

AN EXAMINATION OF THE RELATIONSHIP BETWEEN UT EXTENSION PROGRAM
ASSISTANTS' USE OF COMMUNICATION TECHNOLOGY IN THE WORKPLACE
AND THEIR ABILITY TO SUCCESSFULLY COMMUNICATE
WITH COWORKERS AND THE COMMUNITY

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A Dissertation Submitted to the Faculty of the University of
Tennessee at Chattanooga in Partial Fulfillment
of the Requirements of the Degree of
Doctor of Education: Learning and Leadership

The University of Tennessee at Chattanooga
Chattanooga, Tennessee

December 2019

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ABSTRACT

This study examined the relationship between the level of communication technology use in the workplace by University of Tennessee Extension program assistants and their interpersonal communication skills. There were seven quantitative research questions and one qualitative question. The main research question explored whether a significant difference existed in employees' reported levels of communication skills in the workplace, as measured by the sociocommunicative orientation (SCO) scale, based on employees' reported levels of communication technology use. Other questions explored whether there was a significant interaction between employees' reported levels of communication technology use and their job positions on their levels of communication skills, a significant interaction between employees' reported level of communication technology use and areas of foci on their levels of communication skills, a significant difference in employees' assertiveness or responsiveness scores based on reported levels of communication technology use, and a significant difference in employees' SCO scores based on their job position or areas of foci. Analysis of variance and chi-square tests were administered to determine relationships, if any. The qualitative question asked Extension administrators about their perceptions of differences or similarities in program assistants' levels of communication skills relative to their associated job positions and areas of foci. Direct analysis was conducted on the telephone interview question to determine trends or common themes. Although analyses of data for the seven quantitative questions revealed no significant differences in level of communication skills based on level of communication

technology use, common themes emerged relative to interpersonal communication skills for program assistants. Common themes that emerged specifically from analysis of the telephone interview transcripts give cause for recommendations for further study as relates to communication skills and communication skills development for program assistants.

DEDICATION

In loving memory of my parents: my mother, Rosa Owens, who taught me the value of hard work, dedication, and perseverance, and my father, Wardell Willingham, who told me that though there would be times in life that I would give out, I should never give up. Though I lost both of you from this world during this journey, you live forever in my heart. To my children, Lakota, Roshawn, and Herbie, who shared me over the years with my dreams of the highest educational attainment. Though each of you at some point during this journey experienced major life events, you unselfishly urged me to continue my studies. You are my cherished loves with your own special place in my heart. And to my husband, Larry, my hero, supporter, encourager, head cheerleader, and love of my life, none of this is possible but for you.

ACKNOWLEDGEMENTS

My deepest appreciation is extended to my dissertation committee and especially to my chair, Dr. David Rausch, for knowledge, guidance, support, and encouragement. There were times that I may not have continued this journey were it not for your continuous urgings of onward and upward. Thanks to University of Tennessee (UT) Extension, in particular the program assistants, for their time and assistance, without which this study would not have been possible. My gratitude to the Martin cohort, the UT Knoxville doctoral group, and my UT family for their care and belief in me. You are lifelong friends. And most of all, I acknowledge almighty God who continues to gift and equip me with everything I need to succeed.

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CHAPTER I

INTRODUCTION

The presence of diversity among employees, and their personal characteristics in the workplace can induce challenges relative to workplace communication and the dynamics of interpersonal relationships (Harris & Cameron, 2005). By the year 2015, 20% of the workforce were age 55 or older, significantly increasing the average age of employees in the workplace (Avery, McKay, & Wilson, 2007). The phenomenon of people living longer and delaying retirement places large groups of employees in the workplace that differ in ages, interests, and behaviors (Meister & Willyerd, 2010). In regard to the increasing diversity of employees, Harris and Cameron (2005) stated that the atmosphere of the workplace could have a variety of effects on an employee. Harris and Cameron (2005) contended that there could be a positive impact on an employee's self-concept where the employee is emotionally attached to fellow workers and the organization; conversely, a negative impact could exist where there is little employee commitment or connection. Harris and Cameron (2005) further stated that when an employee could identify and associate with the mission, vision, and values of the organization, as well as with other employees, the employee could form an emotional attachment and a commitment to stay with the organization.

Wagner and Harter (2006) concluded that organizations with a high degree of disconnected or disengaged employees have an average 51% higher turnover rate than organizations with highly engaged employees. Wagner and Harter (2006) defined employee

engagement as the employee's personal and emotional connection to fellow employees, as well as commitment, strong work ethic, and loyalty to the organization. Pearson, Nelson, Titsworth, and Harter (2011) connected interpersonal communication to interpersonal relationships by defining interpersonal relationship as an interdependent connection of two or more people such as friends, social groups, and coworkers. Reportedly, those in interpersonal relationships engage in regular patterns of interaction in which relational communication occurs, an indication that effective communication is an essential element in laudable interpersonal relationships (Pearson et al., 2011). Furthermore, Bharadwaj (2014) stated that features such as trust and openness can be directly attributed to communication, which serves to connect employees to common objectives. Clokie and Fourie (2016) shared that the value of communication to the organization extends beyond promoting information exchange; it encourages employee engagement, which directly affects business achievements. Relative to quality interpersonal communication, L. L. McCroskey, McCroskey, and Richmond (2006) reported that interpersonal communication is impacted by perceptions, and the more the originator and receiver have in common, the more communication frequency and effectiveness will increase.

According to Laura Stephenson, Assistant Dean, University of Tennessee (UT) Extension Family and Consumer Sciences, the focus on interpersonal communication and interpersonal relationships is of particular interest for extension program staff who share knowledge with the community in areas of agriculture; head, heart, hands, and health (4-H) youth program; and consumer sciences (L. F. Stephenson, personal communication, January 27, 2015). Their interest is embedded in the intricacies of extension program work involving educating and advising the members of their assigned communities regarding various family, consumer, health, and wellness topics. Successful execution of job responsibilities naturally requires extension staff to

form trusting relationships with the community (L. F. Stephenson, personal communication, January 27, 2015). A study by Benge, Harder, and Carter (2011) established a need for prework entry competencies for extension agents, including interpersonal relationship skills. Additional work by Baker, Pearson, and Chipman (2009) identified productive interpersonal relationships and various elements of communication as being among the specific competencies that are needed for successful extension program work.

Background to the Problem

With greater diversity in the ages and characteristics of the workforce, Avery et al. (2007) stated that challenges occur for employees who want to identify and connect with others in the workplace. Avery et al. (2007) further reported that generational differences exist in regards to motivation and communication needs. However, there also seems to be a cross-generational need for quicker connectivity and more flexibility in the workplace (Kaye & Jordan-Evans, 2005). With communication connections such as email that are more readily employed by communicators, the question arises as to whether a corresponding increase in communication quality occurs. Pearson et al. (2011) appeared to raise similar questions when they stated that higher communication quantity does not necessarily equate to an increase in quality of communication. Consequently, the fact that large numbers of people are being reached through communication technology does not guarantee depth of communication or that receivers experience value from the exchange (Pearson et al., 2011).

According to Qualman (2009), organizations employ communication technology for external and internal communication. Internally, communication technology can be used to educate and train, while externally, communication technology can be a tool to (a) share and

obtain information, (b) increase or improve access, and (c) reach broader audiences (Qualman, 2009). The findings of Qualman (2009) are perhaps reflected in UT Extension program assistant performance requirements. This is evident, as having the ability to reach broader and more diverse audiences of youth and adults through various educational programs is an expected performance norm for UT Extension program assistants ("University of Tennessee Institute of Agriculture," 2015a). M. L. Vineyard (personal communication, February 11, 2015), Project Director for UT Extension Tennessee Nutrition and Consumer Education Program (TNCEP) and Expanded Food and Nutrition Education Program (EFNEP), reported that usage of communication technology is a means for program assistants to connect with constituents and to improve community access to family and consumer science programs.

It is likely that UT Extension program assistants employ communication technology for communication external to the workplace. As Boyd and Ellison (2007) indicated, outside of organizational use, millions of individuals utilize social network sites to connect with others. Purportedly, many of these users expand their electronic interaction and incorporate communication technology into their daily routines (Boyd & Ellison, 2007). According to Gochman (2010), despite an increase in the quantity of communication, emotional and relational connections within the workplace are often missing since meaningful and sustained interpersonal interactions among employees may not concurrently occur. Richmond (2000) stated that, external to the organization, educators must have basic communication competence. Communication competence is defined as having the ability to share ideas and information through both talking and writing (Richmond, 2000). However, educators need established relationships with their students. Therefore, instructional and interpersonal communication competence are equally important to the education process (Richmond, 2000).

Statement of the Problem

Fleming and Asplund (2007) indicated that customer satisfaction is no longer a valid measure for whether customers will remain with businesses as long-term, loyal users of services and products. In addition to customer satisfaction, customer loyalty is determined by the emotional connection and relationship that the customer establishes with the employees of the organization (Fleming & Asplund, 2007). Consequently, focus on communication and interaction with members of the community is a key strategy that helps extension program assistants establish important connections and build relationships. Connections and relationships are vital to the successful integration of extension programs in the community (M. L. Vineyard, personal communication, February 11, 2015). The rationale for Vineyard's assertion can be explained through a claim by Pearson et al. (2011) that communication involves the content of a message as well as a relational aspect that consists of the interpersonal relationship among communicators. Subsequently, the degree to which the program assistants' communication technology usage helps or impairs the quality of their interpersonal communication skills and the effectiveness of their interpersonal communication with the community may be a question to address. The ability of extension program assistants to effectively receive and transfer information is foundational to the mission of UT Extension, to educate the community (M. L. Vineyard, personal communication, February 11, 2015; "University of Tennessee Institute of Agriculture" 2015a).

Purpose of the Study

The purpose of this study was to examine the relationship between the level of communication technology use in the workplace by UT Extension program assistants and their ability to effectually communicate useful extension program information to members of the

community. Fleming and Asplund (2007) stated that customers want relationships, not just transactions. Dr. Laura Stephenson, Assistant Dean of the University of Tennessee Extension Department of Family and Consumer Sciences, seemed to concur with this premise as extension program assistants are expected to thoroughly engage the customer (L. F. Stephenson, personal communication, January 27, 2015). She stated that to engage the customer, the program assistant must gain the client's trust. A study by Mosavi and Ghaedi (2012) appears to support Stephenson's claim.

Over a 2-month period, Mosavi and Ghaedi (2012) surveyed members of the general public regarding thoughts on customer satisfaction. From 538 responses, a relationship of trust between the customer and the service provider was rated as very important to customer commitment to access of services (Mosavi & Ghaedi, 2012). Subsequently, Stephenson explained that the best way to gain the trust of the client is to connect and communicate with the customer at the customer's level. According to L. F. Stephenson (personal communication, January 27, 2015), the customers served by the program assistants are diverse in literacy levels, communication technology skills, and in motivation for accessing extension programs. Stephenson shared the viewpoint that possessing excellent interpersonal skills, while effectively employing communication technology, is essential for the program assistant. A review of the position description and the performance factors and criteria rating form for UT Extension program assistants support Stephenson's claims. Both documents list interpersonal relationship skills, communication skills, and abilities to connect with the community as required and expected aptitudes for program assistants. A report by Barnes (2014) highlighted the importance of trained extension staff who have strong relationships

with clients and possess the abilities to reach the entire community and meet public needs.

According to Barnes (2014), Extension is at a crossroads and viability of the field will require able, engaging staff.

Research Questions and Related Hypotheses

The purpose of this study was to explore the levels of interpersonal communication skills in the workplace associated with employees' communication technology use. There were seven quantitative research questions and seven related hypotheses.

Research question 1 (RQ1): Is there a significant difference in employees' reported levels of interpersonal communication skills in the workplace, as measured by the sociocommunicative orientation (SCO) scale, based on employees' reported levels of communication technology use?

H₁: A significant difference exists in employees' reported levels of interpersonal communication skills in the workplace, as measured by the SCO scale, based on employees' reported levels of communication technology use.

Research question 2 (RQ2): Is there a significant interaction between employees' reported levels of communication technology use, and employees' job positions on employees' reported levels of interpersonal communication skills, as measured by the SCO scale?

H₂: A significant interaction exists between employees' reported levels of communication technology use and employees' job positions on employees' reported levels of interpersonal communication skills, as measured by the SCO scale.

Research question 3 (RQ3): Is there a significant interaction between employees' reported levels of communication technology use and employees' areas of foci on employees' reported levels of interpersonal communication skills, as measured by the SCO scale?

H3: A significant interaction exists between employees' reported levels of communication technology use and employees' areas of foci on employees' reported levels of interpersonal communication skills, as measured by the SCO scale.

Research question 4 (RQ4): Is there a significant difference in employees' SCO assertiveness scores based on employees' reported levels of communication technology use?

H4: A significant difference exists in employees' SCO assertiveness scores based on employees' reported levels of communication technology use.

Research question 5 (RQ5): Is there a significant difference in employees' SCO responsiveness scores based on employees' reported levels of communication technology use?

H5: A significant difference exists in employees' SCO responsiveness scores based on employees' reported levels of communication technology use.

Research question 6 (RQ6): Is there a significant difference in employees' SCO scores based on employees' job positions?

H6: A significant difference exists in employees' SCO scores based on employees' job positions.

Research question 7 (RQ7): Is there a significant difference in employees' SCO scores based on employees' areas of foci?

H7: A significant difference exists in employees' SCO scores based on employees' areas of foci.

Qualitative Questions

Nine extension program leaders, three per region, have oversight responsibility for the three focus areas of extension programs (i.e., Agriculture and Natural Resources, 4-H, and Family and Consumer Sciences). In addition there are trainers and other extension administrative

leaders who share responsibilities for development of program assistants. Since the program leaders and administrators work closely with the program assistants, they were interviewed regarding their perceptions of the program assistants' levels of interpersonal communication skills. The following question related to the qualitative component of the study:

Research question 8 (RQ8): What are program leaders' perceptions of program assistants' interpersonal communication skills relative to program assistants' areas of extension program foci and job positions?

Rationale

Qualman (2009) reported that common objectives for the use of communication technology are to (a) communicate and obtain information, (b) provide and receive feedback, (c) share information, (d) educate and train staff, (e) increase or improve access, and (f) reach broader audiences. According to Santra and Giri (2009), the intent for increased use of communication technology in the workplace is to decrease business costs, increase the availability of information, and promote the quick exchange of documents, data, and communications. However, in efforts to improve communication through the use of technology, questions arise relative to the unintended effect of communication technology usage on interpersonal relationships and interactions in the workplace. Therefore, questions specifically surface pertaining to employees' skills in interpersonal communication.

These questions appeared as Santra and Giri (2009) conveyed thoughts on media richness and social presence theory. While social presence theory involves examination of the connections made during communication exchange, media richness theory includes the assumption that in the goal to eliminate uncertainty and vagueness, degree of efficiency varies

for certain media use in communication (Kaplan & Haenlein, 2010). And, according to the precepts of media richness theory, interaction through communication technology is not as productive as face-to-face communication (Santra & Giri, 2009).

Based on the edicts of social presence theory, nonverbal cues and emotions are important elements of interpersonal relationships and interactions. These elements aid in conveying meaning and are generally missing from communication that occurs through communication technology (Santra & Giri, 2009). According to a worldwide Gallup poll of more than one million employees across multiple industries (Wagner & Harter, 2006), 12 elements were found to be the core of work life. The 12 elements ranged from “I know what is expected of me at work” to “In the last 6 months someone at work has talked to me about my progress” (Wagner & Harter, 2006, pp. xi-xii). Examination of the 12 foundations revealed that interpersonal communication was a prominent factor throughout the elements. The importance of interpersonal communication was the focus of a study of employees from five organizations regarding employee preference for how work-related interpersonal communication occurs (Ean, 2010). For relationship-building with their managers and for the diffusion of information related to work, Ean (2010) found employees preferred face-to-face communication as opposed to computer-mediated communication. According to Ean (2010), the advantages of face-to-face communication include direct feedback, two-way communication, and the presence of various communication signals.

The employees in the study stated that in most workplace communications, these advantages make face-to-face communication more effective than computer-mediated communication (Ean, 2010). Through interviews with employees regarding performance

feedback, Werner and DeSimone (2012) found that while computer-mediated communication was most often used for performance evaluation, employees preferred face-to-face communication for performance feedback, goal setting, and job coaching.

Organizations and human resource professionals are faced with growing concerns regarding conditions of the work environment (Kelleher, 2011). One of those concerns is how to employ retention tactics such as providing professional development for employees while ensuring loyalty to the organization. According to Mano and Mesch (2009), a consequence of the readily available access and exchange of information through communication technology is that the competitive edge for human resources and for common customers is leveling across industries. Since a major goal in recruitment is to hire employees who will help businesses meet organizational objectives, Mano and Mesch (2009) stated the flattening of competition for customers makes it both difficult and imperative for the organization to be able to attract and retain the best employees. Mano and Mesch (2009) further reported that since communication is a vital part of organizational effectiveness, employers strive to hire employees with above-average levels of technological knowledge and professionalism as well as skill and expertise in information and communication management.

The importance of employee skill in interpersonal communication and interpersonal relationships to organizational efficiency was noted in several studies (Adrianson, 2001; Dent & Krefft, 2004; Sirota, Mischkind, & Meltzer, 2005). Among those studies, Sirota et al. (2005) discussed camaraderie, which is the ability of employees to work and interact successfully. They considered camaraderie along with fair treatment and achievement to be the three main goals for effective organizational performance. Additionally, Dent and Krefft (2004) offered the opinion that the existence of a shared culture of partnership and commitment among employees

and with the organization is key to achieving peak organizational performance. A study conducted by Adrianson (2001) on the communication practices of individuals and groups, as well as interaction levels during face-to-face and computer-mediated communications, seemed to aid in making a case for a connection between communication and interpersonal interaction.

The research by Adrianson (2001) examined communication practices of 60 doctoral students who had a mean age of 29 years. The experiment involved individual communication tasks and group problem-solving tasks using either face-to-face or computer-mediated communication. In assessing participants' reported perceptions, social interactions were judged as being better during face-to-face communication as compared to through computer-mediated communication. Also, as indicated by Adrianson (2001), communicators tended to view each other more positively during face-to-face communication. Adrianson (2001) similarly reported that during the group problem-solving process, participants had a higher level of dissatisfaction with feedback that occurred through computer-mediated communication. While the Adrianson (2001) study did not take place in a work setting, it did involve examination of adult interpersonal communication, group interaction, and group communication. The study added credence to the value of interpersonal communication to group and organizational performance, a focus of this research.

Theoretical Framework

According to responses from Robles' (2012) survey of 57 business executives, interpersonal communication is pertinent for positive interaction in the workplace. Consequently, the resulting effect of communication on the overall operation of the organization establishes an important role for interpersonal communication ability (Robles, 2012). Miller (2005) shared the

perspective that various elements can impact or influence communication such as gender, age, or culture. Kaplan and Haenlein (2010) suggested that the use of technology is another element that influences the quality of communication exchanges. Littlejohn and Foss (2008) asserted that a symbiotic relationship exists among employee communication, interpersonal relationships, and team effectiveness. Additionally, according to Littlejohn and Foss (2008), interdependent connections exist among interpersonal communication, group work, and interpersonal relationships within the organization. They reported that in an organization, effective group work requires careful attention to quality communication. Furthermore, workers cannot produce quality work or form effective workgroups without building strong interpersonal relationships (Littlejohn & Foss, 2008).

The Littlejohn and Foss (2008) assertions portray a continuum within the organization from communication, to interpersonal relationships, to successful work production. Figure 1.1 illustrates the interconnected associations among interpersonal communication, interpersonal relationships, and work production. Also noted in the figure are personal characteristics and communication skills, factors which have been shown to influence interpersonal communication (Miller, 2005).

Supporting the preceding assertion, J. C. McCroskey, Heisel, and Richmond (2001) claimed that there is a link between individual biological traits and communication variables. In a study of 216 college students, relationships were found among temperaments of extraversion and introversion and communication traits such as apprehension, competence, and compulsive communication. While introverts tended to have more communication apprehension, extroverts were more attuned to communication compulsiveness and competence (J. C. McCroskey et al., 2001).

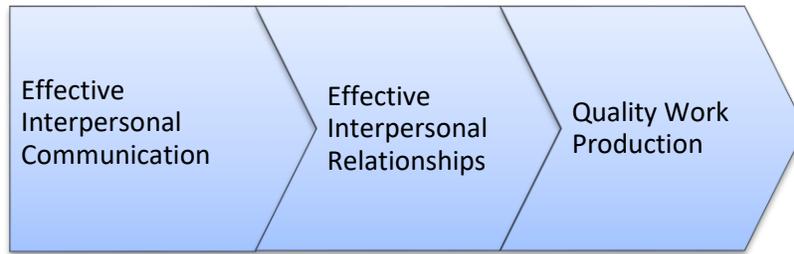


Figure 1.1 Relationship among effective interpersonal communication, effective interpersonal relationships, and quality work production

Importance of the Study

The proposed study could potentially be important for human resource professionals who are responsible for employee recruitment, development, and retention. Also, chief executive officers (CEOs) and others in leadership positions who are concerned about workplace relationships and organizational effectiveness may find this study useful. Furthermore, family and consumer science program assistants or other community education consultants and providers who continue to find challenges in meeting customer needs may find the study beneficial for marketing and program development initiatives.

Other professionals whose roles involve communication facilitation and education may find the study helpful to their work as well. The research may add support for the premise of a need for employers to emphasize positive employee interpersonal communication skills and affirmative customer service interactions.

This research may help in identifying factors influencing effective employee interpersonal communication. With knowledge gained from this research, organizations may identify strategies to improve employees' skills in interpersonal communication. By improving communication skills, these strategies may also help to solidify employee commitment and

loyalty, which, as noted by Wagner and Harter (2006), are essential for the overall growth and well-being of the organization. As a further illustration of the importance of workplace communication, Turmel (2010) supported the concept of organizational strategic planning for group communication, which is viewed as necessary for group and organizational performance. The research may help in supplying ideas for plans to improve employees' skills in interpersonal and organizational communication.

Definitions

The following definitions are provided to assist with the comprehension of this research:

Baby Boomers: Persons born approximately between 1948 and 1964 (Wagner & Harter, 2006).

Communication technology: Electronic tools that help facilitate the exchange of information.

Included in communication technology are networks such as Facebook, LinkedIn, and other electronic means of communication, including email, text messaging, and instant messaging (Boyd & Ellison, 2007).

Communication technology age: A period in which a continuing increase in overall reliance on technology for both communication and information exchange occurs (Boyd & Ellison, 2007; Keegan, 2011).

Computer-mediated communication (CMC): Human interaction, information, or data exchange that occurs through the use of two or more communication technologies (D'Urso, 2009). CMC includes various electronic systems that can be aided by audio and video elements (Derks, Fischer, & Bos, 2008).

Face-to-face communication: Social, in-person interaction that occurs without the assistance of mediating technology (Crowley & Mitchell, 1994).

Gen Xers: Those born approximately between 1965 and 1979 (Wagner & Harter, 2006).

Gen Ys: Those born approximately between 1980 and 1996 (Wagner & Harter, 2006).

Generations in the workplace: Groups of employees born during a particular period (Wagner & Harter, 2006).

Interpersonal communication: A process where meaning is generated through the use of messages between two or more people in a context that allows for mutual listening and speaking (Pearson et al., 2011).

Net generation: Those born approximately between 1974 and 1983. The group is characterized as having high technology aptitude (Brumberger, 2011).

Methodological Assumptions

The increase in communication technology use causes additional concerns for employers and human resource professionals who find it necessary to examine technical abilities and relational skills (Keegan, 2011). For this study, the following assumptions were made:

- Communication plays a role in workplace interaction.
- Since participants were asked to self-report on their communication skills, participants were equipped to report those assessments accurately.
- Program leaders possessed enough awareness to report on their perceptions of the employees' communication skills.
- Assertiveness and responsiveness in communication were accurate measures of communication skills.
- The sociocommunication orientation (SCO) survey instrument accurately measured perceived assertiveness and responsiveness in communication.

- A higher communication score on the SCO survey instrument represented a higher level of communication skills.

Delimitations

The following were delimitations noted for the study:

- Participation in the study were delimited to approximately 85 program assistants employed by the University of Tennessee Extension Agency.
- The agency's headquarters are in Knoxville, TN, with offices in each of the state's 95 counties, which represent employment locations for the program assistants.
- The researcher provided human resources consulting for the staff in the county offices. The county offices consequently provided similar extension services for their particular communities.
- The diversity of extension customer markets and uniqueness of the cultures of extension offices provided a quasi-foundation for generalizability to others outside the agriculture extension profession.

Limitations

The researcher acknowledged the presence of limitations within the study. All efforts were made to mitigate the limitations mentioned.

- The participants were program assistants in an Institute of Agriculture Extension Agency. The environment may contain idiosyncrasies that might make it difficult to generalize the findings to similar workplaces and organizations.

- The study required self-reported information by program assistants on interpersonal communication skills and communication technology use within the workplace. Therefore, complete accuracy of information may not have been totally achieved.
- Program leaders were interviewed regarding their perspectives of the quality of their employees' interpersonal communication skills. The degree of correctness of information from the program leaders depended on their willingness and ability to be objective in reporting this information. The exactness of information also depended on the program leaders' awareness of the accurate quality levels of communication skills for their respective employees.
- Due to prior and ongoing human resources consulting and work experience in addressing employee relations issues, the researcher recognized her biases regarding the relationship between communication technology use and interpersonal communication skills. All efforts were made to maintain researcher's objectivity throughout the course of the study.

CHAPTER II

LITERATURE REVIEW

According to Chan (2009), workplace relationships encompass communication, which can be impacted by various factors such as individual characteristics of age and gender. Chan (2009) reported that communication is a function of both interpersonal and social constructs. Therefore, communication technology should be approached with consideration for both human and social aspects (Chan, 2009). Also, a historical look at communication technology use is considered pertinent for this study. An extensive review of literature follows regarding communication technology use, interpersonal communication, workplace communication, and interpersonal interaction.

Organizational Communication

Coffelt, Baker, and Corey (2016) enlisted the aid of students in two college business communications classes to discover communication skills that potential employers considered pertinent for employees. The students contacted 52 employers who were asked to rank 165 workplace communication skills. They rated interpersonal communication as most important more often than any other skill (Coffelt et al., 2016). Similarly, in inquiries to New Zealand employers, Clokie and Fourie (2016) discovered that talking, writing, and interpersonal communication were viewed as pertinent to employability, with interpersonal communication considered the most important of the three. Bharadwaj (2014) claimed that communication is

crucial to organizational productivity. Reportedly, employee collaboration, which forms the basis for productivity, centers on communication. A survey of 400 employees in medium-sized and large organizations in the United States was conducted by Men (2014) in order to study the impact of organizational communication practices on employee communication behavior. Men (2014) found that employees were better satisfied with the organization when their managers engaged in more face-to-face communication. Men (2014) noted that since employees represent the organization as producers and emissaries, satisfied employees enhance productivity and build relationships with customers and other stakeholders. Given the importance of communication to organizational productivity, companies are wise to establish a strategic communication plan to include human resource communication behavior and performance (Bharadwaj, 2014).

Communication Technology

Qualman (2009) stated while communication technology changes the way organizations communicate and do business, at the same time, companies are afforded the ability to stay connected to their changing environment. According to Qualman (2009), the connection is important because human beings have a need to be accepted by as well as linked with others. Qualman (2009) reported that communication technology is a vehicle that allows continued human connection. Frenkel (2011) shared the view that with the changes in communication over the last decade, the world feels like a much smaller place. A review of the communication process presents indications supporting the Frenkel (2011) assertion that over the past few years, significant societal changes have occurred. For example, at various times, television, the cell phone, and the Internet were introduced as major events in communication connectedness (Frenkel, 2011).

With the increasing use of technology, computer-mediated communication (CMC) is a new and growing area of communication study, which should be given due attention because of its effect on various parts of individual life (D'Urso, 2009). According to D'Urso (2009), the concentration for CMC appears to be interpersonal communication and organizational communication. To highlight the importance of the connection of electronic communication to interpersonal and workplace communication, D'Urso (2009) supported a move for CMC to become a separate or major discipline of study within the field of communication. D'Urso (2009) noted that technology has penetrated daily communications and also regarded social networking as a rapidly developing area of CMC, representing the blending of CMC and human interaction.

Challenges for Communication Through Technology

Communication through technology may have drawbacks and challenges. According to Frenkel (2011), a large amount of communication through technology is nonverbal, which can place limitations on the information that is sent. Tone (i.e., emotion or emphasis) is not easily conveyed electronically (Frenkel, 2011) and may often be misunderstood or missed altogether. Coulehan et al. (2001) reported empathy and sympathy are closely related emotions requiring both verbal and nonverbal communication to deliver appropriate meaning. For example, facial expressions, softening of voice, and accent on certain words differ for an accurate depiction of empathy versus sympathy and cannot be delivered electronically (Coulehan et al., 2001). Even though electronic communication is meant as a shorter route to social interaction, use of the shorter communication route can result in relationship conflict (Coulehan et al., 2001).

Frenkel (2011) further stated other challenges exist when an author of electronic messages uses language that is misinterpreted or makes incorrect assumptions that are reflected in the message. In addition, misconstrued words or inaccurate suppositions cannot be recalled, impacting relationships, reputations, credibility, and professional image (Frenkel, 2011). This concern was shared by Katz (2010) who stated that even though communication technology has mobilized conversation, relationships suffer due to the lack of attention to communication technology content and to what people say to each other. The impact goes farther than interpersonal relationships as the breakdown in communication can affect employee morale, customer service, and ultimately business operations and profitability (Kelleher, 2011; Wagner & Harter, 2006).

Effectiveness of Communication Technology

The difference in the communication of emotion in face-to-face communication versus CMC is constantly debated (Derks et al., 2008). Derks et al. (2008) argued that emotion can be displayed in CMC as well as face-to-face communication. The use of emoticons and other writing styles such as bolding of text, underlining, and exclamation points can convey emotions such as anger or excitement (Derks et al., 2008). Reportedly, as related by Derks et al. (2008), emotion is better communicated through CMC, as the delay in communication response through CMC permits communicators to review, rethink, or revise communication, allowing for more effective emotional exchanges.

There are indications of other benefits of CMC. In a study of 58 undergraduate college students, Hammick and Lee (2014) examined the interaction between shyness and communication apprehension in virtual or electronic exchanges. The results of the study

indicated that shy people felt less apprehensive and more confident during virtual communications as opposed to face-to-face contact (Hammick & Lee, 2014). Correspondingly, Ho's (2008) survey of 352 undergraduate students from a large midwestern university revealed that CMC may be more beneficial to public deliberation, as participants in the study were more willing to share views on a controversial topic through CMC than through face-to-face conversations. van der Kleij, Schraagen, and Werkhoven (2009) conducted an experiment on group communication patterns with 22 three-person groups during video-conferencing group work and face-to-face group work. Findings indicated that those in the video-conferencing groups had higher levels of courtesy and a decreased propensity to interrupt the speaker. The video-conferencing groups also scored high on a question relative to whether or not there were feelings of a sense of being in the same room with group members.

As Buechel (2001) noted, since the 1990s, organizations have spent increased amounts of money on communication technology without evidence of a resulting return on investment or improvement in overall productivity. Mano and Mesch (2009) and Phillips and Reddie (2006) provided evidence of workplace productivity and performance issues as related to the use of email. Mano and Mesch (2009) conducted a survey of 354 people who used email in the workplace. The interview questions were centered upon the respondents' perceptions of the effect of email on work effectiveness, stress, and distress. The researchers noted a positive correlation among work performance, stress, and distress. In other words, while communication and access increased with email, employees simultaneously experienced higher levels of stress and distress (Mano & Mesch, 2009). Reportedly, the stress and distress were associated with access that produced constant and instant availability; a situation that employees found tiring and disquieting. In addition, respondents reported that at times the volume of emails received made it

difficult to manage both the communication and the subsequent work related to the communication. Ultimately, the build-up of email caused distress and lowered productivity (Mano & Mesch, 2009).

Similarly, Phillips and Reddie (2006) contended that when email and the Internet are misused within the workplace, the workplace can suffer in productivity. A Phillips and Reddie (2006) survey of email and Internet use in the workplace revealed employees spent a great deal of time reading, organizing, and responding to email, which distracted from other work responsibilities. In additional findings, Phillips and Reddie (2006) found Internet use can decrease productivity when the employee drifted to personal pursuits or was side-tracked into other areas while conducting work-related searches. Mano and Mesch (2009) and Phillips and Reddie (2006) conceded inappropriate email and Internet use may adversely affect workplace productivity; yet, the productivity can also be impacted by individual characteristics and work styles. With the aforementioned contentions regarding communication technology use, Buechel (2001) surmised that instead of concentrating on context, attention may be needed for communication strategy and content. The added consideration of communication content needs to include an analysis of both richness and scope of the selected media (Buechel, 2001). Sun (2009) added that often with mobile communication the focus is spatial (i.e., the distance that is covered with mobile communication), instead of concentration on the interactions and activities (i.e., encounters of the communication). The spatial emphasis, while ignoring other factors such as efficiency and effectiveness, can lead to a false sense of success for mobile communication (Sun, 2009).

Communicator Characteristics

A deeper stratification of electronic communication challenges exist across lines of gender (Gansmo, 2009), generations (Strutton, Taylor, & Thompson, 2011), and social class (North, Snyder, & Bulfin, 2008). Gansmo (2009) shared the perspective that boys appear to make use of a greater variety of electronic media and use electronic media more often than girls. Gansmo (2009) thought the explanation for this difference was the additional exposure and amount of time spent by boys with computers and electronic games. Research of the use of 25 different communication technologies in the workplace by 163 men and 159 women indicated the propensity for lesser technology use by females seemed to continue into adulthood (D'Urso & Pierce, 2009). In the study conducted by D'Urso and Pierce (2009), on average, heavy users of communication technology employed more than nine communication technological devices per day. Results from the study revealed 61.5% of the males versus 38.5% of the females were reported as being heavy users of communication technology (D'Urso & Pierce, 2009).

D'Urso and Pierce (2009) compared participants' comfort levels of communication technology use with participants' levels of communication technology use and found a positive correlation. In other words, those with a higher comfort level had a higher use level. Gender was not included as a variable in the comparison. A study by Gansmo (2009) showed the career field of information and communication technology as being heavily populated by men, a further indication of a deficit in either females' interest or aptitude for communication technology. Both studies seemed to indicate a possible difference between males and females in their application of communication technology (D'Urso & Pierce, 2009; Gansmo, 2009).

Other research by North et al. (2008) involving a group of 15-year-old high school students indicated a strong connection between electronic media use and social class. North et al. (2008) concluded that even though individual's interests vary in electronic media use, how information is distributed and the type of information shared are shaped by the individual's network of associations, including social class. Metcalf, Blanchard, McCarthy, and Burns (2007) purported a similar premise. In a study of young people who were possible candidates for marginalization due to various environmental and background factors, including socioeconomic status, Metcalf et al. (2007) found information and communication technology were essential aspects of everyday life for young people. Rather than viewing technology communication as an impediment, the researchers studied the use of technology and its impact on the lives of marginalized youth (Metcalf et al., 2007). In the case study, self-efficacy, social connectedness, and engagement of marginalized youth were improved through the use of communication technology (Metcalf et al., 2007).

A statement by Winocur (2009) related generational differences in communication are routinely recognized as a societal phenomenon. Winocur (2009) examined generational communication in the electronic communication activities of 15 to 29-year-old high school and college students. With the indication that communication technology is another community, Winocur (2009) found that young people are able to operate simultaneously in their real world and their virtual world and that the two worlds complement each other. For example, in an exercise where youth were able to successfully maneuver conversations at the dinner table while simultaneously carry on texting or instant messaging, adults were unable to replicate the activity. Winocur (2009) surmised the difference in the results of the young people and those of the older adults was perhaps due to the dominance of technology in the lives of adolescents.

The younger generation has grown up learning to communicate with masses of people anytime and anywhere. A similar thought was shared by Brumberger (2011) who referred to the Net Generation as digital natives, those with a high aptitude for technology. In a Brumberger (2011) survey of 485 Virginia Tech students, 58% of respondents reported they spent upwards of five hours a day engaged in some type of technological activity. Though the assumptions of this study included an assertion that interpersonal communication skills are hampered by the use of communication technology, Brumberger (2011) concluded some technology-related skills, including interaction and access, are enhanced through the use of communication technology. However, the author did not find an increase in either visual or verbal communication ability due to use of communication technology (Brumberger, 2011).

Strutton et al. (2011) found differences existed in Gen X and Gen Y participants relative to frequency and type of communication technology utilized with coworkers and with others. Strutton et al. (2011) noted the variances within the types of communication technology preferences and use of technology introduction for Gen X and Gen Y. They reported most of Gen Y received their first exposure to computers in elementary school while first exposure for Gen X came in college or in the workplace. Neither generation was inclined to forward emails as a means of individually sharing information in communication. However, although Gen X did not have a problem with mass electronic mailings sent out to relative groups, Gen Y rebuffed mass electronic mailings, seeing them as impersonal (Strutton et al., 2011). From the findings, even though functional use differences existed for Gen X and Gen Y, Gen X tended to prefer email and Gen Y preferred other communication technology. However, more similarities than differences were present in the generations regarding attitudes, skills, and motivations toward electronic communication (Strutton et al., 2011).

During an examination of 90 employees concerning email use in the workplace, Phillips and Reddie (2006) discovered that the degree of communication technology use was associated with the employee's age, the level of education, and job title. In the study by Phillips and Reddie (2006), younger employees tended to use email to a greater degree than older employees. However, according to Phillips and Reddie (2006), the email correspondence of younger employees with coworkers had more personal content than work-related issues. A positive correlation between email use and educational level and with authority position in the workplace (Phillips & Reddie, 2006) was also evident. In addition to age and gender, Mano and Mesch (2009) reported the possible influence of other personal characteristics on email communication in the workplace, namely employment status, family status, and responsibility.

According to Strutton et al. (2011), various characteristics come together to make up the total being of each individual. Cole and McCroskey (2000) stated that individuals possess communication-related traits, consistent communication behavior that may be genetic, which provides insight into decisions about how one communicates. Pearson et al. (2011) reported that personal features such as gender, senses, life roles, past experiences, and cultures can act in concert or singularly to pose challenges for thoughts and feelings about communication and more specifically about electronic communication. In a survey by Schullery (2013) of 6,500 managers, the need or desire for interpersonal relationships and self-actualization were delineated as two characteristics that can impact communication in the work environment. The managers viewed having a personal relationship and face-to-face communication with their supervisor, along with opportunities to realize career aspirations, as essentials to connection with the organization; purportedly problems arise when one or both necessities are not present (Schullery, 2013).

The review of studies on the impact of various human attributes on attitudes about electronic communication and its use suggests an opportunity for those responsible for workplace interaction to find ways to connect employees appropriately. This premise is underscored by Schullery (2013) who outlined the challenges faced by human resource professionals in their attempt to achieve full engagement for all employees. Schullery (2013) defined engagement as including connection to one's role at work. Difficulties surrounding the ability to attain full employee engagement stem from the unrecognized differences in generational values, failure to understand the drivers for engagement, and inability to manage the threats to engagement such as poor interpersonal communication (Schullery, 2013). Specifically for extension program assistants, one of the challenges of work with the community is reaching low-income constituents (Benavente, Jayarante, & Jones, 2009). Interpersonal communication skills are key since, according to Benavente et al. (2009), creating a comfortable learning environment includes effective information sharing and engaging participants in meaningful and interesting discussions.

Communication Development Needs

The main research question regarding whether employees' reported levels of communication technology use help or impair employees' reported levels of interpersonal communication skills, requires an examination of literature on communication skills and communication development needs. Albrecht (2004) contended the basics of human interaction involved a two-prong level of knowledge about personal and social competence. Albrecht (2004) stated the framework of social competency included the concepts of social awareness and social skills. Social skills encompass communication and other interpersonal relationship abilities such

as collaboration, cooperation, and conflict management. Albrecht (2004) noted that social skills not only involved but required interaction, an interaction that was more than likely face-to-face communication.

Believing that assessment of the effectiveness of community programs should involve attention to communication, Hogard and Ellis (2006) recommended that organizations conduct a communication audit. Since some form of communication occurs between service providers and participants, evaluation of what is needed in these communication exchanges is essential to successful programming (Hogard & Ellis, 2006). Training for employees in interpersonal communication is one strategy that addresses overall communication needs and builds employee well-being and engagement (Hynes, 2012).

Communication Process

Keegan (2011) related the onset of the communication technology age compelled communication educators and professionals to review the communication process. Keegan (2011) advised, in the age of communication technology, the communication process should entail operating skills and thinking skills. Lipari (2010) provided parallel thoughts when he stated thinking and listening are at the center of communication, and success is realized when all parties connect with the message as well as with each other. The skill needed here is what Lipari (2010) called discursive thinking, a deeper understanding of received communication. According to Keegan (2011), perception is the way information is viewed and processed, and the handling or treatment of perception involves thinking. Keegan (2011) considered these skills essential to the successful application of communication technology as well as to the processing of volumes of information. Keegan (2011) offered several suggestions to improve thinking: (a) mind

mapping, the visual organization of information; (b) critical thinking, the process of analyzing, evaluating, and applying information; and (c) key questioning or focused questioning to help explore complex ideas.

Core Communication Skills

Turmel (2010) stated that changes in technology and communication call for attention to specific communication skills development. The responsibility for the organization is evident in not just individual development planning, but in overall organizational development planning (Turmel, 2010). To that end, Turmel (2010) suggested that group communication planning is in order and offered four steps for a team communication plan: (a) create the plan, (b) decide on which electronic tools to use, (c) hold people accountable, and (d) reinforce the plan. How groups or teams connect with each other is both a part and a focus of Turmel's (2010) plan. The universal developmental growth and quality enhancement of adult learning staff is considered a priority because of the important responsibilities entrusted to them for the facilitation of knowledge, skills, and behaviors for learners (Buiskool & Broek, 2011).

In a comparison study of sociocommunicative orientation, communication competence, and rhetorical sensitivity, Dilbeck and McCroskey (2009) found sociocommunicative style and communication competence involved operations of balancing self and others during interpersonal communication.

The survey of 347 college students also uncovered deeper similarities among the assertiveness and responsiveness of the SCO, the noble self and rhetorical reflection of rhetorical sensitivity, and elements of communication competence (Dilbeck & McCroskey, 2009). However, a stronger correlation was present between sociocommunicative orientation and

communication competence (Dilbeck & McCroskey, 2009). Since college students are often asked to complete self-reported instruments, they were tasked as participants in the research with the assumption that the information shared by college students is consistent (Richmond & McCroskey, 1990).

Development of interpersonal communication skills for program assistants was evident in a study by Cullen et al. (2010). The research involved teacher/agent interactions with low-income women and the positive effect of educational intervention and coaching on goal attainment in nutritional behavior (Cullen et al., 2010). The participants in the Cullen et al. (2010) study represented clients of EFNEP classes in Texas. Program assistants are traditionally the agents who teach EFNEP classes for clients who are similar to the participants in the Cullen study (M. L. Vineyard, personal communication, February 11, 2015). Extension agents also recognize the significance of interpersonal communication skills in community education. This was evident in a survey of extension agents in the state of Florida who ranked self-management, program development, communication skills, and interpersonal skills as the top four competencies needed by extension educators (Benge, Harder, & Carter, 2011).

Additionally, Baker, Pearson, and Chipman (2009) shared the opinion that one of the core competencies for paraprofessional nutrition educators is the ability to develop productive interpersonal relationships, which requires effective verbal, writing, and listening skills (Baker et al., 2009). Christofferson, Christensen, LeBlanc, and Bunch (2012) agreed that there is a need for the development of core competencies for paraprofessionals who provide nutrition education to the community. To this end, one goal of an online certification program is to enhance the self-confidence of the nutrition education assistants as they impart knowledge to the community

(Christofferson et al., 2012). Likewise, Buiskool and Broek (2011) noted that competencies for adult learner educators included being a communicator who sustains interpersonal relationships with learners, coworkers, other invested partners, and organizations.

Irish and Scrubb (2012) related that educators must be able to teach all students. They shared five cultural competencies for teaching: (a) facilitate critical reflection, (b) demand respect for learners, (c) accommodate individual learners, (d) use intercultural communication skills, and (e) employ focus activities and structured environments (Irish & Scrubb, 2012). As another testament to the value of communication competence for educators, Wang (2011) proclaimed that cultural competence and communication are connected, as individuals develop and acquire cultural competence through the communication process.

Summary

The review of literature related to employees' communication technology use and its association with employees' skill level in interpersonal communication presents an opportunity for reflection. A significant amount of literature can be found regarding communication challenges (Buechel, 2001; Frenkel, 2011; Gansmo, 2009; Katz, 2010; Mano & Mesch, 2009), interpersonal relationships in the workplace (Albrecht, 2004; Dent & Krefft, 2004; Keegan, 2011; Lipari, 2010; Turmel, 2010), and the historical use of communication technology (D'Urso, 2009; Frenkel, 2011; Qualman, 2009). However, there appears to be minimal research that has explored the possibility of a link between communication technology use and interpersonal communication skills.

Future implications for research were made clear in an address by Alice Robbin (2011) entitled *Information and Communication Technology, Society, and Human Beings* at the 2010 annual conference of the International Association for Development of Information Society (IADIS). Robbin (2011) stated that current thinking, approach, and research in regards to technology and communication should address the needs and relationships of technology and human activity. Robbin (2011) mentioned that a sound knowledge base has not yet been developed for these studies. Though the Internet and other communication technologies are instrumental in connecting and mobilizing numbers of people in major events and disasters, such as the Haiti earthquake and the Gulf oil spill, technologies remain somewhat ineffective in resolving the complexities and nuances of human interaction that occur through the employment of communication technology (Robbin, 2011). The researcher utilized various methods to examine the use of communication technology by UT Extension program assistants in the course of their work. The results of the study will add to the body of knowledge concerning the association between communication technology use and level of interpersonal communication skills.

CHAPTER III

METHODOLOGY

Participants

The study was conducted with employees who were program assistants at the University of Tennessee (UT) Extension Agency. The agency is headquartered in Knoxville, Tennessee, and has a presence in 95 Tennessee counties. UT Extension specializes in providing consulting and teaching services to county residents ("University of Tennessee Institute of Agriculture," 2015b). A census study was attempted (Gliner, Morgan, & Leech, 2009). Of the 89 UT Extension program assistants, 65 elected to become involved with the study. The sample was comprised of those who chose to participate. However, each extension program assistant was given an opportunity to join the study.

Program assistants vary in ages, gender, educational backgrounds, and cultures (D. J. Welch, personal communication, October 12, 2015). Based on information obtained from position description questionnaires in the UT Extension records database, to which the researcher had approved access, program assistants were assigned to three different job level positions: (a) Program Assistant One, (b) Program Assistant Two, or (c) Program Assistant Three. Placement in a particular level was based on education and relevant work background. Differences also existed in work responsibilities for the three different program assistant levels. Extension educational programs under the responsibility of program assistants could be in areas of (a) 4-H, (b) agriculture and natural resources, or (c) family and consumer sciences.

The Program Assistant One position required a minimum of a high school diploma with at least two years of computer skills. The Program Assistant One was expected to assist the supervising agent with clerical support and to maintain documents and reports for educational programs. While an associate's degree was preferred, a high school diploma along with nine months of related experience, especially teaching, were minimum requirements for the Program Assistant Two. With the supervision of an extension agent or county director, the Program Assistant Two facilitated prepared educational programs for youth and adults. Other duties for the Program Assistant Two included responding to program-related inquiries from the community and assisting in recruiting efforts for extension program participation. A bachelor's degree was preferred for the Program Assistant Three position, along with a required minimum five years of related work experience, notably teaching or training experience. The Program Assistant Three was expected to develop and teach curriculum to adults and youth. The Program Assistant Three was also charged with training second-level program assistants.

The nuances of the job levels, program areas, and job responsibilities found in the UT Extension records data base provided evidence of stratification in the program assistant population. Attempts were made to secure participation and responses from an overall representation of the total program assistant population. The Dean of UT Extension emailed an initial announcement about the study to UT Extension leadership. The leadership forwarded the emailed information to appropriate contacts for program assistants. The program assistants received information about the study via email and during group training sessions. A reminder notice was sent two weeks post the initial announcement. The researcher provided consulting and human resource services to UT Extension staff that allowed access to UT Extension staff and related data. Due to the researcher's access to UT Extension data and UT Extension staff, the program assistants represented a convenience sample.

Instrumentation

A self-reported instrument was the primary method of data collection during examination of the association between reported levels of communication technology use and levels of interpersonal communication skills. This association was investigated in UT Extension program assistants through the use of the SCO survey, an instrument that measured two dimensions of interpersonal communication (J. C. McCroskey, 2012). Dr. James McCroskey, professor, and chair of the Department of Communication Studies at West Virginia University, developed the SCO scale (J. C. McCroskey & McCroskey, 1988). The instrument could be employed for research without individualized permission with the stipulation of proper citing of the instrument source (J. C. McCroskey, 2012). The instrument measured communication assertiveness and responsiveness based on responses to 20 statements. For example, as a measure of assertiveness, the participant was asked to provide a personal rating of how well s/he defended his/her beliefs while a self-rating of the degree of helpfulness was a measure of responsiveness.

According to Wanzer and McCroskey (1998), socio-communication referred to an individual's ability to initiate, adapt, and respond to communication with others. The socio-communication concept examined communication in the dimensions of assertiveness and responsiveness. Wanzer and McCroskey (1998) declared that assertiveness represented individuals' willingness and ability to speak up for themselves, to take a stand, and to use appropriate skills to support their position.

Conversely, responsiveness was described as the degree of individuals' caring, empathy, and sincerity in their communication with others (Wanzer & McCroskey, 1998). Hullman (2007) contended that to achieve effective communication the skilled communicator must be able to balance assertiveness and responsiveness. Correspondingly, J. C. McCroskey

and Richmond (1996) added that assertiveness and responsiveness were not only essential elements for proficient communicators, they were also predictors of communication competence.

J. C. McCroskey (2012) stated that alpha reliability estimates for the SCO instrument measures of assertiveness and responsiveness were typically above .80. In a test of data collected from 224 college students (i.e., 102 males and 122 females), through computation of split-half reliabilities, reliability estimates were .88 for assertiveness and .93 for responsiveness (Richmond & McCroskey, 1990). According to Richmond and McCroskey (1990), several researchers have reliably measured assertiveness and responsiveness with the SCO instrument. The predictive validity of the instrument was also demonstrated in numerous studies (Richmond & McCroskey, 1990). In addition, oblique factor analysis showed that the items for the assertiveness and responsiveness dimensions loaded on the intended dimension with none of the items having a loading on the opposing dimension above .20, indicating plausible use of the SCO as a measure of assertiveness and responsiveness (Richmond & McCroskey, 1990).

As stated earlier, the primary method of data collection involved self-reporting by participants. According to Teven, Richmond, McCroskey, and McCroskey (2010), there were four ways to assess communication competence: (a) objective observation, (b) subjective observation, (c) self-report, and (d) receiver report. Self-report was viewed as the best method to determine communication competence because communication decisions are made through self-perception of communication competence, which impacts communication behaviors (Teven et al., 2010). Hullman (2007) acknowledged even though self-reporting was the most common method for measuring interpersonal communication competence, controversy surrounded the validity of self-reporting as an appropriate measure. The best approach to determine actual

interpersonal communication competence was through the use of a self-report measure in conjunction with an “other report” measure defined as a measure based on the observations of interpersonal communication behavior by others (Dilbeck & McCroskey, 2009). As another report measure, this researcher conducted interviews of UT Extension program administrators and leaders to assess their perceptions of the program assistants’ levels of communication skills.

Dilbeck and McCroskey (2009) conveyed that in most instances, self-reporting of interpersonal communication competence was an appropriate measure for communication competence because the individuals tended to respond and behave in a manner consistent with their perceived interpersonal communication competence. Since the focus of this research was employees’ interpersonal communication behavior, and while taking into consideration the information on self-reporting by Dilbeck and McCroskey (2009), this researcher was confident in the use of self-reporting as a measure of interpersonal communication skills. The administrator interviews that captured others’ perspectives served as a supplement to the study in regards to the levels of employees’ interpersonal communication skills. The instruments and strategies above appeared appropriate for use in this study to measure employees’ reported levels of interpersonal communication skills, and to examine the association between those skill levels and employees’ reported levels of communication technology use.

Procedure

Through the use of the electronically administered SCO survey, this researcher examined employees’ interpersonal communication skills in the workplace as related to employees’ reported levels of communication technology use as a primary means of communication. The 20-item questionnaire required employees to give their perception, based on a Likert-type scale

rating, of their interpersonal communication skills. The Likert ratings for the 20 questions were totaled for each participant in order to obtain a total communications skills score (i.e., a minimum score of 20 and a maximum score of 100). Higher SCO scores represented an assumption of higher-level communication skills. The total communication skills score was the sum of the assertiveness and the responsiveness scores, which were determined by scores from 10 specific questions designed to ascertain the degree of assertiveness or responsiveness. A comparison of the assertiveness and responsiveness scores relative to the reported levels of communication technology use and other variables was also completed.

Since UT Extension program assistants were diverse in areas of job foci and could hold one of three job positions, information on participants' job foci and job positions was obtained from question responses in the demographics section of the SCO survey instrument. The researcher compared levels of daily communication conducted through the use of communication technology to levels of perceived interpersonal communication skills, or SCO scores. In response to a question included in the survey, participants were asked to provide the percentage of their daily workplace communication that occurred through the use of technology, including text messages, emails, Facebook, instant messages, Twitter, and other electronic, non-face-to-face communication. For accuracy of the self-reported use of technology, participants were asked to consider their most recent contact information recorded in the System for University Planning Evaluation & Reporting (SUPER). SUPER is the computer system mechanism used for required documentation of customer contacts by UT Extension staff.

Levels of communication technology use were ranked as (a) light, (b) moderate, and (c) heavy for those with respective uses of (a) less than 40%, (b) 40-60%, and (c) more than 60% daily use. This information was also analyzed to make comparisons between levels of employee

interpersonal communication skills based on participants' membership in a particular demographic group. The independent, or grouping variable for RQ1, RQ4, and RQ5, was the reported levels of communication technology use with three categories: (a) light/1, (b) moderate/2, and (c) heavy/3. Other independent variables were: (a) communication technology use and job positions for RQ2, (b) communication technology use and areas of foci for RQ3, (c) job position for RQ6, and (d) areas of foci for RQ7. The dependent variable for RQ1, levels of employee communication skills, was represented by the total communications skills' score (SCO). Additional dependent variables were: SCO assertiveness score for RQ4 and SCO responsiveness score for RQ5.

For comparison and deeper analysis within the study relative to RQ6 and RQ7, the researcher conducted telephone interviews. Program leaders were asked to share their perceptions of the interpersonal communication skills of the program assistants who were under their direct or indirect supervision. Clarification was provided to the supervisors for consistency in comprehension for the meaning of interpersonal communication. The researcher provided the definition of interpersonal communication as "a process where meaning is generated through the use of messages between two or more people in a context that allowed for mutual listening and speaking" (Pearson et al., 2011, p. 134). Questions were asked in reference to employees' assertiveness and responsiveness in communication relevant to their membership in a particular program focus area or job position level group.

Methodology, Design, and Analysis

The researcher's primary interest was to determine whether or not an association existed between employees' reported levels of communication technology use and employees' reported levels of interpersonal communication skills. Statistical analyses were employed to study the

possible association between employees' levels of communication technology use and employees' reported levels of interpersonal communication skills. The employees' levels of communication technology use was the independent variable. The employees' reported levels of interpersonal communication skills was the dependent variable. With three groups of study relative to the three levels of the independent variable (i.e., employees' levels of communication technology use), the research was subsequently a nonexperimental, causal-comparative study (Gliner et al., 2009). The detailed information regarding the variables of the study can be found in Appendix A, Identification and Analysis of Variables.

Employees' reported level of communication technology use, the independent variable, was examined in the context of the percentage of workplace communication conducted through electronic means, such as email, text messaging, or instant messaging. Data for the independent variable were collected through self-reporting in the demographic section added to the SCO survey instrument. Three ranks or groupings were available for reported levels of employees' communication technology use: (a) those who used technology for less than 40% of their workplace communication, (b) those who used technology for 40-60% of their workplace communication, and (c) those who used technology for more than 60% of their workplace communication. Value labels of (a) light, (b) moderate, and (c) heavy were assigned to (a) less than 40%, (b) 40-60%, and (c) more than 60% use respectively. The scale of measurement for reported levels of employees' communication technology use was nominal (Gliner et al., 2009). The reported levels of employees' communication technology use, as previously mentioned, were self-reported and displayed on a chart with the corresponding SCO scores.

The dependent or outcome variable for the primary research question, RQ1 (Field, 2009) was employees' reported levels of interpersonal communication skills. Employees' reported levels of interpersonal communication skills was assessed through the administering of the SCO, an instrument that assessed reported levels of interpersonal communication assertiveness and responsiveness based on responses to a series of 20 statements. With possible total SCO scores from a minimum of 20 to a high of 100, the dependent variable, employees' reported levels of interpersonal communication skills, was a continuous variable (Gliner et al., 2009). The scale of measurement for employees' reported levels of interpersonal communication skills was an interval.

According to Gliner et al. (2009), even though correlation did not indicate cause and effect, one of the first steps in examining a possible predictor relationship was to establish whether or not a relationship existed between independent and dependent variables. Relative to RQ1, one-way analysis of variance (ANOVA) was employed to study possible effects of employees' reported levels of communication technology use on employees' reported levels of interpersonal communication skills. One-way ANOVA was also employed in relation to RQ4 and RQ5 to determine whether there was a difference in the reported SCO assertiveness and responsiveness scores based on employees' reported levels of communication technology use. For RQ6 and RQ7, one-way ANOVA was employed to determine whether there was a significant difference in employees' SCO scores based on employees' job positions and job foci.

Gliner et al. (2009) defined extraneous variables as secondary variables that could possibly influence the dependent variable. Gender, age, job position, educational level, and family status were some of the variables that could influence employee communication skills (Mano & Mesch, 2009). Consequently, this researcher compared SCO scores for those with similar foci and job positions to ascertain possible influence of these characteristics on

employees' reported levels of interpersonal communication skills (Moore, McCabe, & Craig, 2009). The scale of measurement for each extraneous variable was nominal. Secondary research questions involved a possible relationship between employees' job positions and employees' reported levels of communication technology use, and a possible relationship between employees' job foci and employees' reported levels of communication technology use.

Relative to RQ2 and RQ3, two-way ANOVA was employed to describe any interaction between the extraneous variables and the independent variable relative to their influence on the dependent variable. Table 3.1 shows the alignment of research questions with related statistical analyses. Manual analysis for RQ8 was used to investigate and evaluate common themes of responses to the qualitative question of the study.

Table 3.1 Research Questions and Related Statistical Analyses Procedures

Research Questions	Procedure
RQ1: Is there a significant difference in employees' reported levels of interpersonal communication skills in the workplace as measured by the SCO based on employees' reported levels of communication technology use?	One-way ANOVA
RQ2: Is there a significant interaction between employees' reported levels of communication technology use and employees' job positions and employees' reported levels of interpersonal communication skills as measured by the SCO?	Two-way ANOVA
RQ3: Is there a significant interaction between employees' reported levels of communication technology use and employees' areas of foci and employees' reported levels of interpersonal communication skills as measured by the SCO?	Two-way ANOVA
RQ4: Is there a significant difference in employees' SCO assertiveness scores based on employees' reported levels of communication technology use?	One-way ANOVA
RQ5: Is there a significant difference in employees' SCO responsiveness scores based on employees' reported levels of communication technology use?	One-way ANOVA
RQ6: Is there a significant difference in employees' total SCO scores based on employees' job positions?	One-way ANOVA
RQ7: Is there a significant difference in employees' total SCO scores based on employees' areas of foci?	One-way ANOVA
RQ8: What are supervisors' perceptions regarding program assistants' interpersonal communication skills relative to program assistants' areas of extension program foci and areas of job positions?	Analysis of common themes

The main purpose of this research was to determine if there was an association between the reported level of employees' interpersonal communication skills within the workplace based on their reported level of communication technology use, specifically as it related to UT Extension program assistants. With responsibilities for providing extension educational programs and for communicating with the community, the program assistants' interpersonal communication skills were key to successful job performance (Benge et al., 2011). It was noted that a number of factors could influence employees' reported levels of interpersonal communication skills (Miller, 2005). This research focused on the possible impact of one influencing factor: employees' reported levels of communication technology use on employees' reported levels of interpersonal communication skills.

The analysis and discussion of the study in Chapters IV and V may add to the body of knowledge on (a) resultant communication challenges from communication technology use, (b) the importance of enhancing interpersonal communication skills to support work productivity, and (c) social interaction development needs for extension program assistants. With information obtained from this study, overall work performance for the program assistants may be enriched. Enhanced work performance for UT program assistants could result in mutual benefit for the UT Extension program and the communities served by the program.

CHAPTER IV

ANALYSIS

As stated in Chapters I and III, this study examined the relationship between the level of communication technology use in the workplace by University of Tennessee (UT) Extension program assistants and their interpersonal communication skills. As detailed in Chapter III, an online self-report (SCO) survey, administered through QuestionPro, was utilized to help assess employees' interpersonal communication skills in the workplace as related to their reported levels of communication technology use as a primary means of communication. The 20-item questionnaire required employees to give their perception, based on a Likert-type scale rating, of their interpersonal communication skills. The Likert ratings for the 20 questions were electronically totaled for each participant to obtain a communications skills score (i.e., a minimum score of 20 and a maximum score of 100). The consent cover statement for the program assistants is located in Appendix D.

This chapter first presents results for the seven quantitative research questions. Hypotheses were presented for each question, and a significance level of 0.05 was set for each of the quantitative analyses. Additionally, findings are reported for the one qualitative research question.

1. Is there a significant difference in employees' reported levels of interpersonal communication skills in the workplace, as measured by the SCO scale, based on employees' reported levels of communication technology use?

2. Is there a significant interaction between employees' reported levels of communication technology use and employees' job positions on employees' reported levels of interpersonal communication skills, as measured by the SCO scale?
3. Is there a significant interaction between employees' reported levels of communication technology use and employees' areas of foci on employees' reported levels of interpersonal communication skills, as measured by the SCO scale?
4. Is there a significant difference in employees' SCO assertiveness scores based on employees' reported levels of communication technology use?
5. Is there a significant difference in employees' SCO responsiveness scores based on employees' reported levels of communication technology use?
6. Is there a significant difference in employees' SCO scores based on employees' job positions?
7. Is there a significant difference in employees' SCO scores based on employees' areas of foci?
8. What are program leaders' perceptions of program assistants' interpersonal communication skills relative to program assistants' areas of extension program foci and job positions?

Quantitative Research Questions

Research Question 1

Research question 1: Is there a significant difference in employees' reported levels of interpersonal communication skills in the workplace, as measured by the SCO scale, based on employees' reported levels of communication technology use?

H₁: A significant difference exists in employees' reported levels of interpersonal communication skills in the workplace, as measured by the SCO scale, based on employees' reported levels of communication technology use.

H₀: There is no significant difference in employees' reported levels of interpersonal communication skills in the workplace, as measured by the SCO scale, based on employees' reported levels of communication technology use.

Table 4.1 displays the results of the SCO scores, mean and standard deviation, by level of reported communication technology use. Information concerning respondents' level of communication technology use was collected through a question in the demographics section of the QuestionPro survey. Respondents were asked to report, based on their most recent activity report, if their level of communication technology use in the workplace was (a) less than 40%, (b) 40% to 60%, or (c) more than 60%. The 65 program assistant respondents were almost equally distributed among the three levels of reported communication technology use, with 21 reporting less than 40% use, 23 reporting 40% to 60% use, and 21 reporting more than 60% use. Similarly, the mean SCO scores for the 65 respondents were almost equal for each of the three levels of communication technology use.

Table 4.1 Descriptive Statistics of Program Assistants' Level of Communication Technology Use

Technology use	N	Mean	Std. deviation	Min	Max
<40%	21	78.3810	4.67414	72.00	90.00
40-60%	23	78.4348	6.82792	60.00	92.00
>60%	21	78.5238	7.82061	63.00	92.00
Total	65	78.4462	6.47840		

This observation was supported by the analysis of variance (ANOVA), $F(2, 62) = 0.003$, $p = 0.997$. As shown in Table 4.2 there is no indication of any statistically significant difference between SCO scores relative to level of communication technology use. With the descriptive and ANOVA analysis, the conclusion can be drawn that a significant difference does not exist in employees' reported levels of interpersonal communication skills in the workplace, as measured by the SCO scale, based on employees' reported levels of communication technology use.

Table 4.2 ANOVA Analysis of SCO Score and Communication Technology Use

Analysis	Sum of squares	<i>df</i>	Mean square	<i>F</i>	Sig.
Between groups	.219	2	.109	.003	.997
Within groups	2685.843	62	43.320		
Total	2686.062	64			

Of note was the distribution of minimum and maximum SCO scores. Out of a possible score of 100, the lowest reported score was 60 and the highest was 92. While the lowest score for those reporting less than 40% communication technology use was 72, the minimum scores for the two higher levels of use were noticeably lower at 60 and 63. With reported high scores of 90, 92, and 92, there was virtually no difference in the maximum scores relative to the three levels of communication technology use.

Research Question 2

Research question 2: Is there a significant interaction between employees' reported levels of communication technology use and employees' job positions on employees' reported levels of interpersonal communication skills, as measured by the SCO scale?

H₂: A significant interaction exists between employees' reported levels of communication technology use and employees' job positions on employees' reported levels of interpersonal communication skills, as measured by the SCO scale.

H₀: There is no significant interaction between employees' reported levels of communication technology use and employees' job positions on employees' reported levels of interpersonal communication skills, as measured by the SCO scale.

Of the 65 respondents, 16 held the position of Program Assistant One, and the majority, 46, held the position of Program Assistant Two. Since only three respondents (0.05%) reported their job position as Program Assistant Three, the decision was made to not include them in the two-way ANOVA analysis of effect of interaction between job position and communication technology use on SCO score. Table 4.3 shows there was relatively even dispersal among the three levels of communication technology use within both the Program Assistant One position and the Program Assistant Two position. For the Program Assistant One, five reported less than 40% communication technology use, four reported 40% to 60% use, and seven reported greater than 60% use.

Table 4.3 Descriptive Statistics of Job Position Relative to Level of Communication Technology Use

Job position	Communication technology use	<i>N</i>	Mean	Std. deviation
Program Assistant One	<40%	5	76.6000	4.33590
	40-60%	4	79.0000	6.48074
	>60%	7	80.8571	7.86190
	Total	16	79.0625	6.45465
Program Assistant Two	<40%	16	78.9375	4.76751
	40-60%	16	78.1250	7.61468
	>60%	14	77.3571	7.82115
	Total	46	78.1739	6.70756
Total	<40%	21	78.3810	4.67414
	40-60%	20	78.3000	7.24823
	>60%	21	78.5238	7.82061
	Total	62	78.4032	6.60218

The mean SCO scores within the Program Assistant One position were somewhat close. Of the 16 Program Assistant Ones, 76.6% were at the lowest communication technology use level, 79% at the median level, and 80.86% at the highest level of use. Comparatively, 16 of the Program Assistant Twos reported less than 40% communication technology use, 16 reported 40% to 60% use, and 14 reported more than 60% use. Mean SCO scores for Program Assistant Twos relative to level of communication technology showed little variation at 78.94%, 78.13%, and 77.36%.

Though there was little variation between the within-group SCO mean scores, it was observed that for the Program Assistant Ones, the mean score was higher for those with higher communication technology use. Conversely, for the Program Assistant Twos, the mean SCO score was lower for those with higher communication technology use. Referring to the two-way ANOVA analysis, $F(2, 56) = 0.776$, $p = 0.465$ in Table 4.4, the conclusion was drawn that there was no interaction between job position and level of communication technology use impacting SCO scores.

Table 4.4 Tests of Between-Subjects Effect for Job Position and Level of Communication Technology Use

Source	Type III sum of squares	<i>df</i>	Mean square	<i>F</i>	<i>Sig.</i>
Corrected model	80.960 ^a	5	16.192	.352	.879
Intercept	280918.485	1	280918.485	6102.283	.000
Position	5.260	1	5.260	.114	.737
Communication technology use level	15.058	2	7.529	.164	.850
Position * Communication technology level	71.471	2	35.736	.776	.465
Error	2577.959	56	46.035		
Total	383777.000	62			
Corrected total	2658.919	61			

Research Question 3

Research question 3: Is there a significant interaction between employees' reported levels of communication technology use and employees' areas of foci on employees' reported levels of interpersonal communication skills, as measured by the SCO scale?

H₃: A significant interaction exists between employees' reported levels of communication technology use and employees' areas of foci on employees' reported levels of interpersonal communication skills, as measured by the SCO scale.

H₀: There is no significant interaction between employees' reported levels of communication technology use and employees' areas of foci on employees' reported levels of interpersonal communication skills, as measured by the SCO scale.

Four areas of foci existed for UT Extension program assistants: 4-H, Tennessee Nutrition and Consumer Education Program (TNCEP), Expanded Food and Nutrition Education Program (EFNEP), and Agriculture and Natural Resources (ANR). Table 4.5 provides descriptive information for areas of foci and communication technology use relative to mean SCO scores.

The number of respondents per area of foci was 19, 26, 16, and five, respectively. Due to their

small number, ANR respondents were removed from the analysis. The total mean SCO scores relative to area of foci and level of communication technology use were nearly identical at 78.3%, 78.2%, and 78.5%. The difference between the numbers of respondents under areas of foci distributed per level of communication technology use was also unremarkable at 18, 22, and 21. Within the areas of foci, there were some interesting observations concerning the dispersion of number of respondents across the three levels of communication technology use. While only two of the 16 EFNEP respondents reported less than 40% communication technology use, nearly 50% of 4-H respondents, nine of 19, reported less than 40% communication technology use. For TNCEP respondents, the diffusion was close to even at seven, 10, and nine.

Table 4.5 Descriptive Statistics of Foci and Level of Communication Technology Use

Foci	Communication technology use	<i>N</i>	Mean	Std. deviation
4-H	<40%	9	76.8889	3.91933
	40-60%	4	80.2500	4.85627
	>60%	6	78.8333	7.46771
	Total	19	78.2105	5.30805
TNCEP	<40%	7	79.5714	5.25538
	40-60%	10	74.7000	7.33409
	>60%	9	78.1111	9.08907
	Total	26	77.1923	7.53668
EFNEP	<40%	2	80.0000	7.07107
	40-60%	8	81.6250	5.55331
	>60%	6	78.8333	7.49444
	Total	16	80.3750	6.18466
Total	<40%	18	78.2778	4.68798
	40-60%	22	78.2273	6.91397
	>60%	21	78.5238	7.82061
	Total	61	78.3443	6.58505

Table 4.6 presents results of the two-way ANOVA depicting statistical significance level between group means relative to areas of foci and level of communication technology use. With a significance value of .451, $F(4, 52) = .934$, $p = .451$, there was no significant difference in means. The conclusion can be drawn that there is no effect on SCO score based on the interaction between job foci and level of communication technology use.

Table 4.6 Tests of Between-Subjects Effects for Foci and Communication Technology Use

Source	Type III sum of squares	<i>df</i>	Mean square	<i>F</i>	Sig.
Corrected model	271.887 ^a	8	33.986	.759	.640
Intercept	300234.368	1	300234.368	6700.844	.000
Foci	58.479	2	29.239	.653	.525
Communication technology use level	.781	2	.391	.009	.991
Foci * Communication technology use	167.477	4	41.869	.934	.451
Error	2329.884	52	44.805		
Total	377009.000	61			
Corrected total	2601.770	60			

Research Question 4

Research question 4: Is there a significant difference in employees' SCO assertiveness scores based on employees' reported levels of communication technology use?

H₄: A significant difference exists in employees' SCO assertiveness scores based on employees' reported levels of communication technology use.

H₀: There is no significant difference in employees' SCO assertiveness scores based on employees' reported levels of communication technology use.

The maximum possible SCO assertiveness score was 50 points. A review of Table 4.7 shows little difference in assertiveness scores across the three levels of communication

technology use. Mean assertiveness scores were 34.3 for less than 40% communication technology use, 33.6 for 40% to 60%, and 33.6 for greater than 60%. Maximum scores were similarly close at 44, 45, and 44, respectively. The lowest possible assertiveness score was 10. Of note, the lowest score in the group, 13, was reported for a respondent with more than 60% communication technology use, while the highest low score, 25, was reported by a respondent with less than 40% communication technology use.

Table 4.7 Descriptive Statistics of Assertiveness Score and Level of Communication Technology Use

Communication technology use	<i>N</i>	Mean	Std. deviation	Min	Max
<40%	21	34.3333	4.73638	25.00	44.00
40-60%	23	33.5652	5.31572	24.00	45.00
>60%	21	33.5714	7.05387	13.00	44.00
Total	65	33.8154	5.69235	13.00	45.00

The ANOVA analysis in Table 4.8 shows $F(2, 62) = 0.125$, and $p = 0.883$. This is an indication that there was no statistically significant difference in mean SCO assertiveness scores based on level of communication technology use. The conclusion is that SCO assertiveness score is not affected by the level of communication technology use.

Table 4.8 ANOVA Analysis of Assertiveness Score and Level of Communication Technology Use

Analysis	Sum of squares	<i>df</i>	Mean square	<i>F</i>	Sig.
Between groups	8.323	2	4.161	.125	.883
Within groups	2065.462	62	33.314		
Total	2073.785	64			

Research Question 5

Research question 5: Is there a significant difference in employees' SCO responsiveness scores based on employees' reported levels of communication technology use?

H₅: A significant difference exists in employees' SCO responsiveness scores based on employees' reported levels of communication technology use.

H₀: There is no significant difference in employees' SCO responsiveness scores based on employees' reported levels of communication technology use.

As with the SCO assertiveness score, the maximum possible SCO responsiveness score was 50, with the lowest possible score being 10. As shown in Table 4.9, SCO responsiveness scores tended to be higher than SCO assertiveness scores. Mean SCO responsiveness scores for the three levels of communication technology use were almost equal at 44, 44.9, and 45. The highest possible maximum score of 50 was attained by at least one respondent across all three levels. The lowest possible score of 30 was significantly higher than the lowest assertiveness score of 13. The low 30 score was attained by a respondent with 40% to 60% communication technology use.

Table 4.9 Descriptive Statistics of Responsiveness Score and Level of Communication Technology Use

Communication technology use	<i>N</i>	Mean	Std. deviation	Min	Max
<40%	21	44.0476	4.10459	38.00	50.00
40-60%	23	44.8696	4.97543	30.00	50.00
>60%	21	44.9524	3.73465	40.00	50.00
Total	65	44.6308	4.27774		

The ANOVA analysis in Table 4.10 shows $F(2, 62) = 0.284$, and $p = 0.754$. This analysis indicates that there was no statistically significant difference in the mean SCO responsiveness scores across the three levels of communication technology use. The conclusion is drawn that the SCO responsiveness score was not affected by the level of communication technology use by respondents.

Table 4.10 ANOVA Analysis of Responsiveness Score and Level of Communication Technology Use

Analysis	Sum of squares	<i>df</i>	Mean square	<i>F</i>	Sig.
Between groups	10.625	2	5.313	.284	.754
Within groups	1160.513	62	18.718		
Total	1171.138	64			

Research Question 6

Research question 6: Is there a significant difference in employees' SCO scores based on employees' job positions?

H₆: A significant difference exists in employees' SCO scores based on employees' job positions.

H₀: There is no significant difference in employees' SCO scores based on employees' job positions.

Since there were only three Program Assistant Three respondents, they were excluded from the analysis of SCO scores relative to job position. As shown in Table 4.11, there were similarities in reported SCO scores for Program Assistant Ones and Program Assistant Twos. Both groups recorded 92 as the highest attained score out of 100. On the other hand, the lowest reported score was 72 for Program Assistant Ones and quite a bit lower at 60 for Program Assistant Twos. The mean SCO scores for the two job positions were almost equivalent at 79.1 for Program Assistant Ones and 78.2 for Program Assistant Twos.

Table 4.11 Descriptive Statistics of Job Position and SCO Score

Position	<i>N</i>	Mean	Std. deviation	Min	Max
Program Assistant One	16	79.0625	6.45465	72.00	92.00
Program Assistant Two	46	78.1739	6.70756	60.00	92.00
Total	62	78.4032	6.60218		

The ANOVA analysis in Table 4.12 corroborates the descriptive statistics in Table 4.11. The resultant $F(1, 60) = 0.212$ and $p = 0.647$ indicate no statistically significant difference in mean SCO scores across job positions. The conclusion is drawn that job position had no effect on SCO score.

Table 4.12 ANOVA Analysis of Job Position and SCO Score

Analysis	Sum of squares	<i>df</i>	Mean square	<i>F</i>	Sig.
Between groups	9.373	1	9.373	.212	.647
Within groups	2649.546	60	44.159		
Total	2658.919	61			

Research Question 7

Research question 7: Is there a significant difference in employees' SCO scores based on employees' areas of foci?

H₇: A significant difference exists in employees' SCO scores based on employees' areas of foci.

H₀: There is no significant difference in employees' SCO scores based on employees' areas of foci.

In a review of total SCO scores relative to respondents' areas of foci, Table 4.13 showed little difference in the SCO scores across areas of foci. EFNEP respondents had the highest mean SCO score at 80.4, followed by 4-H at 78.2, and TNCEP at 77.2. Again, since there were only five ANR respondents, they were excluded from the analysis. The highest and lowest possible total SCO scores were 100 and 20, respectively. While no respondent achieved a total SCO score of 100, the highest attained scores of 90, 92, and 92 were consistent for the three areas of foci. The lowest total SCO of 60 was recorded in the TNCEP ranks. This score was still within the range of the lowest total SCO score for EFNEP and 4-H at 67 and 68, respectively.

Table 4.13 Descriptive Statistics of Foci and SCO Score

Foci	<i>N</i>	Mean	Std. deviation	Min	Max
4-H	19	78.2105	5.30805	68.00	90.00
TNCEP	26	77.1923	7.53668	60.00	92.00
EFNEP	16	80.3750	6.18466	67.00	92.00
Total	61	78.3443	6.58505		

The ANOVA analysis in Table 4.14 corroborates the view of the descriptive statistics. There was no statistically significant difference in mean total SCO scores across the areas of foci, with $F(2, 58) = 1.169$, and $p = 0.318$. Since no statistically significant difference was present, post hoc tests were not needed. The conclusion is drawn that total SCO score was not affected by respondents' area of focus.

Table 4.14 ANOVA Analysis of Foci and SCO Score

Analysis	Sum of squares	<i>df</i>	Mean square	<i>F</i>	Sig.
Between groups	100.824	2	50.412	1.169	.318
Within groups	2500.946	58	43.120		
Total	2601.770	60			

Additional Observations

Question 8 on the questionnaire asked about the percentage of time spent utilizing communication technology for communication at work. Table 4.15 shows a close to even distribution among respondents' reported communication technology use, with 32.3% at less than 40%, 35.4% at 40% to 60%, and 32.3% at greater than 60% use. This means that many of

the respondents, 67.7%, reported light to moderate use of communication technology for their communication needs in the workplace.

Table 4.15 Communication Technology Use

Communication technology use	Frequency	Percent	Valid percent	Cumulative percent
<40%	21	32.3	32.3	32.3
40-60%	23	35.4	35.4	67.7
>60%	21	32.3	32.3	100.0
Total	65	100.0	100.0	

The cross-tabulation of Question 8 and Question 3 in Table 4.16 compares the percentage of time spent utilizing communication technology for communication at work by job position. Most program assistant respondents stated that less than 60% of their communication was conducted through the use of communication technology. This group included 9 of 16 Program Assistant Ones, 32 of 46 Program Assistant Twos, and all three of the Program Assistant Threes, for a total of 44 of 65 of the program assistant respondents.

Table 4.16 Cross-Tabulation of Communication Technology Use by Job Position

	Communication technology use	Q3			Total
		Program Assistant 1	Program Assistant 2	Program Assistant 3	
Q8	<40%	5	16	0	21
	40-60%	4	16	3	23
	>60%	7	14	0	21
Total		16	46	3	65

Chi-square tests were conducted. As shown in Table 4.17, $X^2(4) = 6.76, p = .149$. With $p = .149$, there is no support for significant difference in level of communication technology use relative to job position.

Table 4.17 Chi-Square Tests of Communication Technology Use by Job Position

	Value	<i>df</i>	Asymptotic sig. (2-sided)	Exact sig. (2-sided)	Exact sig. (1-sided)	Point probability
Pearson chi-square	6.762 ^a	4	.149	.158		
Likelihood ratio	7.507	4	.111	.159		
Fisher's exact test	4.949			.243		
Linear-by-linear association	.372 ^b	1	.542	.650	.325	.101
N of valid cases	65					

a. Three cells (33.3%) have an expected count less than 5. The minimum expected count is .97.

b. The standardized statistic is -.610.

Qualitative Research Question

Research question 8: What are program leaders' perceptions of program assistants'

interpersonal communication skills relative to program assistants' areas of extension program foci and job positions?

The researcher conducted recorded telephone interviews of seven UT Extension administrators who held varying relationships, experiences, and knowledge of program assistants. Table 4.18 displays information about the interviewees and their relationships to program assistants. The interviewees were asked the single question as a two-part question: their personal perspective of program assistants' communication skills relative to the areas of their job foci, and their personal perspective of program assistants' communication skills relative to their

job position level. Each interview lasted a maximum of 10 minutes. Since there was only one interview question and just seven interviewees, the researcher directly analyzed the qualitative data. This was done by two immediate post-interview reviews of each recording to determine emerging themes and to synthesize similarities and differences in perspectives. The consent cover statement for the administrators is found in Appendix E.

Table 4.18 UT Extension Administrator Interviewees and Their Relation to Program Assistants

Interviewee description	Relationship to program assistants
Upper-level administrator with FCS responsibilities	Leadership responsibilities for FCS, previous direct supervision of program assistants
Program administrator with regional responsibilities for FCS program assistants	Indirect supervision of FCS program assistants in one of the three regions of the state
Program administrator with statewide responsibilities for FCS program assistants	Overall responsibility for all FCS program assistants, previous direct supervision of program assistants
Program administrator with statewide responsibilities for either EFNEP or TNCEP programming	Statewide responsibilities for subject matter oversight for one FCS program, previous direct supervision of 4-H and FCS program assistants
Program administrator with primary responsibilities for 4-H programming	Oversight of statewide 4-H programming, previous supervision of 4-H and FCS program assistants
Program administrator with responsibilities for FCS program assistants' training	Training and indirect supervision for FCS program assistants
Former program assistants' trainer	Former long-term trainer and indirect supervisor for FCS program assistants

Note. EFNEP indicates Expanded Food and Nutrition Education Program; FCS, Family and Consumer Sciences; TNCEP, Tennessee Nutrition and Consumer Education Program.

Similarities and Differences in Communication Skills Relative to Program Focus

Administrators were asked about any general observations of the communication skills of program assistants associated with their membership in a particular program focus group. The

perspectives were shared from variant experiences of direct supervision, indirect supervision, and training. Overall, the administrators noted no substantial differences in communication skills of program assistants across areas of foci. Several administrators shared that differences in communication skills would be more apt to appear along the lines of personal abilities and depth of experience.

The current Family and Consumer Sciences program assistants' trainer stated that the move towards training all program assistants together regardless of program focus may account for similarities in communication skills ability, especially since presentation skills and practice are part of the training curricula. Both interviewees with training experience shared that program assistants, while confident in front of their program audiences, seemed reluctant to share their thoughts, ideas, and opinions in front of their peers, such as during group training sessions. A similar opinion was shared by another administrator, who stated that, overall, program assistants appeared very confident with subject matter delivery to their community audiences and at times could appear to be intimidated when communicating among their peers. One administrator stated that TNCEP program assistants tended to exude a slightly higher level of confidence in communicating with their audiences than EFNEP program assistants. TNCEP is the Tennessee state community-based Supplemental Nutrition Assistance Program Education (SNAP-Ed). According to this particular interviewee, the TNCEP program assistants were typically members of the communities they serve. The interviewee surmised that the greater confidence level could be a result of the TNCEP program assistants' ties to their communities, where they were communicating with "their people," people in the community for whom the program assistants felt an attachment.

Other observations about differences and similarities in communication skill levels for program assistants centered on whether their primary audience was composed of youth or adults. For instance, the 4-H program administrator related that 4-H program assistants delivered programs primarily for youth and often in a school setting. At times when they were required to shift focus and facilitate communication with a parent group, it could be a challenge for them to shift to adult communication strategies. Similarly, the state Family and Consumer Sciences program interviewee shared that depending on the program focus, EFNEP or TNCEP, program assistants typically worked with either youth or adults. The interviewee noted that the assistants could struggle if asked to facilitate to an audience other than their primary audience. Those facilitating mainly to youth were challenged with a lack of knowledge of adult learning practices, while those whose target audiences were adults were afraid of not being able to relate to youth.

Similarities and Differences in Communication Skills Relative to Job Position

Interviewees provided consistent information on program assistants' communication skills based on specific job level. While there were three levels of record for program assistants, none of the interviewees were aware of any Program Assistant Threes who were facilitators in any of the program focus areas. One regional administrator mentioned that the secretaries or administrative assistants for the county extension offices were typically Program Assistant Threes. Another regional administrator stated that at one time Program Assistant Three positions had supervisory responsibilities. However, the interviewee noted that with many levels of supervision for the program assistant at the county, regional, and state level, it was surmised that another layer of supervision was unnecessary.

The interviewees shared that generally there were communication skill level differences between Program Assistant Ones and Program Assistant Twos. This difference could be attributed to the variances in their job responsibilities. Duties for the Program Assistant One included research, data entry, program logistics, and other behind-the-scenes tasks. The primary role of the Program Assistant Two was to facilitate program subject matter to community audiences. Reportedly, Program Assistant Twos tended to be more talented in communication than Program Assistant Ones because (a) the Program Assistant Two position job requirements included experience in facilitation and excellent communication skills, (b) the nature of the duties for the Program Assistant Two allowed for extensive experience in practicing interpersonal communication skills with a variety of audiences, (c) the nature of duties for the Program Assistant One presented opportunities for communication with limited constituents, mainly extension staff, and (d) core job requirements for the Program Assistant One did not require advanced interpersonal communication skills. Position descriptions for each of the three program assistant positions located in Appendix F note differences in required communication skills for the positions.

Emerging Themes and Summary of Analysis

There were themes that developed during the interviews, some with a possible connection to quantitative observations:

1. There was little difference in communication skills of program assistants due to program focus assignment.
2. Based on the analysis of the interviews, program assistants generally tended to be less skilled or attentive to their interpersonal communication needs versus being responsive to

the interpersonal communication needs of others. With further research, a connection could be drawn to SCO assertiveness scores.

3. Interviewees consistently reported that program assistants cared strongly about their audiences and took pride in attending to the needs of their communities. Again, with additional research, this emerging theme could perhaps support or explain the indication of lower levels of assertiveness skills in interpersonal communication.
4. Any differences in communication skills relative to position or job level were probably associated with requirements and responsibilities assigned to the job level.
5. Differences in communication confidence levels for program assistants depended on their target audience.

While the following are not themes, all interviewees shared two other perspectives: excitement that extension program assistants were the focus of the study and a belief that professional development for program assistants was sometimes not given enough attention. Each of the interviewees recognized the importance and value of the program assistants. Discussion of the findings in the next chapter may provide useful information for further study relative to interpersonal communication skills and development needs for program assistants.

CHAPTER V

REVIEW, SUMMARY, DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

This study was conducted to determine whether a relationship existed between employees' level of communication technology use in the workplace and their interpersonal communication skills. This chapter provides a review of the problem along with a summary of the methodology used in the study. The review and summary are followed by a discussion of the findings from the study. Finally, conclusions and recommendations for future action and research are presented.

Review and Summary

The purpose of this study was to examine the relationship between the level of communication technology use in the workplace by University of Tennessee (UT) Extension program assistants and their ability to successfully communicate useful extension program information to members of the community. Barnes (2014) noted both the importance and challenge of interpersonal communication interaction with the community for extension staff, reporting that Extension was at a pivotal point in the continued success of the field, a place dependent upon staff skilled in interpersonal communication. Likewise, a report by Benge et al. (2011) indicated that effective interpersonal communication skills are among the key competencies for extension educators.

To provide background for the study, a review of literature was conducted relative to organizational communication, aspects of communication technology use, and communicator characteristics, skills, and development needs. Studies by Coffelt et al. (2016) and Clokie and Fourie (2016) established that organizations viewed interpersonal communication skills as one of the major competencies required and desired in employees. Whereas Qualman (2009) reported wider reach and connections as benefits from the use of communication technology in internal and external organizational communications, Frenkel (2011) noted that increased reliance on communication technology could have its drawbacks. Some of the drawbacks could involve the communication process, as Katz (2010) stated that workplace relationships could suffer if proper attention was not given to the content of electronic messages. Challenges specific to extension staff involved creating a comfortable learning environment (Dilbeck & McCroskey, 2009). Studies by Cullen et al. (2010) and Baker et al. (2009) highlighted the significance of interpersonal communication skills in community education, while Christofferson et al. (2012) pointed out the need to develop core communication competencies in paraprofessionals who provide community education. A goal of the study was to provide data that could help inform communication development strategies for UT Extension program assistants.

Demographic information for the 65 study participants is provided in Figure 5.1. Most program assistants (61, 94%) were women, and 48 (74%) were 40 years old or older. In addition, 46 held the position of Program Assistant Two, and 42 were program assistants with the Tennessee Nutrition and Consumer Education Program (TNCEP) and Expanded Food and Nutrition Education Program (EFNEP).

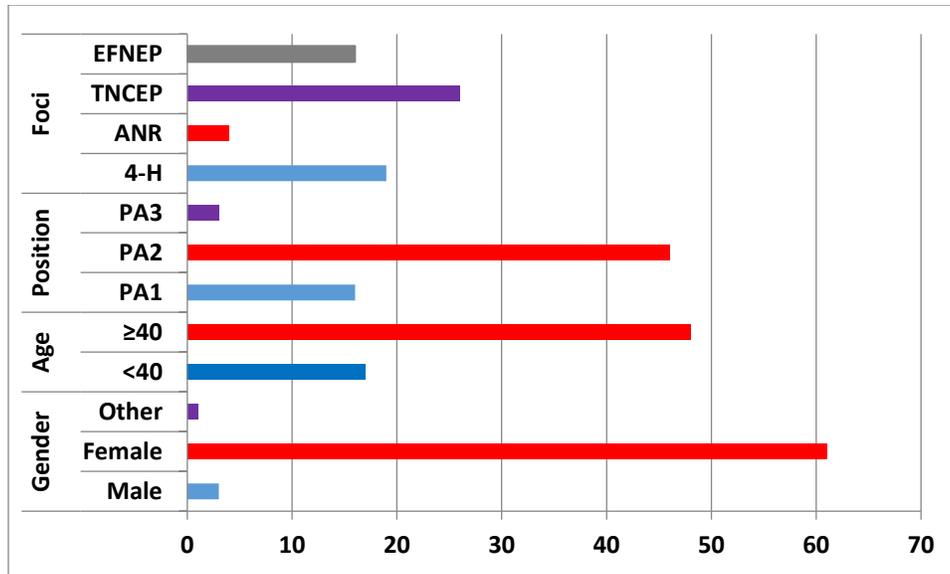


Figure 5.1 Participants' demographics

The SCO scale, a self-report instrument of 20 Likert scale-type questions, was used to collect data for the study. Five quantitative research questions addressed various relationships between communication technology use and total SCO scores, SCO assertiveness scores, and SCO responsiveness scores. The relationships between SCO scores and job position and SCO scores and job focus were examined. The other two quantitative questions examined how the interaction between level of communication technology use, job position, and areas of foci affected SCO scores. Statistical analyses of one-way analysis of variance (one-way ANOVA), two-way ANOVA, and chi-square, as appropriate, were utilized to analyze data collected for the study.

Finally, Research Question 8 was a two-part qualitative question addressed through a telephone interview. According to Dilbeck and McCroskey (2009), the best approach to determine interpersonal communication competence is through the use of a self-report measurement along with another report measure. As another report measure, a variety of UT

Extension administrators were queried about their perspectives concerning differences or similarities in program assistants' interpersonal communication skills relative to their job positions and areas of foci. No significant differences were found in any of the research questions. However, analyses of themes from the interviews along with the statistical analyses of the seven quantitative research questions provided a basis for conclusions and recommendations.

Discussion of Results

The main research question, Research Question 1, explored whether or not a significant difference existed in the reported levels of interpersonal communication skills in the workplace as measured by the SCO relative to employees' reported levels of communication technology use. The 65 participants were almost evenly distributed based on their levels of light, moderate, or heavy communication technology use. In spite of this even distribution, 67.7% of the participants reported light to moderate communication technology use (Table 4.15). Coupled with the fact that 94% of the participants were women (Table 5.1), there could be support for the findings from the gender technology use study of D'Urso and Pierce (2009) that men have a tendency to be heavier users of technology than women. Similarly, the program assistants' mean SCO scores were almost equal across the three levels of communication technology use. This lack of significant difference was supported by the ANOVA analysis with $F(2, 62) = 0.003, p = 0.997$.

When administrators were asked about any differences or similarities in communication technology use and interpersonal communication skills for program assistants, two themes emerged. The general perception was that any differences in program assistants' interpersonal communication skills could be attributed to individual experience and ability. TNCEP and EFNEP program assistants tended to utilize communication technology in their programming a

bit more than their 4-H and ANR peers. Program Assistant Twos tended to exhibit higher levels of interpersonal communication skills than Program Assistant Ones, which could be due in part to the roles and requirements of their particular job levels. Further study of the differences relative to job requirements could help in understanding the differences between job levels one and two.

Research Questions 2 and 3 tested for the interaction between employees' reported levels of communication technology use and employees' job position and job foci, respectively, on employees' reported levels of interpersonal communication skill as measured by the SCO. In Research Question 2, the comparison was made between Program Assistant One and Program Assistant Two, as only three participants held the role of Program Assistant Three. Based on two-way ANOVA analysis ($F(2, 56) = .776, p = 0.465$), there was no interaction between communication technology use and job position impacting SCO scores. Of interest is that the Program Assistant Ones with higher mean SCO scores tended to have higher levels of communication technology use. And, Program Assistant Twos with higher levels of communication technology use tended to have lower mean SCO scores. An explanation for this phenomenon could be that those with the position of Program Assistant One had greater experience and comfort levels with communication technology, as they were tasked with working with and communicating about the technology, including communication technology, aspects of the job. Further research would be needed to examine any relationship between communication technology experience level and SCO scores as communication technology experience level was not taken into consideration in this study.

In Research Question 3, a two-way ANOVA analysis was conducted with three areas of foci for UT Extension program assistants: 4-H, TNCEP, and EFNEP. Since there were only five

ANR participants, they were removed from the analysis. The total mean SCO scores across the areas of foci relative to level of communication technology use were nearly identical at 78.3%, 78.2%, and 78.5%. The significance value of $p = 0.451$ supports the conclusion that there was no effect on SCO scores based on the interaction between job foci and level of communication technology use. The differences in levels of communication technology use within the areas of foci provided interesting observations. The TNCEP participants were evenly distributed across the three levels of communication technology use. However, among the EFNEP participants, only two of the 16 reported light communication technology use. For the 4-H program assistants, around 50% reported light communication technology use. This observation is consistent with the previously reported perspectives from the administrator interviews that the EFNEP and TNCEP program assistants tended to be heavier users of communication technology than their 4-H counterparts.

Research Questions 4 and 5 examined if there was a significant difference in employees' SCO assertiveness scores and SCO responsiveness scores, respectively, based on their reported levels of communication technology use. The ANOVA analyses for Research Questions 4 and 5, with $p = 0.883$ and $p = 0.754$, respectively, showed no effect on neither the SCO assertiveness score nor the SCO responsiveness score relative to level of communication technology use. An unexpected observation arose in comparing the mean SCO assertiveness scores to the mean SCO responsiveness scores. The highest attainable SCO assertiveness or responsiveness score was 50, and the lowest attainable score was 10. The total mean SCO scores across all levels of communication technology use were in the low 30s for assertiveness compared to the mid-40s for responsiveness. Maximum recorded scores across the three levels of communication technology use were the mid-40s for assertiveness and 50 for responsiveness. The lowest

recorded total SCO assertiveness score was 13 compared to 30 for responsiveness (Tables 4.7 and 4.9).

As previously stated, 94% of the participants were women, and 74% were aged 40 and older. Prior research and follow-up research related to gender and generational differences in communication may provide some insight relative to the differences in the SCO assertiveness and responsiveness scores for the group. Table 5.1 shows the number and percentage of participants who rated themselves “agree” or “strongly agree” for each SCO statement.

Table 5.1 SCO Assertiveness and Responsiveness Ratings

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Percent \geq Agree
Assertiveness						
Defend own beliefs	10	33	14	4	4	66%
Independent	29	29	4	3	0	90%
Forceful	2	4	18	24	17	9%
Have strong personality	7	26	18	13	1	51%
Assertive	14	26	11	13	1	62%
Dominant	3	10	24	24	4	20%
Willing to take a stand	18	40	6	0	1	90%
Aggressive	0	10	17	26	12	15%
Competitive	4	27	13	20	1	47%
Act as a leader	26	30	6	2	1	86%
Responsiveness						
Helpful	42	21	2	0	0	97%
Responsive to others	42	22	1	0	0	99%
Sympathetic	33	28	4	0	0	94%
Compassionate	41	20	4	0	0	94%
Sensitive to needs of others	40	23	2	0	0	97%
Sincere	39	24	2	0	0	97%
Gentle	19	40	6	0	0	91%
Warm	25	38	2	0	0	97%
Tender	18	34	12	1	0	75%
Friendly	40	24	1	0	0	99%

Following a literature search, Meyers-Levy and Loken (2015) provided an overview of theoretical approaches to the study of gender differences. One of the conclusions drawn from the literature search was that women were more oriented towards needs of others and more thoughtful and careful than men as communication responders (Meyers-Levy & Loken, 2015). The high responsiveness scores for the largely female participants would appear to be consistent with that contention. In a comparison of male and female language style differences, Leaper and Robnett (2011) noted that men tended to communicate in a more assertive manner than women, possibly due to the male dominant position in the social order. Pfafman and McEwan (2014) offered that the less assertive communication style of women in the workplace may be because they did not wish to come across as either too feminine to be professional or too professional to be female. As to age, only 26% of the participants were under age 40, a group that Hartman and McCambridge (2011) labeled as millennials. According to Hartman and McCambridge (2011), millennials in the workplace were technology savvy and self-oriented and hence could need more development of interpersonal communication skills. Since most participants were in an older generation, there may be a possibility that age could be a factor in the higher responsiveness scores. Again, further research would be appropriate.

Research Questions 6 and 7 complemented Research Questions 2 and 3. While Research Questions 2 and 3 tested for effect on SCO scores relative to the interaction between employees' reported levels of communication technology use and job position and areas of foci, Research Questions 6 and 7 tested for a significant difference in SCO scores based on employees' job position and areas of foci. Program Assistant Threes and ANR program assistants, respectively, were excluded from analyses for Research Questions 6 and 7. Consistent with the findings for Research Questions 2 and 3, the researcher concluded that SCO scores were not affected by

program assistants' job position or areas of foci. These conclusions were supported by ANOVA analysis of Research Question 6, with $F(1, 60) = 0.212$, $p = 0.647$, and of Research Question 7, $F(2, 58) = 1.169$, and $p = 0.318$. Another possible reason for no effect on SCO scores relative to job position or areas of foci could be the practice initiated by UT Extension of providing professional development and other trainings such as facilitation tips in joint sessions to all program assistants regardless of job position or areas of foci. In effect, all program assistants were receiving the same learning opportunities, which could spur similar levels of growth across job positions and areas of foci. Further study on effectiveness of this training strategy may be useful.

Themes were captured from the final research question, Question 8. Administrators shared their perspectives regarding the interpersonal communication skills of program assistants relative to their job positions and areas of foci. The administrators were very complimentary of the program assistants, noting no significant differences in their interpersonal communication skills relative to areas of focus. The administrators indicated that there were possible differences in program assistants' interpersonal communication skills relative to job position.

The interviewees surmised that while the differences could be attributed to the specifics in job roles and job experience requirements for the Program Assistant Ones and Twos, any differences in interpersonal communication skills were more than likely related to individual characteristics and abilities. The perspectives from the administrators were considered in the conclusions and recommendations.

Conclusions and Recommendations

As previously stated, the data from the study did not support the related hypotheses of the seven quantitative research questions. A possible reason for this could be UT Extension's practice of training all program assistants together. Further examination of that practice could provide insight to best practices for program assistant development. A focus group study with feedback from the program assistants and from their audiences could provide useful information as to which development strategies are working and additional strategies that may be needed.

Another observation relative to the participants in the study is that the primary role for the Program Assistant One was to communicate through and about technology, while the Program Assistant Two was expected to possess advanced interpersonal communication skills in order to effectively deliver extension programs. These characteristics may influence results of a survey measuring interpersonal communication skills. Admittedly, these post-study revelations could provide indication that, due to their level of experience with both communication technology and interpersonal communication, this group may not necessarily have been the best participants for this particular study. A follow-up study utilizing a different population may be helpful. Future research on this topic may provide further or different insight if participants are those who's primary work does not require frequent use of communication technology or the possession of advanced interpersonal communication skills.

There is still little research on the impact of communication technology use on interpersonal communication skills and to some extent the impact of communication technology use on interpersonal relationships. As Phillips and Reddie (2006) and Mano and Mesch (2009) noted, several personal characteristics may influence interpersonal

communication in the workplace. Research relative to this topic with additional exploration of the interaction between various personal characteristics such as age, gender, religion, culture, or socioeconomic status could add to the literature on the study of interpersonal communication, interpersonal relationships, and interpersonal conflicts.

The original intent of this study was to examine one characteristic of the UT Extension program assistants in relationship to their ability to be effective in presenting extension program information to the community. In the course of the study, unexpected observations arose that indicate possible additional challenges to that end. Pursuant to those observations, the researcher makes recommendations for additional research and study.

Observations from the data and themes from the administrator interviews show a need for further examination of communication responsiveness and assertiveness skills for the program assistants. This recommendation is based on the overall SCO assertiveness and responsive scores and the perspectives shared by the administrators. As reported earlier, the program assistants generally scored much higher on responsiveness elements than assertiveness elements. Additionally, UT Extension administrators interviewed for this study shared that program assistants were very responsive to the needs of their customers and took great pride and care in meeting those needs, qualities present in responsiveness elements of the SCO. The administrators shared that while the program assistants were strong in their responsiveness to their customers, there were times that they tended to be guarded or less confident in their interpersonal communication among peers. During joint training sessions or group meetings, program assistants at times appeared reluctant in their communication with and in front of their peers. There was also a noticeable level of lack of confidence if the program assistant was asked to facilitate a group outside of his or her normal audience. Irish

and Scrubb (2012) reported that the ability to teach all students is a necessity in cultural competencies for educators. Further research to determine communication developmental needs is indicated to help program assistants grow in their abilities to present to a diverse customer base.

There are further studies recommended relative to extension work. With only three men in a group of 65 program assistants the question arises as to the relationship of gender to effective communication of extension programs. With 48 of the 65 program assistants at age 40 years or older, is age a factor in effective extension program delivery? A survey of extension staff in the State of Florida by Benge et al. (2011) reported communication skills and interpersonal skills as top competencies needed by extension educators. Also, given the importance of community relationship to the effectiveness of the work of the program assistant, as shared by the administrators, additional research as to relationship between communication skills and age, gender, and experience level could be beneficial to extension services and programs, curriculum knowledge attainment, facilitation confidence, and community relationship building.

To avoid possible service delays or interruptions in quality programming, extension may want to consider research relative to developing a pipeline for the Program Assistant Two position. During the interviews, the administrators reported that the Program Assistant One is not a direct or progressive line to the Program Assistant Two position. Extension may wish to consider exploring and experimenting with various options such as a career ladder study or program assistant internships as possible direct lines to the Program Assistant Two position. A pilot of different options may be useful.

One theme from the administrator interviews was that the program assistants are integral to extension work. Another shared opinion was that attention to professional development for program assistants falls short of the level of attention that should be afforded this group. Follow-through of the foregoing recommendations for additional research and study could help in those efforts.

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APPENDIX A

UTC AND UTK IRB APPROVALS

Institutional Review Board

Dept 4915
615 McCallie Avenue
Chattanooga, TN 37403
Phone: (423) 425-5867
Fax: (423) 425-4052
instrb@utc.edu
<http://www.utc.edu/irb>

TO: Izetta Slade **IRB # 18-136**
Dr. David Rausch

FROM: Lindsay Pardue, Director of Research Integrity
Dr. Amy Doolittle, IRB Committee Chair

DATE: 12/7/2018

SUBJECT: IRB #18-136: Are Employee-Reported Interpersonal Communication Skills Influenced by the Reported Level of Communication Technology Use?

Thank you for submitting your application for research involving human subjects to The University of Tennessee at Chattanooga Institutional Review Board. Your proposal was evaluated in light of the federal regulations that govern the protection of human subjects and approved via the expedited review procedure authorized by 45 CFR 46.110 and 21 CFR 56.110.

You must include the following approval statement on research materials seen by participants and used in research reports:

The Institutional Review Board of the University of Tennessee at Chattanooga (FWA00004149) has approved this research project # 18-136.

Please keep in mind that all research must be conducted according to the proposal submitted to the UTC IRB. If changes to the approved protocol occur, a revised protocol must be reviewed and approved by the IRB before implementation. For any proposed changes in your research protocol, please submit an Application for Changes, Annual Review, or Project Termination/Completion form to the UTC IRB. Please bear in mind that significant changes could result in having to develop a new application for submission and approval. Your protocol will be automatically closed at the end of the proposed research period unless a change request application is submitted. No research may take place under a closed or expired protocol.

A goal of the IRB is to prevent negative occurrences during any research study. However, despite our best intent, unforeseen circumstances or events may arise during the research. If an unexpected situation or adverse event happens during your investigation, please notify the UTC IRB as soon as possible. Once notified, we will ask for a complete explanation of the event and your response. Other actions also may be required depending on the nature of the event.

Please refer to the protocol number denoted above in all communication or correspondence related to your application and this approval.

For additional information, please consult our web page <http://www.utc.edu/irb> or email instrb@utc.edu.

Best wishes for a successful research project.



THE UNIVERSITY OF
TENNESSEE
KNOXVILLE

October 25, 2018

Izetta Willingham Slade,
UTK - Human Resources

Re: UTK IRB-18-04759-XP
Study Title: Copy of Are Employee Reported Interpersonal Communication Skills Influenced By The Reported Level Of Communication Technology Use In The Workplace?

Dear Izetta Willingham Slade:

The UTK Institutional Review Board (IRB) reviewed your application for the above referenced project. It determined that your application is eligible for expedited review under 45 CFR 46.110(b)(1), category (7). The IRB has reviewed these materials and determined that they do comply with proper consideration for the rights and welfare of human subjects and the regulatory requirements for the protection of human subjects.

Therefore, this letter constitutes full approval by the IRB of your application (version 1.1) as submitted, including:
Written informed consent for interviews; waiver of documentation of informed consent for online surveys

IRB Application - Version 2.0

IRB Application - Version 2.0

Survey and interview questions - Version 1.0

Email and script Administrators - Version 1.0

Email and script Assistants - Version 1.0

The above listed documents have been dated and stamped IRB approved. Approval of this study will be valid from 10/25/2018 to 10/24/2019.

In the event that subjects are to be recruited using solicitation materials, such as brochures, posters, web-based advertisements, etc., these materials must receive prior approval of the IRB. Any revisions in the approved application must also be submitted to and approved by the IRB prior to implementation. In addition, you are responsible for reporting any unanticipated serious adverse events or other problems involving risks to subjects or others in the manner required by the local IRB policy.

Finally, re-approval of your project is required by the IRB in accord with the conditions specified above. You may not continue the research study beyond the time or other limits specified unless you obtain prior written approval of the IRB.

Institutional Review Board Office of Research & Engagement
1554 White Avenue Knoxville, TN 37964-1329
865-974-7697 865-974-7400 fax: irb.utk.edu

BIG ORANGE. BIG IDEAS.

Sincerely,

Colleen P. Gilrane

Colleen P. Gilrane, Ph.D.
Chair

Institutional Review Board, Office of Research & Engagement
1534 White Avenue Knoxville, TN 37996-1529
865-974-7497 865-974-7400 fax irb@utk.edu

BIG ORANGE. BIG IDEAS.

APPENDIX B

SOCIOCOMMUNICATIVE ORIENTATION SCALE (SCO)

**Sociocommunicative orientation refers to an individual's perception
of his/her assertiveness and responsiveness. This instrument is designed
to measure these orientations.**

INSTRUCTIONS: The questionnaire below lists 20 personality characteristics. Please indicate the degree to which you believe each of these characteristics applies to you while interacting with others by marking whether you (5) strongly agree that it applies; (4) agree that it applies; (3) are undecided; (2) disagree that it applies; or (1) strongly disagree that it applies.

There are no right or wrong answers. Work quickly; record your first impression.

- | | |
|--|-----------------------------------|
| _____ 1. Helpful | _____ 11. Dominant |
| _____ 2. Defends own beliefs | _____ 12. Sincere |
| _____ 3. Independent | _____ 13. Gentle |
| _____ 4. Responsive to others | _____ 14. Willing to take a stand |
| _____ 5. Forceful | _____ 15. Warm |
| _____ 6. Has strong personality | _____ 16. Tender |
| _____ 7. Sympathetic | _____ 17. Friendly |
| _____ 8. Compassionate | _____ 18. Acts as a leader |
| _____ 9. Assertive | _____ 19. Aggressive |
| _____ 10. Sensitive to the needs of others | _____ 20. Competitive |

Demographic Information

Gender: Male Female

Age: Under 40 40 or older

of years' service in Extension _____

of years in current position _____

Scoring:

For the assertiveness score, add responses to items 2, 3, 5, 6, 9, 11, 14, 18, 19, & 20.

Assertiveness Score	
Item #	Response Score
2	
3	
5	
6	
9	
11	
14	
18	
19	
20	
Total Score	

For the responsiveness score, add responses to items 1, 4, 7, 8, 10, 12, 13, 15, 16, & 17.

Responsiveness Score	
Item #	Response Score
1	
4	
7	
8	
10	
12	
13	
15	
16	
17	
Total Score	

Sources:

J. C. McCroskey and Richmond (1996)

Richmond and McCroskey (1990)

APPENDIX C
DAILY COMMUNICATION LOG

Type of communication	Monday	Tuesday	Wednesday	Thursday	Friday	Total
Face-to-face						
Email						
Text message						
Instant message						
Facebook						
Twitter						
Other (Skype, etc.)						

Please use the log above to track daily modes of communication. At the end of each day (5:00 p.m.) review any devices used for communication while working in the Extension main or satellite office during that day. From the communication device(s), count the number of Extension work-related communications with other employees, supervisors, administrators, clients, and community members. In the appropriate box, record the number of times each mode of communication is used. Enter a tick mark for each face-to-face communication. Record the totals at the end of the week.

APPENDIX D

LETTER OF CONSENT PROGRAM ASSISTANTS

Consent Cover Statement

Are Employee-Reported Interpersonal Communication Skills Influenced By The Reported Level of Communication Technology Use?

INTRODUCTION

As a UT Extension Program Assistant, you are invited to participate in a **research** study. The purpose of this study is to explore the levels of interpersonal communication skills in the workplace associated with employees' communication technology use.

INFORMATION ABOUT PARTICIPANTS' INVOLVEMENT IN THE STUDY

You will be asked to participate in a confidential survey that requires self-reporting of information relative to your interpersonal communication, your communication technology use, and your status in your role as a Program Assistant. A self-reported instrument, the sociocommunicative (SCO) survey, an instrument that measures two dimensions of interpersonal communication will be the primary method of data collection. The instrument measures communication assertiveness and responsiveness based on responses to 20 statements. The 20-item survey requires participants to give their perception, based on a Likert-type scale rating (1-5), of their interpersonal communication skills. The ratings will be totaled to arrive at an SCO score. Participants will also be asked to provide their years of program service, their position level, and their program focus.

Completion of the one-time, confidential survey, available through QuestionPro, should take approximately 15 minutes.

RISKS

Most research involves some risk to confidentiality and it is possible that someone could find out you were in this study or see your study information. But the investigator believes this risk is unlikely because of the procedures that will be used to protect your information. There are no other foreseeable risks relative to any procedures in this study other than those encountered in everyday life.

BENEFITS

You may not directly benefit from your participation in this study. However, others may directly benefit from the research findings. The proposed study could potentially be important for human resource professionals who are responsible for employee recruitment, development, and retention. Also, chief executive officers (CEOs) and others in leadership positions who are concerned about workplace relationships and organizational effectiveness may find this study useful. Furthermore, Extension program assistants or other community education consultants and providers may find the study beneficial for marketing and program development initiatives. Other professionals whose roles involve communication facilitation and education may find the study helpful to their work as well. The research may add support for the premise of a need for employers to emphasize positive employee interpersonal communication skills and affirmative customer service interactions.

This research may help in identifying factors influencing effective employee interpersonal communication. With knowledge gained from this research, organizations may identify strategies to improve employees' skills in interpersonal communication. The research may help in supplying ideas for plans to improve employees' skills in interpersonal and organizational communication.

CONFIDENTIALITY

The information in the study records will be kept confidential. Data will be stored securely and will be made available only to persons conducting the study unless participants specifically give permission in writing to do otherwise. No reference will be made in oral or written reports which could link participants to the study.

CONTACT INFORMATION

If you have questions at any time about the study or the procedures, (or you experience adverse effects as a result of participating in this study,) you may contact the researcher, Izetta Slade, at islade@utk.edu, and 865-974-9950 or her Committee Chair, Dr. David W. Rausch at David-Rausch@utk.edu. If you have questions about your rights as a participant, you may contact the University of Tennessee IRB Compliance Officer at utkirb@utk.edu or (865) 974-7697.

PARTICIPATION

Your participation in this study is voluntary; you may decline to participate without penalty. If you decide to participate, you may withdraw from the study at any time without penalty and without loss of benefits to which you are otherwise entitled. Your decision to participate or not participate in this study or discontinue/stop your participation in the study will not affect your relationship with your employer in any way. If you withdraw from the study before data collection is completed your data will be deleted by the researcher from the data collection file.

CONSENT

I have read the above information. I have had the opportunity to print a copy of this form.

Clicking on the button to continue and completing the survey constitutes my consent to participate.

APPENDIX E

LETTER OF CONSENT ADMINISTRATORS

Consent Statement

Are Employee-Reported Interpersonal Communication Skills Influenced By The Reported Level of Communication Technology Use?

INTRODUCTION

As a UT Extension Program Administrator you are invited to participate in a **research** study. The purpose of this study is to explore the levels of interpersonal communication skills in the workplace associated with employees' communication technology use.

INFORMATION ABOUT PARTICIPANTS' INVOLVEMENT IN THE STUDY

You will be asked to participate in a confidential telephone interview. There are two questions in which you will be asked to share your perceptions relative to interpersonal communication skills of UT Extension Program Assistants. For accuracy of summarizing information from the interview, the interview will be recorded and digitally transcribed by the researcher.

Completion of the one-time, confidential telephone interview, should take approximately 20 minutes.

RISKS

Most research involves some risk to confidentiality and it is possible that someone could find out you were in this study or see your study information. But the investigator believes this risk is unlikely because of the procedures that will be used to protect your information. There are no other foreseeable risks relative to any procedures in this study other than those encountered in everyday life.

BENEFITS

You may not directly benefit from your participation in this study. However, others may directly benefit from the research findings. The proposed study could potentially be important for human resource professionals who are responsible for employee recruitment, development, and retention. Also, chief executive officers (CEOs) and others in leadership positions who are concerned about workplace relationships and organizational effectiveness may find this study useful. Furthermore, Extension program assistants or other community education consultants and providers may find the study beneficial for marketing and program development initiatives. Other professionals whose roles involve communication facilitation and education may find the study helpful to their work as well. The research may add support for the premise of a need for employers to emphasize positive employee interpersonal communication skills and affirmative customer service interactions.

This research may help in identifying factors influencing effective employee interpersonal communication. With knowledge gained from this research, organizations may identify strategies to improve employees' skills in interpersonal communication. The research may help in supplying ideas for plans to improve employees' skills in interpersonal and organizational communication.

CONFIDENTIALITY

The information in the study records will be kept confidential. Data will be stored securely and will be made available only to persons conducting the study unless participants specifically give permission in writing to do otherwise. No reference will be made in oral or written reports which could link participants to the study.

CONTACT INFORMATION

If you have questions at any time about the study or the procedures, (or you experience adverse effects as a result of participating in this study,) you may contact the researcher, Izetta Slade, at islade@utk.edu, and 865-974-9950 or her Committee Chair, Dr. David W. Rausch at David-Rausch@utk.edu. If you have questions about your rights as a participant, you may contact the University of Tennessee IRB Compliance Officer at utkirb@utk.edu or (865) 974-7697.

PARTICIPATION

Your participation in this study is voluntary; you may decline to participate without penalty. If you decide to participate, you may withdraw from the study at any time without penalty and without loss of benefits to which you are otherwise entitled. Your decision to participate or not participate in this study or discontinue/stop your participation in the study will not affect your relationship with your employer in any way. If you withdraw from the study before data collection is completed your data will be deleted by the researcher from the data collection file.

CONSENT

I have read the above information. I have received a copy of this form or had the opportunity to print a copy of this form. I agree to participate in this study.

Participant's Name (please print) _____

Participant's Signature _____ Date _____

APPENDIX F

POSITION DESCRIPTIONS FOR PROGRAM ASSISTANTS

Position Description: Extension Program Assistant I



POSITION DESCRIPTION

RESET FORM

PRINT FORM

POSITION INFORMATION		Effective Date:	
Position Number	Working Title	Campus	Cost Center
	Extension Program Assistant I	Institute of Agriculture	
Department	Supervisor's Position Title	Supervisor's Position Number	
HR USE ONLY			
Job Title	Job Key	Pay Grade	Exemption
			Choose One:

POSITION DETAILS	
Position Summary – Summarize the primary purpose of the position	
Assist with documentation and record keeping for educational programs to youth and adults, including low income families. Maintain program data for one or more counties. Assist supervising agent in assigned program area with clerical support.	
Position Responsibilities – Total responsibilities must equal 100%. List essential functions in decreasing order of importance. Similar tasks should be grouped together. Any responsibility totaling less than 5% of the time should be grouped with a greater percentage of time function.	
% of Time	Job Function/Responsibilities
35%	Collect data for programs/presentations for educational purposes - Maintains database of program participate records and evaluations
35%	Newsletter preparation & research
10%	General office duties (filing and correspondence)- Assists with scheduling appointments with partnering agencies and organizations. Assist agent or Program Assistant III with public relation activities.
% of Time	Job Function/Responsibilities
10%	Account balances' - Tracks budget information for program.
10%	Prepare material for Agent's Training - Responsible for preparation of program materials to be available and copied.

June 2017

POSITION DESCRIPTION

% of Time	Job Function/Responsibilities
% of Time	Job Function/Responsibilities
% of Time	Job Function/Responsibilities
Competencies/Qualifications	
<i>Knowledge, Skills, and Abilities (KSAs) required to perform essential job functions. All KSAs should be related to the functions and responsibilities of the position. These statements should all contain the word 'knowledge', 'skill', or 'ability'. This is not the experience necessary to perform the essential functions.</i>	
<p>Typing, computer data entry, research, public relations, writing and graphic design for developing newsletters, brochures and program materials. Able to interact on a professional level with clientele, agents, and program assistants. Able to prioritize job responsibilities. Needs a working knowledge of computers. Knowledge of Microsoft Word, Adobe and database programs would be most helpful.</p>	

June 2017

POSITION DESCRIPTION

Preferred knowledge, skills, and abilities			
Two years of college in business or equivalent at vocational would be an asset.			
Education/Experience			
<i>Education – Describe the minimum level of education necessary to perform the essential functions of the position. Where not required by law, an equivalent combination of training and experience may substitute for education</i>			
Required	Preferred	Level/Type of Education	Field of Study (indicate if a related field may be substituted)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	High school diploma or GED	
<input type="checkbox"/>	<input type="checkbox"/>	Vocational or technical training	
<input type="checkbox"/>	<input type="checkbox"/>	Associate's Degree	
<input type="checkbox"/>	<input type="checkbox"/>	Bachelor's Degree	
<input type="checkbox"/>	<input type="checkbox"/>	Master's Degree	
<input type="checkbox"/>	<input type="checkbox"/>	Doctoral Degree	
<input type="checkbox"/>	<input type="checkbox"/>	Other licenses/certifications	
<i>Experience – the minimum amount/type of experience necessary to perform the essential functions of the position</i>			
Required level/type of experience and/or years of experience			
High School Diploma with secretarial experience and some computer skills.			
Preferred level/type of experience and/or years of experience			
Computer skills to keep records, do reports, exhibits, and type lesson plans and activities. At least 2 years experience would be helpful.			
Supervisory/Work Direction Responsibilities			
<input checked="" type="checkbox"/>	This position has no supervisory responsibilities.		
<input type="checkbox"/>	This position provides work direction to others (includes students).		
<input type="checkbox"/>	This position has supervisory responsibilities and is responsible for staff performance management.		
Independence of Action/Level of Supervision Received			
<input checked="" type="checkbox"/>	Work is closely monitored by supervisor/manager; clearly stated instructions and procedures are generally provided; tasks, duties, and responsibilities are generally standardized and routine in nature; instruction, advice, and assistance readily available		
<input type="checkbox"/>	Work progress is generally monitored by supervisor/manager; employee performs assigned tasks, duties, and responsibilities by following established policies and procedures; may set own priorities and organizes work within general guidelines established by supervisor/manager		
<input type="checkbox"/>	Supervisor/manager defines objectives, priorities, and deadlines; existing practices are used as guidelines to determine specific work methods; carries out work activities independently; supervisor/manager is available to assist in resolving problems		
<input type="checkbox"/>	In consultation with supervisor/manager, sets own priorities and goals and determines how to accomplish results with few or no guidelines to follow, although past practices may exist; keeps supervisor informed of progress, potentially controversial matters, or matters with far-reaching implications		

June 2017



POSITION DESCRIPTION

Impact of Decisions		
<input checked="" type="checkbox"/>	Decisions generally impact own job or area.	
<input type="checkbox"/>	Decisions impact a unit or department. May contribute to business and operational decisions that impact the department. Makes recommendations to manager/supervisor that are generally implemented/accepted.	
<input type="checkbox"/>	Decisions have substantial impact on management and operations of an area within department, college or broad functional area. May contribute to important strategy, operational and business decisions which impact the department.	
<input type="checkbox"/>	Decisions have a significant impact on the management and operations of a division/college/campus/institution/system. Contributes to the decisions on the overall strategy and direction of the organization.	
Budget Responsibilities		
<input checked="" type="checkbox"/>	No Budget Responsibilities	
<input type="checkbox"/>	Monitor/maintain budgets – Processes transactions, monitors balances, and reconciles accounts	
<input type="checkbox"/>	Managerial/signature budget authority – Approves and commits funds for salaries, and to acquire materials, resources, supplies, services, etc.	
<input type="checkbox"/>	Full budgetary oversight – Establishes budget and has full authority to implement budget initiatives	
CONDITIONS OF EMPLOYMENT		
No	Designated personnel for emergencies – Is this position required to report to their designated work location to ensure operation of essential campus functions or departments during an emergency, or when the University has suspended or delayed operations?	
Choose One:	Shift	
Background Check Required – Select any additional background checks this position requires in addition to the basic background check		
<input checked="" type="checkbox"/>	Covered Programs Check	
<input type="checkbox"/>	Credit Check	
<input type="checkbox"/>	Drug Screening	
<input type="checkbox"/>	Security Clearance Check	
Work Schedule		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Weekends
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Evenings
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Overnight Travel
Other Conditions of Employment required to perform essential functions of this position (i.e. the employee would lose their job if at some point they didn't meet these conditions.) e.g. Valid Driver's license, pesticide application certification		
Must have a valid Driver's license.		

POSITION DESCRIPTION

WORKING CONDITIONS				
PHYSICAL DEMANDS				
	Amount of time			
	Not required	Seldom	Often	Frequent
Stand	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Walk	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sit	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Talk or hear	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Seeing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Use hands to finger, handle or feel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reach with hands and arms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Repetitive motion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Climb or balance	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Stoop, kneel, crouch or crawl	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Driving	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lift up to 10 lbs	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lift up to 25 lbs	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lift up to 50 lbs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lift up to 100 lbs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WORK ENVIRONMENT				
	Not required	Seldom	Often	Frequent
Work near moving mechanical parts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work in high, precarious places	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fumes, smoke, or airborne particles	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Toxic or caustic chemicals	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hazardous Materials	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Risk of electrical shock	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Risk of radiation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Operate power tools/machinery	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Operate light or heavy equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Confined Spaces	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exposure to vibrations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Explosive or flammable materials	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Personal protective equipment required	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outdoor Environment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extreme heat (non-weather)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wet or humid conditions (non-weather)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Potential exposure to infectious agents or blood borne pathogens	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work with human blood or cells	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work with animals	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work with animal blood or cells	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Office Environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

June 2017

Position Description: Extension Program Assistant II



POSITION DESCRIPTION

RESET FORM

PRINT FORM

POSITION INFORMATION		Effective Date:	
Position Number	Working Title	Campus	Cost Center
	Extension Program Assistant II	Institute of Agriculture	
Department	Supervisor's Position Title	Supervisor's Position Number	
HR USE ONLY			
Job Title	Job Key	Pay Grade	Exemption
			Choose One:

POSITION DETAILS	
Position Summary – Summarize the primary purpose of the position	
<p>The Program Assistant will work under the direction of the Extension Agent/County Director. Responsible for teaching educational programs to youth, 3rd-12th grades, and adults regardless of age, race, color, national origin, sex, religion, disability or veteran status. Provide the youth and adult audience with opportunities related to 4-H, Agricultural, and FCS endeavors that reflect positive life skill development. Responsible for teaching prepared curriculum and preparing materials that support the program. Responsible for maintaining the program's vision of preparing today's youth and adults for tomorrow's responsibilities</p>	
<p>Position Responsibilities – Total responsibilities must equal 100%. List essential functions in decreasing order of importance. Similar tasks should be grouped together. Any responsibility totaling less than 5% of the time should be grouped with a greater percentage of time function.</p>	
% of Time	Job Function/Responsibilities
55%	Work cooperatively with all county Extension staff for the implementation and teaching of the program. Teaches youth and adults an already planned curriculum in the appropriate program area.
20%	Assist Extension agents in planning monthly programs and provide leadership to county clientele. Train volunteers to help with county program.
% of Time	Job Function/Responsibilities
15%	Assist with program member enrollment and reports, as well as prepare monthly program materials. Provide information and documentation for evaluation of impact regarding programs represented by Extension back to the department.
10%	Other appropriate duties as assigned by the Extension Agent/County Director. Assisting with provided information of printed and web-based publications for programs to the county. Recruitment through the 4-H program for future students

June 2017

POSITION DESCRIPTION

% of Time	Job Function/Responsibilities
% of Time	Job Function/Responsibilities
% of Time	Job Function/Responsibilities
Competencies/Qualifications	
<p><i>Knowledge, Skills, and Abilities (KSAs) required to perform essential job functions. All KSAs should be related to the functions and responsibilities of the position. These statements should all contain the word 'knowledge', 'skill', or 'ability'. This is not the experience necessary to perform the essential functions.</i></p>	
<p>Strong written and verbal communication skills needed. Must be proficient in Microsoft Word, Excel, Publisher and Word Perfect. Teaching skills to adult and youth.</p>	

June 2017

POSITION DESCRIPTION

Preferred knowledge, skills, and abilities			
Teaching experience; associates degree			
Education/Experience			
<i>Education – Describe the minimum level of education necessary to perform the essential functions of the position. Where not required by law, an equivalent combination of training and experience may substitute for education</i>			
Required	Preferred	Level/Type of Education	Field of Study (indicate if a related field may be substituted)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	High school diploma or GED	
<input type="checkbox"/>	<input type="checkbox"/>	Vocational or technical training	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Associate's Degree	
<input type="checkbox"/>	<input type="checkbox"/>	Bachelor's Degree	
<input type="checkbox"/>	<input type="checkbox"/>	Master's Degree	
<input type="checkbox"/>	<input type="checkbox"/>	Doctoral Degree	
<input type="checkbox"/>	<input type="checkbox"/>	Other licenses/certifications	
<i>Experience – the minimum amount/type of experience necessary to perform the essential functions of the position</i>			
Required level/type of experience and/or years of experience			
High School diploma, GED or equivalent. Minimum nine months of related experience required.			
Preferred level/type of experience and/or years of experience			
Associate's degree preferred. Teaching experience.			
Supervisory/Work Direction Responsibilities			
<input type="checkbox"/>	This position has no supervisory responsibilities.		
<input checked="" type="checkbox"/>	This position provides work direction to others (includes students).		
<input type="checkbox"/>	This position has supervisory responsibilities and is responsible for staff performance management.		
Independence of Action/Level of Supervision Received			
<input checked="" type="checkbox"/>	Work is closely monitored by supervisor/manager; clearly stated instructions and procedures are generally provided; tasks, duties, and responsibilities are generally standardized and routine in nature; instruction, advice, and assistance readily available		
<input type="checkbox"/>	Work progress is generally monitored by supervisor/manager; employee performs assigned tasks, duties, and responsibilities by following established policies and procedures; may set own priorities and organizes work within general guidelines established by supervisor/manager		
<input type="checkbox"/>	Supervisor/manager defines objectives, priorities, and deadlines; existing practices are used as guidelines to determine specific work methods; carries out work activities independently; supervisor/manager is available to assist in resolving problems		
<input type="checkbox"/>	In consultation with supervisor/manager, sets own priorities and goals and determines how to accomplish results with few or no guidelines to follow, although past practices may exist; keeps supervisor informed of progress, potentially controversial matters, or matters with far-reaching implications		

June 2017

POSITION DESCRIPTION

Impact of Decisions		
<input checked="" type="checkbox"/>	Decisions generally impact own job or area.	
<input type="checkbox"/>	Decisions impact a unit or department. May contribute to business and operational decisions that impact the department. Makes recommendations to manager/supervisor that are generally implemented/accepted.	
<input type="checkbox"/>	Decisions have substantial impact on management and operations of an area within department, college or broad functional area. May contribute to important strategy, operational and business decisions which impact the department.	
<input type="checkbox"/>	Decisions have a significant impact on the management and operations of a division/college/campus/institution/system. Contributes to the decisions on the overall strategy and direction of the organization.	
Budget Responsibilities		
<input checked="" type="checkbox"/>	No Budget Responsibilities	
<input type="checkbox"/>	Monitor/maintain budgets – Processes transactions, monitors balances, and reconciles accounts	
<input type="checkbox"/>	Managerial/signature budget authority – Approves and commits funds for salaries, and to acquire materials, resources, supplies, services, etc.	
<input type="checkbox"/>	Full budgetary oversight – Establishes budget and has full authority to implement budget initiatives	
CONDITIONS OF EMPLOYMENT		
No	Designated personnel for emergencies – Is this position required to report to their designated work location to ensure operation of essential campus functions or departments during an emergency, or when the University has suspended or delayed operations?	
First Shift	Shift	
Background Check Required – Select any additional background checks this position requires in addition to the basic background check		
<input checked="" type="checkbox"/>	Covered Programs Check	
<input type="checkbox"/>	Credit Check	
<input type="checkbox"/>	Drug Screening	
<input type="checkbox"/>	Security Clearance Check	
Work Schedule		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Weekends
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Evenings
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Overnight Travel
Other Conditions of Employment required to perform essential functions of this position (i.e. the employee would lose their job if at some point they didn't meet these conditions.) e.g. Valid Driver's license, pesticide application certification		
Must have a valid Driver's license.		

POSITION DESCRIPTION

WORKING CONDITIONS				
PHYSICAL DEMANDS				
	Amount of time			
	Not required	Seldom	Often	Frequent
Stand	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Walk	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sit	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Talk or hear	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Seeing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Use hands to finger, handle or feel	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reach with hands and arms	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Repetitive motion	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Climb or balance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stoop, kneel, crouch or crawl	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Driving	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lift up to 10 lbs	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lift up to 25 lbs	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lift up to 50 lbs	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lift up to 100 lbs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WORK ENVIRONMENT				
	Not required	Seldom	Often	Frequent
Work near moving mechanical parts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work in high, precarious places	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fumes, smoke, or airborne particles	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Toxic or caustic chemicals	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hazardous Materials	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Risk of electrical shock	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Risk of radiation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Operate power tools/machinery	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Operate light or heavy equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Confined Spaces	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exposure to vibrations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Explosive or flammable materials	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Personal protective equipment required	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outdoor Environment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extreme heat (non-weather)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wet or humid conditions (non-weather)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Potential exposure to infectious agents or blood borne pathogens	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work with human blood or cells	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work with animals	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work with animal blood or cells	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Office Environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

June 2017

Position Description: Extension Program Assistant III



POSITION DESCRIPTION

RESET FORM

PRINT FORM

POSITION INFORMATION		Effective Date:	
Position Number	Working Title	Campus	Cost Center
	Extension Program Assistant III	Institute of Agriculture	
Department	Supervisor's Position Title	Supervisor's Position Number	
HR USE ONLY			
Job Title	Job Key	Pay Grade	Exemption
			Choose One:

POSITION DETAILS	
Position Summary – Summarize the primary purpose of the position	
<p>The Program Assistant III will work under the direction of the Extension Agent/County Director. Responsible for teaching and creating curriculum for educational programs to youth, 3rd -12th grades, and adults regardless of age, race, color, national origin, sex, religion, disability or veteran status. Provide youth and adult audience with opportunities related to 4-H, Agricultural, and FCS endeavors that reflect positive life skill development. Train Program Assistant I and II employees.</p>	
<p>Position Responsibilities – Total responsibilities must equal 100%. List essential functions in decreasing order of importance. Similar tasks should be grouped together. Any responsibility totaling less than 5% of the time should be grouped with a greater percentage of time function.</p>	
% of Time	Job Function/Responsibilities
55%	Work cooperatively with all county Extension staff for the implementation and teaching of the program. Including creating curriculum for the program. Training level I and II program assistants.
20%	Assist Extension agents in planning monthly programs and provide leadership to County clientele. Classroom decisions pertaining to minor student disciplinary action and monthly program development.
% of Time	Job Function/Responsibilities
15%	Assist with program member enrollment and reports, as well as prepare monthly program materials. Provides information/documentation for evaluation of impact regarding programs represented by Extension back to the department.
10%	Other appropriate duties as assigned by the Extension Agent/County Director. Recruitment of volunteers and future students in the 4-H program and teen leaders.

June 2017

POSITION DESCRIPTION

% of Time	Job Function/Responsibilities
% of Time	Job Function/Responsibilities
% of Time	Job Function/Responsibilities
Competencies/Qualifications	
<p><i>Knowledge, Skills, and Abilities (KSAs) required to perform essential job functions. All KSAs should be related to the functions and responsibilities of the position. These statements should all contain the word 'knowledge', 'skill', or 'ability'. This is not the experience necessary to perform the essential functions.</i></p>	
<p>The Program Assistant II is to have the ability of teaching prepared curriculum and preparing materials that support the program. Ability to create curriculum. Responsible for maintaining the program's vision of preparing today's youth and adults for tomorrow's responsibilities. Strong written and verbal communication skills needed. Program Assistants must be proficient in Microsoft Word, Excel, Publisher and Word Perfect. Ability to take charge of a classroom of children.</p>	

June 2017

POSITION DESCRIPTION

Preferred knowledge, skills, and abilities			
Experience and training skills. More than 5 years of related experience or teaching.			
Education/Experience			
<i>Education – Describe the minimum level of education necessary to perform the essential functions of the position. Where not required by law, an equivalent combination of training and experience may substitute for education</i>			
Required	Preferred	Level/Type of Education	Field of Study (indicate if a related field may be substituted)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	High school diploma or GED	
<input type="checkbox"/>	<input type="checkbox"/>	Vocational or technical training	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Associate's Degree	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Bachelor's Degree	
<input type="checkbox"/>	<input type="checkbox"/>	Master's Degree	
<input type="checkbox"/>	<input type="checkbox"/>	Doctoral Degree	
<input type="checkbox"/>	<input type="checkbox"/>	Other licenses/certifications	
<i>Experience – the minimum amount/type of experience necessary to perform the essential functions of the position</i>			
Required level/type of experience and/or years of experience			
High School diploma, GED or equivalent. Minimum five years of related experience required and prior training experience.			
Preferred level/type of experience and/or years of experience			
Associate's or Bachelor's degree preferred. More than 5 years of related experience and teaching experience. 2 or more years of supervisory and training experience.			
Supervisory/Work Direction Responsibilities			
<input type="checkbox"/>	This position has no supervisory responsibilities.		
<input checked="" type="checkbox"/>	This position provides work direction to others (includes students).		
<input type="checkbox"/>	This position has supervisory responsibilities and is responsible for staff performance management.		
Independence of Action/Level of Supervision Received			
<input type="checkbox"/>	Work is closely monitored by supervisor/manager; clearly stated instructions and procedures are generally provided; tasks, duties, and responsibilities are generally standardized and routine in nature; instruction, advice, and assistance readily available		
<input checked="" type="checkbox"/>	Work progress is generally monitored by supervisor/manager; employee performs assigned tasks, duties, and responsibilities by following established policies and procedures; may set own priorities and organizes work within general guidelines established by supervisor/manager		
<input type="checkbox"/>	Supervisor/manager defines objectives, priorities, and deadlines; existing practices are used as guidelines to determine specific work methods; carries out work activities independently; supervisor/manager is available to assist in resolving problems		
<input type="checkbox"/>	In consultation with supervisor/manager, sets own priorities and goals and determines how to accomplish results with few or no guidelines to follow, although past practices may exist; keeps supervisor informed of progress, potentially controversial matters, or matters with far-reaching implications		

June 2017



POSITION DESCRIPTION

Impact of Decisions		
<input type="checkbox"/>	Decisions generally impact own job or area.	
<input checked="" type="checkbox"/>	Decisions impact a unit or department. May contribute to business and operational decisions that impact the department. Makes recommendations to manager/supervisor that are generally implemented/accepted.	
<input type="checkbox"/>	Decisions have substantial impact on management and operations of an area within department, college or broad functional area. May contribute to important strategy, operational and business decisions which impact the department.	
<input type="checkbox"/>	Decisions have a significant impact on the management and operations of a division/college/campus/institution/system. Contributes to the decisions on the overall strategy and direction of the organization.	
Budget Responsibilities		
<input checked="" type="checkbox"/>	No Budget Responsibilities	
<input type="checkbox"/>	Monitor/maintain budgets – Processes transactions, monitors balances, and reconciles accounts	
<input type="checkbox"/>	Managerial/signature budget authority – Approves and commits funds for salaries, and to acquire materials, resources, supplies, services, etc.	
<input type="checkbox"/>	Full budgetary oversight – Establishes budget and has full authority to implement budget initiatives	
CONDITIONS OF EMPLOYMENT		
No	Designated personnel for emergencies – Is this position required to report to their designated work location to ensure operation of essential campus functions or departments during an emergency, or when the University has suspended or delayed operations?	
First Shift	Shift	
Background Check Required – Select any additional background checks this position requires in addition to the basic background check		
<input checked="" type="checkbox"/>	Covered Programs Check	
<input type="checkbox"/>	Credit Check	
<input type="checkbox"/>	Drug Screening	
<input type="checkbox"/>	Security Clearance Check	
Work Schedule		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Weekends
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Evenings
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Overnight Travel
Other Conditions of Employment required to perform essential functions of this position (i.e. the employee would lose their job if at some point they didn't meet these conditions.) e.g. Valid Driver's license, pesticide application certification		
Must have a valid Driver's license.		

POSITION DESCRIPTION

WORKING CONDITIONS				
PHYSICAL DEMANDS				
	Amount of time			
	Not required	Seldom	Often	Frequent
Stand	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Walk	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Talk or hear	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Seeing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Use hands to finger, handle or feel	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reach with hands and arms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Repetitive motion	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Climb or balance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stoop, kneel, crouch or crawl	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Driving	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lift up to 10 lbs	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lift up to 25 lbs	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lift up to 50 lbs	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lift up to 100 lbs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WORK ENVIRONMENT				
	Not required	Seldom	Often	Frequent
Work near moving mechanical parts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work in high, precarious places	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fumes, smoke, or airborne particles	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Toxic or caustic chemicals	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hazardous Materials	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Risk of electrical shock	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Risk of radiation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Operate power tools/machinery	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Operate light or heavy equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Confined Spaces	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exposure to vibrations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Explosive or flammable materials	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Personal protective equipment required	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outdoor Environment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extreme heat (non-weather)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wet or humid conditions (non-weather)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Potential exposure to infectious agents or blood borne pathogens	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work with human blood or cells	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work with animals	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work with animal blood or cells	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Office Environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

June 2017

APPENDIX G
IDENTIFICATION AND ANALYSIS OF VARIABLES

**Does Employee Communication Technology Use Influence
Interpersonal Communication?**

This is a mixed-methods study with seven quantitative questions and one qualitative question. The study examined the level of employee communication skills in the workplace as influenced by the level of employee communication technology use when employed as a primary means of workplace communication. Through the use of the sociocommunicative orientation (SCO) scale, the study required self-reporting of information from employees on communication skills. Information regarding administrators’ perspectives of the employees’ communication skills within the course of their work environment were collected and analyzed.

Table A.1 Variable Analysis

	Variable label	Levels of the variable	Scale of measurement
Dependent Variable	Level of employee interpersonal communication skills (Assertiveness + Responsiveness)	Total SCO score = 20–100 Assertiveness = 10–50 Responsiveness = 10–50	Scale
Independent Variable	Level of employee communication technology use (percentage use per day)	1 = Light, <40% 2 = Moderate, 40%–60% 3 = Heavy, >60%	Nominal
Independent Variable	Job position	1 = Program Assistant One 2 = Program Assistant Two 3 = Program Assistant Three	Nominal
Independent Variable	Area of focus	1 = Agriculture 2 = Family & Consumer Sciences (EFNEP/TNCEP) 3 = 4-H	Nominal

VITA

Izetta is in her 15th year with the University of Tennessee (UT) and currently serves as the Executive Director, UT Knoxville, Human Resources. Previous roles included Associate Director, Office of Equity and Diversity; Interim Department Head for UT Extension Evaluation and Staff Development; and Interim Human Resource Officer for UT Institute of Agriculture. Her time with UT also encompassed years of service with the Institute for Public Service. In addition to her work at UT, Izetta has over 20 years of work experience with other higher education institutions: Howard University in Washington, DC, the University of Maryland in College Park, Southern Illinois University in Carbondale, and Texas A&M University in College Station.

Izetta has experience working with private business, nonprofit organizations, and local, county, and state government agencies in providing human resources, customer service, strategic planning, program facilitation, leadership coaching and development, performance and organizational consulting, and professional development services. She has been a presenter at national, regional, and state conferences for professional associations, among them the Colleges and Universities Professional Association–Human Resources, the Tennessee Association of Municipal Clerks and Records, and the National Extension and Research Administrative Officers Conference.

She received her Bachelor of Science (B.S.) in Business Administration with a major in Finance from the University of South Carolina and her Master of Science (M.S.) in Education

with a major in Human Resource Development from Texas A&M University. During her stay in Texas, she also received formal training in mediation.