perception of online learning. For the purposes of this study, emotional intelligence (EI) is defined as the ability to perceive, extract information from, and manage one's own and others' emotions (Mayer & Salovey, 1990).

Goleman (1995) associated students' academic performance directly to emotional intelligence by maintaining that students with higher emotional intelligence are more likely to succeed because they can control emotional impulses and are self-motivated. In their study on emotional intelligence, Berenson, Boyles, and Weaver (2008) contend that the emotional predictors of online success correspond with emotional intelligence. They defined emotional intelligence as "self-awareness of one's own feelings and needs" (p.1). Berenson and

colleagues observed that learning is as much a function of a person's emotional response to a learning environment as it is to the instructional method of the classroom. Additionally, Berenson et al. (2008) found that higher grades correspond to a greater level of emotional intelligence, and emotional intelligence is directly associated with GPA among online students.

In another study, Mayer and Cobb (2000) maintained that emotional intelligence involves four broad classes of abilities: "(a) perception, (b) integration, (c) understanding, and (d) management of emotion" (p. 166). The first ability, perceiving emotions, involves attending to and recognizing feelings. The second ability, integrating emotions in thought, involves using personal emotions in thought and communication. The third ability, understanding emotions, involve reasoning with feelings. The fourth group of skills concerns the management of emotions. Mayer and Cobb described "emotional intelligence as the ability to process emotional information, mainly as it involves the perception, assimilation, understanding, and management of emotion" (p. 167). Salovey and Mayer (1990) also noted that emotional intelligence relates to emotional and social characteristics of students that "involve the ability to monitor one's own and other's feelings and emotion to discriminate among them and to use the information to guide one's thinking and actions" (p. 189).

Guijiar and Aijaz's (2014) study makes a connection between motivation and locus of control. They maintained that motivation is an essential aspect of learning and is the heart of a teaching and learning process. Guijiar and Aijaz claimed, " no learning can take place without the interest of the learner" (p. 1), meaning that motivation plays a crucial role in student learning.

Locus of control, on the other hand, deals with students' personal belief that others control the consequences of their action. Students with an internal locus of control believe that they have direct control over the outcomes of their actions (Guitar & Ajaz, p. 20). Joo, Lim, and Kim (2013) stated that locus of control refers "to an individual's perception about the underlying causes of events in life" (p. 149). According to Mayer and Salovey (1997) locus of control is developed on a continuum, ranging from internal to external. Students at the internal end of this continuum are said to have a high locus of control while those at the external end refers to those with low locus of control.

The continuum relates to education in Mayer and Salovey's (1997) study because they found a direct and positive correlation between locus of control and academic achievement. Mayer and Salovey (1997) noted that the perception of emotions reflects emotional experience while understanding emotional intelligence has been proven to help people make sound decisions and increase performance.

Researchers agreed that self-efficacy is crucial to online learning (Alqurashi, 2016; Bates & Khasawneh, 2007; Dinther, Dochy, & Segers, 2011). In their pioneer study, Shen, Cho, Tsai, and Marra (2013) defined self-efficacy as "people's judgments of their capabilities to organize and execute a course of action required to attain designated type of performance" (p. 10). The student's self-efficacy can impact their belief to be successful with online learning due to self-motivation.

Interest in emotional intelligence, locus of control, and self-efficacy led to this general study to determine the links between emotional intelligence locus of control and the perception of online learning. Additionally, this study will evaluate if students' perceptions of their performance is related to their learning methods. This study seeks to fill the gap in the literature.

Issues and Challenges of Online Learning

The number of online education programs has increased dramatically over the years. This increase is possible with the growth and development of newer technologies. As the popularity of these online programs continues to grow and expand, there continues to be many potential barriers with the application of technology in online learning. These barriers to technology include integration in an online learning environment, technical support, teacher expertise, time for planning, student academic skills, technical problems, cost and access to the internet, pedagogical application, professional development and training, professor's lack of confidence, and time management (Allen & Seaman, 2008; Muilenburg & Berge, 2001; Pritchett, Pritchett, & Woleb, 2005).

Professional development and training are critical to the integration of technology in the online learning environment. Dede, Ketelhut, Whitehouse, Breit, and McCloskey (2009) supported this assertion and agreed with Hawley and Villi (1999) that professional development of teachers is the keystone to educational development. Although a consensus exists among scholars that professional development is critical, the researchers also maintain that time, effort, and scarce resources pose a problem.

Mouza (2002-2003) agree that professional development can improve staff teaching methods but is concerned about inadequate professional development. In an article "Learning to Teach with New Technology: Implications for Professional Development", Mouza cites various reasons for the failure of many professional development efforts. These include: (a) the development of activities from the school site, (b) the irrelevance of activities to teacher classroom practices, (c) conducting one-shot workshops without follow-up support, and (d) the inability to address the individual needs and concerns of the teachers. In conclusion, Mouza (2003) advises, "professional development must provide staff with

enough time to discuss technology issues" (p. 275). Berenson identified other barriers (2008) include "students' educational background, lack of written communication, time management skills in combination with unrealistic online course expectation, frustrations, anxieties, apprehension and incompetence" (p. 3).

Statement of the Problem

As distance education continues to play a more significant role in higher education, there is a need to further explore the possible relationship between emotional intelligence, locus of control, and self-efficacy in online learning. Although a plethora of research has been conducted that examine the role of emotional intelligence and their impact on students' success in learning, other researchers sound cautious and optimistic. Learning is more of a function of a person's emotional response to the learning environments as compare to the instructional method or classroom (Flood, 2003). Thus, a review of the literature indicated that there have been no published studies that examine the correlation between emotional intelligence, locus of control, and self-efficacy with online learning. As such, the objective of this research is to validate whether a correlation exists between emotional intelligence, locus of control, and self-efficacy, as it pertains to students' perception of online learning.

Nature and Significance of the Problem

Educators and researchers will find this study beneficial because emotional intelligence, locus of control, and self-efficacy remains unexplored in relation to students' perceptions of online learning in the published literature. Likewise, few empirical studies have investigated the relationship between emotional intelligence, locus of control, and self-efficacy as it pertains to students' perception of online learning.

Research Questions

This study will investigate the following eight research questions:

1. What is the relationship between emotional intelligence and students' perception of online learning?
2. What is the relationship between locus of control and students' perception of online learning?
3. What is the relationship between self-efficacy and students' perception of online learning?
4. Is there a relationship between each of the dimensions of emotional intelligence (self-awareness, empathy, relationship management, and self-management), among students' perception of online learning?
5. To what extent does gender moderate the relationships between independent variables and students' perception of online learning?
6. To what extent does class-time moderate the relationship between emotional intelligence and locus of control as it relates to online learning?
7. To what extent does age moderate the relationship between the independent variables and students' perception of online learning?
8. To what extent does computer usage
9. moderate the relationship between emotional intelligence, locus of control and self-efficacy as it relates to students' perception of online learning?

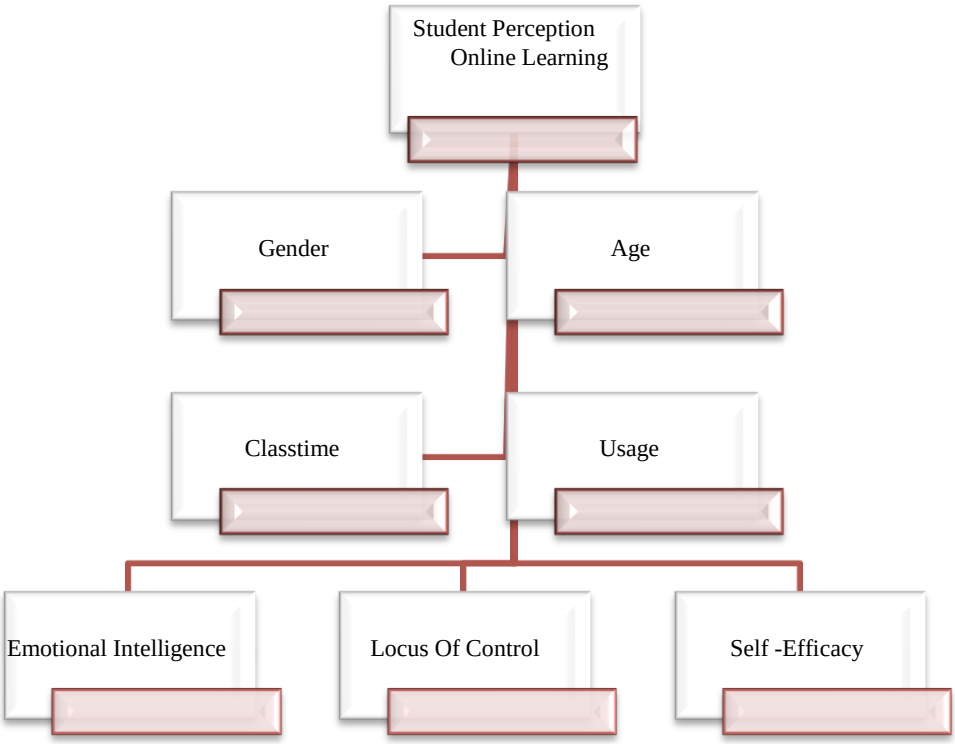

Figure 1. Problem statement. This figure illustrates the relationship between emotional intelligence, locus of control and self-efficacy as it pertains to students' perception of online learning.

Limitations & Delimitations

This study is limited to students age 18 years or older, who enrolled in online courses during Fall 2017 at large local Midwestern university in Michigan. Participation in this study was also limited to students with specific majors including business, accounting, computer information programs, and management. The participants' backgrounds and the number of valid surveys collected were limited. It is uncertain whether academic disciplines contributed to the students' perceptions of online learning. Future studies should investigate perceptions of students from different academic disciplines. The study is also limited to 156 students from one university in Michigan. Future researchers can conduct a more comprehensive survey with a larger student population.

Definition of *Terms*

Behavior- the result of an interaction between the environment and internal factors.

Distance learning- also referred to as distance education, online learning, electronic learning, e-learning, or

remote learning. Distance learning is delivered outside the traditional classroom setting using television, computer, phone, mail, or with the computer networks such as the internet (Mckeachie & Svinicki, 2006). There are three major types of distance learning, namely synchronous, asynchronous, and mixed and hybrid.

E-Learning-*i*s a form of students' delivery instruction that uses electronic devices such as computers and mobile tablets or handset. This delivery is also referred to as online learning because of its reliance on digital communications networks such as the public internet (Ally, 2008).

Emotional Intelligence (EI)- refers to "the ability to perceive accurately, appraise, and express emotion; the ability to access and generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge. It further defines capacity to regulate emotions to promote emotional and intellectual growth" (Mayer & Salovey,1997, p. 10). In summary emotional intelligence is a person's ability to perceive, facilitate, understand, and regulate emotions.

Emotional perception-*i*s the ability to recognize one's feelings and those of others (Mayer & Salovey, 1997).

External locus of control- denotes when an individual attribute everything as an outcome of external events or expectancy that events are controlled by forces other than oneself (e.g., luck, fate). Those with an external locus of control believe that factors outside of them control outcomes (Bajwa, Batool, Azam, & Ali, 2016).

Internal locus of control-*i*s defined as an individual's belief that they are the master of their own life and every outcome is caused by the actions they perform. An individual with an internal locus of control believes that their actions will lead to a desired result (Rotter, 1966).

Locus of control (LOC). This concept states that we each view life as something we can control or something that controls us. The true meaning "is a dimensional construct representing the degree to which individuals perceive reinforcing events within their lives to be the results of their actions" (internal LOC) or fate (Pradesh, 2010, p. 84).

Online Learning. This is a course where 80% or more of the content is delivered online, blended/hybrid courses have 30-79% online delivery, web- facilitated courses have 1-29% online delivery, and traditional courses have no online delivery (Allen & Seamen, 2013, p. 7). It is a learning environment where the student and the instructors are not online at the same time, so there is no face-to-face connection.

Self-awareness- is defined as knowing one's internal states, intuition, mindset, preferences, and resources. Self-awareness is an individual's accurate self-assessment and self-confidence (Mayer & Salovey, 1997).

Self-efficacy- refers to a person's belief about his capabilities to achieve or execute actions required to perform well (Bandura, 1995).

Student perception - refers to a judgment resulting from awareness or understanding.

Assumptions

This study was being undertaken with the following assumptions:

1. All the students answered the survey questions honestly.
2. The survey instruments are valid and reliable.
3. The students are business, accounting, computer information programs, or management majors only.

Chapter 2: Literature Review

Introduction

The popularity of online learning is growing considerably and becoming a significant trend in education in America. With the rapid growth and development of newer technologies, online education is becoming a valuable option for many students who are not able to enroll in traditional classrooms. Allen and Seaman (2017) in their distance education report found that over 6 million students are now enrolled in online education**.** Allen and Seaman also found the that majority of schools agreed that online education is critical to their long-term strategy, with majority of academic leaders believing that online learning quality is already equal to or superior to face-to-face institutions. This literature review synthesizes information gleaned from scholarly journal articles, books, the internet, educational digest, and government documents relevant to online learning.

The literature review will present an overview of previous research on the determinants of online learning and summarize major findings of divergent viewpoints from peer-reviewed scholarly journals, electronic databases, the internet, and other relevant documents appropriate for this review. Although a literature review generally covers a wide range of topics, this review will focus on seven major themes and sub-themes, which will emerge throughout the extant literature. The literature review will focus on these themes: (a) history of online learning, (b) theoretical framework, (c) online learning environment, (d) students online interactions, (e) emotional intelligence, (f) locus of control, and (g) self-efficacy. Additionally, a summary and conclusion will also be provided.

Theoretical Framework

Bandura's (1977) social learning theory will provide the theoretical framework for this study. This study will present the fundamental concepts, ideas, findings, and assumptions as they relate to emotional intelligence, locus of control, and self-efficacy of students' perception of the online learning environment, guided by the social learning theory. Bandura's social learning theory states that people learn from one another by observation, imitation, and modeling (see Figure 2). Bandura believed that direct reinforcement could not account for all types of learning; as a result, he added another element arguing that people can learn new information and behavior by watching other people. This he termed observational learning or modeling. Modeling is very critical in an online learning environment as is evident in research studies (Bandura, 1985). In the online environment, modeling is found on the discussion board. When there is a good example or model, students tend to engage more effectively.

Garrison and Cleveland-Innes (2005; cited in Hill, Song, & West, 2009) surveyed two different groups of students with high and low modeling of teachers' engagements and found that those with high model teachers' presence on the discussion board had deeper students' engagements. Bandura (2005) also noted that there are four necessary conditions for effective modeling: (a) attention, (b) retention, (c) motivation and (d) reproduction

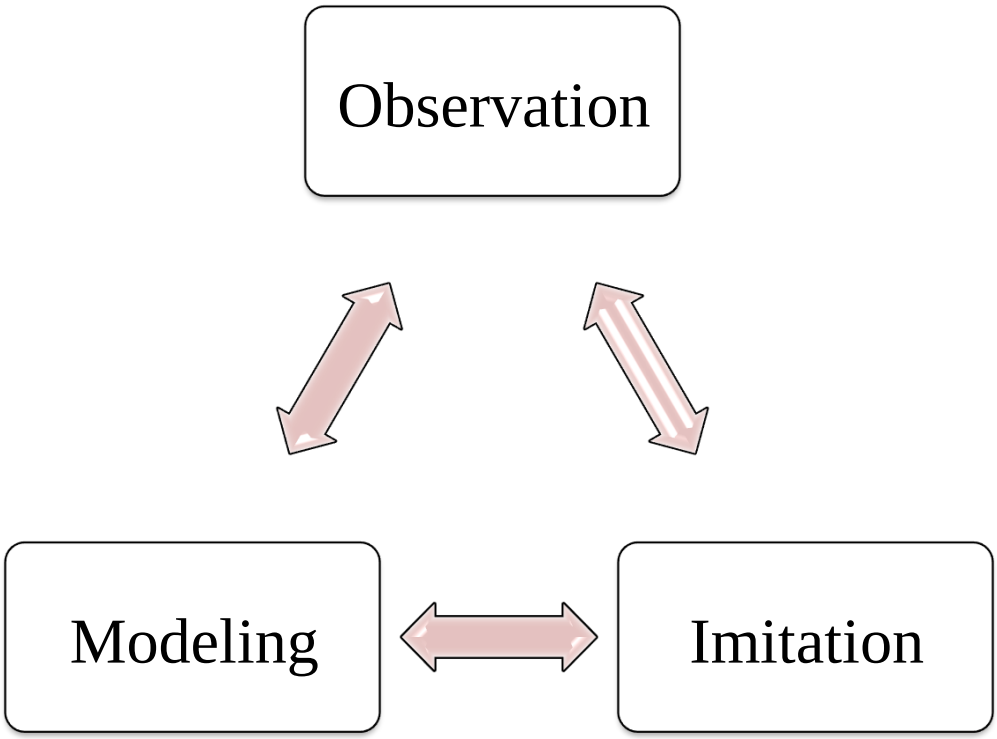

Figure 2. Bandura's social learning theory.

Bandura observed that four processes, as stated earlier characterize observational learning. He noted that students cannot learn new skills/behavior without paying attention. In the online world, social presence is important in social learning.

History of Online Learning

While distance education was common in the 1800's, its rapid growth and popularity began in the 19th and 20th centuries with the advent of radio and television (Kentnor, 2015; Miller 2014; Saba, 2011). Researchers agreed that by the 1920's, radio had become a powerful medium of information transmission. Because of this, many colleges and universities began to find new ways to explore the potential of radio by offering broadcasting courses using that medium. At this time, a growing need for a national organization dedicated to using radio as a tool for educational programs was taking momentum in

Washington D.C. Kentnor (2015) noted that on December 30, 1930, the National Committee on Education by Radio (NCER) was established with the purpose

> "to secure to the people of the United States the use of radio for educational purposes by protecting the rights of educational broadcasting, by promoting and coordinating experiments in the use of radio in school and adult education, by maintaining a Service Bureau to assist educational stations in securing licenses and in other technical procedures, by exchange of information through weekly bulletin, by encouragement of research by radio, and by as a clearinghouse for research". (p. 26).

The establishment of the National Committee on Education by Radio (1931) helped to pave the way for the use of radio as a source of educational broadcast medium. Kentnor (2015) observed that in 1909, the University of Wisconsin-Extension was established as a distance-teaching unit on that campus. Similarly, in 1919, professors at the same University of Wisconsin established a wireless station that became the first federally licensed radio station dedicated to educational broadcasting. Also, in 1925, the federal government is said to have granted educational radio licensed to the Latter-day Saints University of Salt Lake City; during the same year, the University of Iowa began offering radio broadcast classes at their campus. Additionally, the University of Wisconsin and the University of Minnesota received radio stations in 1922. Kentnor contends that educational radio played a prominent role throughout the 1920's. Radio broadcasting was not only limited to educational settings but extended its reach to the social broadcast of sports events, concerts, dramas, and college lectures. By the end of the 1920's, 167 educational institutions had received regular broadcast licenses (Kentnor, 2015; Saba 2011).

In his seminal work, Moore (2003) debunked the idea that the internet originated in the 1990s. He predated its finding to the 1970s, beginning with the PLATO project at the University of Illinois. Although the PLATO project was a computer-assisted instructional program, Moore noted, "It allowed a number of sites to communicate by dial-up and dedicated connections, giving credence to the idea of electronic network form of instructions" (p. 21).

Likewise, the National Science Foundation developed its network of supercomputers for research purposes (Kentnor, 2015). Because of this research, Pennsylvania State University started offering distance education in its adult education program by way of computer-based communication. The program was augmented with audio-video conferences and delivered in several locations outside the United States. The first Web browser—the mosaic—was discovered in 1993, making it possible for the graphics interface that freed professionals from using the textual medium of communication. The mosaic made it possible for educators to have access to programs through the internet. By this time, more people were using the internet as compared to previous years. According to Moore (2003), only 9% of Americans had access to the internet in 1995; however, by 2002 the numbers increased exponentially. By this time 66% of Americans were online reaching 137 million users.

By the early 1990s, several universities began using web-based education programs (Kentnor, 2015). It started in the latter part of the 1980s and quickly developed into a major evolution in education. The internet has profoundly impacted education in America. Research shows that the internet usage has increased exponentially over the years. (Harting, & Erthal, 2005). Although the Department of Defense is credited with the creation of the

internet in the 1960s, it did not become a potent force in education until 20 years later, when Berner-Lee and colleagues introduced the internet in 1991 (Perry & Pilatti, 2011, p. 95). Kentnor (2015) noted that the University of Phoenix began the online educational program in 1989 by using CompuServe as one of its first consumer online services (Kentnor, 2015; Reiser, 2001). Immediately, in 1991 the World Wide Web (www) was discovered, and Kentnor (2015) stated that "the University of Phoenix became one of the first to offer online education through the internet" (p. 28). The University of Phoenix's initiation prompted many other higher education institutions and for-profit colleges to follow. Since then, online learning on the internet has significantly increased even as higher education enrollment continued to decline.

Research has provided extensive overview of distance education with an emphasis on the social, economic, and technological progression (Courtney & Mathews, 2015; Kentnor, 2015; Mathews, 1999; Perry & Pilati, 2011; Saba, 2011). It is these authors' observation that distance education grew out of the necessity to (a) help the common man/woman to access education for the development of vocational and farming skills, (b) meet the needs of the under-served segment of the society, and (c) assist older students who were too busy with family responsibilities.

Kentnor (2005) observed that the earliest known reference to correspondence education was on March 20, 1728, "When Calep Phillip placed an advertisement in the Boston Gazette offering short hand lessons for any persons in the country desirous to learn this art" (p. 23). However, the first distance education course was attributed to Sir Isaac Pittman who taught a system of shorthand by mailing text transcribed into shorthand on postcards and receiving transcriptions from his students in return for corrections. The element of student's feedback was made possible by the introduction of uniform postage

rates in England. Pittman established the Pittman Correspondent College in England in 1840 (Crotty, 2014; Keegan, 1996; Kentnor, 2015). Pittman's success in distance education spawned the growth of other distance education across Europe. In England, the University of London established the first distance learning degree in 1858. The university commonly referred to as "People's University" provided access to higher education to students from less affluent backgrounds. By the 19th century enrollment at the University of London increased dramatically and the program was replicated throughout Europe. Today, the University of London is said to be the world's oldest and largest provider of distance education. The university's distance learning program has been accessible to students from all over the world since 1858. Today, it has more than 50,000 students in 180 countries participating in more than 100 degrees, diplomas, and certificate programs including but not limited to law, health, information security, and science. Students in the London distance-learning program have three to eight years to complete an undergraduate degree and two to five years to complete postgraduate degrees. Former students from the London distance-learning program include politicians, designers, engineers, poets, teachers, lawyers, leaders of business and industry, as well as seven noble-prize winners (Crook, 1990; Philips, 1999).

Meanwhile, in the United States, one of the earliest and most significant examples of distance education has been attributed to Ann Elliott Ticknor (Bergman, 2000; Caruth & Caruth, 2013). Ticknor has been credited with the establishment of America's first correspondence—a distance learning option conducted through the mail—in school in Pennsylvania. Commonly referred to as the Society to Encourage Studies at Home, Ticknor's school was dedicated exclusively to the education of women and is said to have enrolled more than 7,000 women. As a correspondence school, syllabi were mailed to students, and they were responsible for submitting assignments to their instructors via mail.

Although Ticknor's Society to Encourage Studies at Home was short-lived, it had a tremendous impact on distance education in the United States and particularly in the lives of women (Bergman, 2000; Caruth & Caruth, 2013). Testimonies culled from individuals and researchers praised Ticknor for changing women's lives. It is suggested that "the Society to Encourage Studies at Home was revolutionary and provided women an opportunity to obtain a liberal education and it was instrumental in the education of women, whether they elected to apply their education in the home or careers" (Bergman, 2001; Caruth & Caruth, 2013).

The first concept of distance education at a higher level was introduced at the University of Chicago (Bergman, 2001). William Rainey, the pioneer of distance learning, is said to have established the first college-level correspondence courses while serving as the first president of the University of Chicago (Caruth & Caruth, 2013). Rainey developed the concept of extensive education by way of satellite colleges in the wider community. Kentnor (2008) indicated that the correspondence program at the University of Chicago was quite successful in terms of enrollment, enrolling 3,000 students in 350 courses with 125 instructors (Bittner & Mallory, 1993; Pittman, 2008, p. 24). Pittman (2008) suggests that "Rainey's stature in distanced education made it reputable and therefore possible for other state flagship and land-grant universities to follow suit" (p. 170). Because of this effort, Scranton, Pennsylvania, developed the largest for-profit correspondence school in the nation. Dubbed the International Correspondence School, the school provided training for immigrant coal miners to become mine inspectors or foreman. By 1894, the International Correspondence School enrolled 2,500 students, and a year later, in 1895, the enrollment jumped to 72,000 students.

Educational radio broadcast continued to gain momentum in the 1930s, 1940s, and 1950s. Researchers claimed that by 1938, about 200 city schools' systems, 25 state boards of education, and many colleges and universities broadcasted educational programs. In 1948, the University of Louisville teamed up with NBC to use radio as a medium for distance education. Behrens (2000) stated that the "chairman of the Federal Communications Commission (FCC) at that time endorsed the program and predicted that the college by radio would put American education twenty-five years ahead" (p. 11).

However, Kentnor (2015) maintained that while the radio was the new medium of education in the 1920s, its use in education was more popular in Europe and other countries around the world than in the United States. This was the case in nations where radio was more reliable than postal service or where the literacy rate was lower (Kentnor, 2015). Kentnor further opined that in Latin America radio broadcasting organizations were among the pioneers of distance education. In these countries, radio became the ideal instrument for educating the masses because radio is cheap and immediate, its content could be changed quickly, and it can reach many people.

Distance education that began in the 1700s continued to grow as new technologies emerged. It was not long after the introduction of radio that television emerged as the new medium of distance education. Behrens (2000) noted that the first attempt to recognize the potential of the educational television broadcast on a national level did not materialize until 1952 when the FCC set aside 242 channels for the exclusive use of non-commercial educational broadcasting. This action spurred the growth and development of more educational broadcasting. Behrens (2000) further stated that the University of Houston became the first institution of higher education to set up a non-commercial broadcasting television when it began operating Station KUHT in 1953. The second station, KTHE was

licensed to the University of South California and went on air in 1953 (Saettler, 2004). Immediately after this, cities such as Miami, Pittsburgh, Chicago, Denver, and Madison followed suit. By 1955, there were 12 educational television programs on the air, and by 1958 there were 35 followed by 51 in 1961 (Blanchard, 1998).

Similarly, in 1960, a bold experimental and innovative program—Midwest Program on Airborne Television Instruction (MPATI)—launched its "Flying classroom" from an airfield near Purdue University, to broadcast instructional programs to schools in Indiana and the five surrounding states (Schultz, Schultz, & Round, 2008). According to Schultz et al. (2008) the project was successful because the organizers were able to get educators from the six-state region to collaborate on selecting a curriculum and designing and producing the best example of an agreed-upon body of curriculum. Additionally, Schultz and colleagues noted that "MPATI transmitted educational television programs to nearly 2,000 public schools and universities reaching almost 400,000 students in 6,500 classrooms in Indiana and five surrounding states" (p. 24).

By the 1960s and 1970s, television had become a major asset in distance education. Schultz et al. (2008) indicated that by the 1960s, 53 television stations were allied with the National Educational Television Network (NET), thereby allowing the exchange and sharing of instructional materials. Schultz and colleagues (2008) maintained that 233 educational stations came into existence by the 1970s, including Ohio University, University of Texas, and the University of Maryland. These universities represented the earliest institutions to create networks reaching students regardless of their primary affiliations on or off campus. Therefore, WHA-TV station became a major producer of local, state, and national educational programming, focusing on cultural performance, arts, sports, and public affairs themes (Schultz et al., 2008).

The 1950s, 1960s, and 1970s saw significant investment in the growth and development of educational television. The 1950's had seven educational television stations spanning seven different colleges (see Table 1) with a range of educational TV stations (see Table 2).

Table 1

Educational Television

Station	Year	College
WOI-TV	1950	Iowa State College (now University)
KUHT	1953	University of Houston
KTHE	1953	University of Southern California
WQED	1955	Pittsburg
KQED	1955	San Francisco
WGBH	1955	Boston
WTTW	1955	Chicago

Table 2

Educational TV Stations

Station	Channel	Agency	Locations
KUAT	6	University of Arizona	Tucson, AZ
KRMA	6	Denver Public Schools	Denver, CO
WILL	12	University of Illinois	Champaign-Urbana, ILL
KUON	12	University of Nebraska	Lincoln, NE

Learners must engage in the online information age to survive the fast-paced digital age in our society. Students no longer have a choice in getting involved with online learning or not, they must adapt to survive this learning information age (Esterrhuysen & Stanz, 2004). Online learning is no longer considered just a passing trend in the educational arena but is now entrenched in the mainstream educational system and continues to provide educational opportunities for millions of Americans. The number of students enrolling in online courses continues to increase at an exponential rate (Caruth & Caruth, 2013; Courtney & Mathews, 2015; Saba, 2011; Kentnor, 2015). This growth has resulted in an increase in the number of educational institutions devoted mainly to an online degree program in the United States. Traditional colleges and universities have also increased their offerings to include online education (Caruth & Caruth, 2012). The format of these online environment requires that 100% of the students' assignment be completed with the students responding to the teacher's instructions about the course assignment.

In the fall of 2012, over 7 million students took at least one online course (Allan & Seaman, 2014). According to Allan and Seaman (2014), this represented a compound annual growth rate of 16.1% from the fall of 2002, when the number was 1.6 million. Since that

time, the overall student body within higher education grew at only an annual rate of 2.5%, from 17 million in the fall of 2002 to 21.3 million students in the fall of 2012 (Allen & Seaman,

2014, p. 15).

Online Learning Environment

The online learning environment refers to the interactive learning in which the learning content is available online, and the instructor provides authentic feedback to the students' learning activities based on the instructions of the course subject. Online learners attend classes through specialized software from their enrolled institution, where they have access to the courses, learning teams, course materials, and the instructors. According to Cummings (2001), online learning eliminates the barriers to location and time, yet personalizes the learners' experience.

In this study, distance education and online learning will be used interchangeably. This tern will be used to describe the virtual learning environment which is refer to as distance education. Kaufner (2015), defines distance education: "Distance education is a

learning environment in which the students are taking courses away from the instructors and college through some technology mode" (p. 23). The advent of distance education has grown tremendously because in the 1800s, the technology mode for distance education used was "correspondence" (Wang, Shannon, & Ross, 2013, p. 303). In the 1920s, radio delivered distance education courses, followed by television in the 1930s. In 1992, Graziadie introduced an online computer mode for lecture, and with the help of computer programs, allowed students and professors to use computers as the

virtual classroom settings. This was the beginning of online learning and a web-based course as an option of distance education (Bourne, 1998).

The online faculty is critical to the success of online education because they play a role in contributing to the student's perception of online learning. The faculty can encourage students and build an environment that promotes learning, respect, and trust by inspiring the students to succeed. Mertz (2003) agreed that there is an apparent logical relationship between our emotional feeling and thinking: "By understanding emotions, we can better understand thought as thought is related to thinking, which is related to learning (p. 66). The online environment can foster an emotional situation whereby a loving environment can be exciting especially with the use of technology as the method of learning.

Student Online Interactions

Students' interactions are critical to online learning. Swan (2003) defined interaction as "reciprocal events involving at least two actors and/or objects and at least two actions in which the actors' objects and events mutually influence each other" (p. 4). Furthermore, Swan noted that there are three kinds of interactions that affect online learning, namely, (a) interaction with content, (b) interactions with instructors, and (c) interactions with peers (see Figure 3). Online interactions with peers take many forms, including discussions, collaboration, debate, peer review, as well as informal and incidental learning among classmates. Interactions with instructors provide several avenues by which professors interact with students. Interaction with content refers to students' interaction with course materials, concepts, and ideas (Swan, 2003). None of the three modes interact independently of each other; however, all three interactions support one another with the learning process in the online environment.

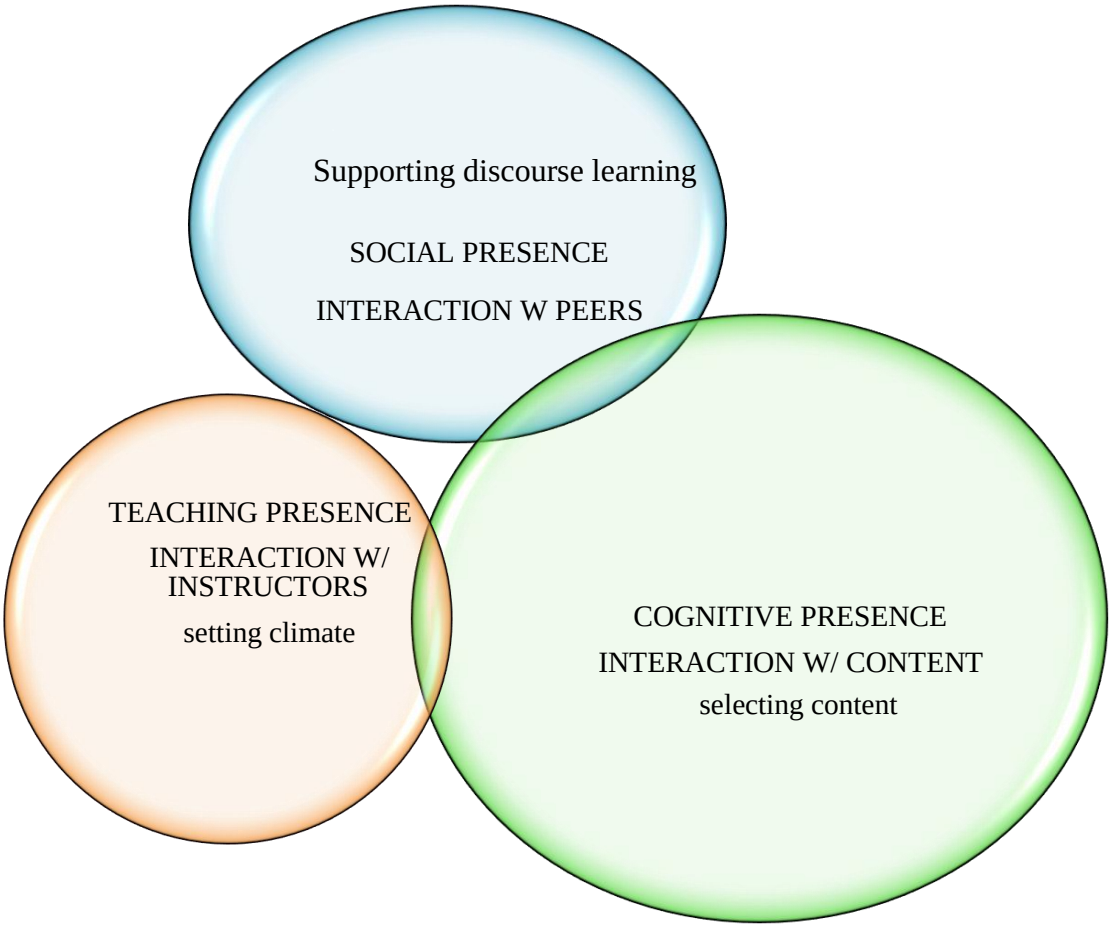

***Figure 3*. Interactivity and learning online. Adapted from** Rourke, L, & Kanuka, the community of inquiry model.

Emotional Intelligence (EI)

Mayer and Salovey (1997) define "emotional intelligence as the ability to perceive and express emotions, assimilate emotions in thought, understand, and reason with emotion and regulate emotions in the self and others" (p. 98). Mayer and Salovey (1993) define what it means to be smart or successful in academia, as this relates to the Figure 3, interactivity of learning model. Interest in emotional intelligence, locus of control, and self-efficacy led to the general reasoning of this study, to ascertain whether emotional intelligence, locus of control, and self- efficacy affect students' perception of online learning. The perception of

emotions reflects emotional experience while understanding emotional intelligence has been shown to help people make good decisions and increase performance (Mayor & Salovey, 1997). Furthermore, McPhail (2004) developed a hierarchy diagram depicting the four stages of emotional intelligence (see Figure 4). Specifically, (a) emotional awareness or the awareness of one's own emotions and the ability to identify them correctly, (b) emotional application or the ability to identify which emotions are appropriate to specific situations, (c) emotional empathy or the ability to enter the feelings of others, (d) emotionality or the level of emotional self- awareness used consciously to guide decision-making.

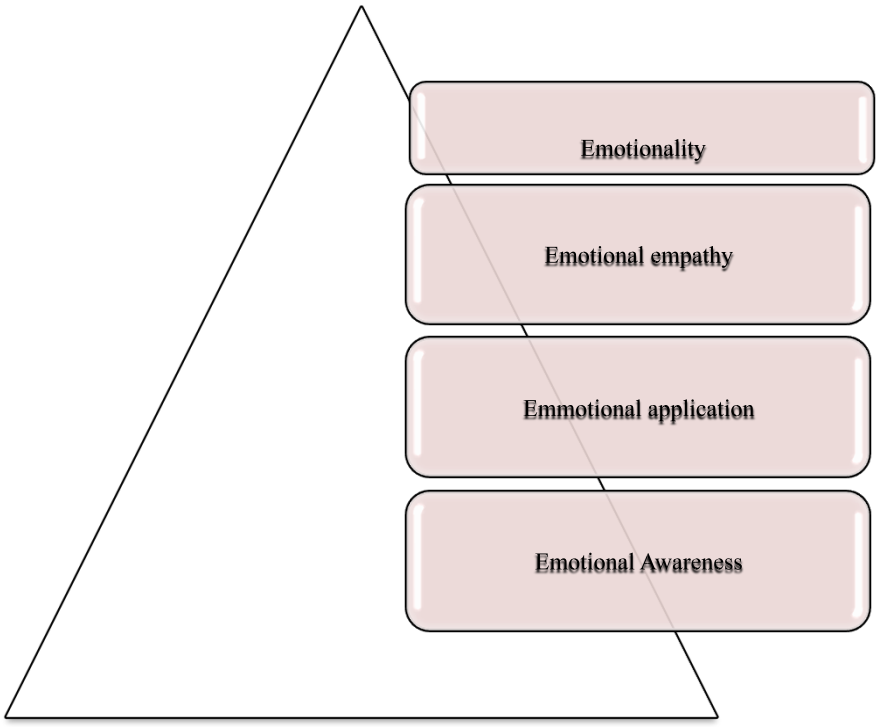

Figure 4. McPhail (2004) stages of emotional awareness. Adapted from Humphrey, Curran, Morris, Fared, and Woods.

Goleman (1995) associated students' academic performance directly to emotional intelligence by stating that students with higher emotional intelligence tend to be more likely to succeed because they can control emotional impulses and are self-motivated. Goleman also stated that students who are self-motivated are more capable of dealing with stress or

anxieties that are related to academic pressure. The use of this strategy could help online learners in understanding their social identities and how their social identities contributes to their perception of student's attitudes towards others that are different from them. Davidson (2011), a neuroscientist from the University of Wisconsin, postulated, "Teaching student's skills like empathy, self-awareness and how to manage distressing emotions makes them a better learner" (p. 8).

Dimensions of Emotional Intelligence

There are four dimensions of emotional intelligence in this study, namely: self-awareness, empathy, managing relationships, and emotion management (see Figure 5). This is an important skill in human relations. In their pioneer work, Dural, and Silvia (2001) noted that anything that makes people focus on the self would increase self-awareness. They define self-awareness as one own personality or individuality. On the other hand, Skeiner (2014) noted that self-awareness represents the capacity of becoming the object of one's attention. Empathy refers to the capacity to share and understand another's state of mind or emotions. Emotional relationship is a very important part of our lives because it gives us meaning and purpose and a sense of well-being. Emotion management is the ability to maintain control when situations, people, and events make excessive demands (Abdullah, Hamid, Kechil, & Hamid, 2013).

Goleman (1995) noted that emotional intelligence includes self-control, zeal, and the ability to motivate. The capacity to be self-aware of one's feelings and needs, to label them accurately, and to align them with long-term goals as well as the need and feelings of others in the current social environment is related to students' perception of online learning (Goleman, 1995).

Emotional intelligence predicts success in schools and businesses beyond traditional classrooms and serves as a vital tool to the business world (Berenson et al., 2008). A Harvard study cited by Lindsey and Rice (2011) maintained that "the successful college graduate must possess a ratio of 80% emotional-social intelligence (EI) to 20% book smarts" (p. 127). Many studies have focused on students' cognitive domain but failed to investigate the emotional aspect that might impact on the perception of online learning.

Self-awareness. This is the consciousness of in individual's ability to be aware of one's emotions, habits, reactions, and behavior. The key factor being one's ability to recognize and monitor one's self emotionally. The term self-awareness can be traced to David and Wicklund (1972), who suggested that at any given moment, people can focus attention on the self or the external environment. On the other hand, DeBrin (2007) defined self-awareness as "insightfully processing feedback about oneself to improve one's effectiveness" (p. 453). Skeiner (2014) maintains that the goal of self-awareness is to create better self-knowledge, make adjustment and improvements, and accommodate for weakness. Skeiner further stated that self-awareness is an inwardly focused evaluative process in which individuals use reflection to make self-comparison to reality and feedback of others.

Empathy. This is not a new phenomenon. According to Ioannidou and Konstantikaki (2008), the term dates to the 1880s when the German Psychologist, Theodore Lipps coined the term "einfuhlung" ("in-feeling") to describe the emotional appreciation of another's feelings. Ioannidou and Konstantikaki (2008) defined empathy as the capacity to share and understand another's state of mind or emotion. They characterized empathy as the ability to put oneself in another's shoes, or in some way experience the outlook or emotions of another being within oneself. In Mead's (1934) work, *Mind, Self, and Society*, he emphasized the individual's capacity to take on the role of other persons as a means of

understanding how they view the world. McDonald and Messinger (n.d.) view empathy as a potential psychological motivator for helping others in distress. The authors defined empathy as "the ability to feel or imagine another person's emotional experience" (McDonald & Messinger, n.d., p. 2).

Managing relationships refers to the extent to which people regulate their self-awareness by tailoring their actions in accordance with immediate situational cues. Managing relationship is the ability to read peoples' true emotions correctly through their eyes (sensitivity to the expressive behavior of others; Lennox & Wolfe, 1984). Managing relationships is an important part of our lives. It gives us meaning and purpose and contributes to our sense of well-being, security, and self-esteem.

Emotion management denotes the ability to master one's own emotion (Abdullah et al., 2013). Abdullah and colleagues (2013), also claimed emotion management as the product of the interaction between psychological arousal and cognitive appraisal. They further maintained that emotion management is the ability to realize, readily accept, and successfully control feelings in oneself. Additionally, emotion management helps reduce stress and increase energy level.

Since the publication of the best-selling book, Emotional Intelligence (EI) by Daniel Goleman (1955), the topic of emotional intelligence has witnessed considerable growth in the literature. Programs seeking to increase emotional intelligence have been implemented in numerous setting and courses. Because of the growth, in recent years there has been increased interest in the role of emotional intelligence in an academic environment, especially in how emotions shape student's engagement and learning (Linnebrink-Garcia & Pekron, 2011, p11). Despite the extensive amount of research conducted on emotional intelligence it remains a controversial topic.

Han and Johnson (2012) conducted a study on the relationship between students' emotional intelligence, social bond, and interaction in online learning and found three challenges associated with online classrooms. These challenges were that (a) the limited environmental capacity to perceive emotions in online learning may bring greater emotional distance to students who may have a low ability to understand emotions; (b) it is not easy to perceive emotions in an online learning environment due to the emphasis on text-based communication, which does not require facial expression; and (c) it may be more challenging for individuals with a lower ability to perceive emotions to understand others feelings in an online environment. Han and Johnson (2012) further claimed that these three barriers occur often when students begin online classes or make a transition from an ongoing to an online environment. Furthermore, students' difficulty to perceive emotions is because they have not developed an adaptive form of emotional intelligence (Han & Johnson, 2012).

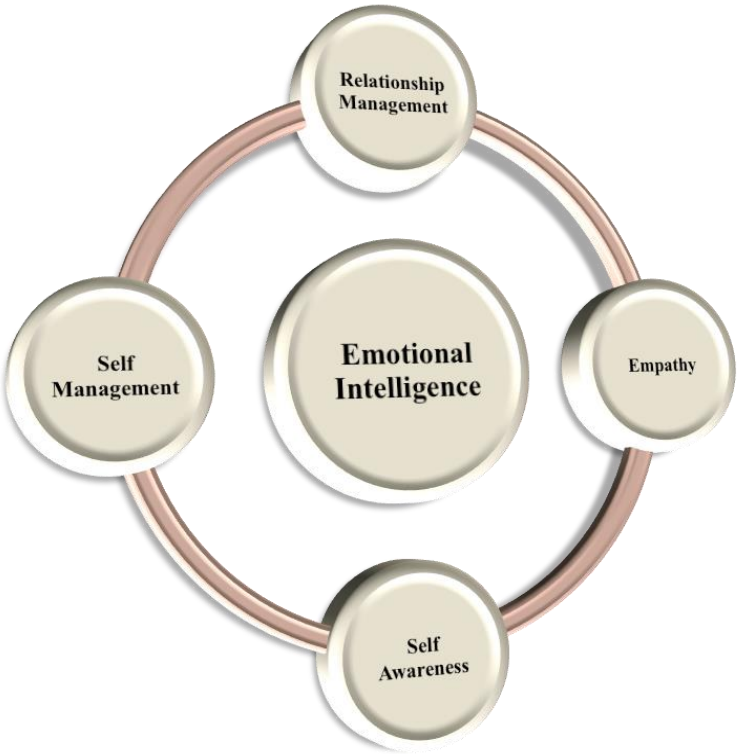

Figure 5. Dimensions of emotional intelligence chart. The outer circles reflect the four dimensions of emotional intelligence (the larger inner circle, and the ability to understand emotions at different dimensions of learning and their levels of significance.

Emotional Intelligence Course Design

For this study, the concept of emotional intelligence will be used to mean the ability to use emotions to effectively think and reason in the online course environment. Emotional intelligence can be effective with the students' learning experience, once the instructors can cultivate mindfulness and cognitive learning in the course delivery method (Legerski, & Thomas, 2015; Majeski, Stover, Valais, & Ronch, 2017). This course design strategy has the capability to help students better understand how their individual decisions can impact their life happenings. Furthermore, the course design strategy can also help students cultivate emotional perception by using narrative in the online courses to which they can relate. Mayer and Clark (2011) delineated that online course design and instructor's presentation are

important because they can play a critical role in helping students to avoid cognitive overload and ego depletion.

Critique of Emotional Intelligence

A study by Berenson et al. (2008) evaluated the use of written words as a form of communication. Berenson and colleagues noted that without non-verbal cues, students with unmet needs for human contact, lack of self-motivation, or feelings of isolation can deter success in online learning. In contrast, emotional intelligence was viewed from a different perspective by Landy (2005). Notably, Landy argued that most of the research in support of the construct of emotional intelligence lies outside of the scientific tenet. He made three broad criticisms of emotional intelligence, specifically, (a) there is a lack of scientific scrutiny of measures of emotional intelligence; (b) the construct is rooted in the (discredited) concept of social intelligence; and (c) research in emotional intelligence is characterized by weak designs that have yet to demonstrate incremental validity over traditional modes of personality, social, organizational behavior, and is therefore premature to apply the results.

Emo, Mathews, Roberts, and Zeidman (2006) maintained that emotional intelligence is widely regarded as a construct that is poorly defined and not adequately measured. Emo and colleagues further argued that the definition of emotional intelligence is too broad and fuzzy to be used, and that none of the available measures provides a reliable and valid assessment of emotional intelligence. There is no consensual definition of emotional intelligence and what it should and should not encompass. The definition tends to be over-inclusive and an exacerbated list of positive qualities as opposed to conventional academic intelligence.

Murphy (2013) in a critique of emotional intelligence argued that the critical issues in the debate over emotional intelligence revolve around three key concerns. These are; (a)

there are many different ideas about precisely what emotional intelligence means, (b) there are questions about emotional intelligence as merely a new name for an existing concept, and (c) emotional intelligence advocates have made many claims about the importance of emotional intelligence. Some of the most popular of the claims regarding the importance of emotional intelligence is the notion that emotional intelligence might be more important than intelligence quotient (IQ) in measuring the success of leadership fields.

Emotional Intelligence and Online Learning

Despite the many contributions of emotional intelligence in other areas of life, there has been little investigation into this construct as a predictor of success in the online environment (Lindsey & Rice, 2015). Mayer and Salovey (1997) describe emotional intelligence as having four parts: "the ability to perceive accurately appraise, and express emotion; the ability to access and generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth" (p. 5).

Online educational environment is rated to be either the same or superior to the traditional setting by more than two-thirds of post-secondary instructors' (Lindsey & Rice, 2015). Mayer and Salovey (1997) identified three aspects of emotional intelligence to include: (1) Perceptions of emotions, (the expression of ones' emotions), (2) Facilitation and assessment of emotions (the use of emotions for reasoning), and (3) Understanding of emotions (the ability to manage emotions in oneself). Therefore, the perception of ones' emotions reflects emotional experience, while understanding emotions reflect emotional reasoning (Mayer & Salovey, 1997). Learning is as much a function of humans' emotional response to the learning environments. The reason humans understand emotional cognitivity means "the ability to monitor one's own and other's feelings and emotions, to

discriminate among them and use this information to guide one's thinking and actions" (Salovey & Mayer, 1990, p.189).

It therefore follows that the ability to manage emotions is an essential component of emotional intelligence and is important in an online learning environment. An individual's ability to respond to the emotions of others is an important aspect of emotional management and effective interpersonal skills (Lindsey & Rice, 2015). The ability to respond to emotions is crucial online because of the lack of facial recognition and body language.

Locus of Control and Online Learning

The concept of locus of control (LOC) was first introduced in 1954 by Julian Rotter (Rotter, 1954). Locus of control refers to the extent to which students believe that an external force is related to the influence of events in their life. An individual's ability to control the excess of outcomes is referred to as locus of control (Bajwa et al., 2016). The concept relates to a person who believes that their capabilities and action can determine their reward, which is referred to as internal locus of control. Conversely, externals believe that they obtain outcomes outside of their control (Rotter, 1966).

To understand factors affecting online learning, this study will review locus of control based on the social learning theory (Bandura, 1985). Locus of control is based on social learning theory which states that if an individual feel that they can control their environment, they tend to adapt to new circumstances, in comparison to those who feel they are controlled by situations outside their control. Individuals who feel like they are in control of their life happenings have a high internal locus of control, while those who feel that their life happenings are outside their control are said to have a high external locus of control (Rotter, 1966).

According to Rotter (1966), the individual perception is the underlying reason for the events that transpire in his/her life. There is a value of the result expected from behavior based on the person's character (Deniz, Tras, & Aydogan, 2009). There is a positive relationship between academic perception of success and internal locus of control (Day, 1991). Students that reveal an internal locus of control behavior understands that their academic success depends on themselves, and as a result are more attentive to detail to complete their college courses (Deniz et al., 2009**).** Findings from Rotter's (1966) study indicated a high correlation between internal locus of control and high academic achievements. Rotter suggested that students with a high level of locus of control are self-motivated and tend to complete their online learning courses.

Rotter (1966), provided another definition for internal locus of control, denoting it as "the tendency of the individual to perceive events, good or bad, that affect him/her as the results of his/her abilities, features and behavior" (p. 11). People with internal locus of control prefer control over their environment and learn faster and perform better in tasks that require expertise and skills, such as online learning (Pradesh, 2014).

Berenson et al. (2008) noted that students who believe that factors out of their control are the cause of poor performance are unlikely to make efforts towards improvement. Thus, if students attribute their poor performance to lack of real skills or poor study habits, they are more likely to try harder in the future. Students with an external locus of control are likely to respond to failure, such as giving up hope and not working harder to improve. However, if students are "taught to have a more confident attitude, develop an internal locus of control, their grades tend to rise" (Pradesh, 2014, p. 11).

Individuals with an internal locus of control are often referred to as "self-control" or "self-determined" (Zaida & Mohsin, 2013,). Rotter (1966) noted that people with a high

internal locus of control are identified as having strong control over their achievements. Bajwa et al. (2016) stated, "If students can distribute their failures to having a bad day, unfair grading procedures on their teacher part, they can be said to have more external locus of control" (p. 51). These students do not learn from past experiences and tend to blame the teachers' affection towards them on the outcome of the online course. This concept is evident within their mindset because they believe that their successes and failures are due to luck and chances; therefore, they tend to lack motivation and persistence (Rotters, 1954). It therefore follows that these students would be considered as having an external locus of control because of their belief that their educational outcomes are beyond their control. Externals are always trying to find explanations for their failures (Zaida & Mohsin, 2013).

Online learning is a growing phenomenon in higher education. Many colleges and universities are turning to online learning as an alternative to the traditional face-to-face classroom. Kaufman (2015) defined online learning as courses in which all the "instruction/materials are presented online; blended/hybrid courses incorporate face-to-face meetings with online delivery in which 30 to 80% of course material is delivered online" (p. 2).

However, to remain competitive and compete with traditional face-to-face classrooms, Kaufman sheds light on obstacles to online learning and discusses possible successful alternatives for adult learners. The obstacles indicated by Kaufman relates to the fact that online learning can lead to negative emotions including frustration, especially if online courses are poorly designed and do not exhibit the skills students need to learn online. Additionally, other obstacles highlighted by Kaufman included the high attrition rates associated with online education, and the fact that the typical academic successful online student should be self-motivated and self-directed exhibiting an internal locus of control.

However, not all online learners display these skills.

Kaufman (2015) countered these claims by providing a range of predictive factors for students' success in an online learning environment. One such factor is that the alignment of instructional content and assessment measures with learning outcomes is critical to successful learning outcomes. In other words, course objectives should be aligned with the delivery of content and the way learning is assessed. Additionally, Kaufman noted that objectives should guide course planning and approach to the teaching of information, and that assessment should play a pivotal role in course content.

Self -Efficacy & Online Learning

Studies have shown that self-efficacy in online learning is important because it can impact students' behavior (Bandura, 1982, 2012). Zimmerman and Kulikowic (2016) stated that students with higher levels of self-efficacy might be more likely to participate and succeed in online learning.

Studies that examine self-efficacy indicate that it is an important element in successful online learning. For example, a study by Shen et al. (2013) identified five dimension of online learning self-efficacy. These include: (a) self-efficacy to complete an online course, (b) self-efficacy to interact socially with classmates, (c) Self-efficacy to handle tools in a course management system, (d) self-efficacy to interact with instructors in an online course, and (e) self-efficacy to interact with classmates for academic purposes. Also, Shen and colleagues investigated the role of demographic variables in online learning self-efficacy and found that variables such as the number of online courses taken, gender, and academic status were predictor of online learning self-efficacy.

Self-efficacy has become a central tenet in online learning. Although relatively new, self-efficacy has emerged as a highly effective predictor of online learning. Dinter et al.

(2011) observed that educators are paying more attention to students' perception of the learning process. They concluded, "Self-efficacy, a key element of social cognitive appears to be an important variable because it affects students' motivation and learning" (p. 95).

In their pioneer study, Vikas and McCabe (2014) discussed four factors that create students' self -efficacy as it relates to online learning. These four factors are: (a) experience of mastery, (b) vicarious experience, (c) social persuasion, and (d) psychological factors. The first factor—the experience of mastery—is the most powerful source of creating a strong sense of self-efficacy because it provides students with authentic evidence that they have the capability to succeed in the task. The second source of creating self-efficacy is the various experiences. Vikas and McCabe (2014) maintained that students obtain information from their capabilities by observing others, especially peers who offer suitable possibilities for comparison. The authors stated that in vicarious experience, students do not depend on their successful experience as the main source of information, but instead tend to observe others performing an activity successfully. This experience can be valuable in forming beliefs on self-efficacy (Alqurashi, 2016, p. 45). On the other hand, Vikas and McCabe (2014) noted that when online instructors provide positive feedback to students in the public discussions forums and invite another student to read the students' response, this can promote vicarious experience for learners. Social persuasion, the third factor that creates students' perceptions regarding online learning, is connected directly to the need for an online course to build a sense of community, (Vikas & McCabe, 2014). The authors indicate that when online students are actively involved in the discussion forum by reading the post from fellow students and writing quality responses, a sense of community is established. To foster a sense of community Vikas and McCabe suggested that online instructions should post behavior norms and grade expectations for online communications. Furthermore, it is

important that faculty model this behavior by providing instant rewards to the students through praise and questions, to encourage the application of concepts learned to apply in the real-world situation. The discernment of listening, learning, and applying is an example of the implementation of knowledge apply.

Banduras' (1977) self-efficacy theory has a profound impact on students' online learning environment. Since Bandura's theory of self-efficacy, there has been an accumulation of research evidence supporting a positive link between students' academic efficacy and online learning (Artino, 2012). As a result of this, numerous researchers have explored Bandura's widely reference theory of self-efficacy and its relationship to the online learning environment. (Bandura, 1977). Vikas and McCabe (2014), who have studied Bandura extensively, provided examples of how Bandura's four factors of self-efficacy can promote an online learning environment. Bandura's self-efficacy theory postulates that people acquire information to evaluate efficacy beliefs from four primary sources: (a) experience of mastery, (b) vicarious experience, (c) social persuasion, and (d) psychological factors (Mohamadi, Asadzadeh, Ahadi, & Johnehri, 2010, p. 427).

Vikas and McCabe (2014) applied Bandura's four factors to the online learning environment. Of the four factors that impact students' online learning, the first is the experience of mystery. Vikas and McCabe suggested that since initial success promotes self-efficacy, online instructors should have a clear task for students to complete on the first few days of class. Furthermore, they recommended that online instructors have students post personal introductions to the class for credit. This suggestion will help students understand how to use the learning management system correctly. Another suggestion is for online instructors to provide a positive response to each student's initial post in the discussion forum, which will create an initial feeling of success. Vikas and McCabe conclude that by

"focusing on what the students have done correctly prior to giving any critical feedback, the student's sense of self-efficacy can be increased" (p. 1).

The second factor is a vicarious experience. With respect to this factor, Vikas and McCabe (2014) maintained that it would be wise for online professors to provide positive feedback to students in the public discussion forums and invite other students to read the student's response. This they claim can promote vicarious experience for online learners. Another strategy suggested by Vikas and McCabe is for online instructors to "collect positive comments from students at the end of one class and confidentially post some of these at the beginning of future courses. Posting these comments can help students to see that others have had similar initial feelings of doubt" (p. 1).

The third factor—social persuasion—according to Vikas and McCabe (2014), is connected directly to the need for online courses to build a sense of community. Nagel, Blgnaut, and Cronje (2009) noted, "When online students are actively involved in the discussion forum by reading posts from fellow students and by writing quality responses, a sense of community is established" (as cited in Vikas & McCabe, 2014, p. 2). To ensure that this strategy works, Vikas and McCabe suggest several steps, including that online instructors should (a) model behavior norms and grading expectations or online communication, (b) model this behavior by publicly commenting to students with focused praise and ask questions that encourage higher order thinking and real-world applications of the concepts being learned, (c) use evaluative feedback, and (d) use personal and positive communication via phone calls, text messages, and emails (p. 2).

Physiological factor is the fourth factor that impact students' online learning. Vikas and McCabe (2014) indicated that this factor is challenging to detect in an online learning environment. Vikas and McCabe provide several suggestions for online instructors. First, the

authors suggested that online instructors call students at the beginning of the semester to create a sense of rapport, lower the level of anxiety, and gauge where the students' comfort level is with the course material. Also, Vikas and McCabe recommended that online instructors should provide clear instructions for assignments, by adding examples of templates. This they claimed can be a proactive approach to creating a more positive mood for the online student. In addition, Vikas and McCabe further stated that online instructors can create a safe environment by encouraging students to ask questions to gain clarity when they feel tense or in doubt. Finally, online instructors should openly share their past feelings regarding new concepts. By emphasizing with students, online instructors demonstrate a high level of care while promoting the students' overall sense of self- efficacy (p. 2).

Challenges of Self Efficacy and Online Learning

Although proponents agreed that self-efficacy is a predictor of successful online learning, opponents have cited some problem areas. For example, a study by Bates and Khasawneh (2007) highlighted that as many as one-third of college students suffer from technophobia or fear of computer and information technology. This may be compounded by the instructional demands of online learning technology, which requires students to be capable of using a variety of computer-related technologies (such as email, internet search engines, chat rooms, and database). Bates and Khasawneh further noted that multiple demands of this kind can leave students feeling shocked, confused, at a loss for personal control, angry, and withdrawn. Such reactions can impair students' belief in their capacity to use and learn from the technology and undermine their motivation to use them in the future.

In a study on self-efficacy and the rapidly evolving internet Hodges, (2008) claimed that internet-based instructions available to online learners and in online courses can be used

only if the learners possess self-efficacy for regulating their learning. Hodges cited that research on self-efficacy and self-regulated learning in an online environment is inconclusive. Studies further found that self–efficacy for self-regulation did not directly predict students' performance outcomes. Hodges (2008) further stated that increased self-efficacy in the use of internet-based instructions has not been observed either. A study conducted with 73 community college students enrolled in web-based distance education courses found that self-efficacy with online technologies was a poor predictor of student success. Hodges further maintained that relationship between self-efficacy for course content and performance in online courses is mixed (Hodges, 2008), which is consistent with other studies.

Alqurashi (2016) examined several studies and concluded that more investigation is still needed with regards to the role of self-efficacy in online learning. Alqurashi maintained that while some studies have found a positive relationship between self-efficacy and online learning, other studies have not. He concluded by stating that there are two positive hypotheses, notably, "A positive hypothesis is that self-efficacy plays an important role in online learning; another hypothesis is self-efficacy does not play an important role in online learning" (p. 49). Hodges (2008) agreed that the body of research relating self-efficacy and academic performance in online environments does not have the same depth.

Pajares (1996) noted that high self-efficacy beliefs do not always guarantee positive outcome expectations. Furthermore, self-efficacy beliefs vary greatly between individuals which make them very difficult for researchers to assess. In other words, for self-efficacy in a specific online course, the skills of using the online learning computer technology are important. Many teachers struggle to successfully engage students with the use of technology, especially in the online learning environment. These skills may include the use of the internet, emails, discussion boards, blackboard collaborate, and internet search engine.

Some students who fear computer technologies may experience frustration and withdrawal (Wang et al., 2013).

However, previous researchers have found conflicting feedback regarding the relationship between technology, self-efficacy, and "student's performance and satisfaction with online courses" (p. 304). DeTure (2004) and Puzziferro (2008) stated that technology efficacy was a poor predictor of online learning success while other researchers indicate that technology self-efficacy is positively correlated with the success of online learning performance (Wang et al., 2013).

Hodges (2008) found that self-efficacy is an accurate predictor of the learner's satisfaction with online courses. Bandura (2002) indicated that the information technology tools that students have access to are useful only if the students possess self-efficacy to use the internet. Furthermore, Bandura explained that students with self-efficacy are the ones that make the best internet-based learners. DeTure (2004) revealed that self-efficacy with online technology is a poor predictor of student success in online learning. Hodges' (2008) study on self-efficacy for online technologies found that web-based instructional materials are weak predictor of achievement. Research on the relationship between self-efficacy for computer-based instructions, course content, and overall performance in online courses are mixed. Self-efficacy for technologies plays a major role in an online course because it requires self-regulated learning using technology.

Chapter 3: Methodology

Introduction

This chapter explains the methodological framework used to analyze the correlation between emotional intelligence, locus of control, self-efficacy, and students' perception as it relates to online learning. The purpose of this quantitative study is to investigate the relationship between student's emotional intelligence, locus of control, self-efficacy of computer technology, and the perception of online learning. A quantitative correlation research methodology was utilized for this study.

Research Design

This study consists of a correlational/cross-sectional design. This study was a survey based quantitative study. A survey method was used to conduct the study. Data for this study were collected with the use of a questionnaire. Participants completed a survey with questions related to emotional intelligence, locus of control, self-efficacy, online learning, age, and gender.

Population, Sample, and Subjects

Data for this study were collected from undergraduate students at a Midwestern university within the southeastern area of Michigan. All the students were approached in advance and agreed to participate in our study. Students in the business school and computer departments were approached to participate in the study. A total of 156 students were surveyed utilizing this process. Different demographical information was also gathered from all respondents.

Demographic Analysis of the Sample

Each demographic variable is outlined and discussed in this section.

Age. There were 156 participants included in this study (see Figure 6). Of the 156 participants each age group had different sample distribution. Specifically, 56% (*n* = 89) were between the age of 18 to 25, 29% *(n* = 44) were between the age of 26-35, 6% *(n* = 10) were between the age of 46 to 55, and 2% (*n* = 4) were between the age of 56 and above. The variable age was recoded into two categories; young adults between the ages of 18 to 35 years (coded as 1) and mature adults aged 36 years and older (coded as 2).

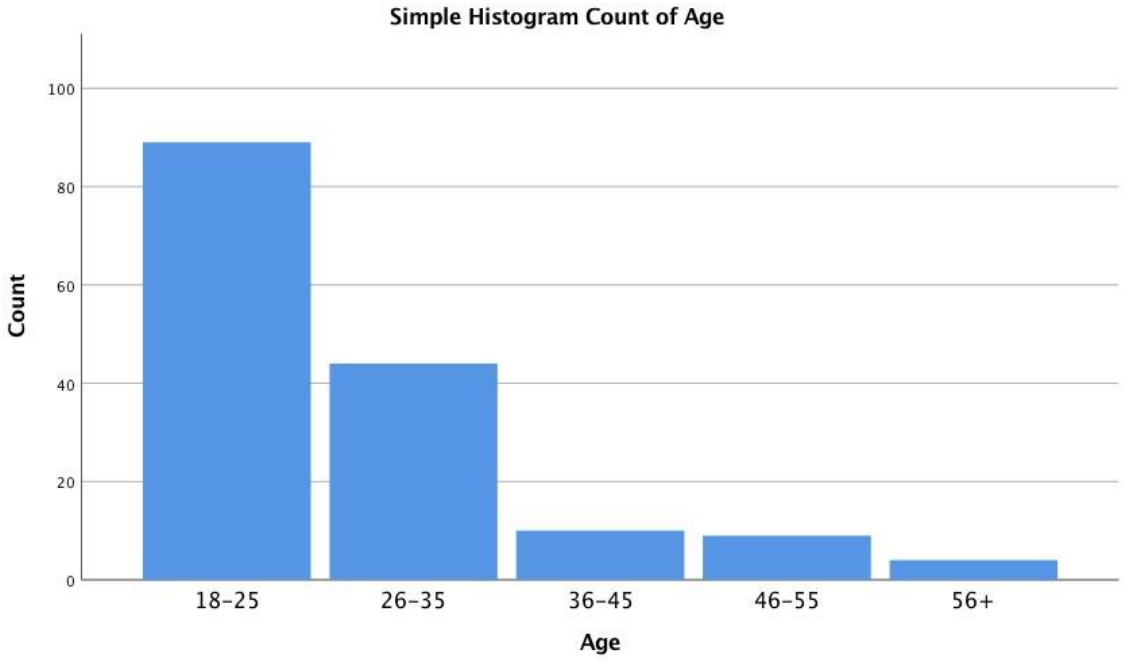

Figure 6. Sample distribution of age variable.

Gender as moderator. The sample had a larger male representation in comparison to females (see Table 3 and Figure 7). The gender variable had two categories which included males (coded as 1) and females (coded as 2).

Table 3

Gender Breakdown

Gender	Gender Breakdown	Gender Breakdown
Male	**80**	**51.2%**
Female	**76**	**48.7%**

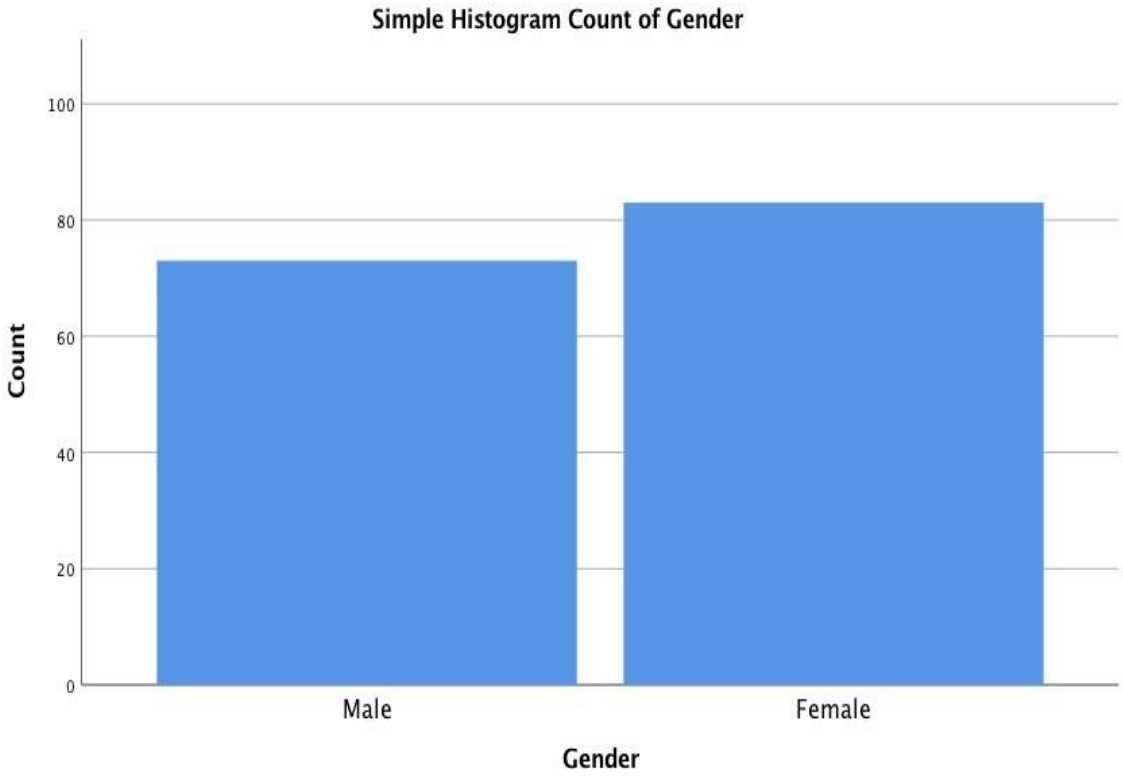

Figure 7. Simple histogram count of gender

Class-time as moderator: Class-time refers to the amount of time the students use to prepare for the online class. Majority of the participants spent between 0 and 10 hours to prepare for class with the least number of students using between 72 and 80 hours to prepare (see Figure 8).

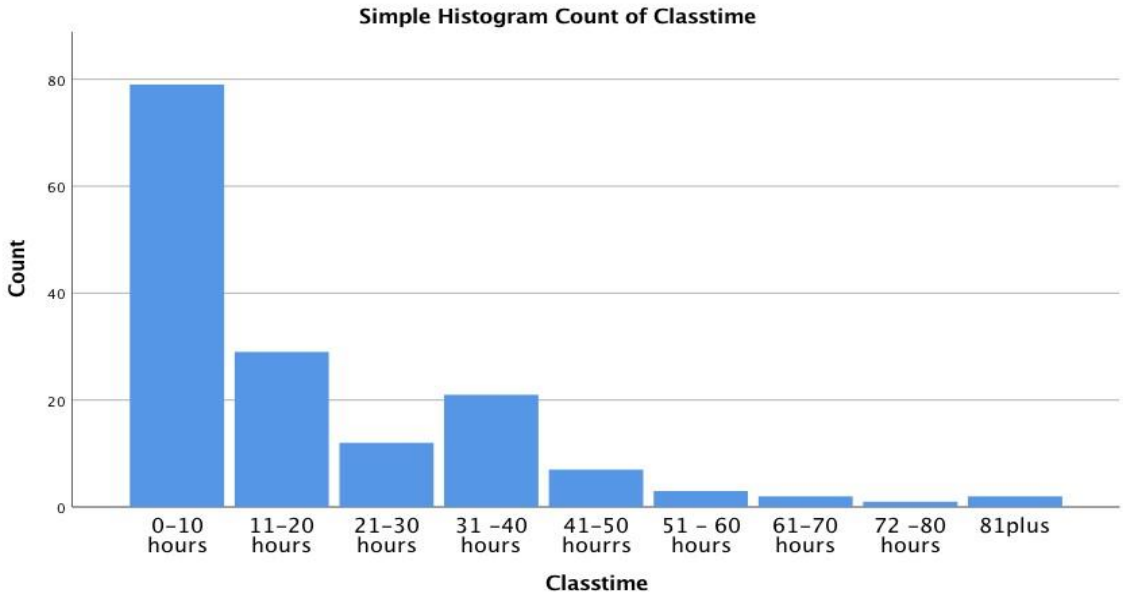

Figure 8. Sample distribution of class time.

Computer usage as moderator. In the total sample of 156 students, the number of students that spend (0 to 10 hours) computer usage were 46 (30%); (11 to 20) usage were 35 (23%); (21 to 30 hours) usage were 28 students; (18%); (31-40) usage were 35 (23%); and (41 to 50) were 12 (8%) (see Figure 9).

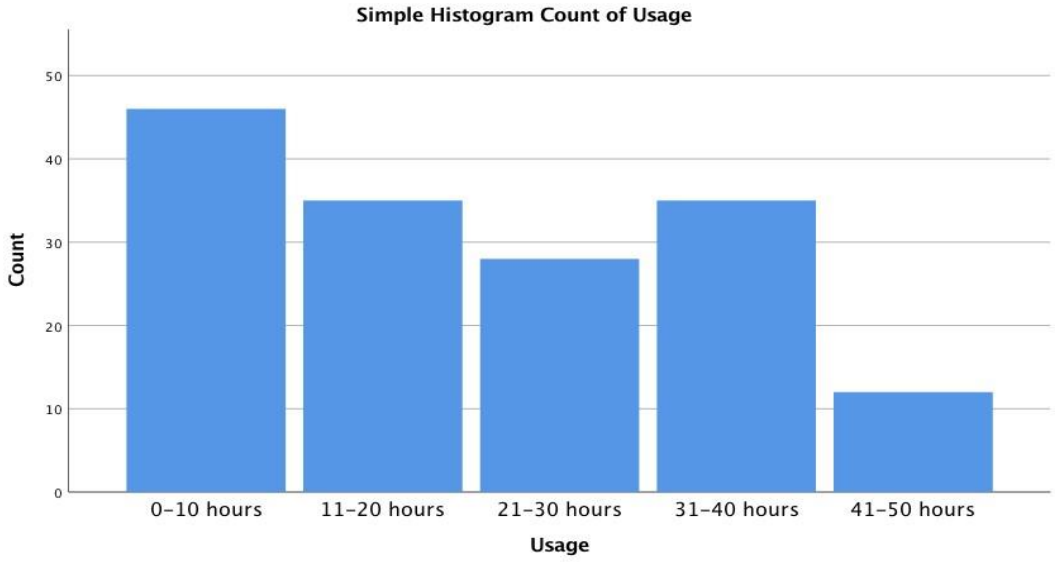

Figure 9. Sample distribution of computer usage

The participants were asked six preliminary questions to determine their age (≥ 18 years of age), gender, whether they had completed at least one prior semester of university coursework, class-time preparing for the course, computer usage and ability to navigate online, and the number of years they had spent in school (freshman, sophomore, junior, and senior). Afterward, the students completed the survey with measures of emotional intelligence, locus of control, and the self-efficacy. Additional information regarding the measurement is provided in the subsequent paragraph.

Measurements and Instruments

Four measures were used in this study to include the Emotional Intelligence Scale, the Locus of Control Scale, the Self-Efficacy of Computer Technology Scale, and the Online Learning and Student Perception Scale.

Emotional Intelligence Scale.

The Emotional Intelligence Scale consists of 21 self-assessment and situational questions that measure overall emotional intelligence. The scale was designed with the assistance of the research chair, Dr. Alphonso Bellamy (Bellamy, Gore, & Surgis, 2005).

Responses were on a 5 point Likert scales ranging from 1 (*strongly disagree*) to 5 (s*trongly agree*). These response options will prompt the students to indicate the degree to which they agreed with the statement.

The scale items analysis revealed surprising feedback showing an initial low alpha for the Emotional Intelligence Scale, which may have been due to some sampling error. The researcher had to rerun the scale removing Questions 18, 16, and 2 (for the emotional intelligence scale), thus, making it a need to rerun the analysis in SPSS. SPSS is the statistical software used to analyze the data collected for this dissertation. Scale reliability was analyzed using the Cronbach's alpha reliability procedure (see Table 4) for each variable. A scale analysis was performed twice on the data to determine the reliability of the data. The process continued and included removing the items that did not score highly. This resulted in 18-scale items remaining of the 21-scale item, The Cronbach's alpha revealed the reliability to be 0.557.

Table 4

Reliability Statistics for Emotional Intelligence, Locus of Control, Self-Efficacy, and Online Learning

Reliability Statistics			
	Researcher's Scales ***N*=156**	**Cronbach's Alpha**	**No. of Items**
	Emotional Intelligence	*.557*	*18*
	Locus of Control	*.812*	*17*
	Self -Efficacy	*.839*	*18*
	Online Learning	*.856*	*15*

Locus of Control Scale.

This variable is measured using Rotter's (1990) Locus of Control Scale. Rotter's original scale measures internal and external locus of control and consists of 18 items. The Internal-External Locus of Control Scale is used to measure the student's locus of control orientation. Response options are on a 5-point Likert scale ranging from 1 (*strongly agree*) to 5 (s*trongly disagree*).

Self-Efficacy Scale.

The instrument used to test students' Self-efficacy is the Morgan-Jinks Student Efficacy Scale (Morgan & Jinks, 1999). The instrument includes 34 items consisting of three subscales—Online Learning, Computer Technology, and Internet Usage. All items are designed for Likert-scale response, using a 5- point internal scale with 1 being "*strongly disagree*" and 5 being "*really agree*"

Online Learning & Student Perception Scale.

The instrument used to test students' perception of online learning is the 15-item Online Learning and Student Perception Scale. This is a Likert scale with response options ranging from 1 (*strongly disagree*) to 5 (*really agree*).

Human Subjects Approval

The Eastern Michigan University located in Ypsilanti, Michigan provided human subjects approval for this study (see Appendix A).

Data Collection

Respondents received questionnaires through electronic mail and face-to-face settings. The electronic mail contained one internet link containing demographic information and the survey instrument. Respondents were given 14 days to complete the questionnaire. The electronic version of the questionnaire was prepared using SurveyMonkey.com. The participants were notified by email to complete the survey. The participants received the email through their university email. The invitation email included the link to access the online survey for the participants. Follow-up reminders were done using telephone calls and electronic mail to ensure a fair response rate. The informed consent form (see Appendix B) stated that the survey was anonymous, and the researchers will not attempt to identify any participant including the use of internet protocol (IP) address left on participant online computer activity. The researcher also conducted the survey in a face-to-face setting using the hard copy of the survey for students to complete. No names or any other identifying information were collected. All data were collected anonymously.

Chapter 4: Results

This chapter consists of the data collected and presented by the researcher. As stated earlier, the primary purpose of this study was to determine the relationship between students' emotional intelligence, locus of control, self-efficacy of computer technology and their perception of learning in an online environment. Also, the researcher sought to ascertain the relationship between gender, age, class-time, and usage as moderating effects of students' perception of online learning, emotional intelligence, locus of control, and self- efficacy.

Research Question 1

What is the relationship between emotional intelligence and students' perception of online learning? As shown in Table 4 in chapter 3, there is a correlation between emotional intelligence and online learning (r = .273).

Research Question 2

What is the relationship between locus of control and students' perception of online learning? There is a small correlation between online learning and locus of control (r = .067, n= 156, p = .406). This means online learning (the independent variable) does not appear to have a statistically significant association with locus of control (the dependent variable).

Research Question 3

What is the relationship between self- efficacy and online learning?

There is a statistically significant positive relationship between online learning and self-efficacy (r = .328, n =156, p <. 001). The analysis of self -efficacy and online learning is significant in this survey data.

Research Question 4

Is there a relationship between each of the dimensions of emotional intelligence (self-awareness, empathy, relationship management, and self-management), among students' perception of online learning? The analysis of self- awareness and online learning shows a highly significant correlation (r =.409, p < .001; see Table 5). There is a high statistical significance for most of the dimensions of emotional intelligence with online learning (see Table 6). Empathy had the strongest correlation with online learning (r = .466, n = 156, p < .001) followed by self-awareness (r = .409, n = 156, p < .001). Relationship management (r = -.114, n =156, p =.159) and self- management (r = .018, n = 156, p = .821) were not correlated with online learning.

Table 5

Correlation for Emotional Intelligence, Locus of Control, and Self-Efficacy in Relation to Online Learning

Variables	*N*	*P* Value	Pearson Correlation (*r*)
Emotional Control	156	.001	.273**
Locus of Control	155	.406	.067
Self-Efficacy	154	.001	.328**

Note. *Correlation is significant at the above 0.05 level (2-tailed). ** Correlation is significant at the 0.01 level (2-tailed)

Table 6

Emotional Intelligence Sub-dimensions (Self-Awareness, Empathy, Relationship Management) with Online Learning

Measures N= 156	Pearson Correlation (*r*)	*P* Value
Self-Awareness	.409**	.001
Empathy	.466**	.001
Relationship- Management	-.114	.159
Self-Management	.018	.821

Note. *Correlation is significant at the above 0.05 level (2-tailed). ** Correlation is significant at the 0.01 level (2-tailed).

Table 7

Descriptive Statistics for Locus of Control, Emotional Intelligence, Self-Efficacy, and Online Learning

Variables	N	Minimum	Maximum	Mean	*SD*
Emotional Intelligence	154	2.06	4.89	3.46	.592
Locus of Control	154	1.47	5.00	3.17	.501
Self-Efficacy	156	1.00	5.00	2.86	.997
Class-Time	156	1.00	10.00	2.58	1.78

Note. N = total sample size, *SD* = standard deviation.

Research Question 5

To what extent does gender moderate the relationships between the independent variables and students' perception? To interpret the effect, a plot was generated depicting the relationship between locus of control and online learning with separate lines for females and males. The figures in Appendix C suggest that the positive relationship between locus of control and online learning is stronger for males than females.

The analysis of emotional intelligence and online learning (r = .417) demonstrates a strong correlation while p < .001 thus, there is a significant relationship for this data population analysis (see Table 8). Additionally, females' self-efficacy is highly correlated to online learning (r = .767, p = .001), which is statistically significant. Also, male students' self-efficacy (r = .746, p = .001) is highly correlated to online learning. Both males and females have a high correlation in self-efficacy with students' perceptions of online learning. Thus, gender does not moderate the relationship because the correlations are similar.

Table 8

Correlation of Gender, Moderating the Relationships Between Emotional Intelligence, Locus of Control, Self-Efficacy, and Student Perceptions of Online Learning

Variables N = 156	Males		Females	
	r values	*p* values	*r* values	*p* values
EQ & OL	.417**	.001	.470**	.001
LC & OL	-.364**	.002	-.115	.338
SE & OL	.746**	.001	.767**	.001

Note. EQ = emotional intelligence, SE = self-efficacy in online learning, LC = locus of control, and OL= online learning.
*Correlation is significant at the above 0.05 level (2-tailed). **Correlation is significant at the 0.01 level (2-tailed).

Research Question 6

To what extent does class-time moderate the relationship between emotional intelligence, locus of control as it relates to online learning? Class time moderates the relationship between emotional intelligence and online learning. Class time shows a strong relationship (r = .458, p = .001), thus significant with students' perception of online learning

(see Table 9). Class time moderates the relationship between emotional intelligence and student perception of online learning.

The analysis of locus of control and low class-time showed a weak correlation (r = .076, p = *.441*) with students' perception of online learning and is not statistically significant. Students with high class time also showed a weak correlation (r = -.285, p = .75) between locus of control and online learning, thus no, statistically significant. Therefore, locus of control does not have an impact on the perception of online learning for people with low class time as compared to people with the usage of high-class time.

Students with low class time and self-efficacy revealed a strong correlation (r = .690, p = .001) between self-efficacy and online learning which is statistically significant. Class time moderates the relationship between self-efficacy and students' perception of online learning.

Table 9

Correlation of Class Time Moderating the Relationships of Emotional Intelligence, Locus of Control, Self-Efficacy on Students' Perception of Online Learning

Variables	Low Class-time		High Class-time	
	r Values	*p* Values	High *r* Values	High *p* Values
EQ & OL	.458**	.001	.146	.374
LC & OL	-.076	.441	-.285	.075
SE & OL	.690**	.001	.763**	.001

Note. EQ = emotional intelligence, SE = self-efficacy in online learning, LC = locus of control, and OL= online learning.
*Correlation is significant at the above 0.05 level (2-tailed). ** Correlation is significant at the 0.01 level (2-tailed) .

Table 10

Descriptive Statistics for Class Time and Emotional Intelligence and Online Learning

Variables	N	Minimum	Maximum	Mean	*SD*
Class-time	156	1.00	10.00	2.5577	1.77887
EQs	156	2.35	5.00	3.6942	4.5478
Valid N	156				

Note. N = total sample size, *SD* = standard deviation, EQs = Emotional Intelligence

Research Question 7

To what extent does age moderate the relationship between the independent variables and students' perception of online learning?

Base on the data, the correlation for the total emotional intelligence(EQ) and student perception of online learning is highest within the young age category (see Table 11). The younger age group students' emotional intelligence showed a strong correlation (r = .439, p = .001) between EQ and online learning and a moderate but significant correlation with mature adults and online learning (r = .412, p = .001).

Locus of control with young students showed a strong and significant correlation (r = -.259, p = .003) with online learning. Additionally, there was a strong correlation between mature adults and online learning (r = .986, p = .004) that is statistically significant. There was a moderation between locus of control with age for young age group and mature adults with students' perceptions of online learning. There is also a relationship between class time and emotional relationship as shown in (table 10). The standard deviation for class time is 1.779 and Emotional Intelligence is 4.548. This show emotional intelligence with a high value which means the data is reliable because they are both closer to the mean. The mean for class time is (2 .557 and the mean for Emotional Intelligence is (3.6942).

Self-efficacy with young students showed a strong correlation (r = .753, p = *.001*) with self -efficacy and online learning, which was significant. There was also a statistically

significant and strong correlation between self-efficacy with mature adults (r = .752, p = .001). Thus, the young students and mature adults revealed a positive relationship with self-efficacy and online learning.

Table 11

Correlation of Age Moderating the Variables of Emotional Intelligence, Locus of Control, and Self-Efficacy in Relation to Online Learning

Variables	Young Age Gro ıp (n=131)		Mature Adu ts (n = 19)	
	r values	p values	r values	p values
EQ & OL	.439**	.001	.412	.002
LC & OL	-.259**	.003	.986	.004
SE & OL	.753**	.001	.752**	.001

Note. EQ = emotional intelligence, SE = self-efficacy in online learning, LC = locus of control, and OL= online learning.
*Correlation is significant at the above 0.05 level (2-tailed). ** Correlation is significant at the 0.01 level (2-tailed)

Research Question 8

To what extent does usage moderate the relationship between emotional intelligence, locus of control, and self-efficacy as it relates to online learning?

The data below show the correlation analysis between students when filtering by usage as a moderating variable for emotional intelligence, locus of control, and online learning based on the data of this population sample (see Table 12). Students' emotional intelligence with low usage and online learning showed a small correlation (r = .261, p = .027); thus, it is statistically significant within this survey data. Students, emotional intelligence with low usage showed a moderate correlation (r =.327, p = .004) with online learning, thus significant.

Students with locus of control and low usage showed a weak correlation (r = -.244, p = .027) with online learning; thus, it was significant. The correlation between locus of control and online learning for students with low computer usage is negative but it is statically significant; (r = -.244, p = .041) with online learning and thus it was significant.

Students with self-efficacy and low usage showed a strong correlation (r = .824, p = .001) with online learning, which is indicative of a statistically significant relationship with online learning. Students' self-efficacy and high usage also showed a strong correlation *(*r = .392, p = .001) with online learning, thus denoting a statistically significant and positive relationships. Based on the data, the correlation for total self-efficacy of high and low usage and online learning. Self -efficacy showed the strongest correlations amongst all the independent variables for students' usages.

Table 12

Correlation of Usage Moderating the Variables of Emotional Intelligence, Self-Efficacy, and Locus of Control to Perception of Online Learning

Variables	Low Usage (n=72)		High Usage (n = 19)	
	r values	p values	r values	p values
EQ & OL	.261*	.027	.327**	.004
LC & OL	-.244*	.041	-.054	.640
SE & OL	.824**	.001	.392**	.001

Note. EQ = emotional intelligence, SE = self-efficacy in online learning, LC = locus of control, and OL= online learning.
*Correlation is significant at the above 0.05 level (2-tailed). ** Correlation is significant at the 0.01 level (2-tailed)**.**

Chapter 5: Discussion

The purpose of this study is to ascertain whether a relationship exists between emotional intelligence, locus of control, and self-efficacy as it relates to students' perception

of online learning. Correlational analysis was used to analyze data, based on eight research questions.

Research Question 1

Research scholars have touted emotional intelligence as a predictor of students' success in an online learning environment. Han and Johnson (2012) noted that in the field of education, emotions had been found to affect student's cognitive learning as well as teacher's instructional behavior. There is a positive relationship between emotional intelligence and online learning, as emotional intelligence increases, online learning also increases.

This study found a positive relationship between emotional intelligence and online learning. This finding is consistent with the vast body of literature on the topic. A study by Goleman (1995) found that student's academic performance was directly related to emotional intelligence, while Berenson et al. (2008) associated students' GPA directly to the emotional intelligence of online students. Other researchers noted, some characteristics that have been linked to online learning success are internal locus of control, persistent effort and self-efficacy (Albritton, 2003; Holcomb, King, & Brown, 2004; Irizarry, 2002; Kemp, 2002; Parker, 2003; Wang & Newlin, 2000). It's evident that these emotional predictors of online learning are related to emotional intelligence.

Research Question 2

There is a substantial body of research suggesting that there exists a significant relationship between locus of control and students' online learning. Studies (e.g. Drennan et al., 2005; Huebner et al., 2011; Singh & Dubey, 2011) have consistently shown that students

with locus of internal control orientation tend to be more satisfied in their life as well as in their study. Studies have further claimed that internals would be more satisfied with their online learning experience since they perceive flexibility as a more positive feature that enables them to progress using this format of learning (Singh & Dubey, 2011). Another study by Rotter (1996) found a high correlation between internal locus of control and high academic achievement. Rotter suggested that a student with a high level of locus of control is self-motivated and tend to complete their online learning course. However, the findings of this study did not indicate a statistically significant relationship between locus of control and student online learning. The results could be attributed to several factors, including limited participants, participants from one educational institution, or no prior online experience.

Research Question 3

The research finding of this study showed a significant positive relationship between self-efficacy and student perception of online learning. This finding is consistent with the extant literature. Although relatively new, self-efficacy has emerged as a high predictor of online learning. Dinter et al. (2011) noted that educators are paying more attention to students' perception of the learning process. They further stated that "self-efficacy, a key element of social cognitive, appears to be an important variable because it affects students motivational learning" (p. 95). Similarly, another study by Vikas and McCabe (2014) discussed Bandura's four factors that create students' self-efficacy as they relate to online learning. The authors contend that the first factor, mastery of experience, is the most powerful source of creating a strong sense of efficacy because it provides students with authentic evidence that they have the capability to succeed at the task.

Research Question 4

A statistically significant association was also found in this study between self-efficacy and students' perception of online learning. This finding is consistent with Bandura's (1986) study where it was noted that self-efficacy represents "people's belief about their judgement and capabilities to organize and execute courses of action required to attain designated types of performance" (p. 391).

Research Question 5

The results of this study highlighted a positive relationship between locus of control and online learning; however, the relationship was stronger for males than females (see Figure 10). This finding is not consistent with the extant literature. In his pioneer study, *Age and Gender Difference in online Behavior, Self -Efficacy, and Academic Performance*, Chyung (2007) cited mix findings. Chu's (2003) findings indicated that gender was not a strong predictor of computer self-efficacy. In contrast, Sherman and Colleagues (2000) found a statistically significant relationship between gender difference in perception and self-efficacy toward the use of online technology. Finally, Hargittai and Shaer's (2006) study indicated that men and women were not different in their skills to navigate online. These findings seem to suggest that further studies on gender differences in online learning are needed.

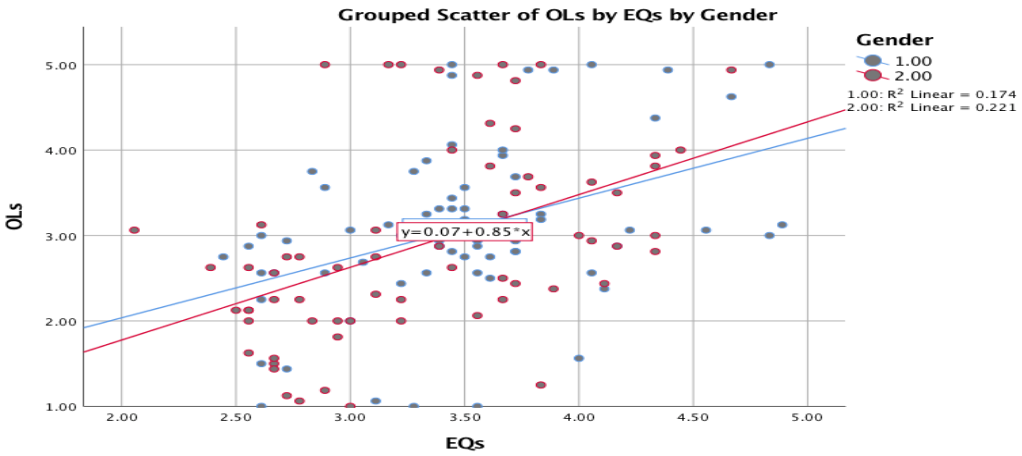

Figure 10. Scatter chart showing correlation of gender moderating emotional intelligence and online learning. 1 = Male, 2 = Female.

Emotional intelligence has a significantly positive impact on online learning in both male and females. The relationships are not different in both groups supporting the statistical data. The slope of the line reflects the correlation of males and females' associations are not different.

Research Question 6

The findings of this research question provided mixed result. Although a strong positive relationship existed between class -time and emotional intelligence, the opposite occurred for class-time and locus of control. There was a weak correlation between class-time and locus of control as it relates to student perception of online learning. Blocher, Montes, Willis, and Tucker (2002) observed that students' ability to self-monitor and self-regulate their learning is critical to their learning. They maintained that students "must monitor their involvement with the learning materials and their motivation as well as be self-disciplined to be successful" (p. 3).

Research Question 7

There are many benefits of incorporating emotional intelligence in virtual classrooms. A person that's successful in managing his/her emotions can fully engage in the online learning process: "Knowledge about we and others as well as the abilities to use the knowledge to solve problems is important to academic learning success" (Vandervoot, 2006, p. 8). When emotional intelligence is the focus of learning, teachers, and students are building human development behaviors that are important to positive education outcome (Ogundoken & Adeyemo, 2010). However, one of the challenges became implementing emotional intelligence into the classroom because it was challenging to differentiate the application of one focus: "Policy experts appeared to accept emotional intelligence, highly predictive of success essential to character and readily taught" (Mayer & Cobb, 2010, p. 81).

Research Question 8

Student usage of technology plays a major role in online learning. Technology is not only changing the way education is delivered, but also providing students with a wide range of information. Gray and Cao (2000-2001) suggested that with the vast amount of information available on the internet, students can "traverse multiple tasks to glean information about topics of interest"(p. 43). There is a consensus between this statement and the findings of Research Question 8. In this study, there was a high correlation of online learning with emotional intelligence, locus of control and self-efficacy. There is also correlation showing age moderates locus of control and online learning as shown in (figure 11).

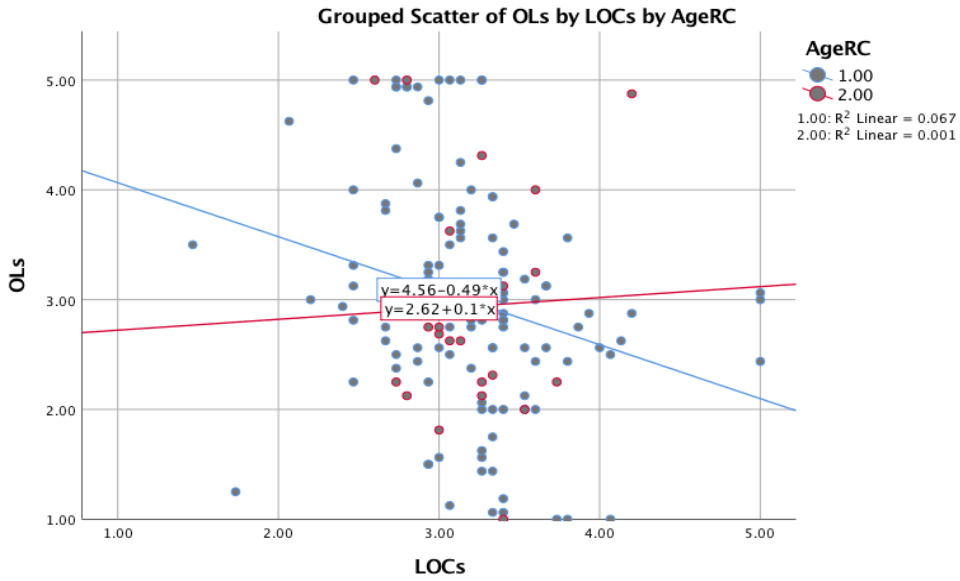

Figure 11. Scatter graph chart showing correlation of age moderating locus of control and online learning. 1 = Male, 2 = Female

Conclusion

The current study suggests that students with high emotional intelligence influence the perception of online learning. Goleman (2008) revealed that "teaching students' skills such as empathy, self-awareness, and how to manage distressing emotions makes one a better learner" (p. 8). This is somewhat consistent with the results of this research. However, this study only researched students' perception and did not take into consideration students prior online experiences. Prior student experience may have influenced the students' perception. The only difference is the moderation of gender as it relates to online learning.

This research found a relationship between emotional intelligence and students' perception of online learning and self-efficacy. Male participants with high emotional intelligence results are lower in online learning in comparison to female participants. However, in the female sample, there is a negative correlation—the higher the emotional

intelligence, the lower the students' perception of online learning. For males, locus of control has an effect with higher locus of control, resulting in higher students' perception of online learning. Conversely, regardless of female participants locus of control, their online learning perception was high. But for males, the high locus of control and emotional intelligence participants had higher online learning perception, which is not consistent with the extant literature on male participation.

There exists a need for additional research to investigate the relationship among the need to increase emotional intelligence, locus of control, and self-efficacy to specific online learning outcomes. This will promote the development of locus of control, specifically in higher education online courses, in addition to preparing learners to be effective and astute in the online learning environment. The importance of emotional intelligence will enable learners to become more aware and able to manage their emotions to effectively support self-regulation with their own learning pace as an online student. This will help learners cultivate emotional intelligence, locus of control, and self-efficacy, and the importance of competence in students' success in online learning.

This proposed study is expected to contribute to filling the gap in the existing literature by describing whether there is a correlation between students' perception of emotional intelligence, locus of control, and self-efficacy as it relates to online learning. Additional studies may assist the higher learning institution with online learning to understand the students' perception of emotional intelligence, locus of control, and self-efficacy.

Investigating other theories that may impact students' perception of online course, such as emotional intelligence, locus of control, and self-efficacy, and integrating the concepts into the online course design may have an impact on the students' experience and

perception of online learning. Researchers should evaluate the ability to develop emotional intelligence, and, in doing so, develop programs designed to teach emotional intelligence in an online classroom.

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APPENDICES

Appendix A: Human Subjects Approval

RESEARCH @ EMU

UHSRC Determination: EXEMPT

Date: July 27, 2017

To: Laurece Abraham
Eastern Michigan University

Re: UHSRC: # A20170630-1
Category: Exempt category 2
Approval Date: July 27, 2017

Title: The Extent to Which Emotional Intelligence, Locus of Control and Self-Efficacy Contributes to the Perception of Online Learning

Your research project, **The Extent to Which Emotional Intelligence, Locus of Control and Self-Efficacy Contributes to the Perception of Online Learning** has been determined Exempt in accordance with federal regulation 45 CFR 46.102. UHSRC policy states that you, as the Principal Investigator, are responsible for protecting the rights and welfare of your research subjects and conducting your research as described in your protocol.

Renewals: Exempt protocols do not need to be renewed. When the project is completed, please submit the **Human Subjects Study Completion Form**.

Modifications: You may make minor changes (e.g., study staff changes, sample size changes, contact information changes, etc.) without submitting for review. However, if you plan to make changes that alter study design or any study instruments, you must submit a **Human Subjects Approval Request Form** and obtain approval prior to implementation.

Problems: All major deviations from the reviewed protocol, unanticipated problems, adverse events, subject complaints, or other problems that may increase the risk to human subjects or change the category of review must be reported to the UHSRC via an **Event Report form**.

Follow-up: If your Exempt project is not completed and closed after **three years**, the UHSRC office will contact you regarding the status of the project.

Please use the UHSRC number listed above on any forms submitted that relate to this project, or on any correspondence with the UHSRC office.

Good luck in your research. If we can be of further assistance, please contact us at 734-487-3090 or via e-mail at human.subjects@emich.edu. Thank you for your cooperation.

Sincerely,
April M Gravitt, MS
Research Compliance Analyst
University Human Subjects Review Committee

University Human Subjects Review Committee Å~× Eastern Michigan University Å~× 200 Boone Hall
Ypsilanti, Michigan 48197
Phone: 734.487.3090 E-mail:
human.subjects@emich.edu www.emich.edu/ord
(see Research Compliance)
The EMU UHSRC complies with the Title 45 Code of Federal Regulations part 46 (45 CFR 46)
under FWA000000

Appendix B: Consent Form

Student Consent Form

Purpose: The purpose of this research study is to explore the Extent to Which Emotional Intelligence, Locus of Control and Self-Efficacy in Computer Technology Contribute to The Perception of Online Learning.

Funding: This research is unfunded.

Study Procedures: Participation in this study involves completing an online survey. It should take 30 and 45 minutes to complete the survey.

Researcher/Investigator: Laurece Abraham, College of Technology, Eastern Michigan University, 122 Sill Hall, Ypsilanti, MI 48197 Labraha5@emich.edu

What will happen if I participate in this study?

Participation involves: You will be asked to respond to the attached questionnaires, a demographic survey, to examine the extent to which emotional intelligence, locus of control and self-efficacy contributes to the perception of online learning.

- You were selected because you are enrolled in an online course in college.

What are the anticipated risk for participation?
There are no anticipated physical or psychological risk to participation. The primary risk of participation in this study is a potential loss of confidentiality. Some of the survey questions are personal in nature and may make you feel uncomfortable. You do not have to answer any question that make you feel uncomfortable or you do not want to answer.

Are there any benefits to participating?
You will not directly benefit from participating in this research. Benefit to society include our understanding of the extent to which Emotional Intelligence, Locus of Control and Self Efficacy contributes to the perception of online learning.

What are the alternative to participation?
The alternative is not to participate.

Potential rate of Discomforts: There are no known or potential risk in this study.

What is the alternative to participation? The alternative is not to participate.

How will my information be kept confidential? Your information will be kept confidential because you are not required to put your name, or any identifying information, on the survey.

Confidentiality:
We would like to store your information from this study for future use related to online learning. Your information will be labeled with a code and not your name. Your information will be stored in a password-protected or locked file. Your de-identified information may also be shared with researchers outside of Eastern Michigan University. Please initial below whether or not you allow us to store your information:

_____Yes _____No

Are there any cost to participation?
Participation will not cost you anything.

Will, I be paid for participation?
You will not be paid to participate in this study.

Study Contact Information
For any questions about the research you can contact the Principal investigator, Laurece Abraham, or her advisor Dr. Alphonso Bellamy at ABellamy@emich.edu or by phone at 734-487-1184.

For questions about your rights as human subjects, contact the Eastern Michigan University Human Subjects Review Committee at human.subjects@emiach.edu or by phone at 734-4873090.

Volunteer participation
Participation in this research study is your choice. You may refuse to participate at any time, even after signing this form, with no penalty or loss of benefits to which you are otherwise entitled. You may choose to leave the study at any time with no loss of benefits to which you are entitled. If you leave the study, the information you provide will be kept confidential.

Statement of Consent
I have read this form. I have had an opportunity to ask questions and am satisfied with the answers I received. I click "continued" below to indicate my consent to participate in this research study.

Demographic Information

1. Is this your first online class? _____
2. How many semesters have you been enrolled in college?
3. What is your major? _____
4. How many hours per week do you work with computer? _____

5. How many hours per week do you study for this class? _____

    a. How many classes are you taking for this semester? _____

    b. How many times did you take this course? 1st 2nd 3rd 4th

6. What is your gender?

    Male_____

    Female_____

7. What is your age range?
    16-25
    26-35
    36-45
    45-55
    55 and above

8. How many online classes have you taken?
    1
    2
    3
    4 5 more
    than 6

Please use these codes to respond to the following items. Place the number of each response code on the line alongside the item. THERE IS NO RIGHT OR WRONG ASNWER.

1 – Never Like Me

2 - Occasionally Like Me

3 - Sometimes Like Me

4 - Frequently Like Me

5 - Always Like Me

Self-Awareness

___I have a good understanding of my emotions.

___I am good at expressing my feelings to others when they have done something that is disagreeable to me.

___I am comfortable about sharing my emotions with others.

___I understand why my emotions change.

___I can forgive others when they have offended me.

Empathy

___When people discuss their problems with me, I can feel what that person is feeling.

___When people discuss their problems with me, I can understand their point of view by seeing things from their perspective.

___I am usually aware of other people feelings.

___I can tell when other people's feelings have been hurt.

___I tend to be very judgmental of other's mistakes.

3

ANSWER.

1 – Never Like Me

2 - Occasionally Like Me

3 - Sometimes Like Me

4 - Frequently Like Me

5 - Always Like Me

Relationship Management

___I help other people feel better when they are down.

___I am able calm people when they display anger.

___I am a good listener.

___I am good at understanding the nonverbal (such as body motion, gestures, etc.)

messages that is sent by others.

___I can see myself through the eyes of others.

___I can anticipate how others will respond to me.

Self-Management

___I can control my emotions.

___I know when to express certain emotions in public and when not to.
___I stay upset for long periods of time when something has made me upset or angry.

(reverse the score).

___I am not able to function well when something has made me upset. (reverse the score).

___I am usually hard on myself when I make mistakes.

	Strongly Agree	*Agree*	*Neutral*	*Disagree*	*Strongly Disagree*
	1	2	3	4	5
Many of the unhappy things in people's lives are partly due to bad luck.					
People misfortunes results from the mistakes they make.					
In the long run people get the respect they deserve in this world.					
Unfortunately, an individual's worth often passes unrecognized no matter how hard he/she tries.					
The idea that teachers are unfair to students is nonsense.					
Most students don't realize the extent to which their grades are influenced by accidental happenings.					
I have often found that what is going to happen will happen.					
Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.					
In case of well-prepared student there is rarely if ever such thing as an unfair test.					
Becoming a success is a matter of hard work, luck has little or nothing to do with it.					
Getting a job depends mainly on being in the right place at the right time.					
When I make plans, I am almost certain that I can make them work.					
Many times, I feel that I have little influence over the things that happen to me.					

It is impossible for me to believe that chance or luck plays an important role in my life.					
People are lonely because they don't try to be friendly.					
There's not so much use in trying too hard to please people, if they like you then they like you.					
What happens to me is my own doing.					
Sometimes I feel that I don't have enough control over the direction my life is taking.					

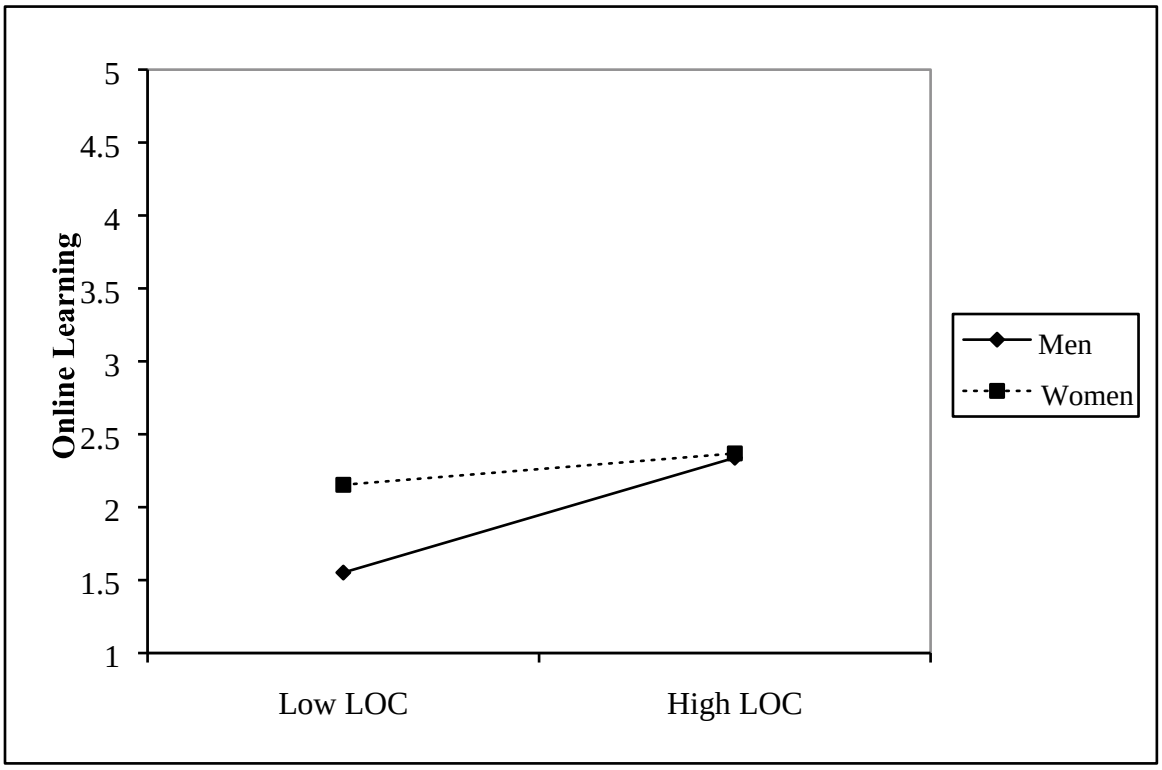
	Strongly Agree	*Agree*	*Neutral*	*Disagree*	*Strongly Disagree*
	1	2	3	4	5
I am satisfied with the timely feedback from my professor					
I am satisfied with the convenience and flexibility of online learning environment					
I am satisfied with the online learning experience					
I am satisfied with the opportunity to interact with other students in the online learning environment					
I am satisfied with the ease of technology use in the online environment					
I am satisfied with the technical support from my instructors					
I am satisfied with the course structure, content, and design					
I am satisfied with the ease of navigating the course content in the					
online learning environment					
I am satisfied with the online discussion forums and online chats					
I am satisfied with the course website					

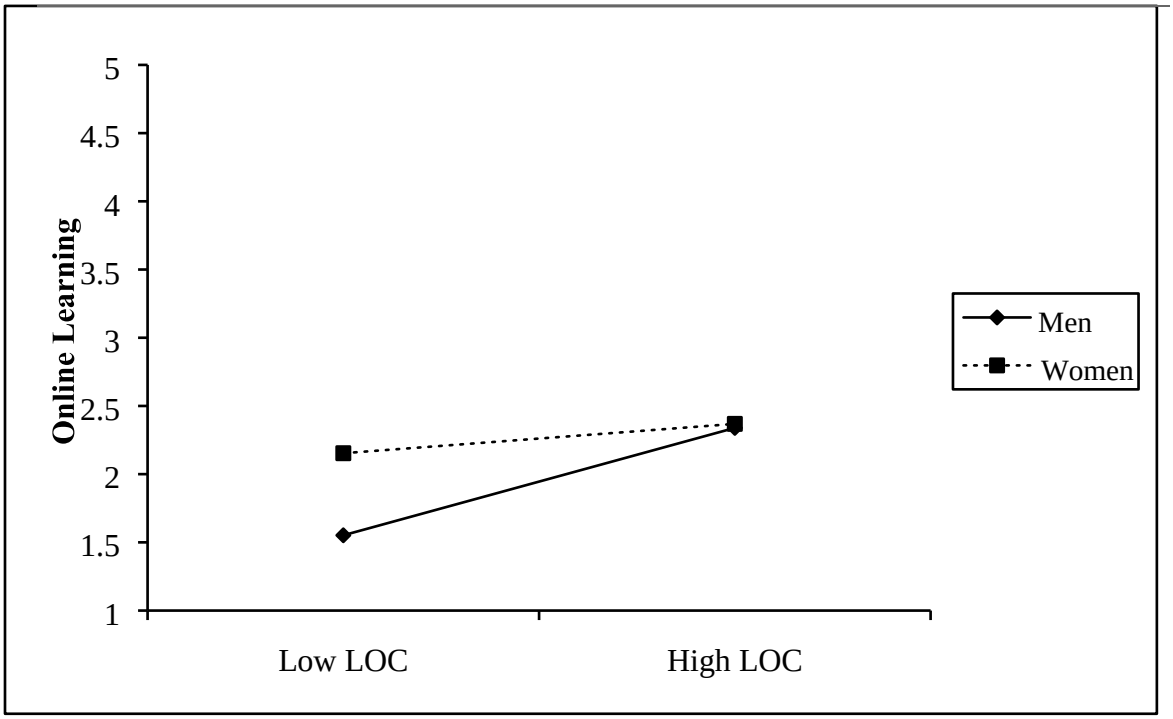
I am satisfied with the lecture notes on the course website					
I am satisfied in navigating the course website					
I am satisfied with the online learning environment					
I am satisfied with the amount of learning in online courses					
I am as satisfied with the online classes as I am with face to face courses					
I am satisfied with the amount of interactions with my professor in the discussion group					
I am satisfied with the degree to which learning activities require me to think critically					
I am satisfied with the amount of individual attention I receive from my instructors in online classes.					
I am satisfied with the degree to which online classes allow me to use my problem-solving skills					

I feel confident using voice email to send message to classmates	*Strongly*	*Agree*	*Neutral*	*Disagree*	*Strongly Disagree*
I am confident with the technology	*Agree*				*e*
available in the online learning environment	1	2	3	*4*	5
I am confident with using the online feel confident in uploading files on Blackboarddelivery method					
I am confident viewing online videosfeel confident in using the navigation					
tools on blackboardI am confident with voice generated					
I feel confident downloading files on discussions					
blackboardI am confident with course learning					
I feobjectivesl confident in posting my ideas on					

blackboardI am confident in taking quizzes and					
I feel cexams onlinef d nt in uploading my					
assignment iI am confident with the level of comfort the course drop box on blackboardwith navigating with the online tools.					
I am confident in sending and feel confident in using blackboard receiving					
collaborate to communicate in the					
electronic documents					

Appendix C: Regression Analysis of Variables



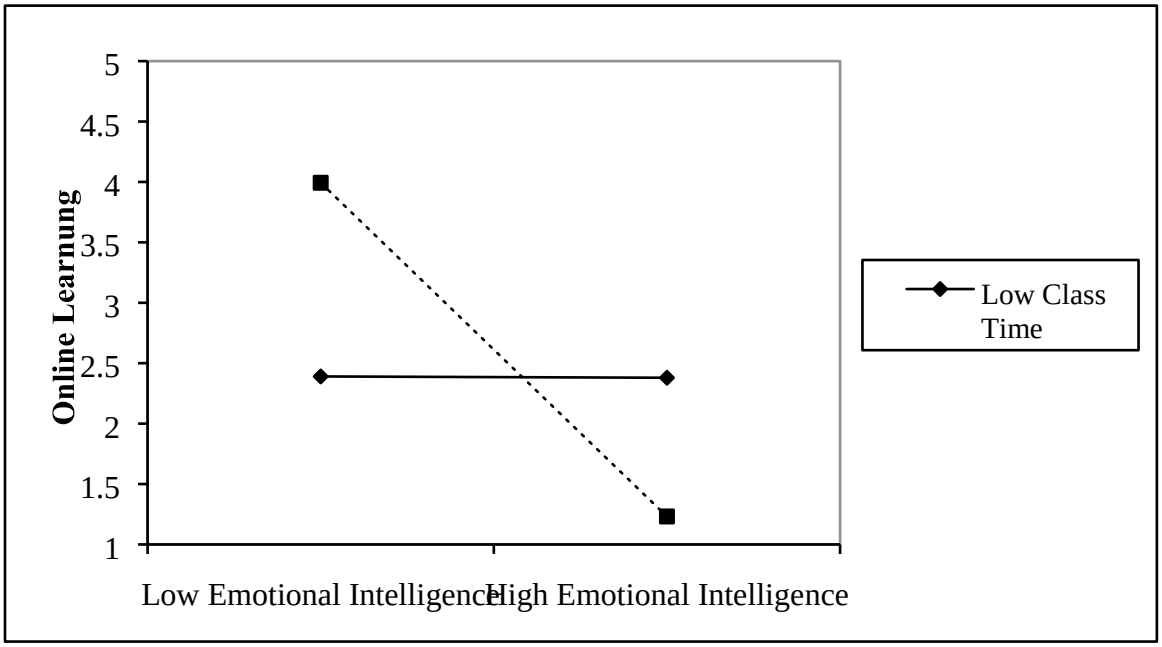


This worksheet plots two-way interaction effects for a binary moderator. The

Male Locus of Control Regression Analysis	
Variable names	
Name of independent variable:	Locus Of Control
Meaning of moderator value "0"	Men
Meaning of moderator value "1"	Women
Unstandardized Regression Coefficients:	
Independent variable:	0.637
Moderator:	1.537
Interaction:	-0.463
Intercept / Constant:	0.265
Means / SDs of variables:	
Mean of independent variable:	2.638
SD of independent variable:	0.61795

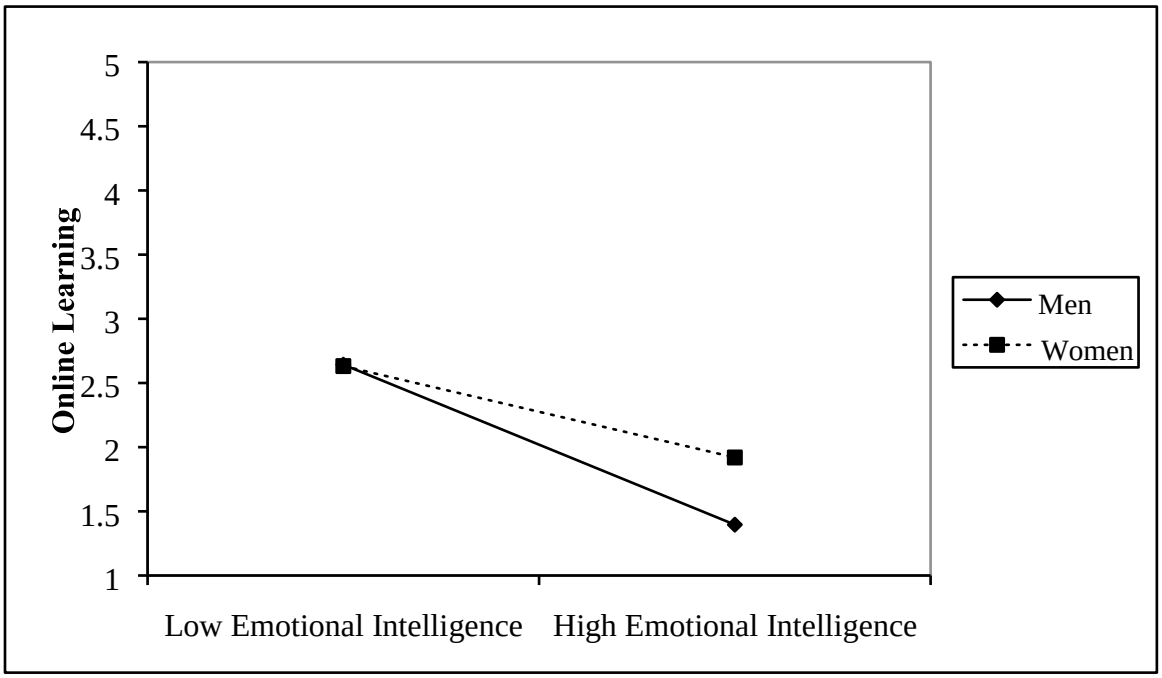
A two-step hierarchical regression analysis was conducted to determine if class-time moderates the effect of emotional intelligence and online learning. The result was significant $f(1,147)=4.785$, $\Delta R^2 = .03$, $P=.030$. To interpret the effect, a plot was generated to depict the relationship between class-time and emotional intelligence with separate lines for males and females. The graph suggests that there is a positive relationship between class-time and emotional intelligence, with separate lines for low-class time and high-class time as it relates to online learning.

Two-step Hierarchical Regression Analysis of Class-Time, Emotional Intelligence, and Online Learning



This worksheet plots two-way interaction effects for un-standardized variables. **For further information see www.jeremydawson.co.uk/slopes.htm.**						
Variable names:						
Name of independent variable:	Emotional Intelligence					
Name of moderator:	Class Time					
Unstandardized Regression Coefficients:						
Independent variable:	0.65					
Moderator:	3.204					
Interaction:	-0.85					

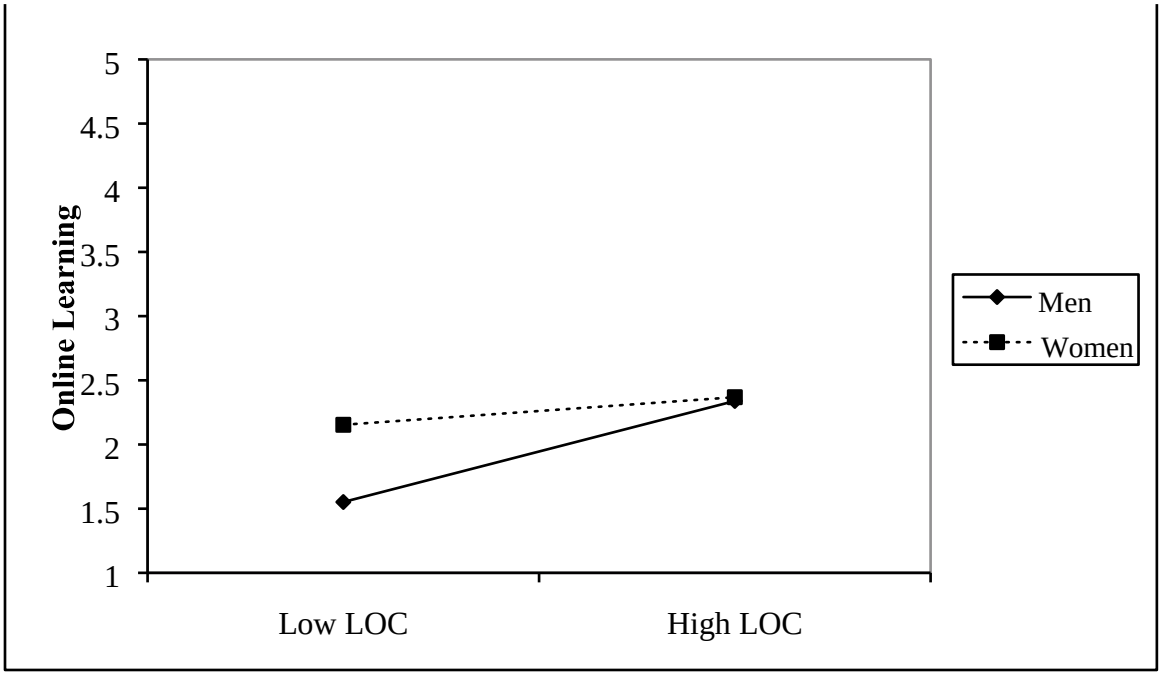
Intercept / Constant:	-0.066					
Means / SDs of variables:						
Mean of independent variable:	3.6942					
SD of independent variable:	0.45478					
Mean of moderator:	2.5577					
SD of moderator:	1.77887					



Emotional Intelligence:

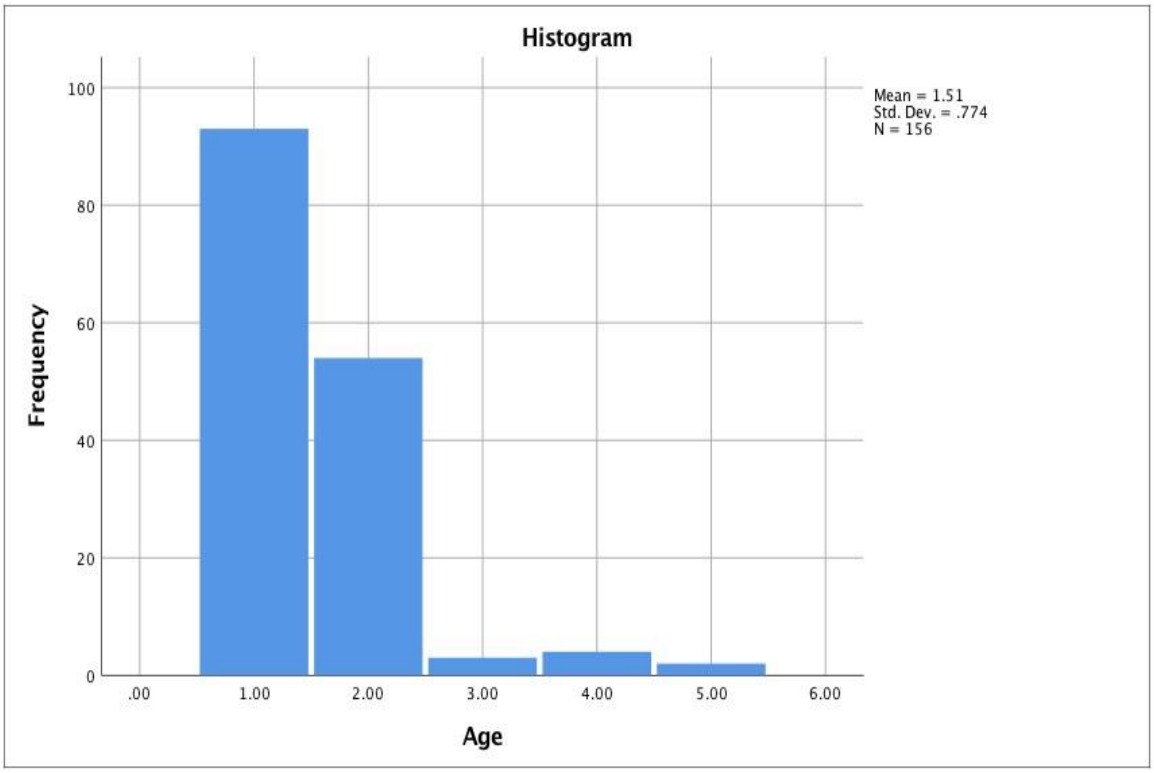
Name of independent variable:	Emotional Intelligence
Meaning of moderator value "0"	Men
Meaning of moderator value "1"	Women
Unstandardized Regression Coefficients:	
Independent variable:	-1.371
Moderator:	-1.916
Interaction:	0.588
Intercept / Constant:	7.084
Means / SDs of variables:	
Mean of independent variable:	3.694
SD of independent variable:	0.4548

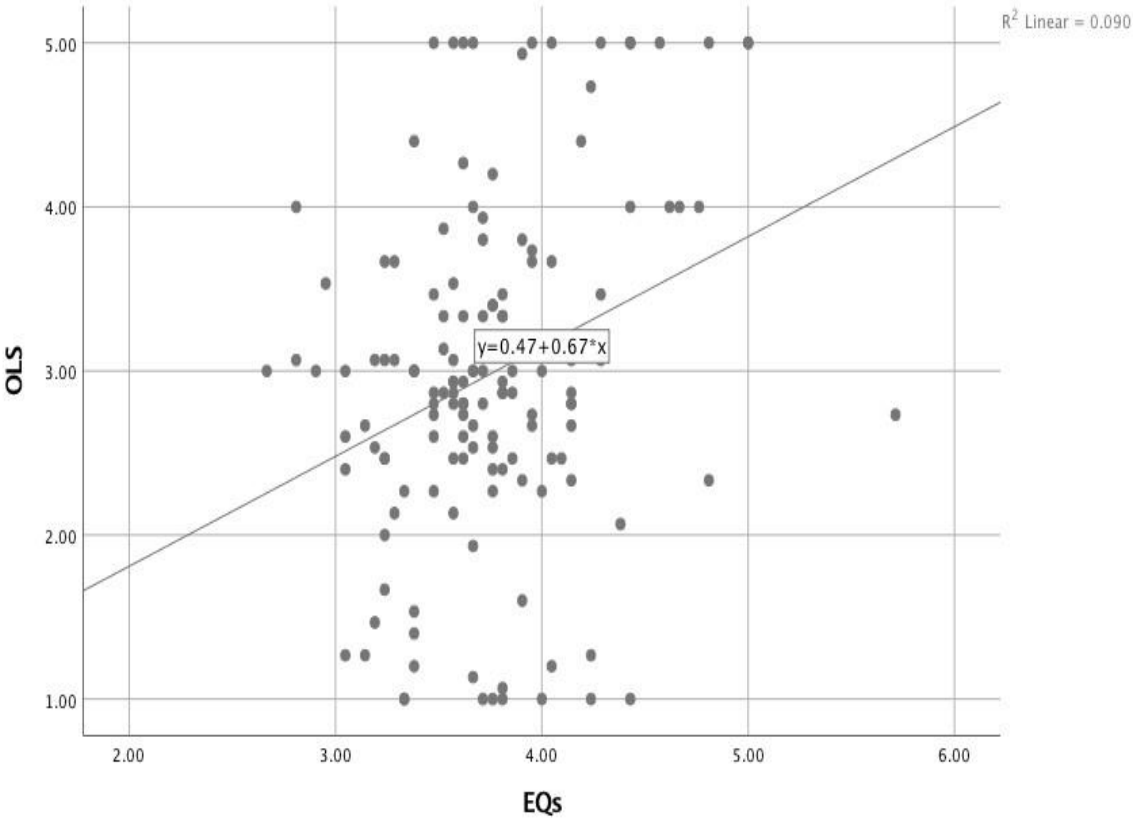
Figure 7: Emotional Intelligence and online learning relationship shown in the chart above.

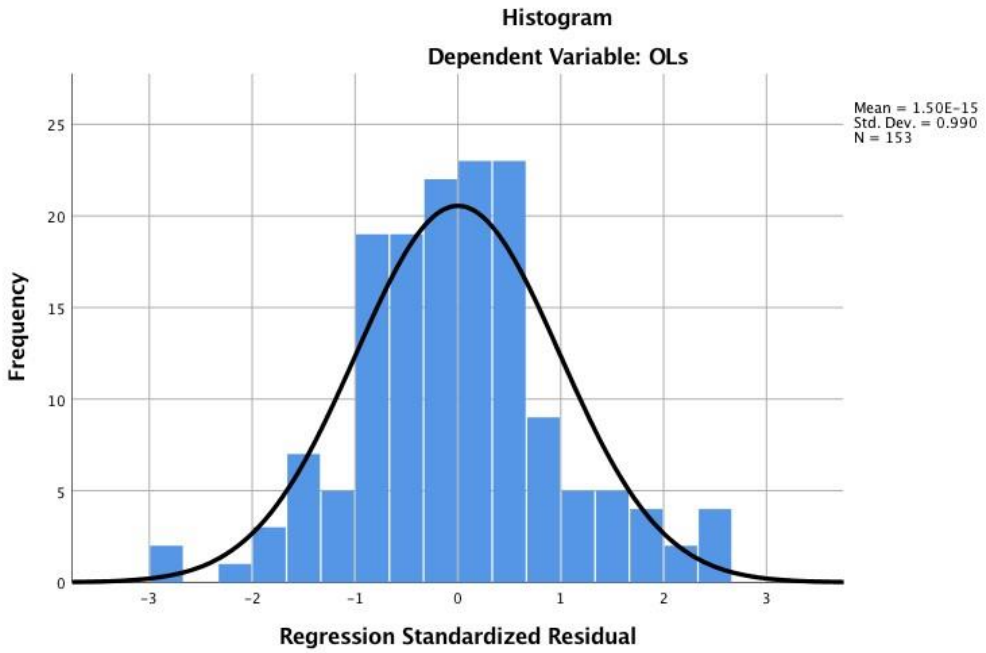


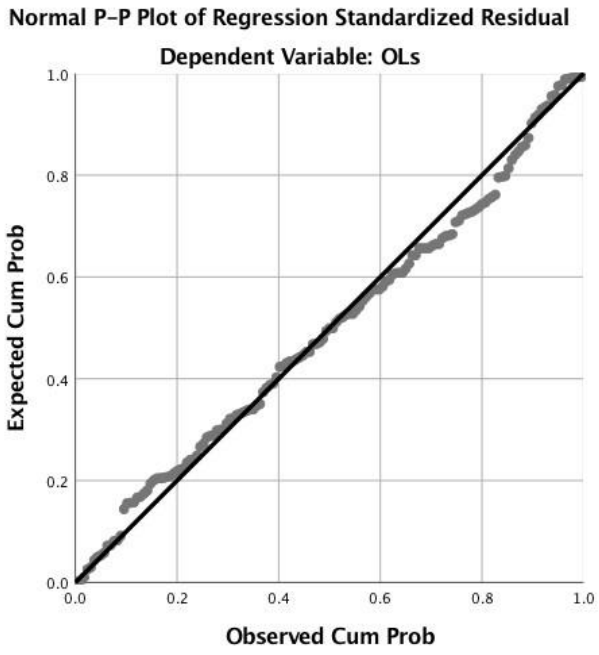
Locus of Control

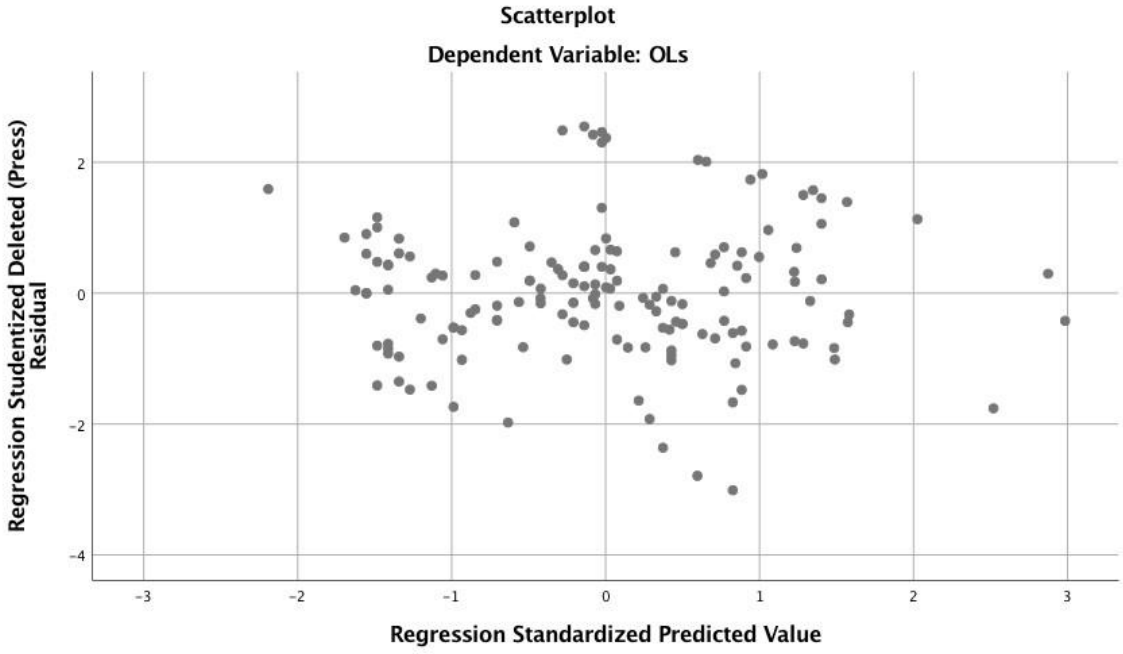
Name of independent variable:	LOC	
Meaning of moderator value "0"	Men	
Meaning of moderator value "1"	Women	
Unstandardized Regression Coefficients:		
Independent variable:	0.637	
Moderator:	1.537	
Interaction:	-0.463	
Intercept / Constant:	0.265	
Means / SDs of variables:		
Mean of independent variable:	2.638	
SD of independent variable:	0.61795	


Histogram
Mean = 1.51
Std. Dev. = .774
N = 156
Frequency
100
80
60
40
20
0
.00
1.00
2.00
3.00
4.00
5.00
6.00
Age


R² Linear = 0.090
y=0.47+0.67*x
OLS
EQs
5.00
4.00
3.00
2.00
1.00
2.00
3.00
4.00
5.00
6.00


Histogram
Dependent Variable: OLs
Mean = 1.50E-15
Std. Dev. = 0.990
N = 153
Frequency
Regression Standardized Residual
25
20
15
10
5
0
-3
-2
-1
0
1
2
3


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: OLs
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0


Scatterplot
Dependent Variable: OLs
Regression Studentized Deleted (Press) Residual
Regression Standardized Predicted Value
2
0
-2
-4
-3
-2
-1
0
1
2
3