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The Use of Emotional Intelligence Applications by Post Secondary Students

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This is to certify that the doctoral dissertation by

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has been found to be complete and satisfactory in all respects,
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Walden University
May 2024

Abstract

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Terry Roxanne Beamer

MA, Radford University, 2011

BS, James Madison University, 1987

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Education

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Abstract

Emotional intelligence (EQ) is a strong indicator of student academic success. Researchers have demonstrated knowledge of the usage of EQ applications by the K-12 student population but have not established significant findings with the student population beyond high school. The problem was that it was unknown whether the post secondary student population knew about EQ applications and what would characterize the motivation to use or not use these applications. The purpose of this basic qualitative study was to investigate post secondary student awareness of and use of EQ applications in the Southern region of the United States. The conceptual framework for this study was the technology acceptance model because this model emphasizes that perceived usefulness and perceived ease of use motivate the actual use of technology. Qualitative interviews were used with 10 first- and second-year post secondary student volunteer participants to explore the research questions about the usefulness, ease of use, and motivation to use EQ applications for post secondary students. Open coding led to five themes: (a) students find EQ applications less useful than favorites, (b) students believe EQ applications can be useful under certain circumstances, (c) students have certain criteria for ease of use, (d) students are motivated to use EQ applications for specific reasons and, (e) students currently were not motivated to use EQ applications. Positive social change may occur with increased awareness and integration of EQ application usage by campus mental health services which may lead to more balanced mental health and overall student success for post secondary students.

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Dedication

This dissertation is dedicated to my family, who believed in me when I sometimes did not believe in myself. To my husband, Daryl Beamer, who cheered me on every step of the way. To my children, Beverlee, and Chet, who witnessed my sacrifices and continually encouraged me to keep going. To my mother, Arlene Taylor, who cheerfully reminded me that she was proud to be my mother. To my church family, Bethany Baptist Church, who prayed for my success during the last and long stretch. To my NAUW sisters who stepped in to alleviate my responsibilities in order to give me more time to commit to my studies. To my family, including my sister, brother, and grandchildren, for quietly supporting me with confirmations. Lastly, I dedicate this work to my sister-in-law, Cheryl Beverly, who, in her own way, inspired me to keep climbing higher and higher, to prove to myself that I am worthy.

Acknowledgments

As I am now in the middle of my 34th year of education, I have always known that I had a passion for teaching others and sharing knowledge. It all started when I was in middle school and my teacher would allow me to be a peer helper. Upon earning my master's degree in educational technology, I remember telling Dr. Sherman that I might just continue to pursue a Ph.D. one day. He encouraged and ensured me that it was attainable. Thank you to all the professors at Walden University who have taught me how to think and write like a scholar. To my chair, Dr. Amy White, who pushed me and expected more of me than I realized I possessed. There is no way I could have accomplished this without her guidance. To all my friends and co-workers who nudged me along every step of the way, thank you. Thank you to the students who participated in this study and were willing to give me their time to tell me about their experiences with regards to the use of EQ digital applications.

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Chapter 1: Introduction to the Study

Emotional intelligence (EQ) is different from intellect. Lee and Madera (2019) defined an emotionally intelligent person as capable of recognizing their feelings and the feelings of others to make life decisions and handle stress. Several studies address the use of EQ technologies by the K-12 student population under the guidance of an adult (D'Amico, 2018; DeRosier & Thomas, 2019; Ruiz-Ariza et al., 2018). D'Amico (2018) showed that EQ abilities increased in students ages 8 through14 using technology. DeRosier and Thomas (2019) conducted a study with fifth and sixth graders that supported the usability and acceptability of technology as an engaging method to increase social and emotional development. In addition, Ruiz-Ariza et al. (2018) concluded that an augmented reality game application improved adolescents' social relationships EQ between 12 and 15 years of age. Although technology is frequently used to increase the EQ of the K-12 population, there is little research on the use of EQ applications by post secondary students (PSS), which is the topic of this study.

Research has shown that college years bring about a transition that affects an individual's mental health (Bhujade, 2017; Lee & Jung, 2018; Nelson, 2019; Stevens et al., 2019). With 70% of Americans enrolling in college immediately graduating from high school, roughly "three-quarters of lifetime cases of psychiatric disorders begin by age 24" (Lattie et al., 2019, p. 1). According to Kern et al. (2018) and Lungu and Sun (2016), PSS are willing to receive emotional help from non-conventional face-to-face therapies such as gamification applications and online support. The conclusion was that the interest in help was present, but the use of technology was limited.

The purpose of this study was to investigate PSS awareness and use of EQ applications in the Southern region of the United States. This study was needed to inform college campus student services about what is needed to increase awareness and usage of health applications. According to Bajaj and Ayub (2018), student awareness of available resources enhances the rigor of EQ and correlates to better health, home, educational, and social adjustments. The results of this study may be used to provide students with awareness of these resources. The potential impact for positive social change is demonstrating the importance of the individual student awareness of EQ technologies and how these technologies can strengthen leadership skills, boost overall success, and foster positive interpersonal relationships leading to a better life for PSS.

Chapter 1 includes a brief background on research literature related to EQ concerning PSS and digital applications. I also discuss the research problem to show that the problem addressed in this study is current, relevant, and significant. I address the purpose of the study and the research questions. A description of the conceptual framework will be discussed by explaining how I used the technology acceptance model (TAM) in this study. The nature of the study will include the rationale for the research design and a summary of the methodology. Following will be definitions, assumptions, scope and delimitations, limitations, and significance related to this study. I will conclude Chapter 1 with a summary of the main points**.**

Background

EQ, as a term, dates back 3 decades ago. At that time, there was little interest in the subject (Bucich & Maccann, 2019). After several adaptations to the definition,

Salovey and Mayer (1990) initially defined the term and are considered the founders of the model that not only recognizes it as a type of intelligence but goes a step further by declaring a person can become emotionally intelligent (Poonamallee et al., 2018). The definition continued to evolve with numerous theories and models. However, the most used theories were narrowed down to three: Goleman, Bar-on, and Salovey and Mayer theories (Jan et al., 2017). EQ was broken down into four classes of abilities by Mayer et al. (1999). These ranged from basic psychological processes to higher psychological levels of processing. Hence, EQ was supported as genuinely being a form of intelligence due to the integrated processes fitting together to form an overall intelligence (Jan et al., 2017).

In summarizing the research literature related to this study, people recognize EQ as an essential trait to possess (Brackett & Cipriano, 2020; Xiang, 2018). A well-developed EQ can increase positive outcomes for PSS, both academically and personally. Research by Chung-Jen (2019) and others revealed that people with increased levels of EQ better understand their strengths, weaknesses, and self-control. The literature review in this study supported the correlation of EQ with positive life outcomes. Research also revealed contradictions, such as a study by Caprar et al. (2016), which rejected the claim that EQ affects life successes. Numerous measurement tools use two major degrees of EQ: ability EQ and trait EQ (O'Connor et al., 2019). The ability EQ measures an individual's ability to understand their emotions. The trait EQ relies on a self-report of oneself, and other's EQ. O'Connor et al. (2019) noted that six ability and trait measurement tools are the most popular among 30 widely used EQ management tools.

The fact that practitioners and researchers use numerous EQ measurement tools suggests that EQ is important to society.

Several recent studies have reported a moderate positive correlation between EQ and the success of PSS, although contrasting studies challenge this relationship. Given that college can be a stressful time in a student's life, the state of the EQ of PSS is of great concern (Bhujade, 2017). Stevens et al. (2019) concluded that the stress experienced by PSS leads to poor college living adjustments. Academic success and EQ show a positive relationship, according to Parker et al. (2017). In the studies conducted by Ramirez et al. (2016) and Stowell (2017), PSS self-reported that EQ was necessary for fulfilling their future professional development. In contrast, other researchers, such as MacCann et al. (2020) and Shipley et al. (2010), concluded that there is a very low correlation between EQ and professional success. The mixed results support the need for further research in this area.

Many Americans ages 18 to 65+, approximately 97%, own a cellphone. Ninety-eight percent of individuals who have attended college own a cellphone, and 85% of this population own a smartphone (Pew Research Center, 2021). PSS use digital applications for academic and personal use. This usage includes texting, social media, or when bored. Yuen Fook et al. (2021) conducted a quantitative study that revealed PSS spend 3 to 6 hours a day on their cell phones. Goodwin et al. (2016) and Kenny et al. (2016) discussed how mental health applications would be the most economical and easiest way to reach PSS. A literature review concluded that there are benefits and barriers to using mobile health applications. Kenny et al. reported that there are over 700 mental health

applications on the market for download. These applications rely heavily on ease, speed, and feedback. Despite the abundance of mental health digital applications that address emotions, many students are unaware of such applications (Gowin et al., 2015; Krebs & Duncan, 2015). There is a gap in the research concerning PSS awareness of these digital resources and, if known, what would motivate PSS to use or not use them. This study was needed because universities may find the research beneficial when offering options to PSS interested in controlling their emotions (see Lee & Jung, 2018).

Problem Statement

Technologies to increase EQ are frequently used with the K-12 population but have yet to prove equally suitable for post secondary population. The problem is whether the post secondary population is aware of EQ digital applications and what the perceptions are of using such technologies by the post secondary population. Currently, there have only been a few studies on the use of EQ applications by PSS, and the results of these studies have been promising but mixed. Walsh et al. (2019) investigated a mental health application with undergraduate students, resulting in decreased stress levels and increased attention control. On the other hand, Lee and Jung (2018) investigated how using a mental health application (DeStressify) affected PSS and found that participants felt their productivity improved; however, the application did not significantly improve their anxiety, stress, or social functioning. In addition, Flett et al. (2018) investigated the usage of emotional digital applications with 208 PSS with promising results concerning increased resilience and lessened depression in the short term. The authors suggested

conducting further research to investigate application usage utilizing a protocol to collect more objective measures.

Twenty-six percent of PSS were open to using an emotional health application, but only 7% had used such applications (Kern et al., 2018). What is still being determined is whether PSS know about these health applications and whether they use them. According to Dufau et al. (2011), the use of digital applications can "uncover laws of the mind that have previously been hidden in the noise of small-scale experiments" (p. 1). Stankovska et al. (2018) conducted a study with 200 PSS and concluded that EQ and academic stress are strong indicators of student academic success. The nation's economic strength depends upon students' academic success (U. S. Dept. of Education, 2015). The lack of information on using EQ applications by PSS does not allow the opportunity to know if such applications can help strengthen student EQ, which could lead to tremendous academic success. Therefore, there is a need to address the gap in the literature on the awareness and usage of EQ applications amongst the PSS population.

Purpose of the Study

The purpose of this basic qualitative study was to investigate PSS awareness and use of EQ applications in the Southern region of the United States. To accomplish this purpose of EQ application usage, I conducted a qualitative study. Qualitative research provides insight into social interactions and emotional phenomena. This type of research gives voice to participant experiences. Sandelowski (1995) defined basic qualitative research as a valuable method when the goal is to seek who, what, and where of the

phenomenon, which was the purpose of this study. I used interviews with participants to understand student awareness and the use of EQ health applications in a Southern state.

Research Questions

Research questions in a qualitative study are used to articulate what the researcher wants to learn about the intentions and perspectives of the participants (Agee, 2009). The results of this study may lead to future research into the intentions and perceptions using EQ digital applications by PSS. The research questions are as follows:

Research Question 1: How do first- and second-year PSS describe the usefulness of EQ applications?

Research Question 2: How do first- and second-year PSS describe the ease of use for EQ applications?

Research Question 3: How do first- and second-year PSS characterize their motivation to use or not use EQ applications?

Conceptual Framework

The conceptual framework that grounded this study was Davis's (1989) theoretical model of TAM. I used this framework to understand what PSS perceive about EQ digital applications and motivators for the use of these applications. Davis's (1989) TAM model states that perceived usefulness (the extent to which a person believes the use of such technology will enhance their performance) and perceived ease of use (the extent to which the user feels the use of such technology will be free of effort) are what motivate actual use of a technology. The foundation of this model is built from the Fishbein model (Ryan & Bonfield, 1975), which asserts that individual intention to

perform a specific behavior is determined by their attitude toward that behavior, perceived consequences, and motivation to adhere to perceived expectations of others (Davis, 1989).

The critical elements of this framework, perceived usefulness and perceived ease of use, affect a user's intention to use a digital application (Yee et al., 2019) as further detailed in Chapter 2. I used the TAM to develop the research questions to determine whether PSS use or not use EQ applications due to their perceptions of the technology. Further connections to the conceptual framework are evident in the development of the interview instrument, which references each interview question to the research questions. I used the framework to analyze the data generated in the research study by providing information on the knowledge, perceptions, and intentions of the using EQ applications.

Nature of Study

This study best aligned with a qualitative approach because my intent was to gain reflection and revelation towards describing a social phenomenon. Sandelowski (1995) stated that qualitative research involves asking and answering the right questions. Qualitative research is consistent with answering the question of what would characterize the behavior and motivation of PSS in a Southern state to use or not use digital applications to address their EQ. My purpose in this basic qualitative study was to investigate PSS awareness and use of EQ applications in the Southern region of the United States through the lens of Davis' TAM. A gap existed in the literature on the awareness and usage of EQ digital applications amongst the post secondary population.

I used interviews in this study to understand my participants experiences. I designed an interview protocol based on the research questions (Appendix B). I questioned first- and second-year PSS using in-depth and open-ended interviewing to collect data concerning their experiences and perceptions of EQ digital applications. Interview responses underwent analysis and then organization by themes. A detailed description of this analysis is in Chapter 3.

Definitions

Key concepts in this research study are listed below to help the reader understand these concepts in context:

Digital application: A software program downloaded onto a smartphone or mobile device (Yee et al., 2019).

Ease of use: The degree to which a certain system is used with little to no effect (Al-Maroof & Al-Emran, 2018).

EQ: A collection of skills such as self-control, determination, self-motivation, and sensitivity to the feelings of others (Ranasinghe et al., 2017, p. 1).

EQ applications: Mobile applications designed to help individuals with EQ, such as recognizing and regulating emotions (Papoutsi et al., 2018).

Motivator: An individual's judgment of the ability of a digital application to result in a specific type of performance (Pan, 2020).

Post secondary: A curriculum formally designed primarily for individuals beyond the compulsory age of high school. (Snyder et al., 2009).

Social-emotional learning: A learning process where children and adults acquire skills necessary for self-awareness, self-management, relationship skills, and decision-making (CASEL, 2018).

Usefulness: The degree to which a certain system would enhance a person's performance (Al-Maroof & Al-Emran, 2018).

Assumptions

An assumption is an aspect of the study that is taken for granted and believed to be accurate, but there is no evidence to prove these beliefs are true (Roberts & Hyatt, 2018). Therefore, assumptions can be used to develop theories and the research process.

My first assumption was that the participants would answer the interview questions honestly and openly. My second assumption was that the participants voluntarily participated out of a genuine interest and desire to add to the research. My third assumption was that the targeted population of this study was representative of the population of first- and second-year PSS in a Southern region of the United States. These assumptions were necessary to understand and interpret information, evidence, and conclusions about the use of EQ applications by PSS.

Scope and Delimitations

In this study, I examined what PSS know about EQ applications and the motivators to use these applications (e.g., Calm; Stop, Breathe & Think; Sintelly). I chose this focus due to a gap in the literature on the awareness and usage of these applications amongst the PSS population. Previous research addressed the use of EQ digital applications with the K-12 population. The use of the TAM framework to investigate the

usefulness and perceived ease of use of such applications with students beyond high school has yet to be investigated. Thus, there has been a gap in the literature combining EQ and technology, especially concerning PSS.

Delimitations are the boundaries of the study that describe what is included and what is excluded to narrow the research scope (Roberts & Hyatt, 2018). Previous researchers have addressed the increased level of stress of first- and second-year PSS. Hence, this justifies the target population for this study. One delimitation of this study is that only first- and second-year PSS were included in this research. The geographic area of the participants also delimited this study to the attendance of a university in a Southern region of the United States. The findings of this study may be transferable to similar contexts.

Limitations

The basic qualitative research design that I used for this study has both advantages and disadvantages. Queirós et al. (2017) suggested that the qualitative approach can be a limitation because the design focuses on motivations, perceptions, and beliefs, which make data difficult to quantify with numerical representations. Due to the lack of statistical representation, this research design is not as understood and accepted within the scientific community. As the researcher, I had an increased awareness of this limitation. I ensured alignment with the interview questions and the research questions by reflecting on the collecting and analyzing of data. Rather than numerical comparisons, the data reflected the language and observations of the participants.

A second limitation was my assumption that the participants may be reluctant to participate upon hearing the term EQ. This limitation could create a potential barrier in recruiting participants because the term EQ may have a negative connotation and thus discourage participation. I overcame this barrier by describing the term to potential participants and a gift card incentive. Before the interview, the participants were allowed to ask questions for clarification and a debriefing procedure with an option to withdraw their data without penalty or loss of incentive.

The third limitation was the issue of transferability, as noted by Connelly (2016). To ensure more transferability within the research, I provided a thick and rich description of the participant's experiences, location, and context to allow other researchers an opportunity to transfer the findings. The focus was on the participants' stories without stating that it was everyone's story.

I had no personal or professional relationship with the participants of this study. I served as an interviewer in the process of data collection, as an observer only. I believe that technology has the potential to improve life and well-being. I acknowledged this bias, and I followed the recommendation of Weiss (1994) to be careful not to ask leading questions or show favoritism to answers that support my preconceptions.

Significance

The findings of this study contributed new knowledge to the field of educational technology by seeking the answers to what PSS know and perceive about the usefulness, ease of the use of EQ applications, and how PSS characterize their motivation to use or not use EQ applications. The results of this study may contribute answers about the prior

knowledge PSS have concerning EQ digital applications, along with application usefulness and the ease of use. This study may also contribute answers to what will motivate PSS to use digital applications to address their EQ. By using the method of interviewing, the findings of this study may contribute to the results of communications with PSS, who can give insight and perceptions into the use of EQ applications and could improve the acceptance and willingness to use such technologies amongst the post secondary population.

The findings of the study are significant because they may affect the professional practice of college campuses' mental health outreach services by offering an alternative resource for students less likely to receive emotional support through therapy. In addition, should there be long waiting lists, the findings of this study could reveal a means of providing a temporary resource for emotional strengthening for PSS until face-to-face assistance is available. Additionally, digital application developers could enhance their professional practice by considering PSS perceptions and understanding what motivates them to use or not use digital health applications.

Potential contributions for positive social change are threefold. First, the awareness and use of EQ digital applications could increase college graduation rates by providing a resource for PSS to be resilient to the stresses of college life. Second, having easy access to a resource that has the potential to enhance students' EQ could begin to shape a generation that is more mindful of their emotional needs and more apt to seek solutions. Third, as supported in the literature in Chapter 2, increased EQ can potentially predict academic and personal success, leadership skills, and interpersonal relationships

at school, at home, and within society. This increase can reduce conflicts, boost work ethics, and expand society with emotionally healthy people.

Summary

The purpose of this basic qualitative study was to investigate PSS awareness concerning the use of EQ applications in the Southern region of the United States. Chapter 1 included a presentation of the study description, including the background and the problem statement. I also discussed the conceptual framework, nature of the study, definitions, and assumptions. This chapter concluded with scope and delimitations, limitations, and significance.

Chapter 2 includes a current literature review related to EQ, PSS, and the use of digital applications by PSS. I will include a brief EQ background and then discuss its importance. PSS and EQ, perceptions of the importance of EQ, and digital applications in general, as presented by the literature, will be examined, and synthesized. Lastly, applications and the implications of using EQ will be included by reviewing past research related to this study. This will include studies with similar purposes and methodologies.

Chapter 2: Literature Review

Introduction

Several researchers have investigated EQ, PSS academic success, and the use of digital applications by PSS (Bhujade, 2017; Huberty et al., 2019; Stankovska et al., 2018). A careful review of the literature, however, indicated that a gap exists in research regarding the use of EQ digital applications by PSS. As such, the purpose of this qualitative study was to investigate PSS awareness of and motivations to use EQ digital applications in the Southern region of the United States.

After discussing literature search methods, the conceptual framework, and EQ, I present a literature review focused on three major themes: the relationship between PSS and EQ, the use of digital applications by PSS, and the use of EQ digital applications by PSS. Although the literature covers a wide variety of these topics separately, this review will focus on combining EQ application awareness and application usage by PSS.

Literature Search Methods

I reviewed the literature to gather relevant information to support what PSS in the Southern region of the United States know or do not know about EQ applications. I focused on valuable information addressing the gap in the literature concerning EQ application usage among PSS. In conducting a thorough inquiry into previous research, I focused my search on peer-reviewed journals in education, seeking relevant sources addressing the following: EQ, EQ of PSS, and use of EQ digital applications by PSS. This focus specifically included the awareness of, perceptions of, and motivations for using EQ digital applications among PSS.

I began the literature review process by searching for information about EQ. Keyword search terms included *emotional intelligence, college students, digital applications, post secondary students, health applications, social-emotional learning, college students + digital applications, college students + emotional intelligence*, and *mobile learning + post secondary students.* I restricted results to peer-reviewed and full-text articles published between 2015 and later unless I sought historical and original articles by primary theorists. I also included other research articles deemed essential to this study, regardless of publication date. The databases that I used were EBSCOhost, ProQuest, SAGE Journals, ERIC, BioMed Central, Google Scholar, and Dissertations and Theses at Walden University with full text from the Walden University Library. Of these databases, Business Source Complete retrieved the highest number of relevant articles. I located additional relevant literature by reviewing the reference lists of the journal articles that I gathered through database searches. Common themes in the literature review included college student anxieties, mental health, student perceptions and motivations, student successes, and smartphone usage.

Conceptual Framework

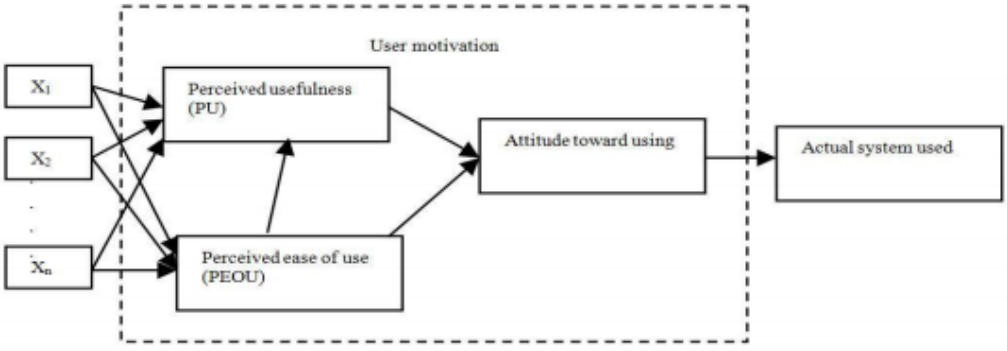
I used the TAM (see Hur et al., 2017) to frame this study. Davis (1985, 1989) developed the TAM to explain user perception and motivation. According to Davis, there are reasons why a person accepts or rejects information technology, such as digital applications. The model indicates that perceived usefulness and perceived ease of use motivate the actual use of technology. The conceptual framework of this study, reflecting

critical ideas from the TAM, was based on the concepts of usage intention, perception, and motivation about digital applications.

Two essential determinants of technology use within the TAM support the conceptual framework. First, people tend to use technological innovation based on their belief concerning whether it makes a difference in their job performance. This is *perceived usefulness* (PU; Davis, 1989). Second, if a technology is useful, users will also be concerned with the ease with which they can adopt it. This is the technology's *perceived ease of use* (PEOU; Davis, 1989). If a technology is perceived as being too tricky, this perception could outweigh its PU. Each determinant can influence the other. Davis (1985) added a third determinant that addresses users' acceptance and usage of technology and their attitude toward usage (Cakiroglu et al., 2017; Ofori, 2019; Shafinah et al., 2013). See Figure 1 to depict these elements within the TAM (Appendix A).

Figure 1

The Technology Acceptance Model



Note. The X variables in Figure 1 represent the external factors used to evaluate PEOU and PU. From "Davis, F. D. (1985). A TAM for empirically testing new end-user

information systems: Theory and results [Doctoral dissertation]. Copyright 1985 by Davis, F. D. Reprinted with permission.

The TAM is the most reliable and widely referenced behavioral perception model in the information technology literature (Davis, 1989; Venkatesh & Davis, 2000; Yarbrough & Smith, 2007). This model has withstood many empirical tests in various contexts. King and He (2006) reviewed 88 TAM empirical studies that identified categories of modifications, one being consequence measures such as perceptual usage, actual usage, and attitude. The TAM has been applied to increase the understanding of perceptions of technology usage in business organizations. For instance, Anderson et al. (2016) reported that the TAM was helpful for research about the experiences of those using mobile applications. Yee et al. (2019) concluded that the TAM factors of PU, PEOU, and subjective norms positively affected users' intention to use digital applications. Although these research findings align with the TAM model, supporting the connection between usage motivation and PEOU, Dou et al. (2017), using the TAM as a framework, contrarily concluded that PEOU had no significant effect on the user's intention to use digital applications.

Researchers have also applied the same theoretical model to assess college students' usage and ease perceptions. Cho et al. (2014) conducted a study to develop a theoretical model based on the TAM by focusing on college students' adoption of digital health applications. Chang et al. (2012) analyzed the TAM components with 158 college student participants, and their research supported the notion that PU and PEOU predict the positive acceptance of personal digital technology. In addition, Ofori (2019) applied

the TAM to discover how college students gained positive attitudes and perceptions to adopt and use digital applications.

Among cell phone applications, mindfulness and EQ applications are gaining popularity (Krebs & Duncan, 2015). However, only a few studies have used the TAM model to research the use of EQ applications to address college student stresses (Huberty et al., 2019). The research questions of this study, which the TAM informs, have been developed to determine whether PSS use EQ applications due to their perceptions of the technology.

Review of Current Literature

The review of the current literature is presented in four sections. Section 1 includes a review of the background of EQ. I will review the importance of EQ and interchangeable terminology in Section 2. Section 3 includes reviews of PSS and EQ. This includes PSS perceptions of the importance of EQ. Lastly, Section 4 reviews the use of digital applications by PSS and, specifically, the use of EQ applications.

The Background of Emotional Intelligence

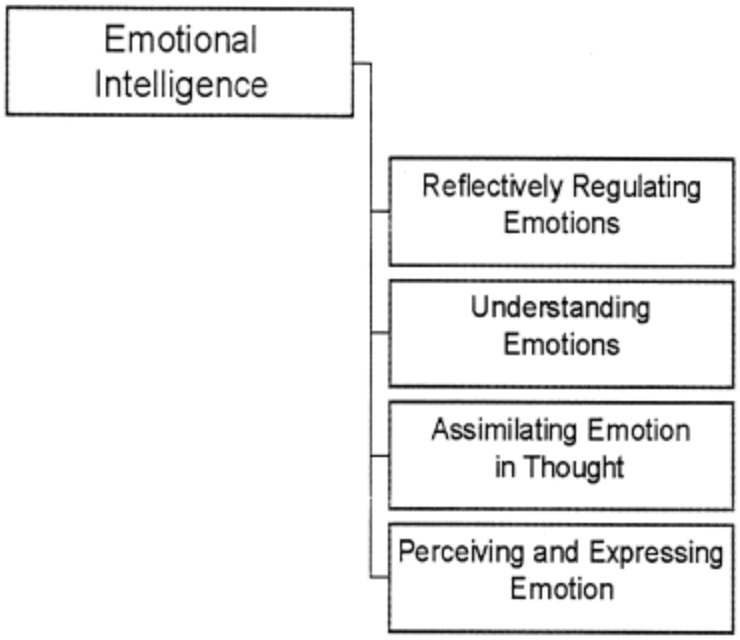
The term emotional intelligence was coined 3 decades ago by Salovey and Mayer. It is "an ability to recognize the meanings of emotions and their relationships, and to reason and problem-solve based on them" (Mayer et al., 1999, p. 267). Several researchers recognized a form of this definition (Jan et al., 2017; Poonamallee et al., 2018; Stowell, 2017). Thorndike and Stein (1937) described social intelligence as the ability to get along by understanding oneself and others' behaviors. This is commonly accepted to be where EQ began. This concept is very similar to the current-day concept

of EQ. Several psychologists and theorists built upon this concept. In the 1940s, Weschler (1943) formulated the concept of non-intellective intelligence, asserting that considering non-intellective factors is necessary to measure total intelligence. In the 1950s, Maslow (1950) believed people could build emotional strength. It was not until 1985 that Wayne Payne used the term emotional intelligence in his doctoral dissertation entitled *A Study of Emotion: Developing Emotional Intelligence, Self-Integration, Relating to Fear, Pain, and Desire* (Payne, 1985). In this dissertation, the author referred to EQ as an emotion one could develop.

In 1990, two psychologists published their turning point article, "Emotional Intelligence" (Salovey & Mayer, 1990). Salovey and Mayer are considered the founders of EQ. Following this, the EQ concept was popularized in an article by Goleman (1995), addressing why EQ can matter more than intelligence quotient (IQ). Goleman's definition of EQ added a new layer to include self-control, persistence, self-motivation, and zeal (Dhani & Sharma, 2016). Dhani and Sharma mentioned another influential researcher of EQ named Reuven Bar-On, who originated the term "emotional quotient." With this term came an extension of the definition to include coping with surroundings to be successful with environmental demands. As noted, the definitions of EQ evolved and complemented one another. Many theories and models branched out from Salovey and Mayer's model, with three being the most renowned: Goleman, Bar-on, and Salovey and Mayer theories (Jan et al., 2017) are a compilation of many abilities rather than a single ability or a preferred course of behavior. Mayer et al. (1999) identified four classes of abilities placed in a hierarchy system from lower to higher skills, as illustrated in Figure 2.

Figure 2

Four Classes of EQ Abilities



Note. A model of the four classes of abilities involved in EQ. Reprinted from "Emotional Intelligence Meets Traditional Standards for Intelligence" by Mayer et al., 1999, Intelligence 27(4), p. 269. Copyright 1997. Reprinted with permission.

The most essential skill level involves perceiving and expressing emotions. At this level, a person can express their desired emotions. This includes facial expressions of pain (cry) and happiness (smile). As one ages, discriminating between a genuine and a polite expression becomes easier (Mayer, 2016, 2011). The next level involves weighing emotions against one another and allowing emotional experiences to guide thinking (Mayer et al., 2000). The third level involves understanding emotions and using language to describe them. The experience of emotions guides the rules of how one governs. For example, stress often changes to relief. At this level, one can identify antecedents,

meanings, and outcomes of emotions (Mayer, 2016, 2011). The fourth and highest skill level of EQ involves the management and regulation of self and others while reflecting on such ability. This level includes monitoring and engaging with emotions to determine their usefulness. An example of this is calming oneself after experiencing an upset and having the ability to help another do the same (Mayer, 2016, 2000, 2011). This model supports that EQ is truly an intelligence by illustrating how the parts of EQ fit together to form an overall intelligence.

Importance of Emotional Intelligence

The EQ concept has drawn abundant attention as it correlates to individual success. The correlation makes EQ a critical trait to possess. Xiang (2018) studied the EQ of 500 PSS using exploratory analysis using a student questionnaire. He found that EQ paralleled mental health by creating a primary and buffering effect on life's events. He went even further in concluding that several critical demographic factors had an impact on PSS EQ, such as grade, gender, single child vs. siblings, and education level of the mother of the student. This research did not specify whether the questionnaire was web-based or involved technology. However, Poonamallee et al. (2018) and Chung-Jen (2019) conducted research that focused more on the importance of EQ in enhancing individual performance, growth, leadership, and future success of PSS. These studies involved smaller student samples of 26 and 336, respectively. Both studies utilized web-based curriculum and smartphone application self-reporting surveys and questionnaires. The developers used these technologies as a tool to develop EQ. No one addressed the perception of the use of these technologies. The research focused on the outcome of EQ

training rather than the actual PU of PSS. These studies agreed that EQ is an essential predictor of academic and career success.

Other research studies support the importance of EQ. Brackett and Cipriano (2020) traced the development of EQ and concluded that EQ helps students manage their emotions while learning, concentrating, and thinking. A cultivated EQ can change pessimistic to optimistic perceptions and increase the rate of positive outcomes in school and life (Sorina et al., 2019; Stankovska et al., 2018). One of the most critical aspects of academic success is the ability of the PSS to adapt to university life (Sorina et al., 2019). These researchers used a student questionnaire with 247 PSS during a seminar to approach the need to develop EQ. The researchers focused on the student's perception and awareness of their EQ. The researchers concluded that increased awareness leads to better outcomes in the university setting. Likewise, Stankovska et al. (2018) conducted a study including 200 PSS using a self-reported scale, a questionnaire, and an inventory. The results revealed that the level of EQ correlated with academic achievement. Neither of these studies mentioned the use of EQ applications before or during the study.

The researchers Chung-Jen (2019), Poonamallee et al. (2018), and Topaloglu (2014) showed that people with high levels of EQ are better in tune with their needs, strengths, conscientiousness, and self-control. Leaders who possess these traits are positive role models and inspire others. On the contrary, Caprar et al. (2016) indicated that students reject the claim suggesting EQ plays a vital role in life successes. In this study, 370 PSS enrolled in a class that assessed their belief in success predictors. The researchers concluded that the students were less likely to accept previous research about

the importance of EQ. These researchers found that PSS felt threatened by such a suggestion. Students with lower grade point averages were more likely to disagree with the argument of the importance of EQ by giving self-protective reasons in their essays. Despite these results, the literature review presented research studies (Bajaj & Ayub, 2018; Sorina et al., 2019; Topaloglu, 2014) that supported the positive life impacts of those with high degrees of EQ.

There are degrees of EQ, as determined by numerous measurement tools. As stated earlier in the primer, the idea of EQ surfaced in the 1990s (Mayer et al., 1999). Over the years, there have been two distinct conceptual forms of EQ, ability EQ and trait EQ, which have been used for measuring EQ (O'Connor et al., 2019). Ability EQ tests measure a person's theoretical understanding of emotions by solving problems on how emotions work without self-reporting (Bucich & Maccann, 2019; O'Connor et al., 2019). The literature review conducted by O'Connor et al. (2019) summarized the validity and reliability of the EQ measurements. Their detailed example of an ability EQ measure question displayed how the test-taker is required to solve problems based on giving a correct or incorrect answer. In the same way, Bucich and Maccann (2019) conducted a literature review examining an ability EQ measure question requiring the participant to process emotional information to respond. For example, deciding how much happiness is evident in a facial expression. Both authors agreed that ability trait measures indicate the test-taker's ability to understand emotions and their role. For most purposes, O'Connor et al. believe that trait EQ represents the best form of measuring EQ, relying on a self-report of self-regulation of oneself and others. Bucich and Maccann add to this belief by stating

that ability EQ measurements resulted in more vital signs of stress and depression due to high emotion perceptions of the test-takers. Bucich and Maccann conclude that EQ is essential for positive relationships, strong leadership qualities, and successful academic outcomes. There are six most popular measurement tools, out of the more than 30, used for EQ ability and trait determinations (O'Connor et al., 2019):

- Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) – ability EQ.
- Self-Report Emotional Intelligence Test (SREIT) – trait EQ.
- Trait Emotional Intelligence Questionnaire (TEIQue) – trait EQ.
- Bar-On Emotional Quotient Inventory (EQ-E) – mixed ability + trait EQ.
- The Situational Test of Emotion Management (STEM) – ability EQ.
- Emotional and Social Competence Inventory (ESCI) – mixed ability + trait EQ.

The six measurement tools bulleted above are the most popular based on validity, widespread use, and reliability. Given that attention has been abundant to EQ measurement tools, it is evident that EQ is necessary.

Emotional Intelligence Terminology

Social-emotional learning (SEL) is how individuals develop EQ skills. The Collaborative for Academic, Social, and Emotional Learning (CASEL), a premier organization for SEL, defines social-emotional as a learning process where children and adults acquire skills necessary for self-awareness, self-management, relationship skills, and decision-making (CASEL, 2018). EQ is the ability to recognize emotions and relationships and then problem-solve. EQ refers to adults, while educators and certain

business arenas use SEL. Arslan and Iseri (2018) stated that EQ significantly intertwines with SEL. These two terms are often interchangeable, mainly when referring to students.

Post Secondary Students and Emotional Intelligence

Xiang (2018) described PSS as being on reserve to represent our entire society's high-level professionals. There is a need to understand the experience and perceptions of PSS regarding how EQ influences their success (Stowell, 2017; Xiang, 2018). In the qualitative phenomenological study, comprised of 10 undergraduate PSS, Stowell (2017) concluded that students recognized the positive influence of their EQ practices. The participants identified four areas of EQ in this study: self-awareness, social awareness, self-management, and relationship management. Beyond their academic success, the students also recognized the importance of EQ for personal and professional success. Conclusions included the recommendation of additional studies that will increase EQ awareness amongst PSS. There was no mention of EQ digital applications used during this research, and it was limited to a few participants. Xiang (2018) revealed that EQ has a close relationship with mental health by conducting research with 500 PSS using questionnaires. This study concluded that if PSS have help with emotion regulation, they could also regulate the effects of life events such as adapting to a new environment, interpersonal relationships, and striving for perfection, regardless of the stressful situation. Both studies emphasized the need to increase EQ amongst PSS.

High school students often need to prepare for the academic rigor that awaits them once they transition to college. Nelson (2019), in a qualitative case study, researched why first-year college students withdrew from the university. The findings

indicated that some students withdrew due to academic struggles and the inability to handle the demands that required self-discipline. These findings also applied to withdrawal from employment. Furthermore, in a qualitative study with 25 undergraduate students, Poonamallee et al. (2018) put forth that those students with higher EQ (self-regulation) were less likely to quit their jobs because self-regulation inspired others in the workforce to remain calm in the face of chaos.

College can be a stressful period for PSS. According to Sturgill et al. (2021), who conducted an online survey of a group of second-semester first-year students, anxiety poses significant challenges for PSS attributed to various factors. Factors such as newfound independence and managing academic tasks contribute to the heightened stress levels experienced by PSS. In a brief review by Bhujade (2017), results indicated that the research conducted in the last three decades revealed that stress, anxiety, and depression of PSS are of great concern. Moreover, 75% of PSS self-reported elevated stress in a randomized, wait-list control trial analysis with 88 college participants by Huberty et al. (2019). Furthermore, Lee and Jung (2018) concluded that university students show significantly higher stress and mental health issues than the public in a randomized experimental and control condition study including 163 PSS. Likewise, Stevens et al. (2019) concluded that a high academic stress level among PSS and that academic stress leads to poor college living adjustments in a qualitative, nonexperimental exploratory survey study of 134 PSS participants. The stress of PSS is a genuine concern among researchers. Being a college student can be stressful, both academically and emotionally.

PSS academic stress and EQ are possibly related. Loi and Pryce (2022) explored the association of EQ and academic burnout by surveying 216 PSS. Most of the students were in their first year of college. The findings indicated that high levels of EQ and self-care were positively associated with low levels of academic stress and burnout. Similarly, Parker et al. (2017) tracked the academic success of 171 PSS over six years in a study they conducted. The findings revealed that EQ was a strong predictor of persistence skills in students. Parker et al. agreed with Stankovska et al. (2018), who revealed that EQ may play a part in academic stress in a quantitative study of 200 PSS. Likewise, a qualitative study of 10 students by Stowell (2017) determined a positive correlation between EQ and academic success. However, MacCann et al. (2020) concluded a need for a causal direction between EQ and academic success in a meta-analysis. This analysis concluded a significant association between the two, but not that EQ causes an increased level of achievement. Similarly, Barchard (2003), Garg et al. (2016), and Shipley et al. (2010) concluded that little research supported the idea that EQ predicts academic success. In a study of 150 PSS who volunteered to complete a series of self-reported measures by Barchard, the findings revealed no incremental validity of EQ predicting academic success. Only some measures showed a correlation, and none revealed academic success to outweigh the cognitive and personality variables. Shipley et al. concluded that there was no significant relationship between EQ and academic achievement using the survey methodology with 193 PSS. Although findings did not reveal a significant correlation between EQ subset of grade point average (GPA) and overall well-being, the research suggests that those students with a higher GPA may have already encountered the need to

develop EQ skills when compared to those students with lower GPA scores. Further support of a lack of significant positive correlation between EQ and academic performance was revealed in a study conducted by Manoj Kumar Sethi (2023). This quantitative study included a target population of 300 undergraduate students. The author suggested more robust support from family members and policyholders to better equip PSS with college adjustment skills. Given the mixed results on the correlation between EQ and academic success, further research is needed on this topic.

Perceptions of the Importance of Emotional Intelligence

Students' voices provide a means of expressing EQ awareness among PSS. Stowell (2017) asked 10 PSS in a qualitative phenomenological study, "To what extent, if at all, do you attribute your academic success to your EQ?" as part of the interview (p. 97). The most prevalent themes in their responses were self and social awareness and self and relationship management. Some of the eligibility requirements for participation in this study were understanding what EQ is and knowing if the participants felt that EQ was necessary to fulfill their future professional development. In addition, Ramirez et al. (2016) realized the need for an understanding of student's perceptions of EQ. Eight PSS participated in a qualitative study, reporting that their perceived EQ significantly contributed to their academic achievement. Emotions played a significant role in their decision-making to self-regulate their social awareness and relationship management.

Similarly, Hutabarat (2019) conducted a qualitative research study including six students using semistructured interviews. The results from this study revealed that from the EQ components, most students cared more about self-awareness and self-

management and realized their perception of EQ correlated with their academic success. The participant size of each of these studies was relatively low. Gaining further student perception of EQ is paramount to my study. Student perception will help determine if PSS are aware of their EQ. In this study, another question to explore is whether participants' awareness motivates them sufficiently to seek information about the availability, usefulness, and ease of an EQ digital application for increasing and strengthening their EQ.

The Use of Digital Applications

PSS use mobile digital applications for academic and personal use. A *mobile digital application* is a software program downloaded onto a smartphone or mobile device (Yee et al., 2019). In 2017, over 325,000 medical and health applications were available for download through Apple and Google Application stores. The mobile digital applications are approved by the US Food and Drug Administration (Research2Guidance, 2017). Mobile digital applications are considered accessories. Jesse (2016) surveyed 395 PSS and concluded that the average PSS downloaded approximately 30 digital applications on their smartphones. According to Huberty et al. (2019), in a waitlist-controlled trial analysis of 88 PSS, mobile digital usage rapidly decreases within the first 90 days from the initial download of an application. The users abandoned using digital applications because of privacy and security concerns, poor functionality, hidden costs, and loss of interest and usefulness, among other reasons.

The overall use of mobile technology continues to increase rapidly. “The smartphone users worldwide are at 1.46 billion for 2018” (Yee et al., 2019, p. 19).

According to a prediction by Yuen Fook et al. (2021), smartphone users will rise to 5 billion by the year 2020. Smartphone use is dominant among PSS, in and out of the educational settings. Atas and Celik (2019) conducted a cross-sectional survey with 842 PSS, revealing that most students use their smartphones approximately five hours daily while checking their smartphones 28 times per day. Further results revealed that PSS mainly use their smartphones for texting, social media, when bored, or alone. With similar findings, Yuen Fook et al. (2021) conducted a quantitative study using a questionnaire to conclude that PSS spent 3-6 hours daily on their phones without any compelling reason. However, the limitations of this study included a small sample size of 50 respondents and the quantitative method needed to allow for more detailed information on smartphone usage by the PSS.

The 2018 *Mobile Survey Report* (UCF Center for Distributed Learning, 2018) revealed that students living on campus utilized mobile applications for learning more than students living off campus. Also notable is that first- and second-year students were more frequent users of mobile applications for learning than juniors and seniors. The top three personal use categories for mobile application usage were music (78%), entertainment (76%), and social media (74%). However, according to Ahmad (2020), in a qualitative research design with a survey approach including 145 students, the conclusion was that students positively perceived using smartphones as a learning tool. For academic purposes, the priority was collaborating, the second was communication, and the third was accessing and sharing information with the instructor. On the other hand, for personal purposes, Atas and Celik (2019) conducted a cross-sectional survey with 842

PSS that resulted in the most frequent usage of applications: social media and web searches.

Certain factors determine which digital applications are downloaded by PSS. In a mixed quantitative and qualitative model with 150 PSS, Wai et al. (2018) determined that the PU and ease of use determined which digital application students downloaded. Yee et al. (2019) identified the same factors in a quantitative study involving 300 participants ages 21-30. The survey yielded an overwhelmingly positive relationship with the intention of the participants to use mobile digital applications. Gowin et al. (2015) posited that ease of use was the most critical factor in mobile digital use. If the application was hard to navigate, it was replaced with another, more straightforward one. Goodwin et al. (2016) concurred by concluding that a good digital application is an application that is easy to use and access. PU and ease are essential variables.

The Use of Emotional Intelligence Applications

The use of EQ mental health-type applications is an accessible access mode for reaching the post secondary population. Goodwin et al. (2016) and Kenny et al. (2016) discussed using digital applications as the cheapest and most useful tool to deliver mental health services. Krebs and Duncan (2015) did not find it surprising that health applications had become highly popular with mobile phone users. As of 2013, over 40,000 health-related digital applications were available for download from the Apple iTunes store alone. Lattie et al. (2019) concluded that technology-based interventions, including digital applications, offered an expanded possibility of treating and reducing mental health issues. However, according to Kern et al. (2018), there is a gap in the

percentage of students willing to use such digital applications compared to those who have used mental health applications. They concluded that the college campus is the ideal setting for the use of digital mental health applications and supported that student interest was present. Melcher et al. (2022) surveyed 100 PSS and revealed that most students expressed an interest in utilizing mental health applications, with 53% having previously downloaded such apps. Nonetheless, the current usage statistics indicated that only 19% of students affirmed having a mental health app downloaded on their phones, and among those, a smaller percentage reported actively using the app due to a lack of motivation. Likewise, Levin et al. (2020), in a pilot randomized controlled trial study with 23 PSS, concluded that participants reported a preference to use such mobile apps while in therapy rather than in place of therapy while on a waitlist. The limited nature of acceptability and feasibility data was further concluded, attributed to the focus on a quantitative research method. Qualitative assessments such as interviews would have helped clarify the students' perceptions of using digital mental health applications.

Huberty et al. (2019) and Kern et al. (2018) concluded that many PSS were receptive to technology-based mental health services rather than face-to-face. However, Bautista and Schueller (2023) revealed in their qualitative findings from surveying 989 PSS that the participants desired tips to improve their EQ along with a list of resources and access to mental health care as a feature of EQ application. Also, secondary students were more likely than any other age group to use their smartphones to look for EQ information (Gowin et al., 2015). In contrast, Hadler et al. (2021) conducted a literature review that suggested that PSS still prefer face-to-face mental health services

due to concerns with privacy and lack of personalization. The study concluded that the most common reason for the lack of motivation to use a technology-based mental application was the absence of a mental health concern. Mobile health applications are still an alternative support form because engagement is discrete and easily accessible (R. Lee & Jung, 2018). Since this population is rarely without their smartphones, and the American stress level continues to grow, this study gives reason to examine factors of engagement with mobile health digital closely.

Mental health digital application engagement is a massive challenge for the mobile digital application designer. Peng et al. (2016) found that mobile health applications motivated or hindered the use of mobile health applications. Barriers to using mobile health applications were identified, with the most prevalent being the required time and effort, and low application awareness. Similarly, Bautista and Schueller (2023) discovered that the most prevalent barrier to mobile health usage was needing more time to figure out how to use the apps and choosing which apps to use. Kenny et al. (2016) cited a study by Proudfoot (2013) that reported that 700+ mental health applications were available for download from the Apple store; however, the lack of ease, speed, and feedback kept them from being downloaded. Lattie et al. (2019) and Huberty et al. (2019) identified insufficient privacy as a barrier. Like any mobile digital application, loss of interest, high cost, and data entry burden were other barriers (Huberty et al., 2019; Krebs & Duncan, 2015). Nagar et al. (2023) researched PSS user experiences of digital mental health applications. This study required 265 students to use an EQ application for three weeks. The results indicated that the students experienced a loss of

interest in using the EQ applications because of the poor user interface and complicated navigation. Qualitative data from the survey-conducted research with 479 PSS by Topooco et al. (2022) revealed that most students conveyed a lack of awareness regarding applications addressing issues such as anxiety or depression, with many stating they had either not come across such apps or had not utilized them. Likewise, many students were unaware of such mobile applications (Gowin et al., 2015; Krebs & Duncan, 2015) and reported learning about digital applications through friends or family members. On the contrary, Lattie et al. (2019) and Krebs and Duncan (2015) concluded that time spent engaged with mental health digital applications was associated with poor mental health and did little more than provide information with non-evidence gimmicks serving as a trigger to the mental health crisis.

Universities may find it beneficial to promote mental health through digital applications among students interested in controlling their emotions (R. Lee & Jung, 2018). The Calm digital application and mindfulness applications are at the forefront. Fuccio et al. (2020) conducted a focus group qualitative study that included Ph.D. students. They agreed that the Calm digital application was the most common application to increase mindfulness, help users control their day, and lessen stress. Concerning usability, the users found the application easy to navigate with quick installation.

Similarly, Huberty et al. (2019) found that the Calm application helped reduce stress and stated they would consider using it in the future. This research also revealed 560 mindfulness digital applications between Apple iTunes and Google Play stores, with Calm named the 2017 application of the year. Using Dharma Life's application tool,

Poonamallee et al.'s (2018) study encouraged PSS to carry out several SEL actions. The argument was that Dharma Life sought to find hindrances in SEL and thus could be used to improve EQ. Mindfulness applications are on the rise, yet only a few studies have examined their effective use or ability to reduce stress among PSS. Like the research conducted by Huberty et al., Flett et al. (2018) concluded that digital mindfulness applications helped introduce meditation practices to various people. Also, in agreement, Lyzwinski's et al.'s (2019) research concluded that most students who used a mindfulness application had lower stress levels and liked using the digital application. These results are promising for combining EQ competencies with digital technology.

Summary and Conclusions

In this chapter I discussed the relevant literature concerning EQ, the use of digital applications by PSS, and what motivates PSS to use or not use these applications. The TAM theory focuses on the PU and ease of use, supporting the idea that there are reasons a person chooses to use a particular technology. Academic and adulthood success depends on healthy relationships and EQ. With the steady academic stress experienced by PSS, it is unknown if PSS are aware of EQ digital applications and their purpose. What would motivate PSS to use these digital applications is also unknown. Research is essential to investigate further PSS awareness and use of EQ applications in the Southern region of the United States. In Chapter 3, I will provide a detailed description of the methodology that will address the gap in the literature on the use of EQ digital application usage.

Chapter 3: Research Method

Introduction

In this chapter, I introduce the research methodology for this basic qualitative study. The purpose of this study was to investigate PSS awareness and the use of EQ applications in the Southern region of the United States. A research gap existed in the literature about EQ application usage. There was a gap in the literature on the awareness and usage of EQ applications amongst the PSS population. This study contributed to the existing body of knowledge. I filled the gap in the literature and results from this study may be used by student service departments on college campuses to increase the awareness and usage of digital health applications amongst the student population. Lim et al. (2020) suggested that more studies are needed to communicate information with mobile application users to improve acceptance and usage.

This chapter includes the research design and rationale, including a restatement of the research questions and the role of the researcher. The methodology included interviewing the participants using a basic interview approach, discussion of participant selection, instrumentation, data collection, and data analysis. This chapter will conclude with a discussion on trustworthiness.

Research Design and Rationale

Given the uncertainty of the awareness of these health applications among PSS, these students could be missing available digital resources that they can use to be more effective, successful, and emotionally secure. The following research questions guided this study:

Research Question 1: How do first- and second-year PSS describe the usefulness of EQ applications?

Research Question 2: How do first- and second-year PSS describe the ease of use for EQ applications?

Research Question 3: How do first- and second-year PSS characterize their motivation to use or not use EQ applications?

The design of this study was qualitative. Researchers use qualitative designs to understand the meaning of the experiences of those involved. "Meaning, however, is not discovered; but constructed" (Merriam & Tisdell, 2016, p.24). Researchers use this design to find meaning, interpretations, and understanding (Weathington et al., 2012). The researcher can explore the participant's behaviors through specific perspectives (Yin, 2014). Braun and Clarke (2013) distinguished the difference between quantitative and qualitative research, which focuses on quantities and uses numbers for statistical results. Qualitative research derives its data from word depictions rather than numbers. Results are in quotations, excerpts, and interviews conducted by the researcher (Merriam & Tisdell, 2016). While researchers have continued exploring qualitative approaches in the past decade, quantitative studies dominated major educational technology journals (Huberty et al., 2019; Kern et al., 2018).

In the literature review, far more quantitative studies were available than qualitative on mental health digital applications. Research that expresses the perceptions of the students themselves needs to be improved. Many PSS experience academic-induced stress and challenges (Bhujade, 2017; Kern et al., 2018; Stelnicki et al., 2015).

Interviewing is the most common and appropriate method of exploring individuals' insights, beliefs, and motivations (Gill et al., 2008). A basic interview method is used to gain a more in-depth understanding of the reasons for the lack of EQ applications and PSS usage to increase academic achievement. I anticipated that the narratives derived from interviews would capture essential information about PSS awareness of EQ applications and the desired motivators for using such applications. Because the purpose of this study was to examine the participant's perceptions, a qualitative approach was the most appropriate choice.

Within this qualitative study, I used a basic interview approach. This approach was suitable for answering the research questions because researchers using this method are interested in how people explain and give meaning to their experiences and how they see their world (see Merriam, 2009). Furthermore, by using this approach, the participants to share similar interpretations of their experiences and how their worlds are constructed (see Merriam & Tisdell, 2016). I chose this approach because my focus wass on learning what meanings the participants hold and not what the researcher holds and brings to the research (see Creswell, 2014). In contrast, a case study does not focus on the lived experience but instead on an in-depth investigation of a chosen case to gain an understanding of "how" and "why" things happen (Ridder, 2017). Though a case study could be used in qualitative research to explore a "how" question, it can also include observations, a review of archived data, and interviews. I used basic interviewing to allow the students alone to be the primary informants and the best data source to answer the research questions. According to Creswell (2007), a case study consists of a case

bound by time and place, which does not allow for an individual's narrative. Using a qualitative design with a basic interview methodology was a suitable approach because themes emerged about the conceptual framework of perceived usage and PEOU of EQ applications by PSS.

While PSS are most likely to use their smartphones for health digital applications (Gowin et al., 2015), I could not assume that they were aware of and actively use EQ digital applications. The students revealed their awareness of such applications, their perceptions of the application's usefulness, and their ease of use would be beneficial. Numerous EQ applications are available, but PSS may not know them or only hear about them from friends or family (Gowin et al., 2015).

Role of Researcher

As the researcher for this study, I was the primary source of data collection and analysis. I had the advantage of gaining direct knowledge by interviewing rather than participating. My goal was to understand through verbal and nonverbal communication, summarize interview responses, and check with interviewees for the accuracy of response recordings. Roger et al. (2018) described a qualitative researcher as a steward of others' experiences. Qualitative researchers are containers of not only the participant's stories but of our responses as well. I intended to contact the university's first- and second-year class members using social media groups and ads with recruitment invitations. Although I serve as an educator and behavior specialist in a neighboring Southern U.S. state, I do not work with the PSS population. I serve the K-12 population in a Southern state of the United States. I had no personal or professional relationship with the participants of this

study. Even though I obtained my master's degree from one of the potential universities where the participants attend, I held no organizational or extracurricular roles at this university.

I managed potential research bias by focusing strictly on the experiences and perspectives of the participants. Carcary (2009) stated that conducting qualitative research can be challenging because it requires the researcher to reflect and interpret findings without bias and suggests using audit trails. This involves the researcher maintaining a record of all research decisions throughout the study. I conducted an audit trail using a researcher's journal to show that my decisions followed a logical path based on the participant's responses instead of my preconceptions. There were no conflicts of interest as I was not a university employee. I did not serve on university boards or committees or have family members attending potential universities. As part of the ethical practice, I did not involve individuals with personal relationships, co-workers, or persons over whom I had any authority educationally or professionally. As a researcher, I managed any problems that could jeopardize the results. I assured the confidentiality and rights of the participants without influencing their opinions.

Methodology

Participant Selection

For this qualitative study, the sample consisted of students from universities located in the Southern region of the United States, and I used a basic interview approach. The universities were in rural areas. These universities were very well

respected within the community and near my residence, allowing easy access for face-to-face interviews if needed.

Sampling

I selected a sample of participants for this study using a purposive nonrandom sampling approach. With this approach, the researcher uses their judgment to select the best sample to yield the data sought (Fraenkel & Wallen, 2006). The researchers supplemented the sampling approach with the snowballing method. Snowballing is a method whereby participants recruit other potential participants among their acquaintances (Naderifar et al., 2017).

The sample included university students in their first- or second-year of college and considered full-time students. This population has a greater chance of experiencing college stresses due to the overlap of adolescence and the recent transitions from secondary school to college (Bhujade, 2017; Liu et al., 2019). Participants were male or female. This sample included students who owned a cell phone, iPad, or other devices capable of downloading applications and were familiar with EQ applications. Participants were known to meet the criteria if they could answer yes to the required year in college at the university, had the student status of full-time, owned a cell phone, and were familiar with EQ digital applications, based on the information in the recruitment advertisement. I anticipated a sample size between 10 and 15. Sandelowski (1995) recommended a sample size large enough to surface new understanding yet small enough to avoid preventing the "deep, case-oriented analysis" (p. 183) of qualitative data. A researcher should have a sample size that is reasonable for their expenditure of time and energy.

Instrumentation

The primary data collection instrument was a researcher-created interview protocol. I developed the interview protocol for this study (Appendix B). No instrument currently exists that collects data on the PU of EQ applications using the TAM model. I used the review of three studies to create interview questions that aligned with the research questions. The review of research by Caprar et al. (2016) contributed knowledge to questions about students' perceptions of intelligence. Also, research by Cho et al. (2014) contributed knowledge to questions about the TAM model and the PU of applications. Additionally, research by Gowin et al. (2015) contributed knowledge about questions about using health/fitness applications by PSS. The interview protocol was validated using content validity.

Content validity ensures that a measure is relevant and adequately measures the experiences of the target population (Boateng et al., 2018). The questions that could be asked during the interview and their corresponding answers were first written down to establish content validity. By doing this, I was able to make sense of the answers recorded earlier and discouraged selective forgetting. Secondly, I obtained two individuals outside of the study to review and evaluate the interview protocol as a means of external audit. These individuals were professors in education with expert knowledge of the population and the research topic. I recruited these experts by email solicitation letter requesting their expertise in refining and revising the questions to ensure they align with the research questions. Third, I used an audio recorder to ensure that what I believed was said aligned with what was heard. The data collection instruments in this research

were sufficient to collect data that answered the research questions of what PSS know and perceive about EQ applications and how their motivations to use such applications are characterized.

Recruitment, Participation, and Data Collection

Recruitment of Participants

Participants were recruited through an online advertisement using Google AdWords and Facebook advertisements targeting an audience that met the college level and full-time criteria. Dalessandro's (2018) research concluded that the recruitment of millennials in the United States, for research, is much more successful using digital technology. The advertisement stated and framed me as a student to be more attractive and credible. After the names and contact information were collected, I followed up on all leads with a phone call to confirm their interest in participating, confirm their ownership of a mobile device, and confirm they were familiar with at least one EQ application (e.g., Calm; Stop, Breathe & Think; Sintelly). During the phone call, I encouraged the participant to recruit others who met the criteria and gave them my contact information. At that time, I emailed each participant an informed consent. Participants were asked to return an email of consent to the researcher before participating. To maintain confidentiality about the topic, the participants' names and other identifying information were prioritized. Should participants have recruited other participants, I moved forward with a phone call and proceeded in the same manner as if the participant responded to the ad.

According to Vasileiou et al. (2018), data saturation is the most widely used approach for determining sample size. Data saturation means that sampling has continued until no new information is presented. Purposive samples are small enough to provide personal information relevant to the topic. The final number of this sample size was determined by saturation but included a minimum of 10 interviews. Hennink et al. (2017) stated that saturation can be reached with a small number of interviews to the point that understanding is achieved. Should the recruitment process have resulted in too few participants, the recruitment process would have been repeated, using the same social media ad to reset the algorithm. A $15.00 local store gift card incentive was offered to all recruited individuals upfront at the onset of the interview. The use of gift card incentives from local businesses was to encourage participation, not to coerce participants into doing something they would not ordinarily do. I also encouraged the participants to tell others about the research study.

Participation

The population of this study included PSS from a university in the Southern region of the United States. The characteristics of the purposive nonrandom sample frame consisted of English speaking, first or second year in college, and full-time student status. Male or female PSS who owned a digital device and were familiar with EQ applications met inclusion criteria. PSS that declined to participate, or did not provide written informed consent, were excluded from participation.

Data Collection

In-depth interviewing was the primary mode for data collection. The face-to-face interviews would have taken place in a quiet setting off-campus, such as the public library or a coffee shop, but within walking distance of the university's campus to allow for more in-depth data collection and identified body language unless the participant requested a virtual interview as a safety precaution. Every participant requested a virtual interview. I followed a structured interview strategy approach with open-ended questions determined in advance. The data collection instrument consisted of an interview protocol (Appendix B). This protocol was the only source from where data was collected. I collected all the data. The frequency of data collection consisted of one interview per participant. The data collection duration had an allotted time frame of 45-60 minutes for each interview. Notetaking took place during the interview to facilitate later analysis. This included notations of facial expressions, gestures, and anything that may have stood out as the interviewee spoke. This also included journaling keywords and phrases to assist with coding. During each interview, I used a Sony handheld audio recorder. I had a recording application on my iPhone as a backup means of recording. Fraenkel and Wallen (2006) stated that it is essential for the interviewer to make every effort to record what the interviewee says as faithfully as possible. Using an audio recorder does not remove the need to take notes. I scheduled the interviews within a 2-3-week span. Before the interview ended, each participant was allowed to go back and add to previous questions. The ethical procedures were also reviewed, along with their choice to volunteer, confidentiality, and the procedures for the interview and follow-up. At the end

of each interview, I completed the research reflective notes to record my feelings about what had occurred and any lessons I had learned (Appendix C).

Summaries of the findings from their interview were emailed to each participant. Participants had 72 hours to request change; after this 72-hour window, if no responses were received from the participants, I assumed the initial findings were accurate. Following these 72 hours, I emailed each participant a letter of thanks for their time.

Data Analysis Plan

Once the data were collected from the completion of 10 to 15 interviews, the audio-recorded interviews were transcribed, word for word, using scribie.com, an automated speech-to-service transcription service. Summaries of the transcripts were shared with the participants to increase dependability. Preliminary and pre-coding took place by reviewing the interview transcripts to find similar and patterned statements and responses. The codes' descriptions were organized using computer assistant software to help answer what PSS know and perceive about EQ applications and what characterizes their motivation to use or not use them.

Coding

A code is usually assigned to a chunk of words, phrases, and sentences, all varied in size (Basit, 2003). Using coding to create categories helps the researcher compare across data sets, change or discontinue categories, and sort categories in hierarchical order. I performed a two-cycle approach to code the data collected using a combination of Quirkos and Microsoft Word. Quirkos is a coding and qualitative data analysis

software that can quickly collect keywords and phrases and color-code data for examination (Saldana, 2021).

I read each interview closely, as many times as needed, to become familiar with the responses. The repeated readings assisted with identifying apparent content. In the first cycle of coding, I used an inductive coding approach, which uses raw data to derive concepts and themes that allow a theory to emerge (Thomas, 2006). This approach consisted of annotating the transcript by circling the apparent content, such as descriptive words that are directly accessible on paper. Next, the raw data was imported into the Quirkos software from Microsoft Word. The circled annotations that appeared at least twice became the codes entered into the Quirkos software as a means of the second coding cycle. Using this software, each code that surfaced at least twice was highlighted differently. After reviewing the colored codes, the data was sorted and categorized. I compared the significant categories and consolidated them to create analyzed themes. Braun and Clarke (2006) defined *thematic analysis* as data analysis to find themes and commonalities. A theme surfaces and relates to the research questions as a patterned response. I read each theme and matched them to the research questions and conceptual framework. Finally, I created a narrative of each theme, followed by quotes from the interviewees to support the findings. This process detailed the study significance and answered the research questions with recommendations.

Discrepant Cases

There may have been discrepant responses during data collection. Discrepant responses are data that conflicts with the trend or developing themes or question

preconceived conclusions that allow for more in-depth interpretations (Merriam & Tisdell, 2016; Ravitch & Carl, 2020). I carefully considered all data during analysis for evidence of discrepant responses to determine if the discrepant data is plausible enough to change the conclusions. Keeping in mind the non-ethical issue of ignoring data that does not agree with my conclusions, I reported the discrepant evidence to allow the reader to reach their conclusions (Maxwell, 2009).

Issues of Trustworthiness

Trustworthiness and validity depend on what the researcher sees and hears. Four areas are essential in establishing trustworthiness. Credibility, transferability, dependability, and confirmability are essential (Lincoln & Guba, 1985). I explain the importance of each in this study in the following sections.

Credibility

A strategy to establish credibility is member checking. Member checking is a critical quality control process where the researcher's mission is to improve the accuracy and validity of what has been recorded during an interview by returning the interview transcript or data analysis of the transcript to the participant (Birt et al., 2016). I used member checking for internal validity by summarizing the interview information and asking the interviewee if the summary accurately reflected their views and experiences. Affirming accuracy in this process increased credibility (Harper & Cole, 2012; Lincoln & Guba, 1985). Two other strategies used to strengthen credibility were data saturation and journaling. Saturation ensured that the data gathered would be sufficient (Vasileiou et al., 2018). Journaling brief notes and critical phrases during each interview is suggested by

Saldana (2015) to establish credibility. I used this process to obtain consistency with interviewing and capture words and phrases that assisted with coding.

Transferability

Transferability, a means of external validity, assures that study results can be applied or transferred to another study. To increase transferability, a thick and rich description of experiences was implemented to enable other researchers to transfer the findings and assess transferability. Increased transferability was also developed by varying participant selection, although limited by geographical narrowing and college-level variation. Being transparent about the analysis, without stating that the data reflects everyone's story, also increased transferability (Connelly, 2016).

Dependability

Dependability is a strategy to ensure that if the same research were conducted, similar results would be derived with the same participants and methods (Patton, 2014). Strategies to assure dependability in this research study included a detailed design and implementation account, a detailed account of data collection and member checking strategies, and a detailed description of data analysis. To control bias, I planned to conduct an external audit. I planned to ask a peer reviewer outside the study who recently earned a Ph.D. using a qualitative study to review the first three transcripts to confirm themes that would assist with future coding practices.

Confirmability

Confirmability is a strategy to ensure that the research study's findings result from participants' experiences rather than the researcher's preference (Shenton, 2004).

Addressing the confirmability required documenting the researcher's bias. To avoid bias during the interview process, Weiss (1994) recommended aiming the interview process to learn about experiences while assuring the interview material supports the research purpose. The interviewer must be careful not to ask leading questions or display friendliness towards answers that support the researcher's preconceptions. The researcher must acknowledge the importance of reflexivity in their role in collecting, analyzing, and interpreting data (Korstjens & Moser, 2017; Palaganas et al., 2017). Therefore, I supplemented the interviews and analytical data with research reflexive notes. This included notes about the interview's setting and aspects and the researcher's subjective responses to each (Fraenkel & Wallen, 2006; Nadin & Cassell, 2006). Also, I used the interview recordings to go back and check for any inaccuracies in the transcripts to avoid any of my own biases that surfaced during the process.

Ethical Procedures

Before commencing research, I obtained permission from the Walden Institutional Review Board (IRB: 12-19-22-0462239) to protect the participant's ethical security. Developing a good relationship between the researcher and the gatekeeper is essential for gaining access to the research participants (Davies & Peters, 2014). The goal was to access students via public social media groups and conduct the interviews at a quiet, public location within walking distance of the campus. However, if I could not feasibly meet this goal, I planned to send copies of all Walden University IRB materials, including approval letters and submission forms, to the university IRB administrator

should there be a need to use a facility on campus for interviews. I would have also included a summary of the research and timeline for review.

Once I identified eligible target participants and spoke to each of them on the phone, along with email communications, the participants received an email letter asking for their voluntary and incentive participation by explaining the nature of this study. I emailed the informed consent form to each interviewee before the interview. The participants returned an email stating their consent. Fraenkel and Wallen (2006) noted that the researcher should do everything possible to ensure no physical or psychological harm to those participating. Most importantly, I treated the participants with respect. During the interview, I did not offer advice or guidance. If a participant became upset, I planned to discontinue the interview and provide the phone number to the campus health services. I made the participants feel comfortable during the research process to gain their full cooperation. I ensured the confidentiality of the collected data by using alphanumeric codes and identifiers in place of participant names. I granted participants the right to participate or withdraw at any time. If a participant had decided to exit the study after the interview, I would have addressed it in the debriefing procedure. Participants were informed of recording before the interview and given a copy of the initial findings. Finally, participants were allowed to ask questions before exiting the interview. I stored the collected data on a password-protected laptop. Weinbaum et al. (2019) stated that the de-identifying of personal data is a protocol that a researcher should follow. As an extra precaution, alphanumeric codes replaced actual names to protect the participants' anonymity. Before erasure, I will store the data in a secure location only accessible to me

as the researcher for five years. I will include the IRB application documents. Data in paper form will be shredded and recycled. Data on USB drives will be physically destroyed.

Summary

My goal in this chapter was to provide an outline of the research method used to answer the research questions. I reviewed the methods for recruiting participants, data collection, and content analysis. Ensured validity and reliability were discussed in this chapter. I reviewed the purpose of this study to gain insight into the knowledge and PU, availability, and ease of use of EQ applications and how PSS characterize their motivations to use or not use such applications through a basic qualitative approach.

A qualitative interview study approach was followed in this study to address the research problem and questions. The research problem was that it needs to be clarified whether PSS know about EQ applications and what would characterize student motivation to use or not use them. More literature is needed to address this problem. The qualitative approach supported the need to understand PSS' knowledge, usage, and motivations. The rationale for the basic qualitative approach with an interview design was to collect data gained from the participants' lived experiences.

Chapter 4: Findings

The purpose of this study was to investigate PSS awareness of and use of EQ applications in the Southern region of the United States. The first research question was used to explore the usefulness of EQ applications by PSS. The second research question was designed to understand how first- and second-year PSS describe the ease of use of an EQ application. The third research question was developed to determine how first- and second-year PSS characterize their motivation to use or not use EQ applications. Chapter 4 includes descriptions of the setting, the demographics of the participants, the data collection, the data analysis process, and the findings. Additionally, I will present the evidence of trustworthiness along with the findings based on each research question. This chapter will conclude with a summary.

Setting

The setting for this study included four Southeastern universities, which ranged in population size from 7,718 to 22,566 students. Three universities are in rural settings, while the fourth is in a suburban setting. Three of the four are public universities. All universities offer free and confidential mental health counseling services to student walk-ins and by appointment. In addition, each university offers telemental health services. One of the four universities also offers outreach presentations, online mental health screenings, and an annual mental health symposium that can be attended in person or virtually.

Demographics

The participants in this research study included first- and second-year PSS. The students were all studying full-time and lived on campus. Alphanumeric codes were assigned to the participants to protect their identity and ensure confidentiality. Communication between the participants included email, texts, and phone calls when needed to clarify interview times. I contacted a total of 15 PSS who expressed interest. In total, 10 PSS agreed to be interviewed and completed the informed consent process. As seen in Table 1, the gender distribution of volunteers is uneven among those choosing to participate in this study. This may also limit the transferability of the findings. Table 1 presents the demographic data for each participant.

Table 1

Demographics of PSS Participants

Participant (Pseudonym)	Gender	Age	Year In School
P1	Female	21	1st
P2	Female	20	2nd
P3	Female	18	1st
P4	Female	20	2nd
P5	Female	20	2nd
P6	Male	19	2nd
P7	Female	20	2nd
P8	Male	20	2nd
P9	Female	19	2nd
P10	Female	19	2nd

Data Collection

Data collection encompassed semistructured interviews with 10 participants who met the inclusion criteria and volunteered. Each interview was completed individually via Zoom, per the participant's request. The location for each interview was in a private area

on behalf of the participant and me. I interviewed each participant once. The interviews lasted approximately 25 minutes, with an additional 5 to 10 minutes to review the responses for accuracy and to allow for further questions from the participant. All interviews for the 10 participants were held within a 14-week time frame. Interviews were audio-recorded via the Zoom application feature and recorded through the iPhone Voice Recorder application, with permission from each participant. Notetaking of facial expressions and gestures and journaling keywords and phrases were recorded in hard copy on the interview protocol to assist with future coding. Immediately following each interview, research reflection notes were recorded for each participant.

Initially, I planned to recruit from a university in a Southeastern state. This plan yielded only one interview in 8 weeks. I then contacted the Walden IRB and expanded my population to universities in the same Southern region of the United States. With population expansion, I recruited and interviewed 10 participants who met all inclusion criteria. Another variation from the original data collection plan in Chapter 3 consisted of the original plan to schedule the interviews within 2 to 3 weeks. Due to a slow response rate from the recruitment ad, in the beginning, the completion of interviews took over twice as long to schedule.

Data Analysis

The data analysis consisted of coding the 10 interviews to develop themes responding to the three research questions. I used an inductive method of coding to derive categories and themes (see Thomas, 2006). Each step of the coding process was recorded in a journal as a means of an audit trail of all the decisions made throughout the research.

The first step in analyzing data was to transcribe the ten interviews. The audio files were imported and transcribed by the Otter software. In the next step, the transcriptions were copied and pasted into a Microsoft Word document upon listening to the transcriptions and confirming accuracy. The next step involved the first cycle of coding. A hard copy of each transcript was printed to allow for manual annotations, circling obvious and descriptive words and assigning a code to each. Next, the descriptive words, with their codes, were placed into a Microsoft Excel document to view all the descriptive words and codes under each interview, all in one document. The first cycle of coding included 283 codes. In the next step, the codes that appeared at least twice were entered into the Quirkos software as a means of the second coding cycle. I highlighted each code in a different color, called quirks. Several other descriptive words did not appear at least twice. However, they were felt to be essential to answering the research questions, which were assigned a code and nested within a previous code using the software. Following the initial coding, the codes were recorded and combined to result in 72 axial codes sorted and listed in Word document from the highest frequency of occurrence to the lowest. Examples of the codes include interested, free/not pay, simplicity, and wants to learn more about EQ. At this point, the codes were reviewed and combined to form 10 categories. Personal benefits of an EQ application, motivations to use/download an EQ application, perception of ease-of-use feature, and current usage of an EQ application were examples of the categories formed. The final step included comparing and consolidating the significant categories to create analyzed themes. Five

themes were created based on developing the codes and categories related to the three research questions (Appendix D).

Themes

Mishra and Dey (2022) stated that the core of any qualitative research is the identification of themes that cannot be observed but rather perceived and experienced by research participants. Five themes emerged from the data analysis process related to the three research questions. The following section will describe each theme with supporting categories and specific quotes.

Theme 1: Students Find EQ Applications Less Useful Than Their Current Applications

One of the primary purposes of this study was to determine the usefulness of EQ applications amongst PSS. Findings from the participants revealed that applications other than EQ applications were perceived to be useful. The first theme, students find EQ applications less useful than their current applications, emerged detailing the participant's PU based on their appeal and needs. Participants emphasized their types of applications, interests, and concerns. This theme encompassed the categories labeled favorite types of applications used consistently and interest level and concerns of downloading an EQ application.

Favorite Types of Applications Used Consistently

The first category in which the participants revealed their findings of EQ applications being less useful than their current applications was sharing their favorites. Every participant shared that their favorite type of application used consistently was

social media applications such as Facebook, Twitter, and TikTok. Every participant found the social aspect useful. Participant 9 shared that social media applications satisfy a need to communicate, "I can communicate with my friends that I graduated with and those I don't get to see often. I can keep up with them and know how things are going with them." Beyond the desire to socialize being useful, nearly a third of the participants expressed that an application, in general, was useful if it provided a means of entertainment and escape from the stresses of college. These types of applications were also favorites. Aimlessly streaming videos or watching reels were communicated to be relaxing and a welcomed mindless state of mind. Participant 2 shared how using this type of application was beneficial, "Entertainment and social media applications help me wind down from everything serious. They let me take a break and just kind of give myself some time." Applications satisfying the desire to socialize, be entertained, and relax were the types of applications that the PSS consistently used in this study.

Interests Level and Concerns of Downloading an EQ Application

The second area in which participants revealed their findings of EQ applications being less useful than their current application was through their interests and concerns. Every participant was interested in using an EQ application. However, the need for knowledge about such applications lowered their perception of their usefulness. The context of the interview questions sparked interest and curiosity. Participant 2 expressed how she would consider moving forward after the interview, "I think it's very interesting and honestly, after like all of this interviewing happens, I might go for it and just see." Nearly a third of the participants were willing to try an EQ application to help with

anxiety. Participant 10 stated, “So I feel like I’d be pretty interested. Just because, as a college student, it’s kind of hard.”

Concerns accompanied the overwhelming interest and willingness to try an EQ application. Even though most participants expressed the opinion that an EQ application would be useful, technical issues were mentioned as concerns. Issues such as device space and lures that may be attached to downloading an EQ application surfaced. The participants were very particular about what they downloaded and how it would affect the overall functioning of their devices. Participant 9 expressed this concern by stating, “I guess I would if there was space on my phone. The space on my phone is limited.” Participant 4 expressed a similar concern about attachments.

> There’s a lot of times you’ll see an app, or you’ll see an ad for an app, and you’ll say, oh, that’s cool, but there’s other things attached to it, and it’s a waste of time. There’s a catch. That’s so annoying. It’s harder to be convinced about the good stuff when you’ve been taken down this road.

Knowing what and why specific applications are favorites, the interest level to try an EQ application, and the concerns are essential to the research because they support the PSS perceptions of whether using an EQ application would be as useful as their current consistently used applications.

Theme 2: Students Believe EQ Applications Can Be Useful Under Certain Circumstances

The second theme addressed the PU of EQ applications when students were facing specific dilemmas in their lives. The benefits of using EQ applications depended

on the student's struggles and current emotions, as expressed. Participants suggested that EQ applications can be useful given the correct perception, personal gain, and motivation. Perceptions of EQ vs. academic intelligence, personal benefits of an EQ application, and motivations to download and use an EQ application were categories that were labeled under this theme.

Perceptions of Emotional Intelligence Vs. Academic Intelligence

The definition of EQ was reviewed with each interviewee as part of the interview protocol. Upon hearing this definition, 70% of the students stated they valued academic intelligence and EQ. Students said that both were needed for success. Participant 2 stated the importance of having both intelligences along with the benefits.

> They are both very valuable things to have. EQ allows yourself to be, well it allows yourself to be very in touch with yourself. Having a lot of EQ boosts your academic intelligence because you know who you are. You know what you're good at and you know what you thrive on and how you learn. So, I think both intelligences go hand in hand in that way.

Students shared varied advantages to possessing EQ. These advantages ranged from helping with self-regulation, mental health, self-awareness, and anxiety. Several students expressed these variations in conjunction with valuing EQ slightly more than academic intelligence. Participant 7 stated that both intelligences are essential for a slightly higher perspective of EQ.

> I feel like both intelligences are important, but I feel like EQ is on a little bit of a higher scale. In some classes that you take, that type of academic intelligence may

not stick with you as long as emotional intelligence will stick with you. Emotional intelligence is something you take with you throughout your life, not just college.

The perception of EQ vs. academic intelligence was overwhelmingly positive for both. The students valued the possession of both. With this revelation, the students shared their perceived personal benefits of using an EQ application.

Personal Benefits of an EQ Application

Along with valuing EQ very highly, the students could also perceive numerous benefits of using an application that fostered many of the advantages of possessing EQ. Seven of the 10 participants spoke of the need to relax due to being college students and how an EQ application could be useful under such circumstances. As mentioned earlier, students seek a means of escape from stressors. Needed relaxation was a common topic among over half of the students. Participant 5 stated a perceived personal benefit of a relaxed state of mind, "It would probably be like a way of meditation and getting out of the normal thought process and away from your mind being busy. Just like a calmer state." A similar perception of a personal benefit was shared by Participant 6, "It would be like another person leading some sort of meditation or relaxation type of thing."

Another personal benefit of an EQ application was having notifications remind the user to practice strategies that could improve a user's well-being and self-care. A need expressed by five of the participants was a digital notification due to busy college life. Participant 10 said, "I feel like something like that would remind me to do stuff like breathe, eat, or ensure I'm getting enough sleep. A notification would definitely be helpful." Another student echoed this sentiment. Participant 4 stated, "People would

forget or not realize that there's something that they can do. They don't know in the moment that they can take a minute and step back." The personal benefits that surfaced covered various circumstances that the students encountered. Given these circumstances, the question of what might motivate these students to use an EQ application to reap these perceived personal benefits was asked.

Motivations to Download and Use an EQ Application

Only one out of 10 students had an EQ application on their device. However, all participants expressed a willingness to try an EQ application upon learning more about the existence of such technology through the interview process. Therefore, the discovery of the motivating factors for use was vital. Participants referred to certain factors motivating them to download and use an EQ application. Fifty percent of the students requested an application that would be simple. Participant 4 expressed this desire, "I'd like something just super easy and self-explanatory." This desire for simplicity was also expressed by Participant 5, who considered the difficulty level for all ages.

> I'd use it if it was easy for all ages. I know that my dad suffers with some depression and anxiety, and I feel he could benefit from an application like this. He is not tech-savvy, so making it very easy for all ages would help.

Overall, the participants wanted to avoid any application that would be an added stressor. Simplicity was the common factor and the most mentioned motivator for downloading and using an EQ application.

Theme 3: Students Have Specific Criteria for The Ease Of Using An Application

The purpose of this study was to determine the PEOU of an EQ application. The third theme exemplifies the ease of use for an application. Ease of use is defined as the degree to which a user feels using a technology is free of effort (Davis, 1989). This dramatically affects a user's motivation to use an application. This theme often overlapped with theme 2. A category that supported the ease of use was the perceptions of ease-of-use features.

Perceptions of Ease-Of-Use Features

Six participants correlated "ease" with access. It was an easy-to-use feature if the application was easy to access on the go or on a desktop. Participant 3 stated, "I don't want to even have to go through the signing-in process every time to get to the app." Being able to access an application quickly, regardless of the location, was also expressed by Participant 7, "I don't want to have to be in a private area. I'd like to just click on it, even when I'm out walking." Another feature popular among participants was the free access to an application. Not being required to pay for an application spoke to the ease-of-use participants described. Fifty percent of the students shared the desire for no subscriptions or fees. Participant 6 adamantly stated, "That is a turn-off for people having to pay for something, especially like a subscription. Yeah, that's like one of the biggest barriers. Whenever I see that kind of stuff, I'd rather have my money." This sentiment was strongly echoed by Participant 2, "Everything is like that today. You have to pay for it! I'm like, ugh! I just want to learn a breathing exercise and I have to pay for this?" As mentioned in Theme 2, simplicity resurfaced as an ease-of-use feature. Not being

required to enter a password each time, along with an easy signup process with no pay obligations, sums up the participant perceptions of ease-of-use features.

Theme 4: Students Are Motivated To Use Applications For Specific Reasons

A particular event or hurdle in a student's life was a motivator to use specific applications. This was evident when asked about the motivation behind using their favorite applications, which was discussed in theme one. Motivating factors must exist for these applications to be used consistently as favorites. Otherwise, the use will eventually discontinue. Analyzing themes such as motivating factors of favorite applications and motivation for discontinuing an EQ application use yielded findings that addressed student motivation to use applications for specific reasons.

Motivating Factors of Favorite Applications

When looking at the motivating factors of the student's favorite applications, 70% of the students were attracted to being able to stay connected with one another. The social aspect of the application motivated students to use these applications consistently. Participant 10 shared, "For example, Facebook. I enjoy seeing everyone's pictures and keeping up with people who live kind of everywhere." Much the same, naming a different application, Participant 3 shared, "In Snapchat, I can communicate with my family, my mom, and my dad. I can communicate with my friends. We send each other pictures." Also, as mentioned in theme one, entertainment and relaxation were frequently mentioned as motivating factors of favorite applications. However, there are times when users discontinue using a functional application. For those who tried an EQ application

before, there were specific reasons for these students discontinuing the use of EQ applications.

Motivation For Discontinuing the Usage of An EQ Application

Along with motivating factors that categorize an application as a favorite, the students also expressed their motivations for discontinuing the usage of an EQ application. The specific reasons ranged from dissatisfaction to the desire for non-dependency. Participant 2 added this statement.

> I think a lot of them didn't go deep enough, like self-discovery or educational level. A lot of times I feel like they're surface level and I wanted to get kind of past that and into the nitty gritty.

Five participants identified themselves as being dissatisfied with an EQ application. Statements of boredom and not being soothing were the prominent reasons. Also, four participants expressed the desire to no longer rely on an EQ application. Participant 8 stated, "You shouldn't rely on technology to solve your problems." In the cases of wanting to self-regulate emotions, four out of ten participants expressed that the mission was completed, and the participants no longer had the need to use the technology.

Theme 5: Students Currently Were Not Motivated To Use EQ Applications

As mentioned in theme 2, at the time of the interview, only one participant had an EQ application on their device. Three participants had tried an EQ application out of curiosity but no longer used it. This theme encompassed the categories of current usage of an EQ application and the reason for never using or downloading an EQ application.

Current Usage of an EQ Application

One participant out of 10 with an EQ application used the Calm application for anxiety. This student stated that the application helped with keeping calm and relaxed. Two other participants admitted to trying Calm but no longer used it. Participant 8 stated, "I was mainly just using it to learn to breathe. I don't have it right now." Similarly, participant 2 added, "I had once downloaded it for the first time out of curiosity and to see what kind of works. I don't have an EQ application now." At the time of the interview, 9 out of 10 students did not have an EQ application downloaded on their devices.

Reason for Never Using or Downloading an EQ Application

The reasons for never using or downloading an EQ application varied for 6 out of the 10 participants. Several participants shared that it was a matter of unawareness. Participant 5 admitted, "I really didn't know those apps existed. I've never heard about them." Similarly, participant 7 was aware of such applications but admitted to not knowing the purpose of an EQ application by stating, "I'm just not educated enough. I haven't really been given the importance of them."

In the words of the participants, other reasons for never using or downloading an EQ application were laziness, concern about the space an EQ application would use on the device, and too many EQ application choices. These six participants had yet to consider downloading and using an EQ application. Even though the reasons varied, unawareness was the common thread. Students needed to be made aware of their existence, purpose, the space needed to download an EQ application, and where to begin

choosing an EQ application. These reasons align with the findings of Peng et al. (2016), resulting in the need for more time and effort to download an application and the lack of application awareness.

Themes Addressing Research Question 1

The first research question was to determine how first- and second-year PSS describe the usefulness of EQ applications. The following two themes are organized from the interview responses of all participants to answer the first research question. These themes are students find EQ applications less useful than their current applications and students believe that EQ applications can be useful under certain circumstances.

Theme 1: Students Find EQ Applications Less Useful Than Their Current Applications

The primary purpose of this research was to determine how PSS would describe the usefulness of EQ applications. Davis (1989) defines usefulness as the extent to which technology usage will enhance a person's performance. Based on current usage, every participant mentioned the usage of social media applications as their favorite. The reason was the sense of relaxation and welcomed idleness that accompanied social media application usage, which in turn helped PSS wind down. Participant 1 expressed this by stating, "Social media applications are my favorite because they help you do a relax type of thing."

Similarly, 6 out of 10 participants responded that an EQ application would help with relaxation. Only one of the six participants currently uses an EQ application. This limited usage resulted in a PU. These participants were not speaking from experience.

Participant 7 added, “I think an EQ application would be a good way for you to kind of escape from what’s going on and give you a second to tell yourself to breathe.” Over half of the participants expressed how using an EQ application could enhance their ability to relax, calm, and take a break.

Theme 2: Students Believe EQ Applications Can Be Useful Under Certain Circumstances

As mentioned in the first theme answering the first research question, the participants perceived the usefulness of EQ applications to enhance their state of mind. However, several students stated that the usefulness of an EQ application was based on the circumstances in their lives. Unlike a social media application kept on their devices to always access, 4 out of 10 participants replied that the need to download an EQ application was based on current events or struggles. Once the circumstance was resolved, the user deleted the EQ application due to no longer needing to use it. Participant 8 shared, “Obviously if you’re in school, there’s a lot of stressors associated with that. So yes, it would be nice to have an EQ app to help if you need it.” The participants mentioned other circumstantial examples.

Several other circumstances that warranted the usage of an EQ application helped with insomnia, anxiety, and motivation. Once these circumstances were resolved, these participants no longer found a reason consistently using an EQ application. Participant 8 shared, “I tried an EQ application, but I don’t use it anymore. It served its purpose. I got to the point I could meditate on my own.” The usefulness of an EQ application was

circumstantial when compared to the favorite social media applications, which were used consistently.

Theme Addressing Research Question 2

The second research question was to determine how first- and second-year PSS describe the ease of use of EQ applications. The results from the in-depth interviewing of all participants were categorized and placed into one theme to answer the second research question. This theme, students have specific criteria for the ease of using an application, described how students responded to usability and user satisfaction.

Theme 1: Students Have Specific Criteria For The Ease of Using An Application

The ease of use of an application determines the amount of effort needed to use an application (Davis, 1989). The participants shared specific criteria perceived as making an EQ application free of effort. As mentioned in detail under the description of theme 3, over half of the students considered having to pay for an EQ application a hindrance. Also, a signing-up process was considered an undesirable effort. Easy access was an essential factor in the ease of use. Participant 4 expressed, “If it logs me out every single time and doesn’t remember my information, like my password, and I don’t have it, I don’t like having to log back in.” Students preferred an application that was easy to access while on the go and could be accessed quickly without entering identifying information each time.

Themes Addressing Research Question 3

The third research question was how do first- and second-year PSS characterize their motivation to use or not use EQ applications. All participants’ responses to the

interview questions yielded answers that were categorized and put into two themes to answer this research question. In the following paragraphs, the themes students are motivated to use applications for specific reasons, and students currently were not motivated to use EQ applications are organized and described to respond to this research question.

Theme 1: Students Are Motivated To Use Applications For Specific Reasons

Throughout the interviewing process, the participants in this study expressed several motivating factors for using digital applications in general. As aforementioned, by describing students' favorite applications, relaxation, and the social aspects of staying connected with others were the most prevalent motivators. Secondly, applications with varied options were closely ranked with these two motivators. Participant 6 shared a motivator by stating, "I like the variety of choice. I like to always be able to go on an app and find something that's new and interesting." Finally, 3 out of 10 participants using an application at the onset of discovery were motivated based on the marketing and advertisements. Participant 6 shared this personal influence based on advertisement.

> For me, it's like a big marketing thing. It has to catch my attention to download it. There are so many advertisements for apps nowadays. Especially through TikTok. I'm not even going to lie. The amount of stuff that I've downloaded, tried, or bought because of TikTok is insane.

How the usage of an application makes the student feel, the ability to connect with others, and how an application is introduced through advertisements were the most mentioned

motivating reasons for using a digital application. These reasons also included advertising by word of mouth from friends.

Theme 2: Students Currently Were Not Motivated To Use EQ Applications

Several participants found the idea of EQ applications interesting; however, they needed more motivation to use an EQ application. As aforementioned, in the detailed description of theme 2, these participants did not currently feel the need for such an application based on their current life situations. Using an EQ application was a resource for stress, anxiety, and self-regulation for 9 out of 10 of the participants when circumstances arose. Even though 6 out of 10 participants expressed being stressed by school obligations, using an EQ application was not an instinctual act of support. The need for more current motivation correlates with the need for knowledge concerning EQ applications. Participant 5 stated, "I'm not against it. It's just that I would have to look into it. I think I would definitely use it in the future." However, one discrepancy was found in a participant who expressed a lack of motivation for a different reason. This participant did not want to exert the energy to gain EQ support by doing activities through an application. This participant expressed the desire for an EQ application to only consist of a list of local providers that could provide face-to-face strategies to increase a person's EQ. Participant 8 expressed this unique desire.

> There is a lot of focus around the usage of the app itself. I'd rather use an EQ app that is used as a resource to discover where to find someone in real life. To help you find someone to give you the help you need instead of through the app on your phone.

This response was the only discrepancy as it pertained to not being motivated to use an EQ application.

Evidence of Trustworthiness

Adler (2022) referred to transparency as the most critical research component. The reason is that the researcher is the primary research instrument. Four criteria were used to determine trustworthiness in qualitative research: credibility, dependability, confirmability, and transferability. I will describe how each of these areas was addressed in the following section.

Credibility

The credibility of research is a critical aspect. Credibility is established by member checking, which ensures an accurate description of the participants' experiences (Birt et al., 2016). I established member checking by returning an interview summary to each participant. This was done by an email asking the participant to review the interview summary for accuracy as a means of internal validity. Accuracy was affirmed by no response from the participant, as detailed in the email. Secondly, I used data saturation to strengthen credibility. Interviews continued until no new information surfaced. Data saturation signified that the information gathered was sufficient. Lastly, I recorded journaling notes during the interview, highlighting words and phrases later used for coding.

Transferability

I established transferability by providing a thick and rich description of the PSS experiences using EQ applications. Secondly, there was variation in participant selection

in age and gender, the university of attendance, and increased transferability. Thirdly, I provided a transparent account of the data analysis by revealing the participants' different experiences also increased transferability. These descriptions, variations, and transparency will allow other researchers to transfer the findings from this research to future research studies on the same topic.

Dependability

I established dependability by providing a detailed account of the research methodology. This detailed account included the data collection, data analysis, and member checking strategies. This increased the possibility that other researchers could replicate this research. An adjustment to the original plan to assure dependability was made. An external audit was not conducted. The peer reviewers were not available to review the transcripts.

Confirmability

I established confirmability by intentionally creating an interview process that revealed the participants' experiences. This process was accomplished by being careful not to ask leading questions that would result in the researcher's preference. Secondly, I took reflexive notes about each interview's setting and aspects. My notetaking increased the awareness of any personal beliefs or assumptions on behalf of the researcher. This notetaking took place throughout the entire research process. Thirdly, my interview recordings assisted me to review the transcript's inaccuracies. This also ensured that my bias did not influence the research.

Summary

The 10 participants from 4 Southeastern higher education institutions in rural and suburban settings were interviewed to investigate their awareness and use of EQ applications. The participants gave insight into this research by answering in-depth interview questions that pertained to their awareness of the existence of EQ applications and the lived experiences of using these applications. From the interview responses and journaling notes, five themes emerged that aligned with the three research questions for this study.

Two themes emerged that detailed responses to the first research question of how first- and second-year PSS described the usefulness of EQ applications. Results from the first theme conveyed that PSS found EQ applications less useful than their favorite social media applications. However, the second theme referred to the PSS belief that EQ applications could assist with relaxation strategies and bring a sense of calm under stressful circumstances.

The theme that emerged to answer the second research question of how first- and second-year PSS describe the ease of use for EQ applications was that students had specific criteria for the ease of using an application. This theme addressed the amount of effort PSS needed to use an application. The participants considered having to pay for the use of an application as an undesirable effort, along with needing easy access. Having to repeatedly sign in with identifying information went against ease of use.

Two themes emerged that expanded on the third research question of understanding how first- and second-year PSS characterized their motivations to use or

not use EQ applications. The first theme that emerged was that students were motivated to use EQ applications for specific reasons. Aside from relaxation and socializing with others, PSS desired various activities with the application to maintain their motivation. Also, a catchy marketing strategy was mentioned to persuade the user to download an EQ application. The second theme addressed the revelation that most PSS were not currently motivated to use EQ applications because there was no instinctual need to use an EQ application to help with the current stressors of being a college student. The current motivation to use an EQ application was practically non-existent due to the participants not automatically thinking of using a digital application as a supportive tool despite the evidence of great interest.

In Chapter 4, I provided details on the data collection, data analysis, and evidence of trustworthiness. In Chapter 5, I will further examine the interpretation of the findings, explain the study's limitations, provide recommendations for future research, implications of the results, and the conclusion of this entire study.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this study was to investigate PSS awareness of and use of EQ applications in the Southern region of the United States. I used a qualitative approach to gain a better understanding of human experiences of a social phenomenon. I conducted interviews to address the gap in the research concerning PSS awareness of EQ applications and what motivates PSS to use or not use these applications.

I designed the first research question to address how the first- and second-year PSS describe the usefulness of EQ applications. The students reported that social media-type applications were the most useful. However, the students expressed that EQ applications would be beneficial for teaching them relaxation and calming strategies.

The findings from the second research question indicated how first- and second-year PSS describe the ease of use for EQ applications. The students expressed specific criteria that defined ease in using an application. These criteria consisted of free instead of purchase and access simplicity.

In the third research question, I focused on how first- and second-year PSS characterize their motivation to use or not use EQ applications. The students reported that their motivations to use an application were based on how using an EQ application made them feel. For example, social media applications give students a sense of mindless relaxation and connection. Other motivators were varied options and advertisements. Students needed to be more motivated to use EQ applications. Their motivations were based on current life situations. The use of an EQ application did not naturally come to mind.

Interpretation of the Findings

The results of this study contribute to educational technology and the use of digital health applications to improve EQ. The results also contribute to PSS' prior knowledge of EQ applications and the motivations for usage. The findings of this study represent the experiences and perceptions of first- and second-year PSS. The students identified their lived exposures and perceptions of the benefits of improving one's EQ and academic intelligence through digital applications. Key components were expressed through the responses of the participants. These components were intentions and perceptions, usefulness, ease of use, and motivations to use EQ applications. The participants also suggested these components as essential in increasing awareness and developing alternative resources for PSS emotional support.

Research Question 1: Findings Related To Past Literature

Findings from Research Question 1 revealed several areas of EQ application usefulness by first- and second-year PSS. Past research studies have supported the usefulness of EQ applications. Fuccio et al. (2020) concluded that EQ applications, such as Calm, were used by PSS and reported to reduce stress. Huberty et al. (2019) also researched the usefulness of EQ applications by PSS. The findings illustrated that three PSS reported that using Calm reduced stress. Every student in this study expressed that they would consider using an EQ application in the future. Through this study, findings from peer-reviewed literature were both confirmed and extended. My study concluded that PSS perceived the usefulness of an EQ application would help with the stressors of being in college along with insomnia, anxiety, and motivation, depending on the current

situations in their lives. This study confirmed the findings from Huberty et al. (2019) which revealed that most PSS participants reported that an EQ application was helpful with the stressors of college and emotional control. The research of Huberty et al. concluded that the PSS were willing to recommend the EQ application to other college students. I extended this conclusion with results revealing that two participants reported being more willing to try an EQ application if a friend recommended it. Rogers (2003) described these participants as fitting into one of the five categories of adopting specific innovations at a certain speed. These participants are categorized as laggards, meaning that the users will only adopt an innovation once others have tried it and convinced them to do the same.

Also, the findings from this study go beyond the usefulness of EQ applications by first determining what digital applications PSS used most frequently. By interviewing PSS, their experiences revealed the most usefulness of social media applications. This revelation contributed to mindless relaxation and the ability to socialize with others.

Research Question 2: Findings Related to Past Literature

Key findings from Research Question 2 illustrated how first- and second-year PSS describe the ease of use for EQ applications. Other researchers concluded that loss of interest, high costs, and the burden of entering data were correlated with ease of use. If these elements were present, the students felt too much effort was involved. Therefore, these elements were considered barriers and hindered ease of use (Nagar et al., 2023; Huberty et al., 2019). Similarly, Bautista and Schuller (2023) reported that the time and effort required to use the application was a significant barrier to the ease of use of EQ

applications. However, Fuccio et al. (2020) continued research in this area and found that PSS users found the EQ application easy to navigate, given prompt installations. These findings confirm the knowledge gained through my research concerning how PSS students describe the extent of what determines the use of an EQ application as being free of effort. Their descriptions included not having to pay to use the application and easy access without having to enter lots of information.

Research Question 3: Findings Related To Past Literature

Findings from Research Question 3 showed how first-and second-year PSS characterized their motivation to use or not use EQ applications. Melcher et al. (2022) found a gap between students willing to use mental health applications and those who had used these applications in the past. This gap was primarily due to motivation, even though the interest was present. Levin et al. (2020) found that PSS would instead seek emotional support through a digital application while in therapy rather than in place of therapy. Likewise, in the literature review, Hadler et al. (2021) found that PSS preferred face-to-face EQ services due to privacy and lack of personalization concerns. Other researchers concluded that the lack of motivation was due to a lack of awareness of the existence of such an application (Topooco et al., 2022). However, Huberty et al. (2019) found that PSS were motivated to use a digital application to gain more information about EQ. Through this study, findings from the peer-reviewed literature confirmed that PSS motivations correlated with a high interest in EQ applications and a lack of awareness of EQ applications. Findings from this study also extended knowledge about the motivations of PSS to use digital applications.

A possible underlying factor to not being motivated to use an application could be the need for a user-centered design (UCD). This design is an evidence-based approach to designing a technology based on the end-user's needs and priorities by engaging with the end-users (Farao et al., 2020). In a research study conducted by Shikako et al. (2021), 72% of the application users planned to uninstall the application after just a short time. The researchers emphasized the importance of using a UCD with accurate and comprehensive information in developing a mHealth application. The reasons for discontinuing use that surfaced in this current study were dissatisfaction with content and the lack of motivation to continue using the EQ application because it had served its purpose. This was the case with 60% of the participants in this study.

I also investigated the experiences of what motivates PSS the most concerning the use of digital applications in general. Further, my findings for Research Question 3 highlighted two key factors of motivation of use. These factors were mindless relaxation and the ability to socialize with others.

Findings Related to Conceptual Framework

The use of EQ applications is grounded in the theory of the TAM. This model focuses on PU ease of use that motivate a person to use a technology. Davis (1985, 1989) developed this model to explain why a person accepts or rejects the use of a technology. These reasons include whether the usage affects the user's performance, the ease technology adoption, and the attitude towards usage. Therefore, this study used these reasons to help explain the usage of EQ applications by first- and second-year PSS in the Southern region of the United States.

PU is defined as whether a digital application makes a difference in a person's life (Davis, 1989). PSS were most likely to use their devices to look up information and tips about EQ (Bautista & Schuller, 2023). This study revealed that PSS valued the possession of EQ. Participants shared how an increase in EQ would positively affect their emotional control and self-awareness.

PEOU is also referred to as the ease of adapting to using an application (Davis, 1989). Davis cited a study by Alavi and Henderson (1981) that concluded that even if an application is perceived as useful, the lack of ease of use can deter a person from using a digital application. In this study, it was discovered that perceived inconveniences and the need for too much effort hindered the participant's usage of an EQ application. PSS desired an EQ application that was easy to access and free to download.

Davis (1985) added attitude as a third factor in technology acceptance. Increased motivation to use a digital application signified a positive attitude about an application. The foundation of the TAM is built on the concept that an individual's intention to perform a specific behavior is based on their attitude toward that behavior. In this study, it was discovered that PSS were motivated to use EQ applications when a circumstance in life arose. Even though the interest was present, the motivation to automatically use an EQ application was not evident. Most of the participants were intrigued by EQ applications and were favorable toward their use. However, the lack of knowledge concerning how EQ applications could help during times of stress and anxiety hindered the automatic usage of these applications. The findings of this study illustrate that

through the applications of the concepts of the TAM, PSS could express their perceptions and attitudes about the usage of EQ applications.

In this study, I addressed the problem by signifying a need for more awareness regarding EQ applications. Only one participant currently had an EQ application on their device at the time of the interview. Three other students reported having used an EQ application in the past, but only briefly before removing the application from their device. The remaining six PSS expressed complete unawareness of their existence. I further addressed the problem of knowing the PSS perceptions concerning using EQ applications. Given that every participant wanted to try an EQ application, the perception of usage is overwhelmingly positive.

Limitations of the Study

The first limitation to trustworthiness in this study that was addressed in Chapter 1 regarded the nature of a qualitative design focusing on motivations and perceptions. It can be difficult to quantify results using this research approach (Queirós et al., 2017). As the sole researcher of this study, I maintained an awareness of this limitation. I ensured the interview questions aligned with the research questions by reflecting on the collection and analysis of the data. Given this limitation, I also quantified the interview responses to assist with analyzing and reporting the number and percentages of participants' perceptions and beliefs, leading to a more trustworthy approach.

The second limitation to trustworthiness addressed in Chapter 2 was the assumption that PSS may be reluctant to participate in the study upon hearing the term EQ. To address this second limitation, I offered a gift card incentive and a descriptive

definition of EQ before the interview. The participants were allowed to ask questions and seek clarification concerning the definition before asking the first interview question. The same opportunity was given again at the end of the interview in case the participant wanted to add to or change a response.

The third limitation to trustworthiness addressed in Chapter 1 regards the issue of transferability, as noted by Connelly (2016). I provided thick and rich descriptions of the participants' responses, locations, and experiences. These descriptions will be useful for other researchers who wish to transfer these findings. The focus of the research was on individual participant stories and perceptions.

Recommendations

The results of this study indicated the perceptions and motivations of first- and second-year PSS concerning the usage of EQ applications. The participants expressed costs, easy access, and the need for awareness of EQ applications. The same factors surfaced in the study completed by Huberty et al. (2019). Despite these factors, Huberty et al. concluded that using an EQ application was promising to assist undergraduate students with reducing stress. It was also concluded that digital health application developers have the potential to increase affordability and navigation convenience.

The findings also indicated specific experiences with using EQ applications in the past. The findings included using EQ applications to help with anxiety, sleep, and gain a sense of calm. This usage was usually during a specific unfortunate event in the participant's life, such as when a mental health concern was present. Participant 8 expressed this brief application usage for the sake of helping with stressful situations.

Participant 8 stated, “Obviously, if you’re working or in school, like, there’s a lot of stressors associated with that. So yes, that would be nice to have things to kind of go to, to help if you need it.” There was further evidence of PSS desiring the use of EQ applications beyond their current emotional circumstance. Participant 10 shared, “I think if I had more, like having details about what each aspect of emotional intelligence is, I think it would be helpful.” This study added new information regarding the lack of sustainability of EQ application usage. The desire to continue using the EQ application to increase their overall EQ beyond their circumstances was lacking.

Future researchers could investigate how awareness and perceptions could translate into practical use and perceived benefits over some time. Investigating the role of mental health student services at educational institutions to increase the awareness and understanding of EQ applications would be beneficial. This could include workshops, seminars, or coursework. Researchers could collaborate with educational institutions and explore the long-term impact of these interventions. Tracking the participant’s perceptions and usage over a long period can provide more insight into the sustainability of usability, ease of use, and motivations. Also, by investigating the practice and perceptions of university mental health services concerning introducing EQ applications to students, researchers may discover the missing links hindering PSS from discovering cost-efficient and easy-to-use EQ applications. Given the assumption that the PSS population may have been reluctant to participate upon hearing the term EQ, which was a limitation of this study, EQ application nonusers could think this term signifies a personal weakness. This possible underlying motive for nonusers could also hinder EQ application

usage and may be related to EQ application awareness and perceptions. Future researchers could address this as part of the interview protocol, possibly giving more insight into what motivates students not to use EQ applications.

An additional recommendation for future research is to further investigate the perceptions and motivations of PSS in using EQ applications for proactive and maintenance purposes. In this study, I revealed that the primary usage of an EQ application was once a mental health need arose. I also revealed that PSS valued EQ and wanted to learn more about the ability to manage their emotions and understand the emotions of others. Future researchers may investigate, through a qualitative study, what would instinctively motivate PSS to use an EQ application as a resource for obtaining EQ to be more successful in life.

Implications

The findings of this current study indicate the firsthand experiences of using EQ applications by first- and second-year PSS. The results illustrate the students' perceptions about the usefulness, ease of use, and motivations to use EQ applications, as well as the participants' favorite types of digital applications. Melcher et al. (2022) recognized that PSS were willing to receive emotional help outside conventional therapy, such as through digital applications, but the technology usage was limited.

The findings of this study may contribute to social change by providing EQ digital application awareness to PSS on university campuses through the mental health student services department. Increased student awareness of EQ resources correlates with better health and social adjustments (Sorina et al., 2019). The results of this current study

may provide university mental health service departments with the perceptions and desires of PSS to integrate EQ digital application awareness into their mental health care plan. This could include suggestions for EQ applications, assistance with downloading and subscriptions, and ongoing mental health support that would correlate with the EQ application content. This practice could increase PSS resilience to stress, awareness of emotional needs, and overall success while expanding society with well-rounded, emotionally equipped citizens.

Conclusion

College students, mainly first- and second-year PSS, experience stress due to the overlapping of adolescence and the recent transition from dependence to independence that college life requires (Liu et al., 2019). It was concluded that PSS spent 3-6 hours daily on their smartphones (Yuan Fook et al., 2021). Also, it was noted by the *Mobile Survey Report* (UCF Center for Distributed Learning, 2018) that first- and second-year students used their mobile devices for learning more than junior and senior students. Given the increased levels of stress and increased usage of digital technologies by first- and second-year PSS, this population could benefit from a greater awareness of the existence of EQ applications. However, a gap existed in the literature concerning the awareness and usage of EQ applications amongst the PSS population.

Using a qualitative study, I investigated the usefulness, ease of use, and motivations of EQ application usage based on the perceptions of PSS. Further, this study has several aspects of digital applications that make these applications favorable amongst PSS. The study participants valued EQ as much if not more than academic intelligence.

The participants were also interested in using EQ applications to regulate their emotions better and learn more about themselves. Chung-Jen (2019) revealed that those with higher levels of EQ are more self-aware of their needs, strengths, and self-control. Society's next generation needs these individuals. My reported findings of this study allowed me to illustrate the continued need to increase PSS awareness of EQ digital applications for use as a resource to learn about, obtain, and maintain an increased level of EQ to be successful well beyond college.

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Appendix A: Permission to Reprint Letter

Dear Fred D. Davis,

I am completing a doctoral dissertation at Walden University entitled "The Use of Emotional Intelligence Applications by Post Secondary Students".
I would like your permission to reprint in my dissertation an excerpt from the following:
Davis, F. D. (1986). A technology acceptance model for empirically testing new end-user information systems: Theory and results.
http://hdl.handle.net/1721.1/15192

The excerpt to be reproduced is:
Figure 1 on page 24 - The Technology Acceptance Model

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If these arrangements meet with your approval, please return this e-mail with affirmation.
Thank you very much.

Sincerely,
Terry R. Beamer
Terry R. Beamer

Appendix B: The Interview Protocol

Thank you in advance for agreeing to be a part of this study. The interview will take approximately 30-45 minutes. I will be asking you questions regarding emotional intelligence and the use of emotional intelligence digital applications. I will be taking notes as you respond to each question. I will also be tape-recording the session to ensure accurate coding of the interview session. Do you have any questions or clarifications that you would like to ask before we begin? I will be emailing you a summary of the transcript of this session at a later time to verify accuracy or if your response has changed. You have the right to stop the interview at any time based on the consent agreement that you signed earlier. Are you ready to start the interview?

1. Name _____
2. Age _____
3. Gender _____
4. Year at university: 1st or 2nd
5. Full-time Student: Yes or No
6. Own a mobile device (cell phone or tablet): Yes or No
7. Familiar with EQ applications? (Ex: Calm; Stop, Breathe, & Think; Sintelly)
   Yes or No
8. English as your primary language: Yes or No
9. Email address: _____

10. Phone number: _____

Research Questions:

RQ1. How do first- and second year PSS describe the usefulness of EQ applications?

RQ2. How do first- and second year PSS describe the ease of use for EQ applications?

RQ3. How do first- and second year PSS characterize their motivation to use or not use EQ applications?

Definition of emotional intelligence:

"Emotional intelligence refers to a collection of skills such as self-control, determination, self-motivation and sensitivity to the feelings of others" (Ranasinghe et al., 2017, p. 1).

Interview Questions:

RQ1. How do first- and second-year PSS describe the usefulness of EQ applications?

IQ1: Tell me about your favorite type of applications that you currently use?

IQ2: What makes these your favorite?

IQ3: What do you think is useful about having knowledge of emotional intelligence vs. academic intelligence?

IQ4: How important are these for success?

IQ5: Tell me how emotional intelligence applications can be beneficial to you?

IQ6: If you are only familiar with these applications, how interested would you be in using an emotional intelligence application?

RQ2. How do first- and second-year PSS describe the ease of use for EQ applications?

IQ7: What would you consider to be the features of an "easy to use" emotional intelligence application?

IQ8: If you once used an emotional intelligence application, but no longer use it, what is your reason for discontinuance? Can you tell me more about that?

RQ3. How do first-and second-year PSS characterize their motivation to use or not use EQ applications?

IQ9: What emotional intelligence applications do you currently have on your mobile device?

IQ10: As a qualified participant, you have acknowledged that you are familiar with emotional intelligence applications. If you have never downloaded and/or used an emotional intelligence application, what was your motivation?

IQ11: What would increase your intentions to use an emotional intelligence application?

Closing Question: Is there anything else you would like to share with me about these applications or how you use them? Do you have any further thoughts about the usefulness of emotional intelligence applications?

Do you have any questions for me? Thank you for your time today. As stated previously, I will be emailing you a summary of my findings from this session, at a later time, to verify accuracy.

Appendix C: Research Reflexive Notes

Interviewee: _____
Date: _____
Start Time: _____
End Time: _____

1. My feelings, attitudes, and opinions during the interview.

2. Problems that arose during the interview. (problems with design of study, procedures, and materials.)

3. Did I learn any ideas, patterns, or connections?

4. My feelings about the interview overall.

Appendix D: Themes, Categories, and Codes

Themes	Categories	Codes	Frequency of Occurrence
1. Students find EQ applications less useful than their current applications. 2. Students believe EQ applications can be useful under certain circumstances. 3. Students have specific criteria for the ease of using an application (overlapping theme two). 4. Students are motivated to use applications for specific reasons. 5. Students currently were not motivated to use EQ apps	1. Favorite types of apps used consistently 2. Perception of emotional intelligence vs. academic intelligence 3. Personal Benefits of an EQ application 4. Interest Level & Concerns of Downloading an EQ app 5. Motivations to use/download an EQ app 6. Perception of ease of use feature 7. Motivating factors of favorite apps 8. Current usage of an EQ app 9. Motivation for discontinuing the usage of an EQ app	1. Interested 2. Social Media favs 3. Doesn't have EQ app now 4. Keep in touch w/ others 5. Values both intelligences 6. Easy access app 7. EQ app can help w/ relaxation 8. Free/not pay 9. Need both for success 10. Used EQ app before 11. Wants simplicity (motivator) 12. Academic intel.(IQ) = school 13. EQ helps w/ self-regulation 14. Give reminders and notifications (benefit) 15. Mental health issues 16. Relax/Wind down 17. Simplicity 18. Unsatisfied 19. Desired non-dependency on app 20. Entertainment (fav) 21. EQ can be used to help others	10 10 8 7 6 6 5 5 5 4 4 4 4 3 3 3 3 3 3 3 2 2 2 2 2

Themes	Categories	Codes	Frequency of Occurrence
	10. Reason for never using/downloading an EQ app	22. EQ helps w/ self-awareness	2
		23. EQ is good for mental health	2
		24. Mission accomplished	2
		25. School stressful - help w/ stress	2
		26. Values EQ more than IQ	1
		27. Wants to learn more about EQ	1
		28. Willing to try (due to interview)	1
		29. Academic intell. (IQ)= career	1
		30. All ages (motivator)	1
		31. App vs. website	1
		32. Desires help	1
		33. Desires notifications (motivator)	1
		34. EQ increases social skills	1
		35. Grapevine/Word of Mouth	1
		36. Helps w/ mental ill–anxiety (EQ)	1
		37. Like course/activities-motivator	1
		38. No subscription	1
		39. Not in-depth	1
		40. Problems with sleep (benefit)	1
		41. Relaxation (fav.) 3	1
		42. Security assurance3	1
		43. Streaming – fav	1

Themes	Categories	Codes	Frequency of Occurrence
		44. Unawareness	1
		45. Varied Options	1
		46. Abundance of EQ apps/too many to choose from	1
		47. Customizable (motivator)	1
		48. Descript/market in app store	1
		49. Device space (a concern)	1
		50. EQ = mindfulness	1
		51. EQ app, help w/ difficulties	1
		52. EQ used throughout life	1
		53. Few available	1
		54. Gives motivation (EQ)	1
		55. Good reviews	1
		56. Has an EQ app now	1
		57. Help others (benefit)	1
		58. Helps w/ empathy (EQ)	1
		59. Icons/pics	1
		60. IQ used throughout life	1
		61. Lack of time	1
		62. No lures/catches (concern)	1
		63. Not motivated	1
		64. Ok mentally right now/not looking/yet interested based on any current circumstances	1

Themes	Categories	Codes	Frequency of Occurrence
		65. Organizing (calendar) app favorite 66. Resource to outside help not help within the app 67. Self-care (benefit) 68. Shopping – fav 69. Stay signed in 70. Task checklist 71. Teaming fav. App 72. Wants variety (motivator)	