COMMUNICATION APPREHENSION IN A SOCIAL MEDIA WORLD

THESIS

By

Bonnie Portillo

A Thesis Submitted in Partial Fulfillment

of the Requirements for the Degree of

Master of Arts in Communication

Austin Peay State University

August 2019

Thesis Committee:

Dr. Robert Baron, Committee Chair

Dr. Pamela Gray

Dr. Yunying Zhang

COMMUNICATION APPREHENSION IN A SOCIAL MEDIA WORLD

THESIS

Bonnie Portillo

Approved:

_____

Dr. Robert Baron, Committee Chair

_____

Dr. Pamela Gray, Committee Member

_____

Dr. Yunying Zhang, Committee Member

_____

Dr. Chad Brooks, Associate Provost and Dean, College of Graduate Studies

Statement of Permission to Use

In presenting this thesis in partial fulfillment of the requirements for the Masters of Art in Communication at Austin Peay State University, I agree that the library shall make it available to borrowers under the rules of the library. Brief quotations from this thesis are allowable without special permission, provided that accurate acknowledgement of the source is made. Permissions for extensive quotation or reproduction of this thesis may be granted by my major professor, or in his/her absence, by the Head of the Interlibrary Services when, in the opinion of either, the proposed use of the material is for scholarly purposes. Any copying or use of the material in this thesis for financial gain shall not be allowed without my written permission

Bonnie Boggs Portillo   08/09/2019

I dedicate this research to my students at Austin Peay that struggled but persevered through their own communication apprehension at times. You were the inspiration for this study.

ACKNOWLEDGMENTS

I would like to thank my mother, Dr. Beverly Boggs, my dad, Dwane Mitchell and my husband, Dustin Portillo. I would also like to acknowledge my father in memory who motivated my mother to complete her higher education degrees, which then motivated me to also meet those accomplishments. Your unwavering support throughout this process has been overwhelming and I could not have accomplished anything without you. I would also like to thank all of the committee members for their constant reassurance and guidance throughout the process, as well as Dr. Andrew Luna.

TABLE OF CONTENTS

CHAPTER I

INTRODUCTION

Statement of Problem

The study of human communication can be traced back to ancient Greece over 2,000 years ago. The idea that some people struggled when delivering a public address, also known as stage fright, came into question early on in studying and teaching rhetoric. Fast forward to the 20th century when people are still trying to understand why someone may be apprehensive to speak. As technology continues to develop and resources on ways to communicate evolve, more communication choices become available to an individual. If one does not wish to speak to another face-to-face then they have ways to avoid that interaction.

In a recent article, *How Social Media Affects Our Ability to Communicate* (Hanke, 2018, para.2), it is reported that,

"Almost two-thirds of U.S. adults admit they use social media to connect. Its rise to prominence changes our ability to interact with others on a meaningful level. Our social skills are challenged to the point that many now struggle to interact in traditional conversations."

For instance, some students report having difficultly delivering speeches in a classroom but have what seems to be little hesitation to posting on social media. While the concept of apprehension to communicate is not a new experience for individuals, there seems to be a belief that social networking sites play a role or have even increased this problem today. The presence of face to face (FtF) apprehension in the absence of social networking apprehension gave rise to the importance of this current study.

Purpose of Study

The purpose of this study is to expand upon the existing literature and research regarding communication apprehension. According to James McCroskey (2009), communication apprehension has been the most studied topic in the communication field since the 1960's. While there are many studies about communication apprehension, there is limited research in the communication field on the effects social media may or may not have on communication apprehension. There is a need to collect data to determine if there is a difference in apprehension levels for social networking and face-to-face communication apprehension, because of the limited research on the subject, and growth of social networking sites today.

Significance of the Study

In the current study, the mean total scoring of apprehension levels will be directly compared to those obtained by McCroskey in 1985 (McCroskey, Beatty, Kearney& Plax, 1985). Self-reported levels of face-to-face (FtF) apprehension in the current study will also be compared to apprehension experienced while using social networking sites in this study. This current study is an effort to present evidence that communication apprehension is related to technology as it continues to advance.

The instrument of measurement used for this study is an adaptation of McCroskey's PRCA-24. The PRCA- 24 is named so because it consists of 24 questions related to specific trait like communication apprehension. The questions are divided into four sub-sections:

1. Public speaking: The act or process of making speeches in public.

2. Interpersonal or dyadic speaking: Communication between two people.

3. Meetings: McCroskey associated with larger groups.

4. Group Discussions: McCroskey associated with a smaller group setting.

All of the sub- sections of McCroskey's PRCA-24 are FtF scenarios. This current study will add a new sub-section to the PRCA-24 inclusive of social networking site apprehension.

Research Questions

RQ1. Will students self-report higher or lower total apprehension scores today versus those reported in McCroskey's 1985 study?

RQ2. Will there be a relationship between the FtF CA in the current study and the newly added social networking site CA context questions?

Research Hypothesis

H1. There will be a positive correlation between the mean scores of the FtF context subsection data collected in the current survey with social networking site apprehension context mean.

Chapter Outline

A history of communication apprehension and how the research topic has progressed through the years is provided through a review of literature in Chapter Two. The first section of Chapter Two contains a presentation of background research on human communication and the Shannon-Weaver (1948) communication model. The second section of Chapter Two contains an examination of the concepts of communication apprehension as well as the methodology to be used for the current study.

The next topic of research presented relates to communication anxiety or apprehension in relation to Computer-Mediated-Communication (CMC). There is research that discusses CMC

and the apprehension that may occur with its use. While social networks are a form of CMC, the past studies typically do not focus on social networking sites. As social networking sites continue to develop, and as the audience of those platforms continues to grow, there is a need for updated research. Today's university students are born and raised in an age of technology where the use of social media and social networking sites is almost instantaneous when they began to use the internet.

Continuing in Chapter Two, research is presented comparing FtF to CMC apprehension and disclosure and how these two context are not interchangeable for one another. The following section examines the effect of social media on the user. The last topic examined in the literature review is CMC apprehension and disclosure specifically related to Facebook. A summary of the research question and hypothesis appears at the end of this section.

Chapter Three presents the methodology of this study. Included is the design, target population, sampling and measure. The measure section discusses the validity of the measuring tool PRCA-24, and the design of the current survey.

Chapter Four reveals the results of the current study. The statistical analysis choices will be presented with each of the questions. The two research question and hypothesis will be reviewed and will either be found to be supported or null on a statistical level of .05. By analyzing the results on this level, there is a 95% confidence level that if the study was recreated it would have the same results. This level of confidence is also selected to limit the amount of errors in the study based on the type of sampling method.

Chapter Five discusses the results and infers how the results contribute to the larger study of communication apprehension. An investigation of any limitations the study may have encountered will briefly be reviewed in the second part of Chapter Five.

CHAPTER II

LITERTURE REVIEW

Communication Basics

Before discussing communication apprehension, a clear understanding of the history and definition of human communication must be presented. "Human communication is the process by which a person (or persons) stimulates meaning in the mind of another person (or persons) through the use of verbal and/or nonverbal messages" (Richmond & McCroskey, 1995, p. 1). Richmond and McCroskey (1995) believed that their definition included three different types of communication: accidental, expressive and rhetorical. Accidental communication is true to its name. It occurs when a person unintentionally stimulates meaning in another's mind. Expressive communication expresses emotions and motivation of an individual at a particular time and can be intentional or unintentional. Finally, rhetorical communication occurs when the source is specifically attempting to stimulate a particular meaning in the receiver with both verbal and non-verbal cues.

Rhetoric dates back to approximately 2000 B.C.E. with the earliest known handbook *The Instructions of Ptahhotep*, composed by an Egyptian official (Kennedy, 2007). According to Kennedy (2007), the study of rhetoric continued in other parts of the world and later in ancient Greece. Men were often tasked with speaking as a part of their civic duty or they would have to defend themselves in court hearings. Aristotle studied and researched this subject for the majority of his life. "Sometime in the mid- 350s B.C.E. now a senior member of the academy, Aristotle is said to have begun to offer a course on rhetoric" (Kennedy, 2007, p. 4). These courses are different than what one might take at a present day university, but many of the concepts Aristotle wrote about in *On Rhetoric* are still applicable. Aristotle proposed three

modes of persuasion that were an adaption of Plato's call for fit, and are still being taught in universities today. The three modes include: (1) ethos, which is the preserved trustworthiness of a speaker, (2) pathos, or the emotions of the audience, and (3) logos, which consist of inductive and deductive logical arguments.

Other rhetoricians became interested in the fear of communication because many people experience stage fright during public addresses. In a translation of oratory and orators by Watson, "Cicero points out that fear is '…' inculcated wither from people's own dangers or those of the public" (as sited in Ayres, 1997, p. 1). Cicero then suggested that fear is a learned habit that is influenced from external sources.

The final rhetorician worth noting is Quintillian, a Roman born in 35 A.D. He published *Institutio Oratoria* to help provide education for public speakers in 95 A.D. Butler's (1920) translation of *institution oratoria of Quintillan* quotes Quintillan as observing, "it is of common occurrence with young men, however talented they may be, to waste their gifts by superfluous elaboration and to sink into silence from an excessive desire to speak well" (as sited in Ayres, 1997, p. 1).

Communication Model

The process of human communication has been described and widely accepted in the Shannon-Weaver (1948) communication model. In the Shannon-Weaver model there are eight main components: sender, encoding, message, channels, receiver, decoding, feedback and noise. The sender is identified as the source and is defined as, "the person (or persons) who originated the message" (Richmond & McCroskey, 1995, p. 7). Encoding is described as the process of creating an appropriate message for the intended audience. These first two components in the

Shannon-Weaver communication model perform three similar functions according to Richmond and McCroskey 1995. The sender creates or encodes a message based on the meaning they wish to communicate. Then the sender will encode the message by adapting it for the receiver. Finally, the sender sends the encoded message. The source's role in the communication model is to perform the aforementioned functions. If the source of the message is unable to fulfill these functions, the communication transaction is interrupted. The sender who experiences apprehension, weather related to the encoding process or over the decision of meaning they wish to communicate, may be unable to fulfill these functions. This would result in the communication being disturbed at the beginning stage.

The next component in the communication model is the message. The message can be verbal or non-verbal. An example of a non-verbal message would be clothing that someone is wearing. Messages can be indirect or direct. The example provided above may be indirectly communicated on a daily basis and then directly communicated during a job interview. Regardless if the message is direct or indirect, verbal and non-verbal communication are linked together to stimulate meaning in the mind of the audience (Richmond & McCroskey, 1995). It may be possible that, because of the lack of or difference in appearance and presentation of non-verbal messages through social networking sites, the meaning can be lost or misinterpreted. Regardless if the message is verbal or non-verbal it must travel through the next component, channels.

Channels are defined as the way for the message to be delivered to the receiver. In the most basic sense of a person's interactive levels the receiver is processing light waves, listening, they also have their sense of touch and smell. All other these sensory factors are described as channels by Richmond and McCroskey (1995). Richmond and McCroskey use the game of

telephone as an example of how the communication model can fail or break down through channels. They continue to say that the senders channel selection determines the outcome transaction between the sender and the receiver (Richmond & McCroskey, 1995). The current study will consider the difference in apprehension levels of the source as they use two different channels of delivery in FtF interactions and then the Mass Medium of Social Networking sites.

The next two components in the Shannon-Weaver communication model that will be presented are the receiver and decoding. The receiver is one person or multiple people who receive the message (Richmond & McCroskey, 1995). The receiver and the decoding process are connected, because decoding is the action of the receiver. These functions include receiving the source's message, most likely through multiple channels. Next the message must be interpreted and evaluated for meaning by the receiver. Finally the receiver creates a response to the original message (Richmond & McCroskey, 1995).

In a FtF communication scenario, the source of the message has direct contact with the receiver and has the ability to communication verbally and non-verbally. In a social networking scenario, the communication is verbal or written and visual (non- verbal) but could be interpreted differently by the receiver because of the channels used. Though this study is focused on the apprehension level of the source and not the receiver, the receiver's presence may influence the impact on the sources self- reported levels of apprehension. Apprehension that a source may feel due to the audiences' presence is known as situational apprehension and is measured using the Situational Communication Apprehension Measure (SCAM). Richmond and McCroskey (1995) state that those who report high levels on a PRCA-24 are likely to also report high SCAM scores, and those who report low scores on PRCA-24 will have low scores on SCAM.

The next component of the communication process is feedback. The final purpose of the receiver is to respond, or in other words, provide feedback to the source. Feedback can be verbal or nonverbal, similar the initial message that the source creates. The communication process continues in this cycle and forms a circle of messages and feedback between the source and the receiver. (Richmond & McCroskey, 1995). Feedback between the source and the receiver in a FtF scenario can occur as the source is still speaking or transmitting the message. In contrast to mass media such as television or radio, social networking sites have opened the door to mass communication that is fitting to the Sharron-Weaver model. Before, in mass media, the population was only able to listen to the information presented to them. Now this population is able to become a participating member in the communication transaction weather through creation of content or feedback (Mandiberg, 2012).

The final component in the Shannon-Weaver communication model is noise. Noise in the communication process can be present at any point of the transaction. In a review of the Shannon-Weaver model, Richmond and McCrosky (1995) explained that the communication process can be interrupted by the presence of noise. Noise can be internal or external. Loud noises happening outside of a classroom may interrupt a student delivering a speech in class, which is external noise. While apprehension about an anticipated speech, conversation, or meeting is internal or psychological noise. The purpose of this study focuses on internal noise created from anxiety or apprehension that a source feels in FtF and social networking site scenarios.

What is Communication Apprehension?

McCroskey created the term "communication apprehension" in 1968. "Communication apprehension is the fear or anxiety associated with either real or anticipated communication with

another person or persons" (Richmond & McCroskey, 1995, p.35). Technology has changed how we communicate as individuals and created a need for an updated definition to identify links between levels of communication apprehension and social networking use.

McCroskey became interested in speech anxiety as a doctoral student at Penn State University and continued his research at Michigan State University. To study the problem, on the first day of class at MSU, he administered a survey to measure speech anxiety to all public speaking students at Michigan State University. He found that one-third of the students dropped the course the next day and about half of those students had high scores of apprehension on this test (McCroskey, 2009). McCroskey also realized that college student apprehension levels were also experienced through the delivery of speeches. He also realized that the students who suffered from these problems need to be identified to try to find out why the problem was present and what could be done about it (McCroskey, 2009). The question of who has apprehension and why does this problem exist has been the backbone of communication apprehension studies. The interest of this current study is in discovering if social networking site use has its own level of user communication apprehension and if there is a connection to FtF communication apprehension.

In the early years of studying of communication apprehension McCroskey (2009) separated State Communication Apprehension (SCA) and Trait Communication Apprehension (TCA). "TCA was seen as being general pattern of low, medium, or high orientation of anxiety/fear across communication context, and SCA was seen as experiencing anxiety/fear in one situation but not in others" (McCroskey, 2009, p.163). TCA is a more consistent pattern of communication apprehension one might experience, while SCA can occur occasionally throughout someone's life. .

TCA and SCA communication apprehension measurements were used to study the oral briefing performance of 93 U.S. Naval Officers (Thomas, Tymon & Thomas, 1994). Thomas, Tymon and Thomas (1994) utilized the methodology of Communication Anxiety Inventory developed by Booth-Butterfield and Gould in 1986. This method studies trait like communication apprehension in a 21 self-reported item survey through three context: dyadic, small group and public speaking. The survey was also combined with State Form communication apprehension section which included a 20 item Likert scale survey after a presentation. (Thomas, Tymon & Thomas, 1994). While this methodology worked well in showing how to study both trait and state communication apprehension in Thomas, Tymon and Thomas's study 1994, McCroskey's PRCA-24, with the inclusion of additional questions that focus on social networking site apprehension, will be used for the current study, because the measure is used to study trait-like communication apprehension. According to McCroskey (2009), those who are moderate in TCA may experience SCA, but with outside assistance they can learn to control their SCA over time. However those individuals with high TCA experience SCA in many communication situation. Finally, he explains that individuals with low TCA may never, or on rare occurrence, may experience SCA. Many who have communication apprehension may not be detected if only SCA is studied. TCA looks at a more consistent level of apprehension. TCA, if measured correctly, should not change drastically from one point in someone's life to another.

McCroskey developed many self- report measurement tools including different versions of the (PRCA). They include: PRCA 10-, 20-, 24- and 25.

> "The 10-, 20-, and 25- item versions of the instrument have been appropriately criticized for their inclusion of a disproportionate number of items relating to public speaking when the instruments purport to tap trait like communication apprehension across

communication context. The more recently developed, 24-item, version of the instrument

overcomes this criticism because it includes six items for each of the four context…"

(Daly, 2009, p.187).

PRCA- 24 is a survey consisting of 24 questions and is measured using a Likert scale.

The survey is separated into four context: public speaking, speaking in small groups, speaking in

meetings and speaking in dyads (interpersonal) (McCroskey, Beatty, Kearney& Plax, 1985). Due

to the variety of FtF scenarios in McCroskeys' PRCA-24 and the good validity of this

measurement tool in the communication field, this measure will provide the current study with

built-in validity and very robust data for comparison. The validity and reliability of PRCA- 24

has been reported consistently high according to Daly (2009). Therefore PRCA-24 is the clear

choice for the current study rather than the earlier version of the measurement tool.

There will be a direct comparison of the test results from a validation study of the PRCA-

24 conducted by McCroskey in 1985 to the current study's results. The results from

McCroskey's study had N=311 and M= 65.48 and SD=16.46. The current study is seeking to

find a difference between McCroskey's results versus today's dues to communication

advancements such as social networking sites. By conducting a direct comparison of the PRCA-

24 today versus the 1985 McCrosky test, an indication of change through time and technology

advancements can be determined. It has been reported that the rise of social media use has

changed how we interact in traditional conversations (Hanke, 2018). If traditional

communication interactions are being challenged then communication apprehension must also be

evolving. Therefor the following research question is asked in the current study.

RQ1. Will students self-report higher or lower total apprehension scores today versus

those reported in McCroskey's 1985 study?

Richmond and McCroskey (1995) acknowledged that as technology advanced, communication between sources to receiver would remain at the core of communication transactions. Advancement in technology does not diminish the importance of human to human communication. Regardless of new technological advancements, daily communication is still at the interpersonal level.

Computer Mediated Communication and Apprehension

"CMC refers to person-to-person communication…over computer networks" (Campbell & Neer, 2001, p. 391). Campbell and Neer's (2001) study investigated how communication traits affect their participant's attitudes and behaviors in a CMC environment. "The current study used a trait approach in order to identify fundamental communication tendencies across context, time, and situations"(Campbell & Neer, 2001, p.392). Campbell and Neer used most items in McCroskey's PRCA-24 to measure apprehension levels in addition to the Interaction Involvement Scale, which measures perceptiveness, attentiveness and responsiveness. They created a study to answer how someone's attitude about CMC might be predicted by communication apprehension and how communication apprehension might influence someone's preference of CMC vs. FtF. After studying 133 participants, they found that communication apprehension did not predict satisfaction with CMC. It also found that as communication apprehension increased, feedback would become more critical online than FtF. However this did not mean that CMC was a more favorable form of communication. Though this research is testing similar variables related to RQ1, it did not include the public speaking context from the original PRCA-24. This current study also attempts to narrow the scope of CMC by analyzing the relationship between self-reported levels of social networking apprehension to FtF apprehension. The omission of the public speaking context could be the reason that validity of

the research was not reported. Therefore, the full validated results of the PRCA-24 in the 1985 study will be used for this study in relation to RQ1.

There is other research which considers the comparison of FtF and CMC. Ho and McLeod (2008) examined how willing someone is to express an opinion when communicating FtF versus CMC. McCroskey (1995) restates how communication apprehension is closely related to ones willingness to communicate. He states that communication apprehension is most likely the "single best predictor" (p.36) of someone's willingness to communicate. Ho and McLeod tested that an individual would be less likely to speak out in a CMC setting rather than a FtF setting. They also hypothesized that communication apprehension would be negatively associated with willingness to speak out. The results of Ho and McLeod's study supported these hypotheses.

Jiang, Bazarova and Hancock (2013) used the social penetration theory concepts of disclosure and intimacy to study FtF communication and CMC. They used an explanation from *Self- discloser, privacy and the Internet* by Joinson and Paine (2007), the frequency of self-discloser in CMC. "Several explanations, mostly focusing on the effects of visual anonymity and lack of nonverbal cues, have been purposed to account for the frequency effect" (as cited in Jiang, Bazarova & Hancock, 2013, p. 128.)

A total of 85 undergraduate students were randomly assigned to either a confederate that would disclose intimately or non-intimately to supportive statements about creating tips to surviving freshman year. The CMC conversations took place over an AOL chat rooms and the FtF in a classroom. Three of the 4 Hs were supported. Their study provides evidence that: (1) people using CMC made more self- disclosers than those communicating FtF, (2) that medium does not influence disclosure if it is happening from both parties, and (3) intimacy is perceived

higher through CMC than FtF. This information helps with understanding why people might be more willing to disclose online than if they were speaking to someone face-to-face.

These sources provide evidence of higher willingness to communicate through CMC and even what could be considered an early social networking site than in FtF scenarios. While willingness is closely related to apprehension there is a gap in research to test for apprehension in the CMC context directly related to social networking site apprehension. In order to investigate the social media apprehension and its relationship to FtF communication apprehension the following research question is proposed:

RQ2. Will there be a relationship between the FtF CA in the current study and the newly added social networking site CA context questions?

McCroskey's 1985 study shows the correlation among the four FtF setting he identified. Table 1 shows the correlation of the subsection and the subtraction of a subsection indicated by the "No" columns. All correlations of the FtF subsections have positive and range from .63 to .9.

Table 1. Correlation between subgroups in McCroskey 1985 study

Subgroups	No Public	No Meeting	No Group	No Dyadic
Public	0.77	0.78	0.82	0.82
Meeting	0.87	0.76	0.88	0.89
Group	0.9	0.87	0.73	0.86
Dyadic	0.83	0.8	0.77	0.63

This study will be running its own correlation to find if there is a positive relationship between with the newly added social networking context questions. The study then proposes the following hypothesis.

 H1. There will be a positive correlation between the mean scores of the 4 FtF sub- context collected in the current survey with social networking site (SNS) CA mean.

Social Media

It is important to define social media, who uses social networking sites, and note the effects it has on the person using it. David Brunskill (2014) provided a definition of social media as,

> "Internet technologies that allow people to connect, communicate and interact in real time to share and exchange information (text, photographs, images, video, audio files). Examples of Social Media include: Social Network Platforms, Blogs, Email Groups and Instant Messaging" (p. 392).

According to Luttrell (2015), social media can be traced back to the postal system in Persia in 600-90 B.C.E. He explains how the development of the telegraph, telephone and radio influenced social media as we know it today. Moving forward to the 1980's, the oldest virtual communities were created; known as WELL (Whole Earth 'Lectronic Link). The following decade brought about the Web 1.0 and later web 2.0. The twenty first century was the age of the most popular social networking cites that are still used today (Luttrell, 2015). According to John Gramlich (2019) approximately 70% of U.S. adults use Facebook. For the purpose of this study the examples of social networking sites listed for the additional questions to the current studies measure are Facebook, Twitter, and Instagram. According to Luttrell (2015) there were 58 million tweets sent daily and Instagram, and at the time of publication, had 100 million users with 4 billion photos on the site.

Finally, the last section of literature review will specifically examine apprehension and disclosure on social networking sites. Hunt, Atkin & Krishnan (2012) used the Uses and Gratification Theory to propose that communication apprehension influences motives for Facebook use. The theory was developed by Elihu Katz in the late 1950's (Griffin, Ledbetter, & Sparks, 2015). Katz's purposed the following theory, "The study of how media affect people must take account of the fact that people deliberately use media for particular purposes" (Griffin, Ledbetter & Sparks, 2015, pp.354). Uses & grats is used to help explain the motives, needs and gratifications associated with media choices. Hunt, Atkin and Krishnan (2012) state that uses and gratifications guide people in their selection of media choices. Communication apprehension has an influence on communication motives. Hunt, Atkin and Krishnan (2012) identify five motives for internet use, one of which was interpersonal utility, or personal preferences. They also state that online communication maybe easier for someone to communicate parts of themselves than a FtF scenario might. The current study will examine social networking sites rather than just one platform. The results could be similar to Hunt, Arkin and Krishnan's study (2012), however before this conclusion can be made SNS CA should be measured.

Green, Wilhelmsen, Wilmots, Dodd & Quinn (2016) conducted research that examines how social anxiety attributes to self-disclosure on Facebook. The results for social anxiety, attributes of online communication and self-disclosure across private and public Facebook communication gives insight to what can be expected for this current study. Green, Wilhelmsen, Wilmots, Dodd and Quinn (2016) refer to a positive relationship between FtF and internet communication. "Finally, one's online self-disclosure cannot be viewed in isolation of one's offline self-disclosure, as individuals who more easily disclose FtF interactions do so more frequently on the internet" (Schouten 2007 as sited by Green, Wilhelmsen, Wilmots, Dodd & Quinn 2016, p.209).

The current study purposed H1 to test if there is a positive relationship between multiple SNS CA and FtF CA.

Research Questions and Hypotheses

The first research question was designed to determine if there has been a change in apprehension levels in students since the 1985 McCroskey study that validated the PRCA-24 as a measuring tool. Research questions 2 was raised to study the relationship between FtF CA and SNS CA. The research questions are as following:

RQ1. Will students self-report higher or lower total apprehension scores today versus those reported in McCroskey's 1985 study?

RQ2. Will there be a relationship between the FtF CA in the current study and the newly added social networking site CA context questions?

H1. There will be a positive correlation between the mean scores of the FtF context subsection data collected in the current survey with social networking site apprehension context mean.

CHAPTER III

METHODOLOGY

Research Design

A survey was used to study two research question and one hypotheses. This study surveyed undergraduate students who were registered in an introductory- level public speaking class. While the course is considered freshman level, upper classmen also take the course. The course is part of the institution's core curriculum and successful completion of it is required of all students in order to graduate with an undergraduate degree.

Target Population

All on- campus sections of COMM 2045, Introduction to Public Speaking at a university in Middle Tennessee, were contacted for distribution of the survey. A total of 671 students were approached. The population for this current study is a convenience sample. After a distribution period of approximately two weeks, there was a 37% response rate totaling 249 responses.

Approximately 231 (93%) of students self-identified in the category of 18 to 24 years of age, 14 (5%) ages 25 to 34 and 4 (2%) identified as ages 35 to 44. Out of the total student population, roughly 20% of the population is over the age of 25 and classified as non-traditional students. The gender distribution for this current study included two (1%) who wished not to answer, 148 (59%) of respondents were female, and 99 (40%) of respondents were male.

Measure

The measures used for the current study is an adaptation of McCroskey's PRCA-24. PRCA-24 uses a Likert scale where respondents rank their level of apprehension on a scale from 1 to 5 or, in this case, strongly disagree to strongly agree. The questions are divided into four subsections:

1.   Public speaking is the act or process of making speeches in public. (PS CA)

2.   Interpersonal or dyadic speaking is between two people. (IN CA)

3.   Meetings McCroskey associated with larger groups. (MT CA)

4.   Group discussions McCroskey associated with a smaller group setting. (GD CA)

All of the context used in the measure are Face-to-Face scenarios. There are six questions per subcategory. Three questions are stated in the positive and three are stated in the negative. A copy of the original survey can be found in appendix A. The current study uses the original 24 questions as well as a new sub-section of six questions related to apprehension experienced through social networking sites developed for this current study. The PRCA-24 section of questions are as following: GD CA question 4 through 9, IN CA questions 10 through 15, PS CA questions 16 through 21, and MT CA questions 22 through 27. The question related to SNS CA in the survey are questions 28 through 33.The six questions included in the survey were developed to reflect the existing language in McCrosky's 24 questions. In regards to the added questions, three of the questions used positive association to communication, while the other three were stated in a negative context in regards to communication. The positive and negative questions within the social networking site apprehension subsection were alternated to fit the flow of the other subsections in McCroskey's PRCA-24. A copy of the complete survey can be found in appendix B. The survey was entered into Qualtrics, which is a hosted electronic survey package, for distribution purposes.

        A Crohbach's Alpha was calculated for the overall measure to test the reliability. The Alpha score for the new measure (including both PRCA-24 and new SNS CA questions) is $\alpha =$

.70. The subcategory alpha scores are: GD CA α = .85, MT CA α =.90, IN CA α = .88, PS CA α = .87, and SNS CA α = .83.

Procedure

All on- campus sections of COMM 2045, Introduction to Public Speaking at a university in Middle Tennessee, were contacted for distribution of the survey. A total of 671 students were approached. All participating sections agreed to have a proctor come into the class and distribute the survey. The proctors explained the survey and the purpose to the participants before providing access to the questionnaire. The participants were then able to access the survey through their cell phone using a QR code. The survey was untimed and completed on a volunteer basis. A copy of the in-class instructions given by the proctor is located in Appendix C.

CHAPTER IV

RESULTS

Descriptive statistics will be presented twice. The first table in the results section will show only the PRCA-24 results from the current study. These results were calculated by summing the negative questions and the positive questions then adding the sums from each group and subtracting it by 18. The reason to subtract 18 from the sum is to account for other question outside of the subsection. For example, group discussion would be calculated as following: 18 - (scores for items 2, 4, & 6) + (scores for items 1, 3, & 5). The other subsection formulas can be found in Appendix A. One the scores are totaled the M of each subcategory is added together for the grand sum M or total CA score .

This study answered two research questions and tested one hypothesis. Since McCroskey (1985) set confidence level at 95%, the current study follow suit to find whether PRCA-24 in this study is different from that in his study, which RQ1 concerns.

A one sample *T-* test was used to answer RQ1. The relationship in RQ2 and H1 was tested using a linear regression test. Linear regression is used to determine if a relationship occurs between a dependent variable and two or more independent variables. Linear regression was chosen for this hypothesis, because it is a robust test ruling out the influences of other IVs in the regression. For this study Social Networking Site apprehension will be the dependent variable and the all the 4 sub sectional scores from McCroskey's traditional FtF PRCA- 24, age and gender will be the independent variables.

Descriptive Findings

The current study's data were first analyzed to find the mean, maximum, minimum and

standard deviation of total scores and subsection scores for the PRCA-24 questions. (See table

2). The results were calculated using the formula that McCroskey used to get the sub-scores. The

formula for the sub-section score total is as following: sub-score (SS)= 18- (3 positive questions)

+ (3 negative question). The average score for each of the sub-sections were added together to

give the grand mean total score of apprehension of PRCA-24. The scores are labeled as the

following: Total Score (TS), Group Discussion (GD), Meeting (MT), Interpersonal (IN), Public

Speaking (PS), and Social Networking Sites (SM). The results of only the current stud's PRCA-

24 are as following: TS CA M = 80.85, SD= 10.3; GD CA M = 21.09, SD = 4.62; MT CA M =

20.19, SD = 5; IN CA M= 20.4, SD = 4.85; PS CA M = 19.17, SD = 5.39.

Table 2
Current Study's PRCA-24 Results

Variables	N	Mean	Maximum	Minimum	Std Dev
TS	249	80.85	107	50	10.3
GD	249	21.09	30	7	4.62
MT	249	20.19	30	6	5
IN	249	20.4	30	6	4.85
PS	249	19.17	30	6	5.39

Next, the current study including the new social media context subsection were

calculated the same way but the sub-score totals were calculated by replacing the 18 with 24.

(See table 3) The new formula for the sub-section score total is as following: sub-score (SS)= 24-

(3 positive questions) + (3 negative question). The scores indicate that the lowest average sub-

score of apprehension is SNS CA (M=20.73, SD = 4.38). The other sub-scores are as following:

GD CA M = 27.09, SD =4.62; MT CA M = 26.19, SD = 5; IN CA M = 26.4, SD = 4.85; PS CA

M = 25.17, SD = 5.39.

Table 3

Descriptive Results for Current Study Including SNS CA

Variables	N	Mean	Maximum	Minimum	Std Dev
TS	249	125.59	157	101	9.78
GD	249	27.09	36	13	4.62
MT	249	26.19	36	12	5
IN	249	26.4	36	12	4.85
PS	249	25.17	36	12	5.39
SM	249	20.73	36	12	4.38

Relational Findings

RQ1 ("Will students self-report higher or lower total apprehension scores today versus those reported in McCroskey's 1985 study?") was tested through SAS using a one sample *t*-test. For RQ1 the only score used in the *t*-test is the TS *M*= 80.85. The second set of results from McCroskey's validation study of the PRCA-24 in 1985. The results of the *t*- test showed a statistically significant difference *p* =.000. Therefore, on average, students are reporting more apprehension on the PRCA-24 today (*M* = 80.5, *SD* = 10.3) than in 1985 (*M* = 65.5, *SD* = 15.3). (See table 4)

Table 4

PRCA-24 one sample t-test results

	Mean	Std Dev	N
2019 PRCA-24	80.5	10.3	249
1985 PRCA-24	65.5	15.3	311
p=.0001			

H1 states there is a positive relationship between FtF apprehension and social networking site apprehension. SNS CA was regressed upon PRCA-24 FtF subcategories as well as gender and age. Age and gender were first entered then followed by each of the FtF subcategories: group discussion (GD), meeting (MT), dyadic (IP), and public speaking (PS). The results from the model show a statistical significance of p<.00. While the model shows

statistically significance at *Pr>F* =.0001, the measure of practical significance can be found in

the R-Square statistic. In this case, R-Square is interpreted to show the amount of change within

the dependent variable that is attributed to change from the independent variables. In other

words, not much of the change in the Social Media score is affected by gender, age, or the

PRCA-24 FtF subcategories. In most social science research, the standard rule is that the model

should be .20 (20%) or greater. Within this model, the adjusted R- Square indicates that only

15% of Social Media scores are influenced by the model. Therefore, while the model is

statistically significant, the results fall below the excepted percentage of practical significance. A

close look at the model shows that Group Discussion Apprehension was the only variable that

made a significant contribution to the model *p* = .01 and *β*= -.23. The answer to RQ2 is that there

is a relationship between GD CA of PRCA-24 and SNS CA. H1 however, is not supported

because a negative relationship rather than a positive relationship is found on a statistically

significant level between GD CA and SNS CA. (See table 5)

Table 5
Co- efficiencies in the Regression Model

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr> |t|
Intercept	1	28.70946	3.43906	8.35	<.0001
GENDER	1	-0.65082	0.53947	-1.12	0.2288
AGE		1.15204	0.76536	1.51	0.1336
GD CA	1	-0.23751	0.08833	-2.69	0.0077
MT CA	1	0.06350	0.08918	.71	0.4771
IN CA	1	-0.16609	0.08950	-1.86	0.0647
PS CA	1	0.06380	0.06571	.97	0.3326

Note. SNS CA is the dependent variable

CHAPTER V

DISCUSSION

FtF communication has an important impact on ones day-to-day of life. How we are perceived and our successes can be attributed to effective communication. This study found that a sub population of young adults are now reporting higher levels of FtF communication apprehension. This updated study of communication apprehension provides information that is important to the larger study of communication. Educators and professionals in the field must be called to action to address why students are reporting higher levels of FtF apprehension today than before. If nothing is done and levels of FtF communication apprehension continue to increase, it will have a negative impact, either direct or indirect, on all aspects of society. The results from the first research question shows that undergraduate students are reporting more apprehension today than in 1985. The cause for this increase is unknown, but could be related to advancement in mass communication channels such as social networking sites. Further research would need to be conducted to see if there is a statistically significant relationship between time spent on social networking sites and communication apprehension.

H1 results showed statistically significant results, but not practically significant results. This could be due to the limited number of participants in the current study. The results may vary with an increase in population size, or in the type of sample population surveyed. The results from testing H1 also indicate that there is a strong relationship of social networking site apprehension to group discussion apprehension. The population for this current study self-reported that their group apprehension decreased as social networking site apprehension increased. This relationship is a negative correlation, which means that H1 is not supported. Though the hypotheses is not supported the results could be explained by looking at events such

as cyberbullying. Further research related to this study could determine if society is shifting or transitioning to a more antisocial society that prefers social networking site.

David Brunskill (2001) provided evidence to present the disinhibition effect for consideration of social media use. The disinhibition effect describes how someone loosens what they would normally say and do online versus how they would act or speak in person. This effect can be used to help explain why people seem to be more willing to share messages (intimate and non-intimate) online. The effect includes the following aspects: anonymity, invisibility, asynchronous nature of communication, the induced experience of dissociation and the perceived equality of all users-encouraging the minimizing of legitimate authority. These aspects provide an explanation for why someone may report lower levels of apprehension while using social networking site rather than FtF scenario.

Limitations

The sample of participants also had unequal distribution of age, which may have influenced the results. The study should be recreated with a different sample population to not only examine for a statistical significant relationship between age and communication apprehension, but also to see how the results may vary. The other limitation would be the size of the population surveyed.

Conclusion

This study has provided critical and current information in its applicability to the field of commination. Communication apprehension has increase in the last 34 years among university students. Students are also reporting higher levels of apprehension for FtF context questions than questions related to social networking sites. As technology continues to progress, we as humans

must not neglect or abandon the importance of our ability and necessity to communicate FtF. The ability to minimize FtF communication apprehension may need start with minimizing time spent using social networking sites.

References

Ayres, J. (1997). *Component theory of communication apprehension: Motivation, negative evaluation, and communication competence as predictors of state communication apprehension*. Ruston, WA: Communication Ventures.

Brunskill, D. (2014). The dangers of social media for the psyche. *Journal of Current Issues In Media & Telecommunications*, 6(4), 391-415.

Campbell, S. W., & Neer, M. R. (2001). The relationship of communication apprehension and interaction involvement to perceptions of computer-mediated communication. *Communication Research Reports*, 18(4), 391-398.

Communication Models. (2014, July 10). *Shannon and Weaver Model of Communicaiton*. Retrieved from https://www.communicationtheory.org/shannon-and-weaver-model-of-communication/

Daly, J. A. (2009). *Avoiding communication: Shyness, reticence, and communication apprehension (3rd ed.)*. Cresskill, NJ: Hampton Press.

Gramlich, J. (2019, May 16). 10 facts about Americans and Facebook. Retrieved June 26, 2019, from https://www.pewresearch.org/fact-tank/2019/05/16/facts-about-americans-and-facebook/

Green, T., Wilhelmsen, T., Wilmots, E., Dodd, B., & Quinn, S. (2016). Social anxiety, attributes of online communication and self-disclosure across private and public Facebook communication. *Computers in Human Behavior*, 58206-213. doi:10.1016/j.chb.2015.12.066

Griffin, E.A., Ledbetter, A., & Sparks, G.G. (2015). *A first look at communication theory* (9th ed.). New York: McGraw-Hill Education.

Hanke, S. (2018, September 13). *How Social Media Affects Our Ability to Communicate.* Retrieved from https://thriveglobal.com/stories/how-social-media-affects-our-ability-to-communicate/

Ho, S. S., & McLeod, D. M. (2008). Social-psychological influences on opinion expression in face-to-face and computer-mediated communication. *Communication Research*, 35(2), 190-207.

Hunt, D., Atkin, D., & Krishnan, A. (2012). The influence of computer-mediated communication apprehension on motives for facebook use. *Journal of Broadcasting & Electronic Media*, 56(2), 187-202. doi:10.1080/08838151.2012.678717

Jiang, L. C., Bazarova, N. N., & Hancock, J. T. (2013). From perception to behavior: Disclosure reciprocity and the intensification of intimacy in computer-mediated communication. *Communication Research*, 40(1), 125-143. doi:10.1177/0093650211405313

Kennedy, G. A. (2007). *Aristotle: On rhetoric: A theory of civic discourse*. New York: Oxford University Press.

Luttrell, R. (2015). *Social media: How to engage, share, and connect*. Lanham: Rowman & Littlefield.

Mandiberg, M. (2012). *The social media reader*. New York: New York University Press.

Merriam- Webster Dictionary. (2019). Retrieved from https://www.merriam-webster.com/dictionary/public speaking

McCroskey, J. C. (1982). *An introduction to rhetorical communication* (4th Ed). Englewood Cliffs, NJ: Prentice-Hall.

McCroskey, J. C. (2009). Communication apprehension: What have we learned in the last four decades? *Human Communication*, 12(2), 157-171.

McCroskey, J. C., Beatty, M. J., Kearney, P., & Plax, T. G. (1985). The content validity of the PRCA-24 as a measure of communication apprehension across communication contexts. *Communication Quarterly*, 33(3), 165-173.

Patterson, B. R., & Gojdycz, T. K. (2000). The relationship between computer-mediated communication and communication related anxieties. *Communication Research Reports*, 17(3), 278-287.

Richmond, V. P., & McCroskey, J. C. (1995). *Communication: Apprehension, avoidance, and effectiveness*. Scottsdale, AZ: Gorsuch Scarisbrick.

Thomas, G. F., Tymon Jr, W. G., & Thomas, K. W. (1994). Communication apprehension, interpretive styles, preparation and performance in oral briefing. *Journal of Business Communication*, 31(4), 311-326.

Valkenburg, P. M. (2017). Understanding self-effects in social media. *Human Communication Research*, 43(4), 477-490. doi:10.1111/hcre.12113

Wombacher, K. A., Harris, C. J., Buckner, M. M., Frisby, B., & Limperos, A. M. (2017). The effects of computer-mediated communication anxiety on student perceptions of instructor behaviors, perceived learning, and quiz performance. *Communication Education*, 66(3), 299-312. doi:10.1080/03634523.2016.1221511

Wrench, J. S., Brogan, S. M., McCroskey, J. C., & Jowi, D. (2008). Social Communication

apprehension: The intersection of communication apprehension and social phobia.

Human Communication, 11(4), 409-429.

Appendix A

Personal Report of Communication Apprehension (PRCA-24)

 The PRCA-24 is the instrument which is most widely used to measure communication apprehension. It is preferable above all earlier versions of the instrument (PRCA, PRCA10, PRCA-24B, etc.). It is highly reliable (alpha regularly >.90) and has very high predictive validity. It permits one to obtain sub-scores on the contexts of public speaking, dyadic interaction, small groups, and large groups. However, these scores are substantially less reliable than the total PRCA-24 scores-because of the reduced number of items. People interested only in public speaking anxiety should consider using the PRPSA rather than the public speaking sub-score drawn from the PRCA-24. It is much more reliable for this purpose.

 This instrument is composed of twenty-four statements concerning feelings about communicating with others. Please indicate the degree to which each statement applies to you by marking whether you: Strongly Disagree = 1; Disagree = 2; are Neutral = 3; Agree = 4; Strongly Agree = 5

1. I dislike participating in group discussions.

2. Generally, I am comfortable while participating in group discussions.

3. I am tense and nervous while participating in group discussions.

4. I like to get involved in group discussions.

5. Engaging in a group discussion with new people makes me tense and nervous.

6. I am calm and relaxed while participating in group discussions.

7. Generally, I am nervous when I have to participate in a meeting.

8. Usually, I am comfortable when I have to participate in a meeting.

9. I am very calm and relaxed when I am called upon to express an opinion at a meeting.

10. I am afraid to express myself at meetings.

11. Communicating at meetings usually makes me uncomfortable.

12. I am very relaxed when answering questions at a meeting.

13. While participating in a conversation with a new acquaintance, I feel very nervous.

14. I have no fear of speaking up in conversations.

15. Ordinarily I am very tense and nervous in conversations.

16. Ordinarily I am very calm and relaxed in conversations.

17. While conversing with a new acquaintance, I feel very relaxed.

18. I'm afraid to speak up in conversations.

19. I have no fear of giving a speech.

20. Certain parts of my body feel very tense and rigid while giving a speech.

21. I feel relaxed while giving a speech.

22. My thoughts become confused and jumbled when I am giving a speech.

23. I face the prospect of giving a speech with confidence.

24. While giving a speech, I get so nervous I forget facts I really know.

SCORING:

Group discussion: 18 - (scores for items 2, 4, & 6) + (scores for items 1, 3, & 5)

Meetings: 18 - (scores for items 8, 9, & 12) + (scores for items 7, 10, & 11)

Interpersonal: 18 - (scores for items 14, 16, & 17) + (scores for items 13, 15, & 18)

Public Speaking: 18 - (scores for items 19, 21, & 23) + (scores for items 20, 22, &24)

Scores can range from 24-120. Scores below 51 represent people who have very low CA. Scores between 51-80 represent people with average CA. Scores above 80 represent people who have high levels of trait CA.

McCroskey, J. C. (1982). An introduction to rhetorical communication (4th Ed).

Englewood Cliffs, NJ: Prentice-Hall.

Appendix B

Communication Apprehension

Informed Consent

The purpose of this research project is to study communication apprehension experienced in different settings including Face-to-Face and social media. This is a research project being conducted by graduate student Bonnie Portillo at Austin Peay State University. You are invited to participate in this research project because you are in a public speaking course at the university.

The procedure involves filling out a survey that will take approximately 5 minutes. Your responses will be confidential and identifying information such as your name, email address or student identification number will not be collected. The survey questions will be about your communication preferences.

Your participation in this research study is voluntary. You may choose not to participate. If you decide to participate in this research survey, you may withdraw at any time. If you decide not to participate in this study or if you withdrawal from participating at any time, you will not be penalized.

To help protect your confidentiality, the result of the survey will not contain information that will personally identify you. The results of this study will be used for scholarly purposes only and may be shared with Austin Peay State University representatives.

Anyone who is under the age of 18 will not have any results used in the data analyses and submissions will be deleted.

If you have any questions about the research study, please contact Bonnie Portillo at

bportillo@my.apsu.edu . This research has been reviewed according to Austin Peay State University IRB procedures for research involving human subjects.

Q1 Do you consent to the above statement and wish to process to the survey?

    Yes

    No

Q2 I am currently between the ages of

    Under 18

    18 - 24

    25 - 34

    35 - 44

    45 - 54

    55 - 64

    65 - 74

    75 - 84

    85 or older

3 I am a

    Male

    Female

    Do not wish to answer

Q4 I dislike participating in group discussions.

    Strongly agree

    Agree

    Neither agree nor disagree

    Disagree

    Strongly disagree

Q5 Generally, I am comfortable while participating in a group discussion.

    Strongly agree

    Agree

    Neither agree nor disagree

    Disagree

    Strongly disagree

Q6 I am tense and nervous while participating in group discussions.

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Q7 I like to get involved in group discussions.

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Q8 Engaging in a group discussion with new people makes me tense and nervous.

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Q9 I am calm and relaxed while participating in a group discussion.

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Q10 While participating in a conversation with a new acquaintance, I feel very nervous.

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Q11 I have no fear of speaking up in conversations.

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Q12 Ordinarily, I am very tense and nervous in conversations.

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Q13 Ordinarily, I am very calm and relaxed in conversations.

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Q14 While conversing with a new acquaintance, I feel very relaxed.

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Q15 I'm afraid to speak up in conversations.

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Q16 I have no fear of giving a speech.

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Q17 Certain parts of my body feel very tense while I am giving a speech.

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Q18 I feel relaxed while giving a speech.

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Q19 My thoughts become confused and jumbled when I am giving a speech.

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Q20 I face the anticipation of giving a speech with confidence.

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Q21 While giving a speech, I get so nervous I forget facts I really know.

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Q22 Generally, I am nervous when I have to participate in a meeting.

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Q23 Usually I am calm and relaxed while participating in meetings.

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strong disagree

Q24 I am very calm and relaxed when I am called upon to express an opinion at a meeting.

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Q25 I am afraid to express myself at meetings.

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Q26 Communicating at meetings usually makes me uncomfortable.

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Q27 I am very relaxed when answering questions at a meeting.

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Q28 I like to get involved in group discussions that happen on social networking sites. (Facebook, Instagram, Twitter etc.)

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Q29 I have fear when communicating through social networking sites.   (Facebook, Instagram, Twitter etc.)

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Q30 While communicating with a new acquaintance on social networking sites, I feel very relaxed.   (Facebook, Instagram, Twitter etc.)

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Q31 I'm afraid to speak up on social networking sites.   (Facebook, Instagram, Twitter etc.)

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Q32 Ordinarily I am very calm and relaxed in conversations that take place through social networking sites.   (Facebook, Instagram, Twitter etc.)

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Q33 I am afraid to express myself on social networking sites.   (Facebook, Instagram, Twitter etc.)

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Appendix C.

Hello Comm 2045 students,

I am Bonnie Portillo (here on behalf of Bonnie Portillo) who is a graduate student here at Austin Peay State University. Part of the graduate program requires that I (she) have a research component completed in order to graduate. I am (She is) asking students to voluntarily participate in a 5-minute survey online. If you are interested and willing to answer a few questions, please click or scan the code to the survey and begin. If you are not willing to participate in the survey, I appreciate your time. Thank you all for the consideration.