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Samantha Okegbe

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DETERMINANTS OF MULTITASKING BEHAVIOR AMONG YOUNG ADULTS  
DURING GROUP MEETINGS:  
ATTITUDES ON NORMS, POLYCHRONICITY AND MULTICOMMUNICATING

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Bachelor of Arts in English Language  
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June 2013

submitted in partial fulfillment of requirement for the degree  
MASTER OF APPLIED COMMUNICATION THEORY AND METHODOLOGY  
at the  
CLEVELAND STATE UNIVERSITY  
MAY 2019

We hereby approve this thesis for

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Candidate for the Master of Applied Communication Theory & Methodology degree

For the

School of Communication

CLEVELAND STATE UNIVERSITY'S

College of Graduate Studies by

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Student's Date of Defense: May 2, 2019

## ACKNOWLEDGEMENTS

My deepest gratitude goes to God almighty for giving me the strength and grace to complete this thesis successfully.

I would like to thank my thesis advisor, Dr. Anup Kumar, for his valuable feedback and guidance throughout the process of this research.

I would like to thank Dr. Kimberly Neuendorf, my committee member for her feedback and her teachings in my methods class.

I would also like to thank Dr. Guowei Jian, my committee member for his feedback on my thesis.

Lastly, I want to thank my loving and supportive family, friends, course mates and other faculty members for all their support, encouragements and teachings.

DETERMINANTS OF MULTITASKING BEHAVIOR AMONG YOUNG ADULTS  
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AND MULTICOMMUNICATING

SAMANTHA OKEGBE

**ABSTRACT**

Research on the influence of multitasking behavior on efficacy of outcomes is mixed. Many researchers consider multitasking to enhance individuals' productivity when it is managed properly, and others argue that it is detrimental in some cases. This study is about understanding multitasking behavior of young adults during group meetings. Group meetings are an integral part of communication practices in organization. Group meetings are essential for training, planning, and completing a task that requires participation from all members of a group. One of the norms in group meetings is the expectation to focus on task at hand and pay attention to what is going on in the meeting. However, today, as all of us carry powerful computing handheld devices, such as smartphones, there is a likelihood that we may use it to communicate with people outside a group meeting or to do a task unrelated to the meeting at hand. When young adults enter college, they get the opportunity to develop professional skills and abide by norms that guide such professional settings. They often put the skills and norms into practice as part of class projects, student organizations, work study employees in offices, or as interns in organizations. College students carry their experiences of working in groups and participating in office group meetings to the professional world when they graduate.

However, today's college students as digital natives seem to be more accepting of multitasking, especially using their handheld devices such as smartphones during group meetings. Studying college students' attitudes with regards to multitasking during group meetings will help us understand their motivations for these behaviors. This study will examine the factors that influences multitasking behavior with respect to polychronicity, multicommutating, utility of media and technology, social and professional norms, and big-five personality.

The findings show that perception of media utility and technology and observing others behavior is stronger in predicting multitasking behavior. Additionally, the study found that when students come into college, they tend to be high multitaskers in group meetings, but as they stay in college and move from freshmen to senior, they tend to get socialized into multitasking during group meetings.

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## **CHAPTER I**

### **INTRODUCTION AND RATIONALE**

Meeting has been defined as a gathering of three or more people to discuss issues concerning the functioning of a group or a larger society (Schwartzman, 1989). Tracy and Dimock (2004) believe that meetings are becoming more complex and researchers should focus their attention on meetings as important sites for examining communication phenomena.

#### **Group Meeting Functions**

Group meetings in any organizational setting provide opportunities for individuals to work as a team such as to get task completed, share new ideas, and solve problems collectively. The meetings are also used as a means to inform, take feedback, and for the members of an organization who are participating in the meetings to network with each other. Majority of people who attend meetings engage in one form of activity or the other that do not pertain to the meeting taking place. In most cases, participation in a meeting requires setting aside time to focus on the agenda at hand. Sometime not everyone has time available to meet because of demands to address other tasks at hand. A person pressed with time may choose to participate in a group meeting because she values teamwork or because she may have the opportunity to multitask (or dual-task) while

being at the meeting. Typical tasks in a meeting could be conversing with other meeting attendees or with people not involved in the meeting (Stephen, 2012), either through using digital devices such as smartphones, laptops, iPads etc.

Multitasking at groups meetings can support or undermine efficiency and productivity. This brings about the question, what does multitasking mean? Why do people multitask during group meetings? Past studies have shown that the ability to do more than one task simultaneously rather than sequentially, also known as polychronicity, and the ability to communicate simultaneously with more than one person, also known as multicommutating, explains the phenomenon multitasking and associated attitudes with respect to social norms against multitasking in a variety of settings including classrooms and group meetings in offices. The goal of this study is to understand how college student's attitudes on polychronicity, multicommutating, and social norms influence multitasking behavior.

### **Group Meetings and Technology**

In recent years multitasking has increased because of the rapid growth in the use of media technologies. We all carry handheld devices such as smartphones and tablets, and we attend to group meetings over telephone and virtual meetings using computer mediated communication (CMC). Due to the ubiquity of CMC, we may find it convenient to multitask during group meetings. Meeting attendees have been known to engage in their personal devices by texting, chatting, or working on some other tasks while also trying to listen to the on-going meeting. Additionally, ubiquity of handheld devices has meant that we have opportunity to communicate and multitask at our fingertips with others outside the group meeting. We can text chat, watch videos, read

news, work on assignments, projects, view friends and family's profiles or pictures etc., while being at a group meeting. Moreover, as the handheld devices have increased in computing power, we can even conduct routine business activities such as replying to emails or work on a document, assignment or other projects.

In organizations, knowledge workers are now intensely using collaborative technology such as email, Instant Messaging etc., which increases the possibility of being in multiple teams and projects simultaneously on one hand, while on the other, it increases interruptions one generates and receives (e.g. Mattarelli et al, 2015). Due to the proliferation of technology, there is an increase in organizations accepting and using technology to disseminate information to a group at once and to bridge distance between members of a group. With a fluctuating economy, companies aim to save resources by reducing the number of meetings that would require expensive and unnecessary travel and inconvenience. This means that meetings are increasingly taking place over distance, supported by some combination of technologies including teleconferences, video conferences, electronic meeting software and, more recently, virtual worlds (Lucia, Francese, Passero, & Tortora, 2008). Researchers like Mark, Grudin, and Poltrock (1999) conducted a case study to examine how technology such as desktop conferencing with application sharing is used by 4 groups within a company. They identified success factors by focusing on the use of technology facilitation and meeting facilitation. Some members preferred face-to-face meetings better because they can see expression and feel more of a team, especially when people do not speak. They add that they get extra feedback of the body language of a person and that online expressions may be confused and lots of signals lost. Due to the advent of technology, electronics such as mobile phones and

computers, social media platforms etc., are tools people now use for meeting purposes and also to engage themselves and pass away time.

### **Group Meetings and Productivity**

One of the questions that have puzzled most scholars is if multitasking during official meetings affect cognitive abilities of an individual to participate fully in the meeting? Some researchers consider multitasking can be good if managed properly, and others argue that it is detrimental in some cases. There is an argument supported by studies on multitasking that in various circumstances—classroom learning, driving and texting, social gatherings, etc.—multitasking affects our capacity to pay attention to a task at hand, learning outcome, reduced efficiency and productivity (E.g., Hembrooke and Gay, 2003; David, Kim, Brickman, Ran & Curtis, 2015; Lui & Wong, 2012). However, there is a counter argument that some people have cognitive capacities to multitask and sometimes, under certain conditions, multitasking can increase productivity and efficiency (E.g., Lui & Wong, 2012; Kononova & Yuan, 2017).

### **Group Meetings and Norms**

How does social and professional norms influence our multitasking habits? Do norms that surround a group meeting setting affect how we use our mobile devices, laptops etc? It is possible that some people who think they have dexterity and cognitive capacities to multitask don't multitask in group meetings because they feel that multitasking would be breaking social norms such as nonverbal cues that suggest one is paying attention and looking at the speaker as a form showing respect or showing you are listening attentively. Virtual or face to face meetings have been known to impact the way members actively multitask. While remotely attending a group meeting, we may feel that

we can multitask because we are protected from social norms enforcing gaze of other members participating in the group meeting. Which brings us to the social influence model and how norms can have an influence on an individual's motivations and attitude to multitasking during group meetings. Depending on the social or professional norms surrounding the meeting, members may have certain attitudes and motivations towards multitasking. Also, if other members of the group meetings do not frown upon these behaviors, then people would be more likely to multitask openly or freely without feeling they have to abide by the norm.

Yet today there is a sense of invincibility in some of us when it comes to handheld devices. We feel that we can use our smartphones and fully participate in a group meeting. We see this in relatively younger generation who came of age with digital handheld devices. The younger generation may feel dexterous in using their smartphones while driving (e.g. Telemaque and Madueke, 2015), listening to a lecture (Kraushaar & Novak, 2010; Hembrooke & Gay, 2003) or while attending a group meeting (Stephens, 2012). Telemaque and Madueke (2015) suggest that adult drivers believe invincibility is an obvious trait in teens. They do not believe any risk could occur while they text and drive, hence they participate in multitasking activities, thereby leading to more road accidents. The sense invincibility in young adults may lead to avoiding social norms against temptation to multitask during group meetings. However, we know from studies that younger generation feel that the norms do not apply in a digital social environment in which we are always with a handheld device. They feel that norms need to adopt to the new digital communication technologies (Turkle, 2017).



## **Multitasking**

In examining multitasking, it has been defined by Rubinstein, Meyer & Evans (2001) as the performance of several tasks at once. Multitasking was found to increase productivity in some studies and decrease productivity in others. Wasson (2004) was one of the first few to examine virtual meetings by using the technique of direct observation of real work situations. He regards multitasking in a positive light if managed properly. In carrying out tasks, individuals can either carry out these tasks sequentially or simultaneously.

## **Multitasking in the Workplace**

Multitasking activities is required in many jobs such as working on different deadlines at once, talking on the phone while searching on the internet to pull up information, trying to concentrate on one task at work but being interrupted by another, or working on different machines simultaneously (Konig, Buhner, & Murling, 2005). A driver talking on the phone while at the same time texting, can be described as simultaneous multitasking. While a customer service representative who speaks to a client in front of her before moving on to pick a call from another client is engaging in sequential multitasking. Scholars like E. A. Fleishman, Costanza, & Marshall-Mies, (1999) add that being able to multitask is important for many jobs such as firefighting and prevention supervisors, school bus drivers, and game dealers.

In the neuropsychological field, studies suggest that humans are able to switch swiftly between tasks rather than attending to many tasks simultaneously. At worse, their working memory and activity performance are negatively affected causing cognitive overload which results in likely energy loss and stress (Berg, Ehrenberg, Florin,

Ostergren, Goransson, 2012). The combination of interruptions and multitasking have negative effects and are known to increase the risk of errors and are a huge threat to patient safety in the emergency room (Chisholm, Collison, Nelson, Cordell 2000; Coiera, Jayasuriya, Hardy, Bannan, & Thorp, 2002). In an emergency department (ED) study, Forsberg, Athlin & von Thiele Schwarz, (2015) respondents viewed multitasking as something so natural at an ED that they did not think much about it and they struggled to give very detailed descriptions of situations when they multitasked. They regarded multitasking as an inherent part of working in an ED and something that cannot be separated from it. Multitasking and interruptions were not viewed as problematic but as enjoyable and an attraction of working in the ED. In this study, multitasking implied efficiency, less stress, and causes less errors for most of the respondents. The results from the study suggest that multitasking is perceived as something positive, related to both perceptions of efficiency and enjoyment for nurses in the ED.

### **Attitudes and Norms**

Humans also have individual personality traits that accounts for certain behaviors. Researchers have studied multitasking in a variety of context such as classroom learning, texting and driving, and virtual and face-to-face office meetings. However, there are only a few studies on understanding attitudes and behaviors related to self-perception of efficacy of multitasking behavior that get formed early in young adults, especially when young adults enter college and acquire knowledge and skills to work as professionals with others. Hence, the purpose of this study is to investigate attitudes on multitasking, social norms, and motivations among college students to multitask—using their handheld devices such as smartphones, tablets or laptops—during group meetings. In

understanding attitude of individuals, Fulk, Schmitz and Steinfield (pg. 123, 2009) add that “people make assumptions about what their attitudes are about an issue, event, or person by recalling their own behavior surrounding the issue, event, or person”. They add that attitudes are used to interpret and make sense of behavior that has already occurred, and this study would review undergraduates’ attitudes towards their multitasking behavior during group meetings. Salancik and Conway (1975) note that inferring about one’s attitudes are not based on one’s actual behavior but on what someone actually knows or remembers about his or her behavior.

When young people transition from high school to college, it is the first time in their life they are in a social environment where they are viewed as adults, and as adults they have the right to make their own decisions on dos and don’ts. Additionally, in the college environment they come across peers who they have not known for years, and yet they may have to work with them in groups, attend group meetings as members of a student organization or participate in group meetings in offices where they work as student workers or interns. They will carry the attitudes and perceptions with regards to efficacy, that they may develop while in college to the professional world. To address the purpose of this study I will be conducting a survey with college students at Cleveland State University. Now before we proceed ahead let us review how past studies have conceptually and theoretically addressed the issue of multitasking with respect to polychronicity, multicommuting, social influence, professional norms and social norms in the context of group meetings.

## **Social Influence**

Kelman and Hamilton (1989) consider social influence to occur within a larger social context and that conversations between different groups of people can be a bit structured by the larger society. They suggest that participants act out defined roles and their interactions is controlled partly by the expectations associated with those roles. They describe influence as a two-way process that members can influence authorities thereby leading to social change and in the same manner, authorities influence members which leads to individual change. This can be applied in the context of group meetings whereby the organizations or the norms surrounding them influences college students thereby leading to individual changes in their multitasking behaviors. This study is concerned with the way in which group meeting demands and expectations are communicated to members and how they are influenced by them.

The rest of this paper is organized as follows. The literature review, research questions, hypothesis and the proposed model is presented in the next section. Chapter 3 reports survey development and data collection method. In chapter 4, report of the data analysis and results is presented. Chapter 5 summarizes and discusses the results, findings and limitations of the study.

## **CHAPTER II**

### **LITERATURE REVIEW**

In this review, I will discuss past research on multitasking, attitudes, motivations and its effects on young adults. This review will also explore the concept of multicommutating, social influence, utility of media and technology, social and professional norms and polychronicity in group meetings. The review of the literature on multitasking research will put in context the purpose of this study leading to the formulation of research questions and hypothesis. In the following section, I will discuss research on multitasking, what we know and do not know, what other scholars have said about it, and what this study is trying to explain.

#### **Attitudes to Multitasking During Group Meetings**

In this study multitasking has been conceptualized as engaging in two or more task at the same time during group meetings. These tasks could range from listening to a speaker while texting on your mobile phone or working on a school project on your laptop while listening to the speaker or chatting with friends about matters either related or unrelated to the meeting at hand. There are different motivations that influences young adults to engage in these multitasking habits during group meetings. One wonders if their positive or negative attitude towards multitasking influences if they would be high or low

multitaskers? or their individual personality traits or watching others multitask? Do they find technological devices very useful during these meetings, would it affect how much they engage with these devices? Also, their preference for carrying out task simultaneously rather than sequentially, known as polychronicity, may explain why they prefer to perform multiple task during group meetings. This study is trying to understand those motivating and influencing factors. Lyon, Kim, & Nevo (2010) have also wondered if multitasking has a positive or negative impact on various aspects of meetings such as outcomes, effectiveness, efficiency, or personal relationships of participants. They also question when is divided attention useful or detrimental in general work environments and specifically in meeting situation? Before discussing the research on multitasking, let us focus on some of the definitions offered by scholars.

Several researches have been carried out on definitions of multitasking, its effect and different ways people multitask. David, Kim, Brickman, Ran, and Curtis, (2015) state that, “multitasking involves simultaneous involvement in two or more tasks without disengagement or a temporary break from either task”. Some researchers reserve the term multitasking as using media for one task while concurrently completing another, non-mediated task (Ophir, Nass, & Wagner, 2009). Scholars like Salvucci and Taatgen, (2008) explain that in some situations multitasking can seem effortless such as walking and talking, and others may seem very difficult such as reading and listening to a lecture. Some consider it as “Multitasking Attention Deficit” (Curtis, 2000), suggesting that web motion designers need to communicate their message in 10 seconds or less since many people are multitasking to alleviate boredom. So, could multitasking be considered a deficit or a skill? Another scholar considers it a skill that can be “Multitasking Attention

Dexterity” (Torrence, 2001). Digital natives have been known to feel invincible when trying to juggle multiple task, such as driving and texting, driving and talking on the phone, listening to music and walking their dog while chatting on their phones, attending a lecture while browsing on their laptops either pretending to be typing notes of the lecture but are actually on Facebook. They believe they are skillful and can pay attention to multiple tasks at once. Their attitude of feeling invincible may contribute to how likely they are to multitask during group meetings. This study aims to help us understand these possible factors. Lyon et al., (2010) consider multitasking in meetings as not giving full attention to the meeting’s event and listed instances such as attending to email or instant messages, reading unrelated or even related materials, or engaging in varying activities that are not part of the current discussion in the meeting. Tang, (2005) suggest that this may be as a result of people feeling a level of social awkwardness when multitasking in a face-to-face meeting.

Scholars have asserted that multitasking has become an integral component of job performance for many workers and that almost every job requires some degree of multitasking (Bühner, König, Pick, & Krumm, 2006). Organizational department, university departments, staff meetings, and various other team meetings usually ask their employees to work on multiple tasks in a single day within a specified period of time, which is a clear example of multitasking being seen in a positive light and an encouraged behavior. David & al. (2015) gave instances of simultaneous engagement as singing and playing a guitar or driving a car and conversing with a friend can both occur in real time without a break in either task. They add that in the real world the term can be referred to as task switching, which requires temporary disengagement from one task to attend to the

other. For instance, texting while doing homework requires temporal halting of one task to another, whereas listening to music while studying can co-occur without a break in either activity. Employees are now intensively using technology such as email, IM, video conferencing etc. which increases the possibility of being in multiple teams and projects simultaneously, and on the other hand it increases the risk of interruptions one generates and receives (Mattarelli, Bertolotti, and Incerti 2015). One limitation of Lyons et al., (2010) study was that more research should be done on exploring multitasking in different technology-enabled meetings to examine its effects on various outcomes such as problem solving and decision making.

Wasson (2004) found that different kinds of meetings require more or less attention which tends to affect the degree of multitasking that people engage in. Prior research has identified two different drivers of multitasking: external interruptions and internal decisions to stop ongoing tasks (Miyata & Norman, 1986; Dabbish, Mark & Gonzalez., 2011). When an event occurs in the environment and forces a user to switch task, that is considered an external interruption; While an internal interruption comes from one's self, i.e., self-initiated which occurs when a user decides to switch tasks at his/her discretion (Miyata & Norman, 1986). Jin and Dabbish (2009) discuss seven categories of internal interruptions. They explained that a user would switch to another for: adjustment, break, routine, wait, inquiry, trigger, and recollection. An instance would be a user multitasking due to a trigger or recollection of another task or due to routine such as checking one's email out of habit. Mark, Grudin, and Poltrock (1999) conducted a research and reported that most of their test subjects considered multitasking a big advantage because more meetings can be attended and lots of work accomplished. Some



other member's described multitasking as a distraction and a detriment. They reported often reading email or talking with other people in the room and that it reduced commitment to the group. They believe that obeying organizational ICT use norms can have an impact on how people's work is evaluated.

Furthermore, Gillie & Broadbent, (1989) add that there may be an impact on the primary task if there is an interruption from a secondary task, because of the extra time and effort required to recall the primary task when it is resumed. For example, Speier, Vessey, & Valacich (2003), found that interruptions aided in improving performance on simple tasks but not on complicated tasks. This is because when users are interrupted during complex tasks, their cognitive ability is impaired and task performance suffers. Mattarelli, Bertolotti, and Incerti (2015) did a study on how individual perceptions and attitudes about an organization influence of multitasking behaviors in the workplace and how they perceive the organizational temporal norms. They still do not know much about the way individuals' interpretation of their organization influences their multitasking behavior. While their study is on how perceptions of the organization influence how individuals move between different task in the workplace with a focus on sequential multitasking, this paper focuses on individuals reported multitasking behaviors during group meetings.

### **Demographics**

Many demographic factors were considered such as their age, sex and what year they were in school. The Generation X (born 1965-1976) behave differently towards technology compared with the Millennials (born 1977-1995) and the iGen (born 1996 upwards). Study shows that the feeling of invincibility amongst iGen was one of the

causes of distracted driving. They feel they can multitask and are invincible to any road dangers hence their frequent use of handheld devices while driving. The Generation X are less dependent on technological devices and act differently when using these devices. Gender may also play a role in how males and females are motivated to multitask during group meetings. This study is about college students most of whom are mostly part of the younger generation. What seems to be interesting to look at is how attitudes may change with one generation, all of whom are born as digital natives. Scholars have mostly tried to look at generational differences in the society and only few studies have considered differences between a generation. This study focuses on young adults whose ages ranges from 18 to 34. These categories of people were born at a time when technology devices were beginning to bloom.

Another demographic factor to consider is their status in school such as freshmen, junior, or senior, as this is a period in these young adult lives where they are exposed to different mobile applications and social media platforms. The year in college should tell us if there is a difference in multitasking behavior among the students when they start out as freshmen and when they finish as seniors, and if their experience with quasi-professional group meetings in college leads to change in acceptance of professional and social norms against multitasking behavior. These young adults are starting out their lives. Some of them may be having their first or second jobs, either on campus or off campus. They are exposed to different social and professional norms where they have to abide by certain rules. The setting of the meetings and attitudes of their co-workers towards multitasking may influence their behaviors at this early age. This study is trying to understand how the following demographic factors like age, gender, status in school,

internship experience, job experience, and experience with meeting attendance influences their behaviors to multitask more or less. Thus, we ask:

*RQ1: Are there differences across demographic groups with respect to young adults multitasking behaviors during group meetings?*

### **Social and Professional Norms**

There are certain norms that shapes how people behave in the society. The setting could range from an office place, a community, a social gathering, a meeting or a variety of events. People act in different ways depending on the norms that guides the particular setting. In group gatherings, such as student organizations meetings, club/fraternities' meetings, job meetings etc, young adults abide by these norms, which influences their multitasking behaviors. Turner, Grube, Tinsley, Lee, and O'Pell (2006) research suggests that organizations may develop dominant media use norms that influence the overall work environment. Anderson (2005) describes professional norms as the prescriptions widely known and used by individuals of a certain occupation. An individual who violates a norm could result in severe consequences like losing one's authorization or getting a poor reputation and possibly will not get referred by other professional individuals. Due to this reason, there is an expectation if an organization's professional norm prescribes a given behavior, the professionals will act accordingly (Anderson and Blegvad, 2002; Goodrick and Salancik, 1996). On the other hand, scholars have described social norms as the standard way people behave that are based on common shared beliefs of how individual group members are expected to behave in a given situation. They add that the groups in which the norms may exist can be family, a peer

group, an organization or a whole society (See Elster, 1989; Horne, 2001; Ellickson, 2001; Voss, 2001).

Turner et al., (2006), conducted a research that showed the existence of media norms within organizations and a description of their influence on employees'. They add that these norms, as well as supervisory behavior, may have an influence on how employees use email and IM and also when employees have strong polychronic orientation. They found that employees who reportedly followed organizational norms by using IM and email were awarded higher performance ratings by their supervisors with 30% of the variance explained. Thus, we ask;

*RQ2. Are there differences across demographic groups with respect to social norms during group meetings?*

*RQ3. Are there differences between demographic groups with respect to professional norms during group meetings?*

### **Multicommunicating**

This is a new practice and scholars such as Cameron and Webster (2010) advise that when a practice is so new that organizational and group norms have not fully developed around it, understanding how others will view this growing practice is difficult and Stephens (2012) add that multitasking and multicommunicating can be interpreted differently. Some consider it a unique type of multitasking. Although multitasking involves juggling multiple task, multicommunicating deals with juggling not just different tasks but many people and often different media at the same time (Cameron & Webster, 2011). Turner & Reinsch (2010) discovered that many common forms of multicommunicating involve using multiple ICTs and it can be used to support others, as

well as to gossip and criticize. Hymes (1972), considers multicommutating as the act of engaging in two or more conversations or “speech events” using nearly synchronous media such as telephone, email, videoconferencing, skype etc. Reinsch, Turner, & Tinsley (2008), consider multicommutating to be a behavior rather than a preference or attitude and differentiate it from other behaviors. It does not occur until an individual begins engaging in two or more one-on-one conversations. They add that openly multicommutating would be viewed as inappropriate or even rude by a person’s conversational partners who is getting part attention and experiencing intermittent gaps in their conversations and some scholars have termed this incivility. Perceived incivility is described as a “feeling that someone is being rude, discourteous, and displaying a lack of regard for others (Cameron & Webster, pg. 755, 2011; Andersson and Pearson, 1999). Some organizational norms may permit or support divided attention and active management of tempo by their employees. They suggest that the practice of multicommutating reveals a new use for lean media and this use takes advantage of their ability to compartmentalize (divided attention) and encourage flexibility of tempo.

### **Motivations to Multicommutating**

Stephens and Davis (2009) state that multicommutating does not only occurs in mediated conversations but in F2F meetings and also individuals own less public, mediated conversations that occurs on laptops and mobile phones. They add that activities that occur could be the use of electronic devices to take notes, explore Web Sites, and contribute to meetings. Reinsch et al (2008) consider multicommutating to vary in intensity, depending on the number of open conversations, the pace of each conversation, the integration of social roles and the number of topics being discussed.

Some scholars consider multicommutating to be a special type of multitasking and a very demanding one which is made possible because humans can think more faster than they can speak or type (Crosson, 2000a, b). People are required to switch roles and adjust to various audiences when multicommutating, while multitasking may not require considering people in a conversation (Stephens, Cho, & Ballard, 2012). This study is trying to help us understand how young adults' motivations to multicommutate would explain if they would be high multitaskers or low multitaskers during group meetings.

When in a group meeting, there is also the need to talk with your colleagues or fellow students to discuss something that is unclear, to discuss something that is not related to the topic being discussed in the meeting, to talk about events related to the meeting, or to just gossip and chit-chat. Younger adults are known for their youthful exuberance and may be likely to want to gossip more and describe current activities that are on-going, either through their devices or to the next person sitting beside or across from them. Recent research has discovered that people are socially influenced when they observe others multicommutate and multitask, which further influences their intent to multicommutate (Stephens & Davis, 2009). Thus,

*RQ4. Are there differences across demographic groups with respect to motivations to multicommutating during group meetings?*

### **Utility of Media and Technology Devices**

Digital natives who were born into a technological savvy world have been known to depend heavily on technological devices for their daily activities. These young individuals find media devices useful and are dependent on them, which may trigger frequent usage. In a group meeting setting, there are many reasons why these young adults

may engage in multitasking activities. One of the reasons may be to alleviate boredom, as some research have shown they have a short attention span. They may want to get more information about what the speaker at the meeting is talking about, hence they would open one or more tabs on their phones or laptops to search the web. While doing that, they may also want to communicate with their colleague who is sitting right beside them or chat with a friend through social media platforms such as Facebook, Messenger etc.

The prominence of the use of portable devices during meetings has led to ambiguity around when and how ICT should be used. Meetings may have an effect on employees' view of the right way to behave at work as they watch how others use and talk about using ICTs in different settings. Stephens (pg. 203, 2012) gave an instance of an individual being in a meeting and sends a message to someone, although others in the meeting can observe the individual typing on her phone, they may not know what she is typing or who she is typing to. She considers this behavior a "type of whispering" that are likely "influenced by other people due to the social nature of communication". Also, an employee may follow the orders of his boss in order to please them or gain favor. Turner et al., (2006) suggest that organizational environments provide rules for employees to follow, such as making eye contact and smiling with customers. They add that telephone conversations may have a specific format in which to open and close the conversation or certain behaviors when responding to multiple customers. It is safe to assume that appropriately matching media use to the demands of the job would have an influence on performance in the workplace. At the same time, working while using our personal phones was very frowned upon because is assumed it hinders productivity. I am interested in understanding how these young adults finding smartphones useful would

influence how high or low their multitasking behaviors would be. In this study, I have chosen to focus on undergraduates who are actively using technology during group meetings. Young adults' preference for using different media to complete different tasks during meetings may determine their future multitasking behaviors of older adults in organizational workplace. These students are at an important place in their lives where they try to juggle between doing different assignments and meeting up with submission deadlines, and these behaviors may give us an understanding of how these habits are carried unto the corporate world. Stephens et al., (2012) suggest that these group of individuals may be efficient at multitasking due to a technology-based environment they may have lived in, thereby reducing their tolerance to monotask (Stephens et al., 2012). They add that as Millennials become used to the compressed time and space created by technology, they tend to give values to multitasking and multicommuting.

The versatility and usefulness of smartphones may impact how young adults may want to engage in multiple activities during group meetings. The ability to switch between different apps and browser sites on a small device may make multitasking very engaging during these meetings. Some scholars suggest that one of the reasons that may influence people's use of ICT to multitask during meeting is information overload. Farhoomand and Drury (2002) consider information overload as an urgent problem that is related with low job satisfaction, stress, and loss in performance. In their research, a large number of the employees they interviewed claimed the main effect of feeling overloaded was a loss of time. They suggest when people feel overloaded, they may be compelled to multitask during meetings in order to get a lot of work done in a short period of time. Stevens and Davis (2009), surprisingly found that perceived communication overload did



not predict meeting multitasking behavior. Although the study focused on communication overload and not work overload, so it is possible people may be multitasking due to work overload. One wonders what role technology plays in influencing the multitasking behaviors of these young adults. Thus,

*RQ5: Are there differences across demographic groups with respect to utility of media and technology during group meetings?*

### **Polychronicity**

There has been a wide increase of interest in polychronicity over the past few years, probably as a result of increased interest in demand for multitasking in the workplace (Lindbeck & Snower, 2000). Scholars (Bluedorn, Kalliath, Strube, & Martin, 1999; Souitaris & Maestro, 2010) has conceptualized polychronicity, at the group or organizational level, as the preference of individuals or groups to be involved in various tasks to do them simultaneously as opposed to preferring to complete the tasks sequentially. Other scholars have conceptualized polychronicity as the preference for performing multiple tasks at once (König, et al., 1999) or the actual behavior of doing so (Bluedorn, Kaufman, & Lane, 1992). There are different types of preferences for multiple-task completion especially for people in technology-infused organization (Stephens, Cho, & Ballard., 2012). Individuals can be described as either polychronic or monochronic (Cober, Cober, Lawrence, Connell, 2003). Individuals that are monochronic can perform tasks one at a time, engage in detailed planning, task oriented, pay close attention to promptness and are schedule driven (Bluedorn et al., 1999; Bluedorn et al., 1992).

Poposki and Oswald (2010) describe a polychrone as a person whose preference is to shift his/her attention among ongoing tasks rather than handling them in a serial fashion. Individuals that are polychronic prefer to conduct tasks simultaneously, less organized, more time conscious, likely to switch plans, more likely to report that daily goals have been completed and feel less stressed under pressure (Bluedorn et al., 1999; Bluedorn et al., 1992; Conte, Hall, 1983). Polychrone people perceive multitasking as a preferred way of handling tasks but also as a superior one (Konig and Waller, 2010). Slocombe and Bluedorn (1999), consider organizational polychronicity to play an important role in influencing how people handle multiple tasks. According to Souitaris and Maestro (2010), organizational polychronicity refers to how organizational preferences are perceived about how activities are sequenced and shows how organizations prefer to allocate members work time. They also argue that individuals who perceive their organization as more polychronic will engage in more multitasking behavior. This study is trying to understand if a polychrone or a monochrone will be a high/low multitasker during group meetings.

*RQ6. Are there differences across demographics with respect to polychronicity during group meetings?*

### **Big-Five Personality Index**

In the past few years, there has been an increase in the number of literatures showing evidence of how the big-five is a widely accepted framework. Prior meta-analytical research has been done about the Big five measures for predicting job performance and contextual performance (Hurtz & Donovan, 2000). The Big Five Inventory (BFI-44) was abbreviated by Rammstedt and John (2010) into a 10-item

version in both English and German, with the rationale that time is limited in the survey. The Big-Five personality framework suggest that most individual differences in human personality can be classified into five broad domains; traditionally these domains have been numbered and labelled, Factor I, Surgency or Extraversion; Factor II, Agreeableness; Factor III, Conscientiousness; Factor IV, Emotional Stability; Factor IV, Openness to Experience (Goldberg, 1993). Personality plays a big part of life and research shows that it correlates strongly with life satisfaction (See Boyce, Wood, & Powdthavee, 2013). For instance, individual that is high conscientiousness would be mindful about how their behavior influences others, such as in a group meeting, and someone who is low in conscientiousness would hate schedule and structure, such as norms surrounding a meeting place. This would help us understand how individuals' personality would influence if they would be high or low multitaskers.

Most researchers conclude that Conscientiousness is a valid predictor of job performance because it assesses characteristics such as persistent, planful, careful, responsible, and hardworking and it is the primary personality dimension for use in employee selection (Barrick & Mount, 1991).

Extraversion: This summarizes traits that are related to activity and energy such as talkativeness, assertiveness, sociability, expressiveness and positive emotion (Benet-Martinez & John, 1998; Goldberg, 1993)

Agreeableness: Traits such as kindness, trust, warmth, altruism, tendermindedness and modesty are contrasted with hostility, selfishness and distrust (Benet-Martinez & John, 1998; Goldberg, 1993; McCrae & John, 1992).

Conscientiousness: These are socially prescribed impulse control traits such as organization, thoroughness and reliability (Benet-Martinez & John, 1998; Goldberg, 1993).

Neuroticism: This describes traits such as nervousness, moodiness, anxiety, sadness and temperamentality (Benet-Martinez & John, 1998; Goldberg, 1993).

Openness to Experience: This describes the depth of an individual's experimental life such as imagination, curiosity, and creativity (Benet-Martinez & John, 1998; Goldberg, 1993).

### **Modeling Multitasking Behavior**

This study will show a model of multitasking behaviors but first discusses an example of Fulk et al., (1990) model. Fulk et al., (pg. 127, 1990) provided a schematic that shows the pivotal role of social influence in media evaluations and behavior; (a) media evaluations (perceptions and attitudes); (b) media experience and skills, (c) social influences (d) task experience and skills (e) situational factors such as individual differences. Svenning (1982) discusses a study done in a large petrochemical company which found attitudes towards video conferencing were related to perception of attitudes held by coworkers toward the same system.

### **Social Influence**

In prediction of media evaluations in Fulk et al., (1990) model, the social influence model predicts that people will vary in how "rich" they perceive a particular medium to be (pg. 127). In predictions for media use, they found less explicit evidence. First evidence is that the model predicts some similarity of media attitudes and use behavior within groups, and this occurs with tasks with different communication

requirements. Shook (1988), reported a study about an insurance firm, found similar patterns of usage in voicemail among coworkers who occupy the same structural network position. Rice, Grant, Schmitz, and Torobin (1988) also discovered similar patterns of electronic mail usage among coworkers that are connected closely. Second evidence is there are differences in attitudes or patterns of use of the same communication technology across groups with relatively equal access to the technology (pg. 131). The third evidence is that low social presence media are used for high social presence tasks. Many studies of electronic mail and computer conferencing have found socioemotional uses such as getting to know someone, maintaining relationships, resolving conflict and disagreements, negotiation and bargaining, and expressing anger (pg. 131).

The social influence theory provides a well-grounded platform for understanding the social behavior of individuals in relation to identities (Kelman, 1958; Becker et al., 1995). This theory suggests that individuals look into their immediate work environments for cues to model behavior. Stevens and Davis (2009) believe that if individuals perceive that others use technology in a particular way or if they observe that it is acceptable or unacceptable to use technology in a certain way, they may imitate that use. While social norms are based on widely shared beliefs on how individuals should behave, professional norms are those rules that govern a particular profession and social influence deals with how an individual models his/her behavior to fit with the environment they find themselves in. Thus,

*RQ7. Are there differences between demographic groups with respect to social influence during group meetings?*

This study will use utility of media devices and experience as a factor influencing multitasking behavior. To understand and explain determinants of multitasking behavior of young adults this study will test a model that includes professional and social norms, utility of hand-held devices such as smartphones, demographics, polychronicity as a trait, social influence and attitudes on multicommuting as predicting multitasking behaviors.

### **Dependent Variable (DV)**

The DV in the model is self-reported behaviors on multitasking during group meetings. The assumption is individuals may be high multitaskers on a daily basis, but may either be high or low multitaskers during group meetings due to several factors. These behaviors are not what we observe them doing but are what the participants report as their multitasking behaviors during these meetings. The DV will be measured on a Likert type scale of 1 to 7, where 1 stands for never multitasked at all during group meetings and 7 stands for always multitask during group meetings.

*H1A: Students who are Freshmen and Sophomores will be high multitaskers.*

*H1B: Age group is predictive of multitasking behavior.*

### **Independent Variables (IV)**

The IV's are perception of professional and social norms, motivations to multicommutate, polychronicity, social influence and media utility and technology.

IV1 is perception of social and professional norms during group meetings. These norms are rules or structure that guide how people should behave and act. Some of these norms could be prohibiting the use of cell phones during work hours or group meetings. Another norm could be the leaders of the meetings frowning at people conversing or engaging in

activities unrelated to the on-going meeting. The rationale for including this in the model is that, these norms could influence how people are high or low multitaskers during group meetings.

*H2: Those who agree with social and professional norms will be low multitaskers.*

IV2 is the second independent variable which is motivations to multicomunicate. Young adults cannot help but engage in multiple conversations at the same time. This could be either through their handheld devices or face to face during group meetings. Sometimes they may want to ask questions related to the meeting at hand or it could be about a very different topic. They may also be chatting with friends or loved ones online, while trying to listen to the on-going meeting or they may be asked a question from a colleague in which they have to respond to in details.

*H3: Motivations to multicomunicate will predict high multitasking during group meetings.*

IV3 is the third independent variable in the model and it is self-perceptions on media utility and technology. Individual's perception on media utility may influence how they multitask during group meetings. If they find technological devices useful, they are more likely to use it often. Young adults who were born into this digital world are so used to these devices that they depend on them in going about their daily lives. This may be one of the reasons why they would be more likely to be high multitaskers due to how useful they find these devices.

*H4: Those who find smartphones and other handheld devices useful will be high multitaskers during group meetings.*

Polychronicity is also seen as a trait in the model that certain individuals may possess. Some individuals naturally like to engage in multiple tasks/activities at the same time while others prefer to do one task at a time. This could explain the reason why young adults are polychrones or monochrones during group meetings.

*H5: Polychrones will be high multitaskers during group meetings.*

Social influence is one of the independent variables. Individuals are known to look into their immediate environment to tailor their behaviors to fit with the environment. It could be in a social or professional setting where there is an expected way to behave. It may also be a social gathering where this individual does not want to stand out but rather blend in with the crowd. Some individuals may change their behaviors because certain thing they do such as using their mobile phones during a group meeting is frowned upon or it may be a norm. These factors may influence how high or low of a multitasker that individual could be.

*H6: Seeing others multitask during group meetings will increase multitasking behavior.*

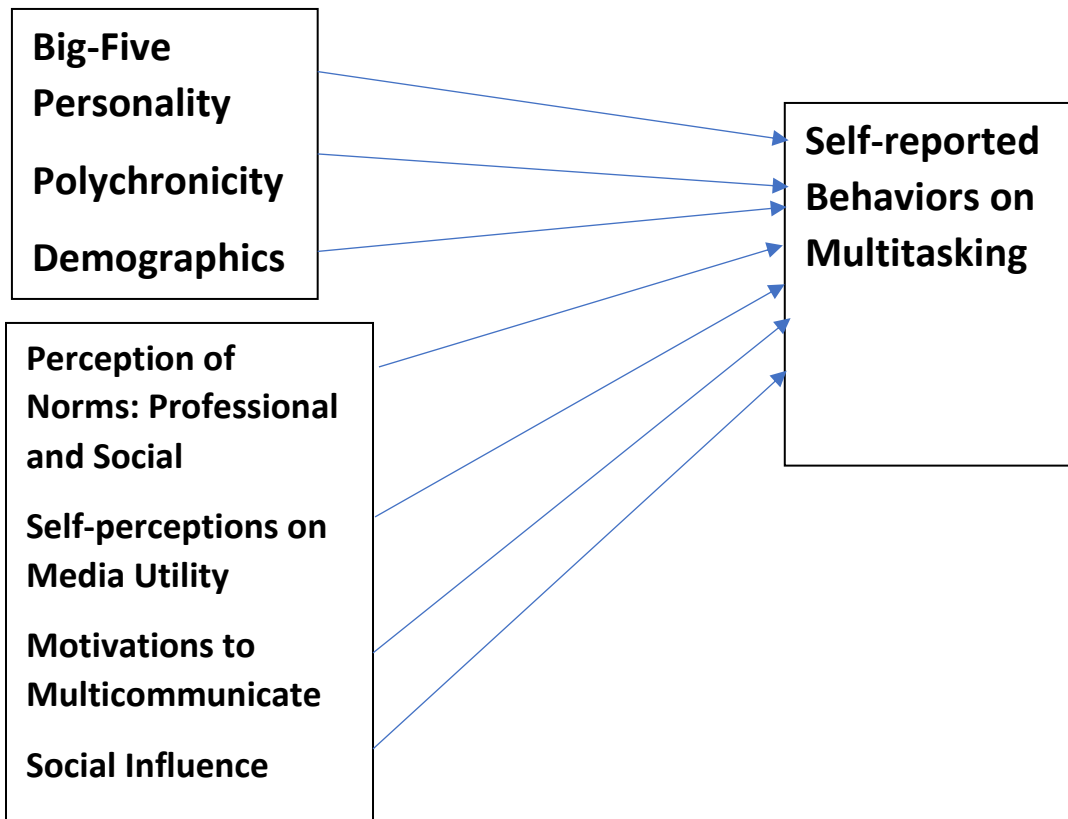
The Big Five Personality can be seen as an individualistic trait in the model, that is unique to each person which influences their multitasking behaviors during group meetings. For instance, someone who is high in extroversion would be outgoing and enjoys starting conversations but someone who is low in extroversion would be reserved and dislikes making small talks. This individual trait could explain the reason why one may multicomunicate more or less during group meeting, hence influencing their multitasking habits. It is possible that certain individuals who are high in conscientiousness and agreeableness may be more likely to abide by social and



professional norms. It may also be that individuals who are high in extraversion, neuroticism and openness will be high multitaskers.

Understanding that the issue of engaging in multiple tasks while in a meeting is a common habit that develops at a young age, especially amongst millennials and the technology savvy generations. This prompted a study to determine the factors that influences multitasking behavior in young adults during group meetings and their self-perceptions towards it. Was it due to personality traits that led to their preference to engage in multiple tasks rather than focusing on the on-going meeting? Could it be the technology type? Or their preference or ability to feel invincible when engaging in these tasks? (See figure 1 below)

**Figure 1: Multivariate Model 1**



## **CHAPTER III**

### **METHOD**

In understanding multitasking behaviors among young adults, this study was done using survey instrument to gather respondents' attitudes and reported behaviors during group meetings. Previous studies have relied on direct forms of data collection such as interviews and surveys to analyze multitasking both in a virtual and face to face environment. This study uses attitudinal survey with a college student sample to evaluate perceptions about multitasking attitudinal responses and self-reported behavior to draw conclusions about how these habits in the context of task-oriented group meetings are related to utility of media, reported attitudes on polychronicity, motivation to multicommuting, and adherence to social and professional norms. One of the assumptions of this study was that multitasking habits are developed among young adults, who are often described as digital natives, and unless changed during their college years they are likely to be carried on into their professional lives.

This study aims to understand young adults' motivations to multitask, their reported attitudes towards multitasking and their perceptions of social and professional norms coupled with their use of media devices. Do their individual personality traits influence how they engage in different multitasking behaviors during group meetings?

Do their preference for carrying out tasks or their need to multicomunicate have an influence? Would demographics such as age, gender, year in school or experience with group meetings have an effect in these habits?

### **Survey Respondents**

A sample of 128 undergraduate students in Communications major were voluntarily recruited for this study. Emails were sent to select professors who had large number of students in their classes, requesting they kindly permit their students to participate in the survey and to offer them extra credit at their discretion. The professors offered extra credit ranging from 3 to 10 points, as well as credit in the form of class participation. Following the approval of Cleveland State University Internal Review Board (IRB), the survey was created on SurveyMonkey and the link was generated and sent via emails to the professors to post on Blackboard for their prospective students (a CSU interactive online learning platform for students and professors). The survey link was opened on February 13<sup>th</sup>, 2019 and closed on April 1<sup>st</sup>, 2019 with a total of 128 respondents. It took students typically around 10 minutes to complete.

Respondents were made aware that taking the survey was voluntary and there was a consent form at the beginning of the survey, which they either had to agree or decline to, before they would be allowed to proceed or end the survey if they wish. They were also informed of the extra credit link that was be at the end of the survey. Those interested in receiving an extra credit were asked to follow the link and key in their names, course title and professor's name.

## **Survey Instrument**

The data used in this study was collected through SurveyMonkey only. The survey instrument included 55 questions in total, which was grouped into 20 main questions and 35 sub-questions in the following categories: demographics and general questions, self-perceptions on media utility/technology use, self-reported behaviors on multitasking, motivations to multicomunicate, perceptions on social and professional norms, and traits such as polychronicity and Big-five personality (see Survey Instrument in Appendix 1). The questions measuring media utility, multitasking behavior, professional and social norms were created specifically for this study. Questions measuring motivations to multicomunicate was adapted from Stephens (2012) MMS 10-item scale. Polychronicity was measured using questions adapted from Poposki et al., (2009) 14-item scale. 13 items were used in this study as one question was removed as it did not pertain to this study. Individual personality trait was measured using questions from the Big-five personality index by Rammstedt & John, (2007). These questions measured their personalities on five dimensions: Openness, Conscientiousness, Extroversion, Agreeableness, and Neuroticism. Reliability tests were run before scales were computed.

## **Demographics**

Demographic information included age, sex, and year in school status. The age question was asked of respondents to identify their age in years only. The gender question was asked in a categorical scale of male, female and other. The year in school status asked respondents to identify only one they belong to of the four categories of

Freshman, Sophomore, Junior and Senior. Year in school variable was asked to differentiate between those who had some more college experience than others.

To learn if they had some experience of working in a professional environment the general question category asked respondents on a Yes/No scale if they are doing internship or if they have done internship in the past. If they were members of any off or on-campus organization(s) and if they have a full-time or a part-time job in addition to being a student. Respondents were asked about their experience with group meeting types by asking them to tick all that applies from six meeting types: class group project meeting, student club, off-campus organization, office work, volunteer, and others. Respondents were asked how often they attend meetings: occasionally, at least once a week, at least once in two weeks, at least once a month, at least once or twice a semester. Respondents could choose more than one option for these questions.

### **Utility of Media and Technology**

The second section was on media technology and utility and they were 3 questions in this category. Respondents were asked to tick all technological devices they have such as: laptop, smartphone, tablet, and iPad. Respondents were asked to tick all that applies of the social networking sites they use: Twitter, Instagram, Snapchat, Facebook, LinkedIn, and Others. Respondents were asked series of questions on how useful they find technology. This was on a 5-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. These questions were later used to compute media technology utility scale.

### **Multitasking During Group Meetings**

The third category of questions measured reported behaviors of multitasking. Respondents were asked to answer the number that best represents how often they engaged in the following behaviors such as: “How often do you use your smartphone during a group meeting?”. This was on a 7-point Likert scale type ranging from 1 = Never to 7 = Always. Respondents were asked questions such as “how likely are you to multitask if others are doing it as well during a group meeting?”

### **Polychronicity Scale**

The fourth category measured respondents polychronic traits during group meetings and how well they organize when they have more than one task at hand. This may help explain why they would be motivated to multitask during group meetings. This was a 13-item question adapted from Poposki et al., (2009) 14-item polychronicity scale. It is on a 5 item Likert type scale ranging from 1 = strongly disagree to 5 = strongly agree. 7 of the items in the scale were reverse coded and this was re-coded before reliability test was run and computed into a scale. Respondents were asked questions such as: “I prefer to work on several projects in a day, rather than completing one project and then switching to another”.

### **Motivation to Multicommunicate**

The fifth category of questions measured respondents’ motivations to multicommunicate by using media. Questions were asked on a 5-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. This scale was adapted from the 10 item Meeting Multicommunicating Scale (MMS) by Stephens (2012). Respondents were asked questions such as: “I like to use media to for additional information on the

subject matter being discussed in group meetings.” The scale was tested for reliability and then computed into MotivToMulticommunicate scale.

### **Social and Professional Norms**

The sixth category of questions measured respondents professional and social norms. These questions were created for this study. For professional norms, respondents were asked: “You must never multitask during group meetings”. This was on a 5-point Likert type scale ranging from 1 = strongly disagree to 5 = strongly agree. For social norms, respondents were asked how much it would matter to them if someone gives them a disapproving look while they were using their phones to text during group meetings. Questions were on a 5-point Likert scale type ranging from 1 = does not matter at all to 5 = matters a lot. Reliability test was run and scale was computed into ProfNorms and SocialNorms.

### **Big-Five Personality**

The seventh category of questions measured the Big-five personality index. This personality index has been grouped into 5 major categories that human traits can fall under. Attributes such as Openness, Conscientiousness, Extroversion, Agreeableness, and Neuroticism was tested. The reliability was tested but was low and had to be dropped from the model. Although previous researchers like Rammstedt & John, (2007) tested the scale, both in German and English and it was found to be reliable.

### **Dependent Measures**

Self-reported behavior of multitasking is the dependent variable (DV) which was a measure of their attitudes towards multitasking behaviors in meetings. The basic assumption is that some people are high multitaskers, and some are low multitaskers and

they are several factors that can influence this such as their personality, their attitude towards multitasking, polychronicity etc. The DV was measured on a Likert scale of 1 to 7, where 1 stands for never multitasked at all during group meetings and 7 stands for always multitask during group meetings. This scale was named Multitasking Behavior Scale. Respondents answered questions such as “How often do you use your phone to text during meetings?”. The questions in this category were created for this study and were tested for reliability and computed for the scale.

### **Independent Measures**

The first independent variable is perceptions of social and professional norms during group meetings and it is used to indicate norms in meetings that influences how individuals decide to multitask either openly or secretly. The premise for including this in the model is that people are influenced by norms in a society and act accordingly to fit and be accepted into that society. It is possible that norms during group meetings may influence if young adults will be considered high multitaskers or low multitaskers. The survey questions were created for this study and reliability test and comparison of means was conducted. The questions were on a 5-point Likert scale ranging from 1-5 (1=strongly disagree and 5=strongly agree). The questions in this category asked respondents “how much do you agree with the policy against multitasking in meetings?”.

Motivations to multicomunicate is the second independent variable (IV2) which assesses the respondent’ ability to engage in multiple conversations at the same time. The Meeting Multicomunicating Scale (MMS) was adapted from previous studies of (Stephens, 2012). It consists of 10 items and is assessed on a Likert type scale ranging from 1 (strongly disagree) to 5 (strongly agree). It is possible that young adults who may



have outgoing and engaging personalities may be more likely to be motivated to discuss with one or more people during group meetings. They could also want to clarify an information on the subject matter being discussed. In this category respondents were required to answer questions on how they liked to use media, either for discussion or to verify facts on Google.

Self-perceptions on media utility is the third independent variable (IV3) that assesses respondent's perceptions of the usefulness of technology and how it has an effect on their multitasking habits during group meetings. This IV was measured using created survey on a 1-5 Likert type scale, 1 = Strongly disagree and 5 = Strongly agree. This category of questions asked respondents how useful they found having their devices with them during group meetings.”.

The Big-Five Personality was one of the traits in the model. The premise for including this in the study is that, individuals have innate traits that make them behave differently from one another. Some individuals are born with these traits while others develop certain traits over time. Many researchers such as Goldberg (1981), McCrae and Costa (1987) believe that there are five core personality traits that individuals fall under: Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism (OCEAN). The Big-five personality index used in this study was by Rammstedt & John (2007). This is on a Likert type scale ranging from 1-5 (1=Strongly disagree, 5=Strongly agree). This category asked respondents if they saw themselves as reserved, generally trusting, lazy etc. The reliability of the scale was low and had to be dropped from the model.

Polychronicity is also used as a trait in the model to measure individual's preference for carrying out tasks simultaneously rather than sequentially. This survey was

adapted from the 14-item new Polychronic Attitude Index (PAI) by (Poposki et al., 2009). 13-items were used in this study because one of the questions was not relevant to the purpose of this study. The scale was on a 5-point Likert-type scale ranging from 1 = strongly disagree scale to 5 = strongly agree. The questions measured how respondents organize when they have more than one task at hand. This category asked respondents if they prefer prefer to work on several projects in a day, rather than completing one project and then switching to another. Some items in the original scale were reverse coded and this was recoded in this study before reliability test was run.

### **Data Cleaning and Recoding**

The data was downloaded as SPSS, PDF, and excel file once we had the number of respondents needed for the survey. First, data was checked for missing cases and if responses were recorded appropriately. After checking responses, age variable was recorded to follow the same format because some respondents answered in birth years while others in their age. Then, it was recorded in their ages. Second, age variable was re-coded to sort the sample into two groups as a dummy variable of (18-20 = 1 and 21-34=0). The premise for this is because at age 21, these individuals are seen as adults who are just starting their lives in the real world. This may explain any variation before adulthood. Third, descriptive test was run to get the frequencies (Group 18-20=48 with 37.5%, Group 21-34=79 with 61.7%, Total=127 with 99.2%). Minimum age was 18 and maximum age was 34 and one missing entry.

Gender variable had three options of male, female and other. There was no recorded response for other. Gender variable was re-coded to sort the sample into two

categories as a dummy variable of (Male=1, Female=0). A frequency test of (Male=37 with 28.9%, Female=91 with 71.1%, Total=128 with 100%)

Year in school status variable had four options of Freshman, Sophomore, Junior and Senior. First, merged dataset of respondents who were Freshman and Sophomore and re-coded into dummy variable of (Fresher student=1). Second, merged dataset of respondents who were Junior and Senior and re-coded into dummy variable of (Senior student=0). Third, frequency test conducted (Fresher student=42 with 32.8%, Senior student=86 with 67.2%, Total=128 with 100%).

The variable asking if they have done internship in the past had two options of Yes and No. First, re-coded to sort the sample into two categories as a dummy variable of (Yes=1, No=0). The premise for this was to distinguish those who had some professional experience. Second, run frequency (Yes=37 with 28.9%, No=91 with 71.1%).

The variable, “Do you have a full-time job in addition to being a student” and “Do you have a part-time job in addition to being a student” with Yes or No categories were merged together. Merged dataset was re-coded into same variable of (1=1, 2=1, 0=0). Respondents who had full-time and/or part-time jobs was re-coded as 1, respondents who had neither was re-coded as 0. The dataset was sorted into two categories as a dummy variable of (Jobs=1, No jobs=0). The premise is to show those with professional experience. Frequency analysis was run (Jobs=107 with 83.6%, No jobs=21 with 16.4%, Total=128 with 100%).

The next variable asked if they had participated in the following group meetings of class group project, student club, off-campus organization, office work meetings, volunteer meeting, and others. The variable was re-coded to sort the sample into two

categories as a dummy variable of (1 through 6=1, 0=0). Respondents who had attended one or more of the meeting types were re-coded as 1, those who had never attended any were re-coded as 0. The frequency was (1=127 with 99.2%, 0=1 with .8%, Total=128%).

The next variable asked how often they attend meeting, occasionally, at least once a week, at least once in two weeks, at least once a month, and at least once or twice a semester. Frequency test was run of (occasionally=45 with 35.2%, at least once a week=29 with 22.7%, at least once in two weeks=11 with 8.6%, at least once a month=22 with 17.2%, at least once a semester=20 with 15.6%, total=127 with 99.2%. There was one missing case.

The next variable asked respondents which of the following technological devices do they have of laptop, smartphone, tablet and iPad. Respondents were allowed to choose more than one option. First, merge tablet and iPad dataset as iPad. The premise is that, both devices have similar features and students may have assumed they are different. Frequency test was run of (laptop=125 with 97.7%, smartphone=126 with 98.4%, tablet=43 with 33.6%).

### **Testing Reliability and Computing Scales**

In this study, some scales were derived and adapted from previous studies of scholars and some were created for the sole purpose of this study. The survey instrument included 8 number of scales: Utility of media and technology scale, multitasking scale, polychronicity scale, multicommuting scale, professional norms scale, social norms scale, influence scale, big-five personality scale. The Big-five personality scale was later dropped from the model due to low reliability. The Polychronicity scale was adapted from Poposki et al., (2009) Polychronic Attitude Index. This was on a 5-point Likert

scale of (1=strongly disagree to 5=strongly agree). Seven items from the original scale were reverse coded. The multicommuting scale was adapted from Stephens (2012) 10-item Meeting Multicommuting Scale (MMS) of (1=strongly disagree, 5=strongly agree). The remaining five scales were created for this study.

For questions 13, respondents were asked how useful they find technology on a Likert scale if they strongly disagree, disagree, neither agree nor disagree, agree, or strongly agree. Scale was created for this study and tested for reliability. Variables were computed on a Likert scale of 1—5 by adding (Q13a+Q13b+Q13c+Q13d+Q13e+Q13f+Q13g+Q13h/8) the alpha was .77. The mean and standard deviation was conducted for credibility scales. See table 1 below

**Table 1 Reliability for Media Utility and Technology Scale**

Name of computed variables	Mean	Std. Deviation
a. I find it useful to have my laptop with me during group meetings.	3.71	1.10
b. I find it useful to have my tablet with me during group meetings.	2.80	1.15
c. I find it useful to have my smartphone with me during group meetings.	3.58	1.16
d. I find it useful to check my social media feed during group meetings.	1.82	.93
e. I find it useful to check my email during group meetings.	2.45	1.15
f. I find it useful to check my text messages during group meetings.	2.21	1.09
g. I find it useful to use my devices to browse the internet during group meetings.	2.54	1.29
<b>TechnologyUtilityScale (Cronbach's alpha is .77)</b>	<b>2.73</b>	<b>.73</b>

For question 14, respondents were asked how often they engaged in these multitasking behaviors on a Likert scale of never multitask, sometimes multitask, always multitask. Scale was created for this study and tested for reliability. Variables were

computed on a Likert scale of 1-7 by adding (Q14a + Q14b + Q14c + Q14d + Q14e + Q14f + Q14g + Q14h / 8) the alpha was .819. The mean and standard deviation was conducted for this category. See table 2 below

**Table 2 Reliability for Multitasking Behavior Scale**

Name of computed variables	Mean	Std. deviation
a. How often do you multitask during a group meeting that you participate in?	4.08	1.38
b. How often do you use your smartphone during a meeting?	3.69	1.57
c. How often do you use your phone to text during meetings?	2.98	1.75
d. How often do you use your phone to browse websites during meetings?	2.96	1.72
e. How often do you use your phone to go on social media during meetings?	2.44	1.61
f. How often do you use your phone to work on task unrelated to group meetings?	2.66	1.63
g. How often do you use your tablet/laptop to work in task unrelated to the group meetings?	2.65	1.69
h. Do you switch off your phone or activate silent mode during group meetings?	4.60	2.17
<b>MultitaskingScale (Cronbach's alpha = .819)</b>	<b>3.25</b>	<b>1.13</b>

For question 15, respondents were asked how likely they are to change their behaviors if others are doing it as well, on a Likert scale of not likely, sometimes likely, very likely. Scale was created for this study and tested for reliability. Variables were computed on a Likert scale of 1-5 by adding (Q15a+Q15b+Q15c+Q15d/4) the alpha was .855. The mean and standard deviation was conducted for this category. See table 3 below

**Table 3 Reliability for Influence Scale**

Name of computed variables	Mean	Std. deviation
How likely are you to multitask if others are doing it as well during a group meeting?	3.31	1.06
How likely are you to check your social media feed if others are doing it as well during a group meeting?	2.71	1.33
How likely are you to browse on the Internet if others are doing it as well during a group meeting?	2.80	1.24
How likely are you to text using your phone if others are doing it as well during a group meeting?	2.87	1.29
<b>InfluenceScale (Cronbach's alpha = .855)</b>	<b>2.92</b>	<b>1.03</b>

For question 16, respondents were asked how they organize when they have more than one task at hand, on a Likert scale if they strongly disagree, disagree, neither agree nor disagree, agree, or strongly agree. Scale was adapted from Poposki et al., (2009) polychronicity scale and tested for reliability. 7 items were reverse coded in the original scale (item 4, 5, 7, 9, 10, 12, and 13). Variables were computed on a Likert scale of 1-5 by adding(Q16a + Q16b + Q16c + Q16d + Q16e + Q16f + Q16g + Q16h + Q16i + Q16j + Q16k + Q16l + Q16m / 13) the alpha was .888. The mean and standard deviation was conducted for this category. See table 4 below

**Table 4 Reliability for Polychronicity Scale**

Name of computed variables	Mean	Std. deviation
a. I prefer to work on several projects in a day, rather than completing one project and then switching to another.	2.85	1.18
b. I lose interest in what I am doing if I have to focus on the same task for long periods of time, without thinking about or doing something else.	3.32	1.11
c. When doing a number of assignments, I like to switch back and forth between them rather than do one at a time.	2.53	1.14
d. I like to finish one task completely before focusing on anything else.	2.35	1.03
e. It makes me uncomfortable when I am not able to finish one task completely before focusing on another task.	2.61	1.17
f. I am much more engaged in what I am doing if I am able to switch between several different tasks.	2.62	1.06
g. I do not like having to shift my attention between multiple tasks.	2.70	1.03
h. I would rather switch back and forth between several projects than concentrate my efforts on just one.	2.50	1.07
i. I would prefer to work in an environment where I can finish one task before starting the next.	2.34	.96
j. I don't like when I have to stop in the middle of a task to work on something else.	2.50	1.04
k. When I have a task to complete, I like to break it up by switching to other task intermittently.	2.74	1.07
l. I have a "one-track" mind.	3.11	1.19
m. I prefer not to be interrupted when working on a task.	2.06	.92
<b>PolychronicityScale (Crobach's alpha = .888)</b>	<b>2.64</b>	<b>.70</b>

For question 17, respondents were asked why they engage in multiple conversations during group meetings on a Likert scale if they strongly disagree, disagree, neither agree nor disagree, agree, or strongly agree. Scale was adapted from Stephens



(2012) Meeting Multicommunicating Scale and tested for reliability. Variables were computed on a Likert scale of 1-5 by adding (Q17a + Q17b + Q17c + Q17d + Q17e + Q17f + Q17g + Q17h + Q17i + Q17j / 10) the alpha was .863. The mean and standard deviation was conducted for this category. See table 5 below

**Table 5 Reliability for Motivations to Multicommunicating Scale**

Name of computed variables	Mean	Std. deviation
a. To look for additional information on the subject matter being discussed in group meetings.	3.91	.90
b. To add new information for discussion.	3.93	.90
c. To verify facts on Google.	4.02	.90
d. To encourage others to check information.	3.60	.97
e. To use my time more efficiently.	3.55	1.01
f. To look for funny ..... to lighten the mood of everyone.	2.51	1.14
g. To ask questions from the person speaking.	3.10	1.12
h. To verify my own understanding of the context.	3.85	1.00
i. To help others understand the context.	3.70	.92
j. To look for answers to questions being discussed in the meeting.	3.82	.97
<b>MotivationsToMulticommunicateScale (Cronbach's alpha = .863)</b>	<b>3.60</b>	<b>.66</b>

For question 18, respondents were asked how they would react to a policy during a group meeting on a Likert scale if they strongly disagree, disagree, neither agree nor disagree, agree, or strongly agree. Scale was created for this study and tested for reliability. Variables were computed on a Likert scale of 1-5 by adding (Q18a + Q18b + Q18c + Q18d / 4) the alpha was .764. The mean and standard deviation was conducted for this category. See table 6 below

**Table 6 Reliability for Professional Norms Scale**

	Mean	Std. deviation
a. You must never multitask during group meetings.	2.67	1.05
b. You must never text during group meetings.	3.50	1.09
c. You must switch off your phone during group meetings?	2.96	1.14
d. How much do you disagree with policy against mobile phone usage?	2.85	1.00
<b>Professional Norms Scale (Cronbach's alpha = .764</b>	<b>3.00</b>	<b>.82</b>

For question 19, respondents were asked how much some social norms mattered to them on a Likert scale if it does not matter at all, matters somewhat neutral, somewhat matters, matters a lot. Scale was created for this study and tested for reliability. Variables were computed on a Likert scale of 1-5 by adding  $(Q19a + Q19b + Q19c + Q19d + Q19e + Q19f + Q19g / 7)$  the alpha was .786. The mean and standard deviation was conducted for this category. See table 7 below

**Table 7 Reliability of Social Norms Scale**

	Mean	Std. deviation
a. How much would it matter to you if someone gives a disapproving look while you are using your phone to text during group meetings?	3.72	1.12
b. How much would it matter to you if someone gives a disapproving look while using you are using your laptop/tablet to browse during meetings?	3.33	1.18
c. How much would it matter if you are called on to stop multitasking during a group a meeting	3.93	1.14
d. How much does it matter to you if someone other than you is multitasking during group meetings.	2.81	1.23
e. How much would it matter if you are asked to turn your phone off during group meetings	3.02	1.35
f. How much would it matter if you are asked to not browse on the Internet during group meetings	2.87	1.30
g. How much would it matter if you are asked to not text during group meetings.	2.75	1.35
<b>SocialNormsScale (Cronbach's alpha = .786)</b>	<b>3.21</b>	<b>.82</b>

For question 20, respondents were asked to rate how they would describe their personality on a Likert scale if they strongly disagree, disagree, neither agree nor disagree, agree, strongly agree. The Big-Five personality scale was developed by Rammstedt & John, (2007) and tested for reliability. Reliability was low and the scale was dropped from the model. Previous study had shown that the scale was reliable, but for this study it was not. The Big-five personality are five major personalities that are believed every individual's traits can be grouped into: Openness, Conscientiousness, Extroversion, Agreeableness, Neuroticism. Five items in the original scale were reverse coded (a, c, d, e, and g). Variables were computed on a Likert scale of 1-5 by adding

(Q20a+Q20b+Q20c+Q20d+Q20e+Q20f+Q20g+Q20h+Q20i+Q20j/10) the alpha for the pairs is shown below. The mean and standard deviation was conducted for this category.

See table 8 below

**Table 8 Reliability of the Big-five personality Scale**

	Mean	Std. deviation	Alpha
a. ...is reserved	2.53	1.06	.555
b. ...is outgoing, sociable	3.75	1.15	
c. ...is generally trusting	4.03	1.07	.299
d. ...tends to find fault with others	3.15	1.11	
e. ...tends to be lazy	3.35	1.20	.379
f. ...does a thorough job	4.24	.76	
g. ...is relaxed, handles stress well	2.81	1.16	.548
h. ...gets nervous easily	3.55	1.22	
i. ...has a few artistic interests	3.14	1.38	.047
j. ...has an active imagination	4.10	.89	

Due to low reliability of the Big-five personality in this study, it was dropped. In the next chapter, results and other statistical tools will be discussed.

## **CHAPTER IV**

### **RESULTS**

The analysis of the data was done using SPSS. To answer the research questions and hypothesis in this study, there were three level of statistical analysis carried out. First, a descriptive analysis was conducted. Second, an analysis of comparison of means for groups was conducted. Third a linear regression was performed to test the model as discussed in literature review.

#### **Descriptive Analysis**

The first statistical analysis carried out was descriptive analysis done on groups to understand the frequency of the respondents in the dataset with reference to their demographics and general questions. The first demographic group was age group. The descriptive test for age group was run to get the frequencies (Group 18-20=48 with 37.5%, Group 21-34=79 with 61.7%, Total=127 with 99.2%). Minimum age was 18 and maximum age was 34 and one missing entry. The second demographic group was gender. The descriptive test for male and female groups was run to get the frequencies (Male=37 with 28.9%, Female=91 with 71.1%, Total=128 with 100%).

The descriptive test for year in school status was run. The frequency for Fresher student and senior student groups was (Fresher student=42 with 32.8%, Senior student=86 with 67.2%, Total=128 with 100%) see table 9 below.

**Table 9: Descriptives for year in school status group**

Name of group	Frequency	Percentage
Freshman	11	8.6
Sophomore	31	24.2
Freshers	42	32.8
Junior	46	35.9
Senior	40	31.3
Senior student	86	67.2

The descriptive test was run for groups who are doing or have done internship in the past (Yes=37 with 28.9%, No=91 with 71.1%, Total=128 with 100%) see table 10 below. The variables asking respondents if they have a full-time job and a part-time job were merged sorted into two categories as a dummy variable of (Jobs=1, No jobs=0). The descriptive test for job group was run to get the frequencies (Jobs=107 with 83.6%, No jobs=21 with 16.4%, Total=128 with 100%) see table 10 below.

**Table 10: Descriptives for internship group**

	Frequency	Percent
Q4. Are you doing internship or have you done internship in the past?	37	28.9%
Jobs	107	83.6%

The descriptive test was run for groups who have participated in group meetings. The variable was re-coded to sort the sample into two categories as a dummy variable of (1 through 6=1, 0=0). Respondents who had attended one or more of the meeting types were re-coded as 1, those who had never attended any were re-coded as 0. The frequency test for the Group meeting experience (1=127 with 99.2%, 0=1 with .8%, Total=128%).

All respondents had some experience with group meetings as part of the class project, student club, office work etc. see table 11 below.

**Table 11: Descriptives for experience with group meeting types**

Name of group		Frequency	Percent
GroupMeetingExperience	1.00	127	99.2%
	.00	1	.8%
	Total	128	100%

The descriptive test was run for respondents who attended meetings often.

Descriptive test was run to get the frequencies of the group (occasionally=45 with 35.2%, at least once a week=29 with 22.7%, at least once in two weeks=11 with 8.6%, at least once a month=22 with 17.2%, at least once a semester=20 with 15.6%, total=127 with 99.2%. There was one missing case. See table 12 below.

**Table 12: Descriptives for experience with meeting attendance**

Q10. How often do you attend meetings?	Frequency	Percent
Occasionally	45	35.2%
At least once a week	29	22.7%
At least once in two weeks	11	8.6
At least once a month	22	17.2
At least once a semester	20	15.6
Total	127	99.2

The descriptive test was run for respondent's use of media and technology. After, merging tablet and iPad dataset, the groups were three of laptop, smartphone and tablet. Respondents could select all that they owned. The frequency (laptop=125 with 97.7%, smartphone=126 with 98.4%, tablet=43 with 33.6%). Almost all the respondents owned and were familiar with laptop and smartphone. See table 13 below

**Table 13: Descriptives for technological devices**

Q11: Which of the following technological devices do you have?	Frequency	Percentage
Laptop	125	97.7
Smartphone	126	98.4
Tablet	43	33.6

**Comparison of Means**

The second statistical analysis carried out was the comparison of means was done between groups to answer research questions of possible significant differences between groups with reference to the dependent variable. The dependent variable is self-reported behaviors on multitasking that was a computed scale of multitasking scale (low multitaskers-high multitaskers). The Independent Samples T-tests were conducted to compare means for the following groups: The demographic groups tested were age group (18-20 and 21-34), gender (male and female), Q4: internship (dummy coded: yes=1 and no=0), jobs (merged dataset 6 and 7 and dummy coded into yes=1 and no=0), fresher (dummy coded into fresher=1 and senior=0), which were compared with the following computed scales: polychronicity (minimum was 1 and maximum was 5), multitasking, social norms, professional norms, usefulness of technology, social influence, and motivation to multicomunicate. Table 14 shows the comparison of the demographic groups with the computed scales.

**Table 14: Comparison of means between groups**

<b>Comparison between demographic groups and multitasking</b>					
	F	Sig	t	df	Sig(2-tailed)
Gender	3.071	.082	.993	126	.323
<b>AgeGroup</b>	<b>.104</b>	<b>.747</b>	<b>-2.423</b>	<b>125</b>	<b>.017</b>
Freshers	.506	.478	-.089	126	.930
Q4. Internships	.224	.637	1.232	126	.220
Jobs	.127	.722	-1.037	126	.302



<b>Comparison between demographic groups and social norms</b>					
	F	Sig	t	df	Sig(2-tailed)
Gender	1.167	.282	-.313	125	.755
AgeGroups	1.413	.237	-.325	124	.746
Freshers	.468	.495	-.519	125	.605
Internships	1.465	.228	1.761	125	.081
Jobs	.142	.707	-1.104	125	.272
<b>Comparison between demographic groups and professional norms</b>					
Gender	.201	.655	-.1311	126	.192
<b>AgeGroups</b>	<b>.075</b>	<b>.785</b>	<b>2.228</b>	<b>125</b>	<b>.028</b>
Freshers	2.039	.156	.475	126	.636
Internship	.148	.701	.298	126	.766
Jobs	.719	.398	-.083	126	.934
<b>Comparison between demographic groups and multicomunicating</b>					
Gender	.672	.414	-.463	126	.644
AgeGroups	.154	.696	.238	125	.813
Freshers	.085	.771	-.903	126	.368
Internships	2.419	.122	-.168	126	.867
Jobs	1.460	.229	-.692	126	.490
<b>Comparison between demographic groups and usefulness of technology</b>					
Gender	2.02	.157	1.59	126	.115
Age groups	.901	.344	-1.72	125	.088
Freshers	1.03	.312	-179	126	.858
Internships	.026	.873	.214	126	.831
Jobs	1.272	.262	-1.140	126	.257
<b>Comparison between demographic groups and polychronicity</b>					
Gender	.008	.929	-.758	124	.450
AgeGroups	.558	.457	.452	124	.652
Freshers	.007	.933	.882	124	.380
Internships	.215	.643	.480	124	.632
Jobs	.426	.515	-.934	124	.352
<b>Comparison between demographic groups and social influence</b>					
Gender	3.208	0.76	1.202	126	.232
AgeGroups	2.448	.120	-.596	125	.552
Freshers	.738	.392	-.192	126	.848
Internship	.031	.861	.344	126	.731
Jobs	1.262	.263	-.836	126	.405

*RQ1a: Are there differences across gender groups with respect to young adults multitasking behaviors during group meetings?*

In the first group, the independent samples t-test was run to compare multitasking behavior in males and females' conditions. There was not a significant difference in the

scores for males ( $M=3.41$ ,  $SD=1.01$ ) and females ( $M=3.20$ ,  $SD=1.18$ ) conditions;  $t(126) = 1.00$ ,  $p = 0.323$ . These results suggest that males and females do not have an effect on multitasking behaviors. Specifically, the results suggest that when individuals engage in multitasking behaviors, there are no differences between genders.

*RQ1b. Are there differences between age groups with respect to young adults multitasking behaviors during group meetings?*

The independent samples t-test was run to compare multitasking behaviors in age groups conditions. There was a significant difference in the scores for age group 18-20 ( $M=3.00$ ,  $SD=1.07$ ) and 21-34 ( $M=3.46$ ,  $SD=1.13$ ) conditions;  $t(125) = -2.42$ ,  $p = 0.017$ . These results suggest that age groups really do have an effect on multitasking behaviors. Specifically, the results suggest that multitasking behaviors during group meetings is higher for students in the age group 21-32 and the difference is significant.

*RQ1c. Are there differences between freshers and seniors with respect to their multitasking behaviors during group meetings?*

The independent samples t-test was conducted to compare multitasking behaviors in freshers and seniors' conditions. There was not a significant difference in the scores for freshers ( $M=3.25$ ,  $SD=1.16$ ) and seniors ( $M=3.27$ ,  $SD=1.12$ ) conditions;  $t(126) = -.089$ ,  $p = 0.930$ . These results suggest that freshers' does not have an effect on multitasking behaviors. Specifically, this result suggests that there are no differences between freshers and seniors in multitasking behaviors.

*RQ1d. Are there differences between those who have done internship and those who had never with respect to their multitasking behaviors during group meetings?*

The independent samples t-test was conducted to compare multitasking behaviors in internships and no internships. There was not a significant difference in the scores for internship (M=3.45, SD=1.21) and no internship (M=3.18, SD=1.10) conditions;  $t(126) = 1.23, p = 0.220$ . These results suggest that internship has no effect on multitasking behaviors. Specifically, the results suggest that individuals who have done internship or never, have no differences in multitasking behaviors.

*RQ1e. Are there differences between those who have jobs and those who do not with respect to their multitasking behaviors during group meetings?*

The independent samples t-tests was conducted to compare multitasking behaviors on jobs conditions. There was no significant difference in the scores for jobs (M=3.21, SD=1.13) and no jobs (M=3.50, SD=1.13) conditions;  $t(126) = -1.04, p = .302$ . These results suggest that having a job or no job really does not have an effect on multitasking behaviors. Specifically, the results suggest that when individuals have job experience, there is no increase in multitasking behavior.

*RQ2a. Are there differences between males and females with respect to social norms during group meetings?*

In the second group, the independent-samples t-test was run to compare social norms in males and females' conditions. There was not a significant difference in the scores for males (M=3.17, SD=0.91) and females (M=3.22, SD=0.79) conditions;  $t(125) = -0.31, p = 0.755$ . These results suggest that males do not have an effect on social norms.

*RQ2b. Are there differences between age groups with respect to social norms during group meetings?*

The independent-samples t-test was run to compare social norms in age groups 18-20 and 21-34 conditions. There was not a significant difference in the scores for age group 18-20 (M=3.18, SD=0.90) and 21-34 (M=3.23, SD=0.78) conditions;  $t(124) = -0.32$ ,  $p = 0.75$ . These results suggest that age groups 18-20 have no effect on social norms. This means that there are no differences between the age groups in respect to how they view social norms.

*RQ2c. Are there differences between freshers and seniors with respect to social norms during group meetings?*

The independent-samples t-test was run to compare social norms in freshers and seniors' conditions. There was not a significant difference in the scores for freshers (M=3.15, SD=0.90) and seniors (M=3.23, SD=0.79) conditions;  $t(125) = -0.52$ ,  $p = 0.605$ . These results suggest that freshers do not have an effect on social norms.

*RQ2d. Are there differences between those who have done internships and those who have never with respect to social norms during group meetings?*

The independent-samples t-test was run to compare social norms in internships conditions. There was not a significant difference in the scores for internship (M=3.40, SD=0.67) and no internship (M=3.12, SD=0.86) conditions;  $t(125) = 1.76$ ,  $p = 0.081$ . These results suggest that internship does not have an effect on social norms.

*RQ2e. Are there differences between those who have jobs and no jobs with respect to social norms during group meetings?*

The independent-samples t-test was run to compare social norms in jobs and no jobs conditions. There was not a significant difference in the scores for jobs (M=3.17,

SD=0.83) and no jobs (M=3.40, SD=0.78) conditions;  $t(125) = -1.10, p = 0.272$ . These results suggest that jobs have no effect on social norms.

*RQ3a. Are there differences between males and females with respect to professional norms during group meetings?*

In the third group, the independent-samples t-test was run to compare professional norms in males and females' conditions. There was not a significant difference in the scores for males (M=2.84, SD=0.79) and females (M=3.05, SD=0.83) conditions;  $t(126) = -1.31, p = 0.19$ . These results suggest that males have no effect on professional norms.

*RQ3b. Are there differences between those who are 18 to 20 and 21 to 34 with respect to professional norms during group meetings?*

The independent-samples t-test was run to compare social norms in age groups conditions. There was a significant difference in the scores for age group 18-20 (M=3.18, SD=0.76) and 21-34 (M=2.85, SD=0.82) conditions;  $t(125) = 2.23, p = 0.28$ . These results suggest that age group 18-20 really does have an effect on professional norms. This means that the younger age group are more likely to obey professional norms.

*RQ3c. Are there differences between those who are freshers and seniors with respect to professional norms during group meetings?*

The independent-samples t-test was run to compare professional norms in freshers and seniors' conditions. There was not a significant difference in the scores for freshers (M=3.03, SD=0.74) and seniors (M=3.00, SD=0.86) conditions;  $t(126) = 0.47, p = 0.64$ . These results suggest that freshers have no effect on professional norms.

*RQ3d. Are there differences between those who are have done internship and those who have never with respect to professional norms during group meetings?*

The independent-samples t-test was run to compare professional norms in internships and no internship conditions. There was not a significant difference in the scores for internships (M=3.02, SD=0.80) and no internship (M=3.00, SD=0.83) conditions;  $t(126) = 0.30, p = 0.77$ . These results suggest that internships have no effect on professional norms.

*RQ3e. Are there differences between those who are have jobs and no jobs with respect to professional norms during group meetings?*

The independent-samples t-test was run to compare professional norms in jobs and no jobs conditions. There was not a significant difference in the scores for jobs (M=3.00, SD=0.83) and no jobs (M=3.00, SD=0.80) conditions;  $t(126) = -0.08, p = 0.93$ . These results suggest that jobs have no effect on professional norms.

*RQ4a. Are there differences between male and female with respect to motivations to multicommuting during group meetings?*

In the fourth group, the independent-samples t-test was run to compare motivations to multicommuting in gender conditions. There was not a significant difference in the scores for males (M=3.56, SD=0.60) and females (M=3.62, SD=0.68) conditions;  $t(126) = -0.46, p = 0.644$ . These results suggest that gender do not have an effect on motivations to multicommuting. Specifically, the results suggest when individuals are males, there is no increase in their motivations to multicommutate.

*RQ4b. Are there differences between those who are 18 to 20 and 21-34 with respect to motivations to multicommuting during group meetings?*

The independent-samples t-test was run to compare motivations to multicommuting in 18-20 and in 21-34 age group conditions. There was not a

significant difference in the scores for age group 18-20 ( $M=3.62$ ,  $SD=0.63$ ) and age group 21-34 ( $M=3.59$ ,  $SD=0.68$ ) conditions;  $t(125) = 0.24$ ,  $p = 0.813$ . These results suggest that that age groups do not have an effect on motivations to multicomunicate. Specifically, this result suggests that there are no differences between the age groups in their motivations to multicomunicating.

*RQ4c. Are there differences between those who are freshers and seniors with respect to motivations to multicomunicating during group meetings?*

The independent-samples t-test was run to compare motivations to multicomunicating in freshers and seniors' conditions. There was not a significant difference in the scores for freshers ( $M=3.52$ ,  $SD=0.65$ ) and seniors ( $M=3.64$ ,  $SD=0.66$ ) conditions;  $t(126) = -0.90$ ,  $p = 0.368$ . These results suggest that freshers have no effect on motivations to multicomunicating. Specifically, the results suggest that no differences exist between freshers and seniors in respect to multicomunicating.

*RQ4d. Are there differences between those who have done internships and those who have never with respect to motivations to multicomunicating during group meetings?*

The independent-samples t-test was run to compare motivations to multicomunicating in internships conditions. There was not a significant difference in the scores for internships ( $M=3.58$ ,  $SD=0.76$ ) and no internships ( $M=3.60$ ,  $SD=0.62$ ) conditions;  $t(126) = -0.17$ ,  $p = 0.87$ . These results suggest that internships do not have an effect on multicomunicating. This means that no differences exist between having internship experience and no experience in respect to multicomunicating.

*RQ4e. Are there differences between those who have jobs and those with no jobs with respect to motivations to multicomunicating during group meetings?*

The independent-samples t-test was run to compare motivations to multicommuting in jobs conditions. There was not a significant difference in the scores for jobs ( $M=3.58$ ,  $SD=0.68$ ) and no jobs ( $M=3.70$ ,  $SD=0.54$ ) conditions;  $t(126) = -0.69$ ,  $p = 0.49$ . These results suggest that jobs do not have an effect on motivations to multicommuting.

*RQ5a: Are there differences across gender with respect to utility of media and technology during group meetings?*

In the fifth group, an independent samples t-test was conducted to compare usefulness of media and technology in gender conditions. There was not a significant difference in the scores for males ( $M=2.89$ ,  $SD=0.66$ ) and females ( $M=2.66$ ,  $SD=0.75$ ) conditions;  $t(126) = 1.59$ ,  $p = 0.115$ . These results suggest that there are no differences between males and females in how useful they find media and technology. Specifically, the results suggest that when males or females use media devices, no differences exist in how useful they find it.

*RQ5b: Are there differences across age groups with respect to utility of media and technology during group meetings?*

The independent samples t-test was run to compare usefulness of media and technology in age groups 18-20 and 21-34 conditions. There was not a significant difference in the scores for age group 18-20 ( $M=2.60$ ,  $SD=0.64$ ) and age group 21-34 ( $M=2.82$ ,  $SD=0.77$ ) conditions;  $t(125) = -1.72$ ,  $p = 0.088$ . These results suggest that usefulness of media and technology does not have an effect on age groups. Specifically, the results suggest that there are no differences between how these age groups find technology useful.



*RQ5c: Are there differences across freshers with respect to utility of media and technology during group meetings?*

The independent samples t-test was run to compare usefulness of media and technology in freshers and seniors. There was not a significant difference in the scores for freshers (M=2.71, SD=0.68) and seniors (M=2.74, SD=0.76) conditions;  $t(126) = -.179$ ,  $p = 0.858$ . These results suggest that there are no effects on how freshers find media and technology useful. Specifically, the results suggest that there are no differences with how freshers or seniors find technology useful.

*RQ5d: Are there differences between those who have done internship and those who have never with respect to utility of media and technology during group meetings?*

The independent samples t-test was run to compare usefulness of media and technology in those who have done internships and no internships. There was not a significant difference in the scores for those who have done internship (M=2.75, SD=0.75) and no internship (M=2.72, SD=0.73) conditions;  $t(126) = 0.21$ ,  $p = 0.831$ . These results suggest that individuals with internship experience or no internship have no effect in how useful they find technology. Specifically, the results suggest that individuals who have done internships and those who have never, find technology useful the same way, as no differences exist.

*RQ5e: Are there differences between those who have jobs and those who do not with respect to utility of media and technology during group meetings?*

The independent samples t-test was run to compare usefulness of media and technology in those who have jobs and no jobs conditions. There was not a significant difference in the scores for jobs (M=2.70, SD=0.75) and no jobs (M=2.90, SD=0.66) conditions;  $t$

(126) = -1.14,  $p = 0.257$ . These results suggest that individuals who have job experience or no job experience have no effect on how useful they find media and technology.

Specifically, the results suggest that there are no differences between those who have jobs or no jobs in respect to how useful they find technology.

*RQ6a. Are there differences between genders with respect to polychronicity during group meetings?*

In the sixth group, the independent-samples t-test was conducted to compare polychronicity on males and females' conditions. There was not a significant difference in the scores for males ( $M=3.10$ ,  $SD=0.43$ ) and females ( $M=3.16$ ,  $SD=0.41$ ) conditions;  $t(124) = -0.76$ ,  $p = 0.45$ . These results suggest that gender does not have an effect on polychronicity. Specifically, the results suggest that there are no differences between males and females in preferences for carrying out tasks and engaging in multitasking behaviors.

*RQ6b. Are there differences between age groups with respect to polychronicity during group meetings?*

The independent-samples t-test was run to compare polychronicity in age groups. There was not a significant difference in the scores for age groups 18-20 ( $M=3.16$ ,  $SD=0.37$ ) and 21-34 ( $M=3.12$ ,  $SD=0.44$ ) conditions;  $t(124) = 0.45$ ,  $p = 0.652$ . These results suggest that age groups do not have an effect on polychronicity. Specifically, the results suggest that there are no differences or increase in multitasking behavior when there is an increase in age.

*RQ6c. Are there differences between freshers and seniors with respect to polychronicity during group meetings?*

The independent-samples t-test was run to compare polychronicity in freshers and seniors' conditions. There was not a significant difference in the scores for freshers (M=3.18, SD=0.40) and seniors (M=3.11, SD=0.42) conditions;  $t(124) = 0.88, p = 0.380$ . These results suggest that freshers do not have an effect on polychronicity. Specifically, this result suggests that there are no differences between freshers and seniors in respect to polychronicity.

*RQ6d. Are there differences between those who have done internship and those who have never with respect to polychronicity during group meetings?*

The independent-samples t-test was run to compare polychronicity in internships and no internships conditions. There was not a significant difference in the scores for internships (M=3.17, SD=0.44) and no internships (M=3.13, SD=0.41) conditions;  $t(124) = 0.48, p = 0.632$ . These results suggest that internships do not have an effect on polychronicity. Specifically, this means that those who have internship experience or no different from those without internship experience in polychronic traits.

*RQ6e. Are there differences between those who have jobs and those who do not have jobs with respect to polychronicity during group meetings?*

The independent-samples t-test was run to compare polychronicity in jobs and no jobs conditions. There was not a significant difference in the scores for jobs (M=3.12, SD=0.42) and no jobs (M=3.22, SD=0.41) conditions;  $t(124) = -0.93, p = 0.352$ . These results suggest that jobs do not have an effect on polychronicity. Specifically, the results suggest that when individuals have jobs, there is no increase in their polychronicity traits.

*RQ7a. Are there differences between males and females with respect to social influence during group meetings?*

In the seventh group, the independent-samples t-test was run to compare social influence in males and females' conditions. There was not a significant difference in the scores for males (M=3.10, SD=0.87) and females (M=2.85, SD=1.10) conditions;  $t(126) = 1.20$ ,  $p = 0.232$ . These results suggest that males have no effect on social influence.

*RQ7b. Are there differences between those who are 18 to 20 and 21 to 34 with respect to social influence during group meetings?*

The independent-samples t-test was run to compare social influence in age groups 18-20 and age groups 21-34 conditions. There was not a significant difference in the scores for age group 18-20 (M=2.87, SD=1.12) and age groups 21-34 (M=2.98, SD=0.95) conditions;  $t(125) = -0.60$ ,  $p = 0.552$ . These results suggest that age groups 18-20 have no effect on social influence.

*RQ7c. Are there differences between those who are freshers and seniors with respect to social influence during group meetings?*

The independent-samples t-test was run to compare social influence in freshers and seniors' conditions. There was not a significant difference in the scores for freshers (M=2.90, SD=1.00) and seniors (M=2.94, SD=1.05) conditions;  $t(126) = -0.19$ ,  $p = 0.85$ . These results suggest that freshers have no effect on social influence.

*RQ7d. Are there differences between those who have done internship and those who have never with respect to social influence during group meetings?*

The independent-samples t-test was run to compare social influence in internships and no internship conditions. There was not a significant difference in the scores for internship (M=3.00, SD=1.03) and no internship (M=2.90, SD=1.03) conditions;  $t(126)$

= 0.34,  $p = 0.731$ . These results suggest that internships have no effect on social influence.

*RQ7e. Are there differences between those who have jobs and no jobs with respect to social influence during group meetings?*

The independent-samples t-test was run to compare social influence in jobs and no jobs conditions. There was not a significant difference in the scores for jobs ( $M=2.89$ ,  $SD=1.04$ ) and no jobs ( $M=3.10$ ,  $SD=0.93$ ) conditions;  $t(126) = -0.84$ ,  $p = 0.405$ . These results suggest that jobs have no effect on social influence.

### **Linear Regression Model**

A linear regression analysis was run on one model with factors as one dependent variable and five independent variables to test the influence of the factors used in this study on the efficacy of self-reported behaviors on multitasking. Dependent variable was self-reported behaviors on multitasking. Independent variables were age group, gender, internships, jobs, polychronicity, social norms, professional norms, usefulness of technology, social influence, motivations to multicomunicate and Q10: how often do you attend meetings? The overall goal of the model was to test for the linear relationship between reported multitasking behavior of young adults on the dependent variables with demographics, polychronicity, social norms, professional norms, usefulness of technology, motivations to multicomunicate, and social influence. As explained in the literature review and methods chapter, the big-five was dropped from the model due to low reliability. It has been found reliable in other studies by Rammstedt & John (2007) who converted it from a 44 item to a 10-item questions. However, in this study, it was found unreliable.

**Table 15 Pearson Correlation Table**

	1	2	3	4	5	6	7	8	9	10	11	12	13
1.MultitaskingScale (DV)	-												
2.Gender	.100	-											
3.AgeGroup	-.209**	-.047	-										
4.Freshers	-.009	-.060	.652**	-									
5.PolychronScale	.069	-.026	-.058	.043	-								
6.Are you doing internship, or have you done internship in the past?	.103	-.213**	-.146*	-.159*	.068	-							
7.Jobs	-.100	-.017	.117	.075	-.055	.142*	-						
8.How often do you attend meetings?	.049	-.108	.075	-.010	-.030	-.072	-.068	-					
9.SocialNormsScale	.236**	-.063	-.054	-.079	.069	.166*	-.105	.059	-				
10.ProfNormsScale	.036	-.114	.197**	.052	-.085	.040	-.016	.217**	.240**	-			
11.MotivToMulticommuicate	.337**	-.071	.002	-.106	-.094	-.032	-.045	.077	.104	-.072	-		
12.UsefulnessOfTechScale	.671**	.132	-.152*	-.022	.033	.017	-.094	-.041	.148*	.010	.331**	-	
13. Social Influence	.549**	.119	-.049	-.023	.004	.020	-.084	-.062	.212**	-.074	.325**	.326**	-

\*\* Correlation is significant at the 0.01 level (1-tailed).

\*Correlation is significant at the 0.05 level (1 tailed).

Table 15 shows a Pearson correlation that was computed to assess the relationships between the dependent and independent variables in this study. Age group and multitasking behavior were moderately negatively correlated  $r(124) = -.209, p = .010$ . This means that the older young adults get, the less likely they are to be high multitaskers. In this study, respondents who are 18-20 are more likely to be high multitaskers than those who are 21-34. There was a moderate positive correlation between social norms and multitasking behaviors  $r(124) = .236, p = .004$ . This means that young adults who obey social norms are more likely to be high multitaskers. There was a moderate positive correlation between motivations to multicomunicate and multitasking behavior  $r(124) = .337, p < .001$ . This means that the younger adults are motivated to multicomunicate, the more they would be high multitaskers during group meetings. There was a high positive correlation between usefulness of technology and multitasking behaviors  $r(124) = .67, p < .001$ . There was a high positive correlation between social influence and multitasking behaviors  $r(124) = .55, p < .001$ .

Internship variable and gender were moderately negatively correlated  $r(124) = -.21, p < .01$ . Freshers and age group were strongly positively correlated  $r(124) = .65, p < .001$ . Internship and age group were negatively correlated  $r(124) = -.146, p = .05$ . Professional norms and age groups were positively correlated  $r(124) = .197, p < .05$ . Usefulness of technology and age group was negatively correlated  $r(124) = -.15, p < .05$ . Internship and freshers were negatively correlated  $r(124) = -.159, p < .05$ . Jobs and internships were moderately positively correlated  $r(124) = .142, p = .058$ . Social norms and internships were moderately positively correlated  $r(124) = .166, p < .05$ . Professional norms scale and how often do you attend meeting variable were moderately

positively correlated  $r(124) = .217, p < .01$ . Professional norms and social norms were strongly positively correlated  $r(124) = .240, p < .01$ . Usefulness of technology and social norms were moderately positively correlated  $r(124) = .148, p = .05$ . Social influence and social norms were strongly positively correlated  $r(124) = .212, p < .01$ . Usefulness of technology and motivations to multicomunicate was strongly positively correlated  $r(124) = .33, p < .001$ . This means that, the more useful younger adults find technology, the more they are likely to multicomunicate during group meetings. Social influence and usefulness of technology were strongly positively correlated  $r(124) = .326, p < .001$ .

**Table 16: Model Summary Table**

Model	R	R Square	Adjusted R Square	Sig. F Change
1	.322 <sup>a</sup>	.104	.058	.043
2	.788 <sup>b</sup>	.620	.579	.000

In table 16 above, the linear regression model was fit for model 1 with all the predictors produced  $R^2 = .104$ , Adjusted R Square = .058, and  $p < .05$ . In model 2, The linear regression model was fit for model 2 with all the predictors produced  $R^2 = .620$ , Adjusted R Square = .579, and  $p < .001$ .

**Table 17: ANOVA for the regression analysis**

Model		Sum of Squares	df	Mean Square	F	Sig
1	Regression	16.489	6	2.748	2.253	.043 <sup>a</sup>
	Residual	142.741	117	1.220		
	Total	159.230	123			
2	Regression	98.752	12	8.229	15.104	.000 <sup>b</sup>
	Residual	60.478	111	.545		
	Total	159.230	123			

In table 17 above summarizes the results of the ANOVA for the regression analysis. The results of the analysis of the ANOVA indicated that model 1 was a



significant predictor of multitasking behavior,  $F(6,117) = 2.25, p < .05$ . For model 2, it shows us that it was a significant predictor of multitasking behaviors,  $F(12, 111) = 15.10, p < .001$ .

**TABLE 18 Linear Regression**

Regression Coefficient					
Model		B	Std. Error	Beta	Sig
1	(Constant)	3.308	.472		.000
	Q2 Gender	.317	.227	.126	.164
	<b>AgeGroup(1=18-20, 0=21-34)</b>	<b>-.762</b>	<b>.273</b>	<b>-.326</b>	<b>.006</b>
	<b>Freshers</b>	<b>.574</b>	<b>.281</b>	<b>.238</b>	<b>.044</b>
	PolychronScale	.046	.143	.029	.747
	Q4. Are you doing internship, or have you done any internship in the past?	.327	.230	.132	.158
	Jobs	-.292	.276	-.095	.292
2	(Constant)	-1.311	.637		.042
	Q2 Gender	.116	.158	.046	.466
	<b>AgeGroup(1=18-20, 0=21-34)</b>	<b>-.583</b>	<b>.193</b>	<b>-.250</b>	<b>.003</b>
	<b>Freshers</b>	<b>.475</b>	<b>.195</b>	<b>.197</b>	<b>.016</b>
	PolychronScale	.063	.097	.039	.520
	Q4. Are you doing internship, or have you done any internship in the past?	.223	.157	.090	.157
	Jobs	-.018	.187	-.006	.925
	Q10. How often do you attend meetings?	.070	.046	.092	.134
	SocialNormsScale	.068	.089	.048	.451
	ProfNormsScale	.104	.090	.075	.249
	MotivToMulticommunicate	.171	.120	.096	.155
	<b>UsefulnessOfTechScale</b>	<b>.725</b>	<b>.104</b>	<b>.473</b>	<b>.000</b>
	<b>SocialInfluenceScale</b>	<b>.372</b>	<b>.074</b>	<b>.335</b>	<b>.000</b>

$p < .05^*$ ,  $p < .01^{**}$

Table 18 summarizes the regression coefficient results for the model. In model 1, the age group variable was a statistically significant negative predictor of multitasking behaviors among young adults during group meetings ( $\beta = -.326, p < .006$ ), which means that students in younger group are less likely to multitask more. The fresher's variable

was a statistically significant predictor of multitasking behavior on young adults ( $\beta=.238$ ,  $p < .044$ ). This means that freshers are more likely to be high multitaskers than seniors.

In model 2, when controlled for other determinants, the age group variable remains statistically significant negative predictor of multitasking behaviors among young adults during group meetings ( $\beta=-.250$ ,  $p < .003$ ) and significance level goes up. This means that those who were 18 to 20 are less likely to multitask more than those who are 21 to 34. However, the interesting finding is that when we control for year in school status, this changes. This perhaps is because of how they get socialized into not multitasking during group meetings as they experience a professional environment in college. Younger students multitask less compared to older students. Freshers multitask more, which may seem contradictory, but it is because of how being in college changes their behavior when they see rules against multitasking in classes, when in groups, on campus jobs and internships. The fresher's variable was a statistically significant predictor of multitasking behaviors among young adults during group meetings ( $\beta=.197$ ,  $p < .016$ ). This means that freshers were more likely to be high multitaskers than seniors during group meetings.

The usefulness of technology scale variable was a statistically significant predictor of multitasking behaviors among young adults during group meetings ( $\beta=.473$ ,  $p < .001$ ). This means that young adults who find technology useful are more likely to be high multitaskers during group meetings. The social influence variable was a statistically significant predictor of multitasking behavior ( $\beta=.335$ ,  $p < .001$ ). This means that young adults multitasking behavior is likely to be influenced more by what goes on in their environment and what people do.

The following set of hypotheses were framed to test how demographics, motivations to multicomunicate, social norms, professional norms, usefulness of technology, polychronicity and social influence are predictors of multitasking behaviors.

**H1A: Students who are Freshmen and Sophomores will be high multitaskers.**

The Pearson Correlation does not show support for the hypothesis (table 15) with  $-.009$  and  $p > .05$ . However, when you control for all the determinants, then Freshers is a significant predictor of self-reported multitasking behaviors during group meetings (table 18) with  $Beta = .574$  and  $p = .044$ .

**H1B: Age group is predictive of multitasking behavior.**

This Pearson Correlation shows support for the hypothesis (table 15) with  $-.209$  and  $p$  at  $.01$ . When you control for all the determinants, age group is a significant predictor of self-reported multitasking behaviors (table 18) with  $Beta = -.762$  and  $P$  at  $.006$ . Students in younger group of 18-20 were significantly low multitaskers and students in 21-34 group were significantly higher multitaskers (see Table 18). However, when we control for year in school (Freshers) the direction of the correlation changes. Year in school is predictive of multitasking behavior during group meetings. Students who are freshmen and sophomores are more likely to multitask whereas those who are junior and seniors, are less likely to multitask during group meetings. This suggests that it is not the age of the students, but the socialization in college is what moderates multitasking behavior. College experience that includes exposure to more professional environment leads to change in multitasking behaviors.

**H2: Those who agree with social and professional norms will be low multitaskers during group meetings.**

The Pearson Correlation shows support for social norms, but not for professional norms (table 15) with  $.236$  at  $p < .01$ . However, when you control for all the determinants, both social and professional norms are not a significant predictor of self-reported multitasking behavior (table 18) with Beta  $.068$  and  $p = .451$  for social norms. For professional norms with Beta  $.104$  and  $p < .249$ . Those who agree with social and professional norms is not a significant predictor that they would be low multitaskers. They are many young adults who may agree with social and professional norms but may still be engaging in multiple tasks during group meetings. There was no correlation between social and professional norms in respect to low multitaskers. However, the result showed a strong significant correlation between social norms and multitasking behavior  $r(124) = .236, p < .01$ . This means that those who agree with social norms are more likely to be high multitaskers during group meetings.

**H3: Motivations to multicomunicate will predict high multitasking during group meetings.**

The Pearson Correlation shows support for the hypothesis (table 15) with  $.337$  and  $p < .01$ . However, when you control for all the determinants then it is not a significant predictor of self-reported multitasking behavior (table 18) Beta  $.171$  and  $p < .155$ . This suggests that young adults who are prone to engaging in multiple conversations either face to face or through media devices have no influence in their multitasking behaviors.

**H4: Those who find smartphones and other handheld devices useful will be high multitaskers during group meetings.**

The Pearson Correlation shows support for the hypothesis (table 15) with .671 and  $p$  at .01. When you control for all the determinants, it is a significant predictor of self-reported multitasking behavior (table 18) Beta .725 and  $p < .001$ . Digital natives who are born into a digital world, grow up depending daily on technology and media devices. This is how they function in their daily lives. Also, due to the versatility of smartphones and other technological devices that enables one to swap between different tasks on one device, it is only expected that they would be high multitaskers if they find these devices useful. The correlation reflects a strong relationship between those who find these devices useful and high multitaskers.

**H5: Polychrones will be high multitaskers during group meetings.**

The Pearson Correlation does not show support for the hypothesis (table 15) with .069 and  $p$  and no significance. Also, when you control for all the determinants, Polychronicity still was not a significant predictor of self-reported multitasking behavior (table 18) Beta .046 and  $p$  at .747. This shows that individual's preferences to carry out tasks simultaneously rather than sequentially does not predict their multitasking behavior during group meetings. There was no correlation between polychrones and multitaskers, which reflects a weak relationship.

**H6: Seeing others multitask during group meetings will increase multitasking behavior.**

The Pearson Correlation shows support for the hypothesis (table 15) with .549 and  $p$  at .01. When you control for all the other determinants, social influence is still a significant predictor of multitasking behavior during group meetings (table 18) Beta .372 and  $p < .001$ . Previous studies have shown evidence of individuals looking to their

immediate environment to tailor their behavior to fit and not to stand out. There are many reasons for this, one of which is to blend with the society and not to be considered a weird person. This goes for a social environment, where young adults want to be viewed as cool and part of the group. This explains why they may multitask also if they find others doing it as well during a group meeting. The strong correlation between social influence and multitasking behavior shows a strong relationship between the variables.

**TABLE 19 A summary of findings of research questions and hypothesis**

<b>Research questions &amp; hypotheses</b>	<b>Findings</b>
RQ1: Are there differences across demographic groups with respect to young adults multitasking behaviors during group meetings?	<ul style="list-style-type: none"> <li>- There was a non-significant difference between males and females with respect to multitasking behaviors during group meetings.</li> <li>- There was a significant difference between age group 18-20 and 21-34 with respect to multitasking behaviors during group meetings</li> <li>- There was a non-significant difference between freshers and seniors with respect to multitasking behaviors during group meetings</li> <li>- There was a non-significant difference between those who had done internship and those who had never with respect to young adults multitasking behaviors during group meetings.</li> <li>- There was a non-significant difference between those who had jobs and those without jobs with respect to their multitasking behaviors during group meetings.</li> </ul>
RQ2. Are there differences across demographic groups with respect to social norms during group meetings?	<ul style="list-style-type: none"> <li>- There was a non-significant difference between males and females with respect to social norms during group meetings.</li> <li>- There was a non-significant difference between age groups who are 18-20 and those who are 21-34</li> </ul>

Research questions & hypotheses	Findings
	<p>with respect to social norms during group meetings.</p> <ul style="list-style-type: none"> <li>- There was a non-significant difference between freshers and seniors with respect to social norms during group meetings.</li> <li>- There was a non-significant difference between those who have done internship and those who have never with respect to social norms during group meetings.</li> <li>- There was a non-significant difference between those with job and no jobs with respect to social norms during group meetings.</li> </ul>
<p>RQ3. Are there differences between demographic groups with respect to professional norms during group meetings?</p>	<ul style="list-style-type: none"> <li>- There was a non-significant difference between males and females with respect to professional norms during group meetings.</li> <li>- There was a significant difference between age groups who are 18-20 and those who are 21-34 with respect to professional norms during group meetings.</li> <li>- There was a non-significant difference between freshers and seniors with respect to professional norms during group meetings.</li> <li>- There was a non-significant difference between those who have done internship and those who have not with respect to professional norms during group meetings.</li> <li>- There was a non-significant difference between those who had jobs and those who do not with respect to professional norms during group meetings.</li> </ul>
<p>RQ4. Are there differences across demographic groups with respect to motivations to multicommuting during group meetings?</p>	<ul style="list-style-type: none"> <li>- There was a non-significant difference between males and females with respect to multicommuting during group meetings.</li> </ul>

Research questions & hypotheses	Findings
	<ul style="list-style-type: none"> <li>- There was a non-significant difference between those who are 18-20 and those who are 21-34 with respect to multicommuting during group meetings.</li> <li>- There was a non-significant difference between freshers and seniors with respect to multicommuting during group meetings.</li> <li>- There was a non-significant difference between those who have done internship or does who have never with respect to multicommuting during group meetings.</li> <li>- There was a non-significant difference between those who have jobs and those with no jobs with respect to multicommuting during group meetings.</li> </ul>
<p>RQ5a: Are there differences across demographics with respect to utility of media and technology during group meetings?</p>	<ul style="list-style-type: none"> <li>- There was a non-significant difference between males and females with respect to utility of media and technology.</li> <li>- There was a non-significant difference between ages 18-20 and 21-34 with respect to utility of media and technology.</li> <li>- There was a non-significant difference between freshers and seniors with respect to utility of media and technology.</li> <li>- There was a non-significant difference between internship and no internship with respect to utility of media and technology.</li> <li>- There was a non-significant difference between jobs and no jobs with respect to utility of media and technology.</li> </ul>
<p>RQ6: Are there differences across demographics with respect to polychronicity during group meetings?</p>	<ul style="list-style-type: none"> <li>- There was a non-significant difference between males and females with respect to</li> </ul>



Research questions & hypotheses	Findings
	<p>polychronicity during group meetings.</p> <ul style="list-style-type: none"> <li>- There was a non-significant difference between age groups who are 18-20 and those who are 21-34 with respect to polychronicity during group meetings.</li> <li>- There was a non-significant difference between freshers and seniors with respect to polychronicity during group meetings.</li> <li>- There was a non-significant difference between those who had done internships and those who had never with respect to polychronicity during group meetings.</li> <li>- There was a non-significant difference between those who had jobs and those who had no jobs with respect to polychronicity during group meetings.</li> </ul>
<p>RQ7. Are there differences between demographic groups with respect to social influence during group meetings?</p>	<ul style="list-style-type: none"> <li>- There was a non-significant difference between males and females with respect to social influence during group meetings.</li> <li>- There was a non-significant difference between age groups who are 18-20 and 21-34 with respect to social influence during group meetings.</li> <li>- There was a non-significant difference between freshers and seniors with respect to social influence during group meetings.</li> <li>- There was a non-significant difference between those who had done internship and those who had never with respect to social influence during group meetings.</li> <li>- There was a non-significant difference between those who had jobs and those who did not have</li> </ul>

<b>Research questions &amp; hypotheses</b>	<b>Findings</b>
	jobs with respect to social influence during group meetings.
H1A: Students who are Freshmen and Sophomores will be high multitaskers.	The hypothesis was supported.
H1B: Age group is predictive of multitasking behavior.	The hypothesis was supported
H2: Those who agree with social and professional norms will be low multitaskers.	The hypothesis was not supported
H3: Motivations to multicomunicate will predict high multitasking during group meetings.	The hypothesis was supported
H4: Those who find smartphones and other handheld devices useful will be high multitaskers during group meetings.	The hypothesis was supported
H5: Polychrones will be high multitaskers during group meetings.	The hypothesis was not supported
H6: Seeing others multitask during group meetings will increase multitasking behavior.	The hypothesis was supported

## **CHAPTER V**

### **DISCUSSION**

This study began with trying to understand the factors that determine multitasking behaviors among young adults during group meetings. This study used attitudinal survey to examine reported multitasking behaviors of young adults and their motivations to do so. It was done by conducting an online survey with undergraduate students at Cleveland State University. Questions on professional and social norms, polychronicity, how useful they find media and technology, what motivates them to multicomunicate, and social influence. This chapter discusses and summarizes the findings of the study in the light of the past literature and points out limitations as well as directions for future research.

Previous studies have tried to understand young adults multitasking behaviors in the context of learning and GPA grades in the classroom, texting and driving, face to face meetings, virtual meetings and in many other contexts. But so far, no study has been done in trying to understand young adults self-reported multitasking behaviors in the context of group meetings, in respect to demographic differences, social and professional norms, social influence, polychronicity, multicomunicating, big five personality types, social influence, and utility or technology.

## **Demographic Differences**

Previous study on the cause of multitasking and distracted driving was reported to be the feeling of invincibility amongst iGen (born 1996 upwards). There have been known differences between how older generation behave towards their dependence on technological devices and how the younger generations behave. This study was able to show support for these behavioral differences in age. We also assumed that they may be gender differences in their multitasking behavior's, but this prediction was not supported.

Demographic difference was evidenced in age group. The linear regression analysis showed age group has a strong significant negative correlation to multitasking. Even when controlled for other determinants, the variable still remains statistically significant negative predictor of multitasking behaviors. This means that the higher the age group, 21-34, the more likely they are to engage in multitasking behaviors during group meetings.

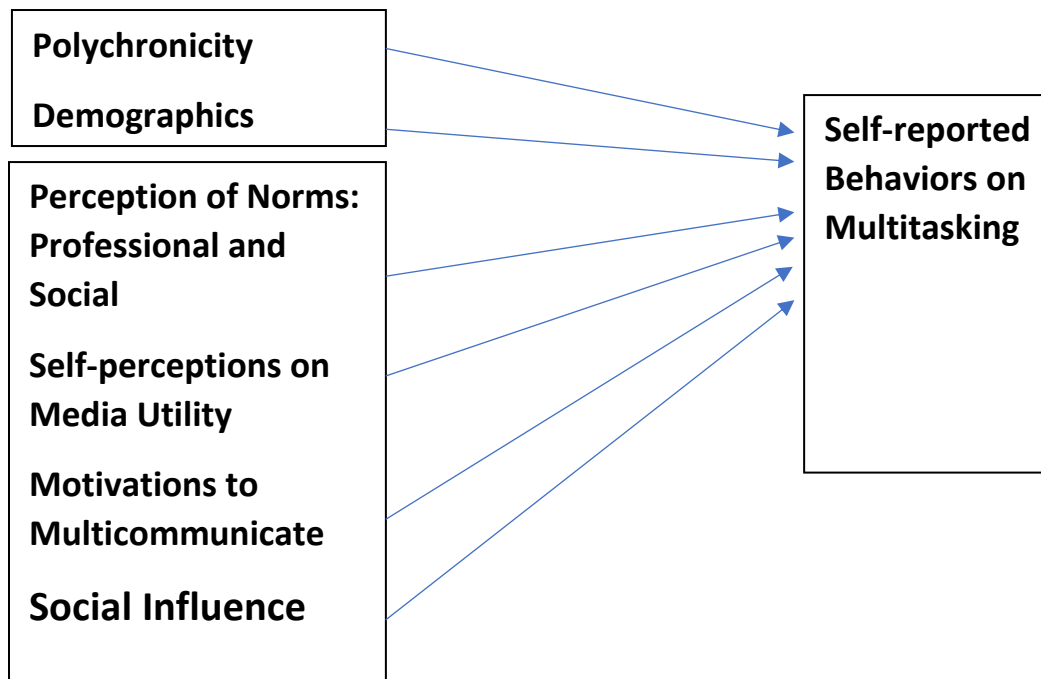
Furthermore, an interesting finding is that when we control for year in school, it changes. This could be because they have been socialized into not multitasking during group meetings as they experience different professional environment in college. The fresher's variable was a statistically significant predictor of multitasking behaviors among young adults during group meetings. This suggest that younger people are less likely to multitask, but when they spend more years in college, they tend to absorb the norms against multitasking behaviors. Juniors and seniors lessen their multitasking behavior.

## **Big Five Personality**

There have been several evidences of how the big-five personality is a widely accepted framework. The Big Five Inventory (BFI-44) was abbreviated by Rammstedt & John (2010) into a 10-item version in both English and German. They believed that time was of the essence and that respondents may be getting weary of the 44-item of the big-five. The rationale for including the 10-item version in this study was because it was short and less time consuming. Also, previous evidence has shown support of the personality index and that human personality can be classified into five broad domains: Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism.

Personality plays a huge role in our lives and past research has shown that it correlates strongly with life satisfaction (See Boyce, Wood, & Powdthavee, 2013). Individual's may have different personality traits but may act a different manner during a group meeting due to factors such as the social and professional norms guiding the organizational setting. A person who is high in agreeableness may be more likely to obey social and professional norms despite not liking the rules or they may agree with the rules but may still be engaging in multitasking behaviors due to influence of watching what their colleagues do. This were the contributing reasons why the big-five personality index was added to this study but due to low reliability, it was dropped from the model (See Figure 2 below).

**Figure 2: Multivariate Model 2**



### **Social and Professional Norms**

There are certain norms that shapes how we behave or adapt our behaviors to our environment in our technological world today. Turner et al., (2006) states how organizations are known to develop certain media use norms that affects the whole work environment. They add that due to the ubiquity of these portable devices, there is a gray area around when it is appropriate to used ICT and for what purpose. Stephens (2012) also explains a part of this phenomenon. She gives an instance of an individual who sends a message to someone, but the rest of the meeting members can obviously see this act but have no idea who it is being sent to or the context of the message. She calls this a type of whispering. We also know that in certain organizational environment, engaging in multiple task is highly encouraged such as an emergency room or a customer service job.

This study has tried to understand why young adults engage in these multitasking behaviors despite being in a social, professional or meeting setting.

Social norms as one of the independent variables in the study, showed a strong positive correlation with multitasking behavior. Social norm is a strong predictor of the DV, which means that young adults who are more likely to obey social norms are more likely to multitask. This explains how these young individuals like to follow social trends and blend with their social crowd. For instance, if the norm during their student organization meeting was for the attendees to conceal their phones under the desk to chat, then these individuals will be more likely to multitask and do the same while pretending to pay attention to the speaker. However, it was not significant.

### **Polychronicity**

Slocombe and Bluedorn (1999) believe in the important role organizational polychronicity plays in influencing how individuals handle multiple tasks. Other scholars suggest that individuals who perceive their organization to be more polychronic will engage in higher multitasking behaviors. Polychrones prefer to handle tasks simultaneously and shift their attention among ongoing tasks rather than conducting them in serial fashion.

Young adults who are used to having features on their technological devices that enables them juggle between different tasks may be more likely to prefer engaging in multiple tasks simultaneously rather than serially during a group meeting. When paying attention to a meeting, they may prefer to also write down notes of the meetings or reminders about unrelated events or using their devices to complete a task such as an assignment or project. This study attempts to understand these young adults' reported polychronic behaviors and why they engage in them. However, the study reveals there is

no significant correlation between polychronicity and multitasking. It is possible that because of the difference in age group in the sample size, there is not much variation and hence no significance in how these young individuals' preference to engage in multiple tasks.

Previous study has shown support for polychronicity with significant finding. In this study, it showed no significance or correlations with all the determinants of multitasking behaviors during group meetings. Perhaps a study could be done with a larger sample size and students from different cultural backgrounds.

### **Multicommunicating**

This is a fairly new practice and Stephens (2012) adds that multitasking and multicommunicating can be interpreted differently. Cameron & Webster (2011) consider multitasking to involve juggling multiple task and multicommunicating to be handling different task, people or media at the same time. In a group meeting, individuals may have several reasons for wanting to engage in multiple conversations such as to pass information, to understand clearly what is being discussed in the meeting, to ask a questions or communicate with others not present in the meeting through their handheld devices. Recent research has shown that when individuals observe others multicommunicate, it further influences their intent to multicommunicate.

This study tries to understand young adults' motivations to multicommunicate during group meetings. A regression analysis was conducted and multicommunicating was found to highly correlated with multitasking behavior, however it was not a significant predictor of multitasking behavior. The assumption was that young adults who tend to multicommunicate will be more likely to multitask during group meetings, but



this was not supported. It may be possible that young adults who like to multicomunicate do not engage in multiple task either because their cognitive abilities may not allow them to do the task effectively, hence they no do multitask at all.

### **Social Influence**

Becker et al., (1995) state how the social influence provides a platform for understanding the social behaviors of individuals and that these individuals look to their immediate environment to model their behaviors. Young adults like to adapt to their environment and blend in rather than stand out and be considered weird. These individuals will model their behavior to suit the norm in an environment, such as a group meeting for instance. If the norm is that the use of smart phones are frowned upon or that other individuals tend to chat/text while a meeting is going on, these individuals are more likely to follow what they see their colleagues engaging in. The premise for adding this to the model is that, these undergraduates may be engaging in multitasking behavior because they find their peers or colleagues also doing it. This could explain motivating factors for these behaviors.

Social influence is one of the independent variables in the model. The linear regression analysis showed that social influence and multitasking behavior are strongly positively correlated. This means that the more individuals are likely to follow what other people are doing in their environment, the more they engage in multitasking behavior.

### **Utility of Media Technology**

Only a few studies have been done on utility of media and technology amongst undergraduates in understanding their multitasking behaviors. This study has attempted

to answer that by using attitudinal survey to gather reports of young adults multitasking behaviors during group meetings.

Usefulness of technology is one of the independent variables in the model. The linear regression analysis showed usefulness of technology scale has a strong positive correlation with multitasking behavior. This means that the more individuals find media and technology devices useful, the more likely they are to engage in multitasking behaviors during group meetings. This supports the result of young adults being more likely to multitask than older adults. Since these young adults find technology useful, they are more likely to use these devices during group meetings for different purposes.

### **Conclusion**

The major conclusion that can be drawn from the study on factors influencing multitasking behavior with handheld devices, such as smartphones and tablets in group meetings is that perception of utility of the technology and seeing others use it is stronger in predicting multitasking behavior. Additionally, the study found that when students come into college, they tend to be high multitaskers in group meetings, but as they stay in college and move from freshmen to junior and senior, they tend to get socialized into multitasking during group meetings.

Moreover, the fact that polychronicity as a trait was a significant predictor of multitasking behavior is surprising, just as it contradicts previous findings.

### **Limitations**

One limitation of this study was in the process of conducting this research, it became evident that a vital part of the model, the big-five personality was not valid. Due to this reason, it had to be dropped from the model. Our prediction would have been that

personality would play an important role in young adults' life and predicting the rate at which they multitask during group meetings. We adopted the 10-item personality index form Rammstedt and John (2007) in this study but the reliability was low and could not be used for the study. Previous research has used the 44-item scale of the big five personality index and has been found valid. Suggestions would be for future researchers to go back to using the 44-item scale.

This study included 128 participants that was recruited from the school of communications at Cleveland State University. Some may feel the sample size is small and this may not be representative when trying to understand young adults multitasking behaviors in general.

### **Future Research**

Future research may test the scales on respondents from diverse groups and cultures. It is also possible that the motivations to multitask may vary within cultures. Also, using the 44-item of the big five personality index should be considered as the 10-item was not valid in this study. Also, other motivating factors can also be added to this study for future researchers.

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## APPENDIX A

### INFORMED CONSENT FORM

Thank you for taking the time to participate in this study. Dr. Anup Kumar and graduate student Samantha Okegbe (s.okegbe@vikes.csuohio.edu), of the School of Communication at Cleveland State University, are conducting a survey on multitasking attitudes in group meetings.

You will be asked about your views on use of handheld devices such as mobile phones, tablets, iPads, laptops etc. And, you will be asked about your attitudes towards use of these devices during group meetings as such student organizations, fraternities, part-time or full-time meetings etc. You will also be asked questions about demographics and motivations to use media.

Please answer all questions to the best of your ability. Your responses will be treated as confidential. You will not be personally identified in the study. The findings will be only at the aggregate level.

Your participation is voluntary. You can decline to participate in the survey. You may decline to answer any question. You can exit the survey at any time without penalty. Participating or not participating will not impact your grade in the class. The survey should take about 10-12 minutes.

Participation in this study does not involve risks beyond those of daily living. There is no direct benefit for participating. Your instructor may grant you extra credit for participating in the survey or in the form of class attendance. And for this purpose, we

will ask for your name and course number. No other identifying information will be requested.

If you have any questions about the study, feel free to contact Dr. Anup Kumar at [a.kumar64@csuohio.edu](mailto:a.kumar64@csuohio.edu) or (216) 687-4642 and Samantha Okegbe at [s.okegbe@vikes.csuohio.edu](mailto:s.okegbe@vikes.csuohio.edu) or (216) 687- 2000.

### **Part 1: Demographics and General Questions**

\* Q1. Age (Year only)

\* Q2. Gender

- a. Male
- b. Female
- c. Other

\* Q3. Year in School status (Click one)

- a. Freshman
- b. Sophomore
- c. Junior
- d. Senior

\* Q4. Are you doing internship or have you done any internship in the past?

- a. Yes
- b. No

\* Q5. Are you a member of any off-campus organization?

- a. Yes
- b. No

\* Q6. Do you have a full-time job in addition to being a student?

- a. Yes
- b. No

\* Q7. Do you have a part-time job in addition to being a student?



a. Yes

b. No

\* Q8. Are you a member of any student organization(s) on campus?

a. Yes

b. No

\* Q9. Have you participated in group meetings? Tick all that applies

a. Class group projects meetings

b. Student club meetings

c. Off-campus organization meetings

d. Office work meetings

e. Volunteer meeting

f. Others

\* Q10. How often do you attend meetings?

a. Occasionally

b. At least once a week

c. At least once in two weeks

d. At least once a month

e. At least once or twice a semester

## **Part 2: Technology/Media Use**

**Answer all questions accordingly**

\* Q11. Which of the following technology devices do you have? Tick all that applies

a. Laptop

b. Smartphone (Iphone, Android etc)

c. Tablet

d. iPad

\* Q12. Which of the following social networking sites do you use? Tick all that applies

a. Twitter

b. Instagram

- c. Snapchat
- d. Facebook
- e. LinkedIn
- f. Others

\* Q13. Answer the following questions on how useful you find technology. 1 = Strongly disagree, 5 = Strongly Agree.

a. I find it useful to have my laptop with me during group meetings.

Strongly disagree	Disagree	Neither Disagree/Agree	Agree	Strongly agree
1	2	3	4	5

b. I find it useful to have my tablet with me during group meetings.

Strongly disagree	Disagree	Neither Disagree/Agree	Agree	Strongly agree
1	2	3	4	5

c. I find it useful to have my smartphone with me during group meetings.

Strongly disagree	Disagree	Neither Disagree/Agree	Agree	Strongly agree
1	2	3	4	5

d. I find it useful to check my social media feed during group meetings.

Strongly disagree	Disagree	Neither Disagree/Agree	Agree	Strongly agree
1	2	3	4	5

e. I find it useful to check my email during group meetings.

Strongly disagree	Disagree	Neither Disagree/Agree	Agree	Strongly agree
1	2	3	4	5

f. I find it useful to check my text messages during group meetings.

Strongly disagree	Disagree	Neither Disagree/Agree	Agree	Strongly agree
1	2	3	4	5

g. I find it useful to use my devices to browse the internet during group meetings.

Strongly disagree	Disagree	Neither Disagree/Agree	Agree	Strongly agree
1	2	3	4	5

**Part 3: Multitasking Behavior**

\* Q14. For each question, please answer the number that best represents how often you engage in these behaviors. 1 = Never during group meetings, 4 = Sometimes during group meetings and 7 = Always during group meetings.

a. How often do you multitask during a group meeting that you participate in?

Never			Sometimes			Always
1	2	3	4	5	6	7

b. How often do you use your smartphone during a meeting?

Never			Sometimes			Always
1	2	3	4	5	6	7

c. How often do you use your phone to text during meetings?

Never			Sometimes			Always
1	2	3	4	5	6	7

d. How often do you use your phone to browse websites during meetings?

Never			Sometimes			Always
1	2	3	4	5	6	7

e. How often do you use your phone to go on social media during meetings?

Never			Sometimes			Always
1	2	3	4	5	6	7

f. How often do you use your phone to work on task unrelated to group meetings?

Never			Sometimes			Always
1	2	3	4	5	6	7

g. How often do you use your tablet/laptop to work in task unrelated to the group meetings?

Never			Sometimes			Always
1	2	3	4	5	6	7

h. Do you switch off your phone or activate silent mode during group meetings?

Never			Sometimes			Always
1	2	3	4	5	6	7

**Part 4: Social influence**

**Thinking about group meetings you may have participated in how likely you are to engage in the following activities. Please pick a number that best represent the**

**likelihood of your activity. 1= Not likely at all, 2= Somewhat not likely, 3= Sometimes, 4 = Somewhat likely, 5= Very likely**

\*Q15. How likely are you to do the following?

a. To multitask if others are doing it as well during a group meeting.

Not likely	Somewhat not likely	Sometimes	Somewhat likely	Very likely
1	2	3	4	5

b. To check your social media feed if others are doing it as well during a group meeting.

Not likely	Somewhat not likely	Sometimes	Somewhat likely	Very likely
1	2	3	4	5

c. To browse on the Internet if others are doing it as well during a group meeting.

Not likely	Somewhat not likely	Sometimes	Somewhat likely	Very likely
1	2	3	4	5

d. To text using your phone if others are doing it as well during a group meeting.

Not likely	Somewhat not likely	Sometimes	Somewhat likely	Very likely
1	2	3	4	5

### **Part 5: Polychronicity**

**\*Q16. Now in the following questions please tell us how you organize when you have more than one task at hand. Please pick the number that best describes your preference 1=strongly disagree, 2=disagree, 3=neither disagree or agree, 4=agree, and 5=strongly agree**

a. I prefer to work on several projects in a day, rather than completing one project and then switching to another.

Strongly disagree	Disagree	Neither Disagree/Agree	Agree	Strongly agree
1	2	3	4	5

b. I lose interest in what I am doing if I have to focus on the same task for long periods of time, without thinking about or doing something else.

Strongly disagree	Disagree	Neither Disagree/Agree	Agree	Strongly agree
1	2	3	4	5

c. When doing a number of assignments, I like to switch back and forth between them rather than do one at a time.

Strongly disagree	Disagree	Neither Disagree/Agree	Agree	Strongly agree
1	2	3	4	5

d. I like to finish one task completely before focusing on anything else.

Strongly disagree    Disagree    Neither Disagree/Agree    Agree    Strongly agree  
1                            2                            3                            4                            5

e. It makes me uncomfortable when I am not able to finish one task completely before focusing on another task.

Strongly disagree    Disagree    Neither Disagree/Agree    Agree    Strongly agree  
1                            2                            3                            4                            5

f. I am much more engaged in what I am doing if I am able to switch between several different tasks.

Strongly disagree    Disagree    Neither Disagree/Agree    Agree    Strongly agree  
1                            2                            3                            4                            5

g. I do not like having to shift my attention between multiple tasks.

Strongly disagree    Disagree    Neither Disagree/Agree    Agree    Strongly agree  
1                            2                            3                            4                            5

h. I would rather switch back and forth between several projects than concentrate my efforts on just one.

Strongly disagree    Disagree    Neither Disagree/Agree    Agree    Strongly agree  
1                            2                            3                            4                            5

i. I would prefer to work in an environment where I can finish one task before starting the next.

Strongly disagree    Disagree    Neither Disagree/Agree    Agree    Strongly agree  
1                            2                            3                            4                            5

j. I don't like when I have to stop in the middle of a task to work on something else.

Strongly disagree    Disagree    Neither Disagree/Agree    Agree    Strongly agree  
1                            2                            3                            4                            5

k. When I have a task to complete, I like to break it up by switching to other task intermittently.

Strongly disagree    Disagree    Neither Disagree/Agree    Agree    Strongly agree  
1                            2                            3                            4                            5

l. I have a "one-track" mind.

Strongly disagree    Disagree    Neither Disagree/Agree    Agree    Strongly agree  
1                            2                            3                            4                            5

m. I prefer not to be interrupted when working on a task

Strongly disagree	Disagree	Neither Disagree/Agree	Agree	Strongly agree
1	2	3	4	5

**Part 6: Motivations to Multicomuunicate**

**Respond to the following statements on how you strongly agree or disagree to why you engage in multiple conversations during group meetings. 1=strongly disagree, 2=disagree, 3=neither disagree or agree, 4=agree, and 5=strongly agree**

**\*Q17. “I like to use media...”**

a. To look for additional information on the subject matter being discussed in group meetings.

Strongly disagree	Disagree	Neither Disagree/Agree	Agree	Strongly agree
1	2	3	4	5

b. To add new information for discussion.

Strongly disagree	Disagree	Neither Disagree/Agree	Agree	Strongly agree
1	2	3	4	5

c. To verify facts on Google.

Strongly disagree	Disagree	Neither Disagree/Agree	Agree	Strongly agree
1	2	3	4	5

d. To encourage others to check information.

Strongly disagree	Disagree	Neither Disagree/Agree	Agree	Strongly agree
1	2	3	4	5

e. To use my time more efficiently.

Strongly disagree	Disagree	Neither Disagree/Agree	Agree	Strongly agree
1	2	3	4	5

f. To look for funny ..... to lighten the mood of everyone.

Strongly disagree	Disagree	Neither Disagree/Agree	Agree	Strongly agree
1	2	3	4	5

g. To ask questions from the person speaking.

Strongly disagree	Disagree	Neither Disagree/Agree	Agree	Strongly agree
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a. How much would it matter to you if someone gives a disapproving look while you are using your phone to text during group meetings?

Does not matter at all	Somewhat does not matter	Neutral	Somewhat matters	Matters a lot
1	2	3	4	5

b. How much would it matter to you if someone gives a disapproving look while using you are using your laptop/tablet to browse during meetings?

Does not matter at all	Somewhat does not matter	Neutral	Somewhat matters	Matters a lot
1	2	3	4	5

c. How much would it matter if you are called on to stop multitasking during a group a meeting?

Does not matter at all	Somewhat does not matter	Neutral	Somewhat matters	Matters a lot
1	2	3	4	5

d. How much does it matter to you if someone other than you is multitasking during group meetings.

Does not matter at all	Somewhat does not matter	Neutral	Somewhat matters	Matters a lot
1	2	3	4	5

e. How much would it matter if you are asked to turn your phone off during group meetings?

Does not matter at all	Somewhat does not matter	Neutral	Somewhat matters	Matters a lot
1	2	3	4	5

f. How much would it matter if you are asked to not browse on the Internet during group meetings

Does not matter at all	Somewhat does not matter	Neutral	Somewhat matters	Matters a lot
1	2	3	4	5

g. How much would it matter if you are asked to not text during group meetings.



Does not matter at all 1	Somewhat does not matter 2	Neutral 3	Somewhat matters 4	Matters a lot 5
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**Part 9: Big-Five Personality Index**

**How well do the following statements describe your personality? 1= Strongly disagree, 5 = Strongly Agree**

*Q20. I see myself as someone who	Disagree Strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly
a)...is reserved	1	2	3	4	5
b)...is generally trusting	1	2	3	4	5
c)...tends to be lazy	1	2	3	4	5
d)...is relaxed, handles stress well	1	2	3	4	5
e)...has few artistic interests	1	2	3	4	5
f)... is outgoing, sociable	1	2	3	4	5
g)...tends to find fault with others	1	2	3	4	5
h)...does a thorough job	1	2	3	4	5
i)...gets nervous easily	1	2	3	4	5
j)...has an active imagination	1	2	3	4	5

## APPENDIX B

### IRB Approval Letter

**RE: IRB-FY2019-117**

**Master's Thesis: Determinants of Multitasking Behavior among Young Adults During Group Meetings: Norms, Polychronicity, Multicommunicating and Media Utility**

The IRB has reviewed and approved your application for the above named project under the category noted below. By accepting this decision, you agree to notify the IRB of: (1) any additions to or changes in procedures for your study that modify the subjects' risk in any way; and (2) any events that affect that safety or well-being of subjects. Notify the IRB of any revisions to the protocol, including the addition of researchers, prior to implementation.

*Approval Category: Exempt 2*

*Approval Date: January 30, 2019*

Thank you for your efforts to maintain compliance with the federal regulations for the protection of human subjects.

DO NOT REPLY TO THIS EMAIL. IF YOU WISH TO CONTACT US, PLEASE SEND AN EMAIL MESSAGE TO [cayuseirb@csuohio.edu](mailto:cayuseirb@csuohio.edu).

Sincerely,

Mary Jane Karpinski

IRB Analyst

Cleveland State University

Sponsored Programs and Research Services

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216-687-3624