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Video Game Engagement, Gender, and Age: Examining Similarities and Differences in Motivation Between Those Who May or May Not Play Video Games

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ABSTRACT

Video Game Engagement, Gender, and Age: Examining Similarities and Differences in Motivation Between Those Who May or May Not Play Video Games

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This research aims to fill a research gap by examining video games to explore whether gender, age, or hours played per week would exert any influence on the information of those who may or may not play video games. Mood Management Theory and Uses and Gratification Theory were used as the theoretical foundation for this study. Four-hundred-three East Tennessee State University students who received the survey via email were asked to voluntarily participate in a survey about their motivations behind playing video games. Results from MANOVA showed that the motivations of male participants on video games were significantly higher than were female participants on video games. Moreover, those who claimed to play five or more hours of video games per week were significantly higher than those who claimed to play zero hours per week.

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CHAPTER 1

INTRODUCTION

Video game play has continued to rise in popularity over the years since it was invented. There is now an entire social networking community where people gather daily for hours on end competing against one another to level up and earn rewards and achievements (Klimmt, Hartmann, & Frey, 2007). A greater topic of interest is the psychology of why the popularity is still rising. Researchers have investigated variables of different reasoning behind game play and the impact of variables such as control have been recently investigated (Klimmt et al., 2007). When control is mentioned, it is referring to the player being able to predict the outcomes of whatever game that is being played in any manner they can imagine (Klimmt et al., 2007). Longer game play results when a player is completely immersed in a video game and loses grip from reality rather than giving proper attention to non-gaming events.

The Mood Management Theory can help our outlook on the world. Changing the world to how we would like it to be is not likely, but society can influence its own perspective on how the world functions. Since changing the world is not likely, people take matters into their own hands and help themselves by controlling and managing personal mood. The unchangeable circumstances of making the world the way that is favorable can be viewed as an unhealthy coping mechanism (Suinn, 2001). Managing a specific mood can be viewed as trying to change a current mood that is not desirable to be experiencing, or enhancing a positive feeling mood to keep or change the current state. Entertainment, specifically video game play, can assist in regulating one's mood, and the media has the power to play on our emotions and control the management of our moods.

Previous research suggests that the emotional experience of gaming is closely related with the dimensions of the flow experience as outlined by Csikszentmihalyi (1990):

> Gamers typically described 'being in the zone' or 'in the flow' of the game. The psychological experience of flow during competitive or non-competitive gaming form the basis of the psychological presence of gamers within the game and provides a useful framework investigating differences of the experience of gaming between different game genres and context of play (p. 9).

Poole (2000) reported that a plethora of gamers described certain video game experiences "… as a 'Zen' experience. This is understood to be shorthand for a kind of high-speed meditation, an intense absorption in which the dynamic form of successful play becomes beautiful and satisfying" (p. 168). Csikszentmihalyi (1990) introduced the concept of "flow," and Poole characterized the experiences as examples. Competitive video gaming refers to a group of individuals that carry out certain actions that are directed towards achieving specific goals when confronting other groups of individuals that are working towards the same goals (Salvador, 2005). Competitive stresses vary between genders; men carry out their victory and losses differently than do women. In a previous study on video gaming, women did not show any significant responses in raised testosterone levels, nor did any anticipatory levels increase (Salvador, 2005).

A survey was conducted to determine the relationship between the use of video gaming and the sex of user and their mood when playing video games. The survey is based off Sherry and Lucas's study (2003) provided the questions for the quantitative survey tool. A 5-point Likert-type scale of 1 = *strongly agree* to 5 = *strongly disagree* was used to measure the

relationship between the use of video gaming and the sex of user and mood when playing video games with a total of 25 questions. Twenty of the questions were measured along five dimensions to determine the relationship between the use of video gaming and the sex of user and their mood when playing video games. The five dimensions are *Competition, Challenge, Social Interaction, Diversion, Fantasy,* and *Arousal.* The final three questions were to measure the specific demographics of each participant to get an accurate percentage of sex, age, and hours played per week. Examples of the survey statements are: (1) When I lose to someone, I immediately want to play again in an attempt to beat him/her; (2) I play until I complete a level or win a game; (3) My friends and I use video games as a reason to get together; (4) I play video games instead of other things I should be doing; (5) I play video games because they let me do things I can't do in real life; (6) and I play video games because they stimulate my emotions. The survey included a section of demographic questions to measure the gender and age of the participants, as well as how many hours are played during the week.

CHAPTER 2

LITERATURE REVIEW

For this study, literature from several fields was reviewed including mass communication, communication studies, gender studies, mood management, psychology and technology. First, the literature on the presence of gender differences between video game usage will be discussed. Next, there will be a review of literature on motivation behind video game usage and Mood Management Theory. Finally, prior research on Usage and Gratifications will be discussed, as well as research questions for the current study.

Gender Differences

The presence of female characters in video games has become more prominent in recent years. Women tend be viewed as weaker, more vulnerable victims that need to be rescued by the masculine male hero. The first video game that broke away from the mold of women being the victim was The Tomb Raider (1996). Lara Croft is the main character and focus of the video game. She is the driving force of the plot of the game and defies the perspective of the 'weaker' species, and is the opposite of being looked upon as an 'object' (Mikula, 2003). Even though female characters in video games is still considerably low, Lara Croft's entry into the male dominated world of gaming has broken the cycle of the portrayal of women and has been continuing to steadily rise (Mayfield, 2000), but this heroine is still portrayed as a hyper-sexualized character.

Terlecki and Newcombe (2005) state, "spatial ability can be described as skill in representing and transforming symbolic or nonlinguistic information through space" (p. 433). Spatial ability is an important task that is needed in everyday situations like putting together a computer, to more complicated, technical tasks like surgery on a patient. Tasks of mental

rotation, in terms of spatial ability, are more dominate and easier for men than they are for women, and men have also had more experience with spatial differences (Terlecki & Newcombe, 2005). The previous statement includes men having more spatial experience in computer and video game usage. Those with a lower level experience in computer and video game skills, such as women, prove to have more room for improvement (Terlecki & Newcombe, 2005). After reviewing the video-gaming literature, it is a reasonable conclusion that men and women can benefit from learning how to increase spatial ability while playing video games. While this conclusion is plausible from previous research that has been done, the rate of improvement may differ between genders. Much of the currently video game world is geared towards masculinity, such as violence and aggression, which could contribute to the reason women regard spatial ability to be more masculine (Hess & Niura, 1985; Provenzo, 1986; Rushbrook, 1986).

While not all video game players are created equal under the mental and motor capacity realm because of it potentially being too overwhelming or tedious, video games can offer different forms of satisfaction, such as the ability to master the game itself (Lucas & Sherry, 2004). Video games are designed, in terms of differential ability, to focus on the strengths of male players over females. Kimura (1999) found results from research that indicates males are better when it comes to mental rotation during spatial experiences, and females are stronger with remembering how to reach a destination when objects are seen along a specific route. Masculine game design places females at an immediate disadvantage because of their lower spatial ability to control the environment of a video game and creates a hindrance on female players from participating.

Since video games are geared towards males more than females, females tend to stay away from playing often. This is because the social view of video games is looked upon as a masculine activity, and if females continue to pursue playing video games then they will lose the feeling of inclusion and affection they crave from their other female peers (Lucas & Sherry, 2004). Even though females may be publicly discouraged to play video games, this does not negate that they are not up for a challenge to draw them towards turning on a video game system and playing behind closed doors. If they are drawn to playing video games, they may resort to playing something that allows them to feel like they are more in control. Expanding on Kimura's (1999) research on biological sex differences, Lucas and Sherry (2004) predicted that females would focus on video game skills that do not have much to do with mental rotation.

Women and girls also play video games; the only difference is that most of the female gender has different genre preferences than the typical male counterparts. Most females fall under the genre of casual video game, such as the fast-paced popular mini games (ISFE, 2008; Jones, 2003; Pratchett, 2005). *The Sims* is the best-selling PC game of all time. This could be so because they attract a much bigger audience than the male gender. This role-play video game consists of creating an entire life inside of a digital space, dating others, owning pets, having your dream house, anything that you would ever desire in the physical world. This type of role playing video game is more attractive to females and the way they view social relationships (Jansz, Avis, & Vosmeer, 2010). Per Lucas and Sherry (2004), both men and women are driven by the challenge of video game play, but men did score significantly higher than women did. Even though both men and women were driven by challenge, different genders seek after gaming for different reasons. Women seek after video games for the social interaction aspect, and men play video games for the challenge that goes into completing the game. The results from Yee's

(2006) survey with online role-players found the stereotyping of females playing video games more for social reasons to be true (Yee, 2006).

Nick Yee, the co-founder of game analytics company Quantic Foundry, published a report that breaks down the different game genres that are dominated by women after collecting survey data from over 270,000 gamers on specific game titles they enjoyed playing (Yee, 2017). Match 3 and Family/Farm Sim resulted in the highest percentages of women who play those games at sixty-nine percent. The following are the other genres and their percentages (Yee, 2017):

> Casual Puzzle – forty-two percent; Atmospheric Drama – forty-one percent; Interactive Drama – thirty-seven percent; MMOs (High Fantasy) – thirty-six percent; Japanese RPG – thirty-three percent; Western RPG – twenty-six percent; Survival Roguelike – twenty-five percent; Platformer – twenty-five percent; City Building – twenty-two percent; Action RPG – twenty percent; Sandbox – eighteen percent; Action Adventure – eighteen percent; MMOs (Sci-Fi) – sixteen percent; Open World – fourteen percent; Turn-Based Strategy – eleven percent; MOBA – ten percent; Grand Strategy – seven percent; First-Person Shooter – seven percent; Racing – six percent; Tactical Shooter – four percent; and Sports – two percent (p. 1).

The masculine ideology theory is an aspect of gender-related attitudes and suggests that males internalize different cultural standards of masculinity and adapt to what they consider the norm (Robinson, Callister, Clark, & Phillips, 2009). As men and boys are continually exposed to masculine depictions in media, they take those depictions and allow them to become a part of who their character is as a male. The fundamental idea behind the masculine ideology theory is

that there is an absence in male role models, and in return, causing a lack in secure gender role identity (Pleck, Sonenstein, & Ku, 1993). This theory shows that when males become insecure about their sexual identity, it can lead to strongholds placed on heterosexual relationships. Males could look to playing more aggressive video games to counteract the absent feeling of a male role model, resulting in a negative twist on how a male should interact in society.

Motivation Benefits of Playing Video Games

PC-based videogames are continuing to rise in popularity as key instructional tools in areas like the military and educational settings (Burgos, Tattersall, & Koper, 2007; Herz & Macedonia, 2002; Orvis, Horn, Belanich, 2008). Many arguments surround the acceptance of videogame training tools. One argument that stands out is the possibility of taking advantage of what motivates the popularity of game play (Dickey, 2005; Gee, 2003; O'Neil & Fisher, 2004; Orvis et al., 2008; Prensky, 2001; Rieber, 1996). Past research shows that task difficulty, realism, and interactivity in videogames play an important role in the learning outcomes on game-based learning environments (Belanich, Sibley, & Orvis, 2004; Garris, Ahlers, & Driskell, 2002; Malone & Lepper, 1987; Orvis et al., 2008). This previous work shows that instructional games should yield a certain degree of difficulty to the ones that are learning. Take Vygotsky's zone of proximal development, for example, he argues that training should be difficult, but not to the point where it is unenjoyable and disrupts the learning process (Orvis et al., 2008).

The likelihood of success in videogames is determined by the difficulty of the game. Videogames tend to get more difficult as the player progresses throughout the game and the levels become more difficult than the previous levels. Successful progress in the game is determined if the player is feeling dominate throughout each level and makes it to the end of the

game. Progression of the game will stop if the player comes to a point where the difficulty of the game gets too aggressive and motivation is lost to continue. These reasons for successful progress or stopping game play are acceptable, if the game is being played for entertainment purposes. When games are being played for training purposes, it is important that the trainee can complete each task, but the game needs to be challenging enough so the trainee is fully engaged and receives full value of the course (Orvis et al., 2008).

Self-efficacy, as defined by Bandura (1977b) is "the conviction that one can successfully execute the behavior required to produce the outcomes" that are expected by that behavior (p. 193). The origin concept of self-efficacy was fitted for the context of psychotherapy and behavioral change (Klimmt & Hartmann, 2005). Modeling and improvement of student performance is part of nontherapeutic contexts and plays an integral role in Bandura's social-cognitive framework (Bandura, 1977c, 1986, 2001, Schwarzer, 1992).

When people choose a social setting to immerse themselves in, they lean towards choosing an activity that they will be portrayed in a positive light in their point of view. If the social setting presents itself with any difficult situations, then the person needs to decide if and how he or she is going to overcome it and how much effort he or she is willing to divulge to feel motivated to stay. If the people presented with the difficult obstacle feels highly about their self-efficacy, then they are more likely to conquer the said obstacle. Bandura's theory of self-efficacy plays an important role in video game play and how the individual can lose motivation in continuing with the game if the difficulty of each level rises too quickly. Bandura (1977b) wrote:

> those who persist in subjectively threatening activities will eventually eliminate their inhibitions through corrective experience, whereas those who avoid what they fear, or

who cease their coping efforts prematurely, will retain their self-debilitating expectations and defensive behavior (p. 288).

This can shed light on those who consider themselves "gamers." For instance, when a video game reaches a difficulty level where the player is having trouble progressing in the game, they have two decisions to make; a) correct their negative experience and overcome the level, or b) the player will become overly frustrated with the game or the way they are playing and quit trying to beat the level until another time after they have calmed down.

Bandura and Adams (1977a) stated "stressful situations generally elicit emotional arousal that, depending on the circumstances, might have informative value concerning personal competency" (p. 289). Video game players can experience stress when they are in a heated situation during a game level they are having trouble beating. This can bring up different emotions, such as feelings of failure, excitement, fear, frustration, others that the players must decide how they are going to press past and move on to the next task. For some, this difficulty will cause them to keep pressing harder so they can overcome the difficult situation at hand; and for others, it will cause them to temporarily shut down and walk away from the game to unwind and assess the situation and process other alternatives to beat the level they are currently having trouble moving past. Since high levels of arousal tend to restrict the performance of someone, individuals expect to behave more efficiently when they are not being harassed by the punishment of negative arousal then if they were tense or agitated (Bandura & Adams, 1977a, p. 289).

On the positive side of playing video games, Granic, Lobel, and Engels, (2014) suggested that Erikson (1977) proposed that being in an environment surrounded by others playing, people

can experiment in those social settings and learn better how they can personally overcome any negative emotions that are being felt in that moment. Once those emotions are confronted, it can allow feelings of resolution to arise in similar social settings, and settings outside of video game play. Per Granic et al. (2014), "contrary to conventional beliefs that playing video games is intellectually lazy and sedating, it turns out that playing these games promotes a wide range of cognitive skills" (p. 68). Granic et al. (2014) also suggest that the previous statement is especially true when it comes to playing *shooter* video games. Players who participate in shooter video games tend to show faster results for spatial resolution in "visual processing, and enhance mental rotation ability" (Granic et al., 2014, p. 68). A meta-analysis (Uttal et al., 2013) gathered results that spatial skills improved from players when commercial shooter games were played; they were comparable to taking high school and college-level courses that were aimed to accomplished similar goals of spatial improvement. Because of this recent meta-analysis, it proved true that this type of spatial training can be used with video games in a short amount of time and the benefits from this training extends outside of the gaming context and can last for long periods of time (Granic et al., 2014).

A 25-year study was conducted by Wai, Lubinsk, Benbow, and Steiger (2010) that established the benefits of working with spatial skills and producing "achievement in science, technology, engineering, and mathematics (STEM)" (p. 68). This could suggest that shooter game players will allocate the attention solely to the task and can easier sift through irrelevant information more efficiently. *Nature Reviews Neuroscience* summarizes: "Video games are controlled training regimens delivered in highly motivating behavioral contexts . . . because behavioral changes arise from brain changes, it is also no surprise that performance improvements are paralleled by enduring physical and functional neurological remodeling"

(Bavelier, Green, Han, Renshaw, Merzenich, & Gentile, 2011, p. 763). This is stating that behavioral changes and brain changes go hand in hand when video games are used for training in motivational situations. The human brain fires more neurons when a highly tense situation arises, causing a physiological change in the body, resulting in an outwardly behavior change in the players demeanor.

In summary, perceived video game play can be considered as wasteful of time and effort, yet some gaming environments may produce a positive motivational style. Much of this internal decision making probably plays a significant role on the types of video games being played, but could produce healthy motivational styles, while other video games may not produce similar styles. Genre styles of video games could play a significant role in the motivational outcomes players are seeking. There are other studies that need to be done and taken into consideration that are necessary to move the field forward significantly.

Uses and Gratifications Theory

Since the uses and gratifications paradigm has been first used in the 1940's as a study of the patterns in radio listeners, it has continued to grow in popularity among scholars to gain crucial insight of the impact and uses of new communication technologies (Rubin, 1994; Ruggiero, 2000). Monge (1977) described best how to understand human behavior as "interlinked sets of components hierarchically organized into structural wholes which interact through time and space, are self-regulating, yet capable of structural change" (p. 20). The purpose behind why an individual chooses their media is based off the function the individual would like the media to serve.

Individuals choose to view media for two main reasons: first, when someone chooses a piece of media based on the perception that little is known on the subject they are viewing; second, someone chooses their current media solely to pass time (Sherry, & Lucas, 2003). The latter persona may choose a mindless form of media so they do not have to give much attention to what is going on, or, they may choose a media to pass the time that has already been viewed previously, causing them to not have to forfeit much attention without missing something crucial. Bryant and Zillmann (1984) discovered that individuals that were requested to perform a mundane task were more likely to choose exciting material over individuals who were under any level of stress. Csikszentmihalyi (1997) describes the highly engaging and enjoyable flow state as when individuals expose themselves to media, it becomes an intrinsically rewarding experience, and the user achieves the highly engaging and enjoyable flow state.

This literature review will briefly examine how arcade games have been played to satisfy the uses and gratification theory. Based on literature from the 1980s, it is evident that arcade game play was used by adolescents for excitement, positive accomplishment, and to help reduce stress levels (Wigand, Borstelmann, & Boster, 1985). These causes for playing video games can show results in the amount of time spent playing. Myers (1990) published a study that focused on four factors of game play: Fantasy, curiosity, challenge, and interactivity; which all heavily related to the amount of game play. Out of the four factors of game play, challenge scored consistently higher than the other three factors.

People perceive a variety of problems they encounter differently, and based off those perceptions they seek various methods of gratification and problem-solving behavior through media consumption and other activities (Lucas & Sherry, 2004). Uses and gratifications is used to help determine why individuals use media to fulfill their behavior (Rosengren, 1974). Philips

et al. (1995) discovered that uses and gratifications showed correlation with video game play when players attempted to pass time, escapism, and seek happiness. Griffiths (1991a, 1991b) also discovered that there are different types of video game addicts that the uses and gratifications approach encompasses, such as "arousal, social reward, skill testing, displacement, and stress reduction" (p. 216).

Media use, such as video game play, is an essential part of basic human needs and social influence. It is the place people turn to so they can find self-worth and learn how to adapt different behaviors to use in society. Although people may turn to media so they can fulfill certain desires, research does not provide evidence of which needs lead to patterns of specific media use (Lucas & Sherry, 2004). Basic human needs, as stated by Rosengren (1974) "epitomize the biological and psychological infra-structure that informs all of human behavior" (p. 270). There are three interpersonal needs that have been determined by FIRO that all people are drawn by: inclusion, affection, and control (Schutz, 1958). Individuals desire to interact with others to help fulfill the inclusion role that may be missing in someone's life. Affection is sought out because individuals seek a certain level of closeness in relationships. Schutz (1958) explains that even though individuals have these three interpersonal needs, we cannot hone in on where they originate and the strength and direction to which people possess these traits may vary. The positive side to this method of research is that each of these needs can help predict these said individuals' interpersonal behaviors.

The Mood Management Theory: Overview

The Mood Management Theory (MMT) suggests that people utilize media to help control or counteract their excitation (Bryant & Oliver, 2009). For example, if someone is feeling

depressed, they might seek after low absorption effects, such as sad material to maintain state they are in, or look to high absorption effects, such as uplifting material to alter the current mood they may be experiencing. Mood management can help predict what media will be chosen to watch, but it cannot predict what effect the media may have on the individual. When someone experiences a positive mood, it will "increase the ability to access positive memories, making it seem that positive events or behaviors are more likely to occur" (Wegener & Petty, 1994, p. 1036). When a person experiences nostalgia when viewing a television show he or she used to watch as a child, it can spark memories from the days that seemed easier and more fun. For pure enjoyment to occur, one must have a balance in excitatory levels, thus, avoiding any harmful or unpleasant states (Bryant & Oliver, 2009).

Humans are wired to pursue activities that are more pleasurable than to lean towards something that is not. Actions can further increase positive moods if chosen correctly and are more likely to be chosen in the future when familiar situations arise (Zillmann, 1988). Problem-solving video games are more likely to be chosen if the player is feeling stressed when returning home from work if the game will reduce their negative mood.

The MMT cannot predict that everyone desires to alter his or her current mood from bad to good, this is a choice that person needs to decide on his or her own. There are vast dimensions to media content that could play a big role in mood management, thus creating complications in the results researchers are looking for. Carpentier et al. (2008) performed a study on adolescents using media to enhance or sustain their current mood. Findings showed that boys were less likely to use media than girls to exit their bad mood. These results could show that adolescents thought media was less fun than other dimensions to pull themselves out of their current mood.

Reinecke et al. (2012) argues that "exposure to entertaining media is also driven by

processes of mood repair that *directly address*, rather than simply *distract from*, the source of negative affect" (p. 437). Rather than comfortably distracting their self from a negative thought or experience, one might directly address their situations and feelings by exposing themselves to a form of media to eradicate the source of the negative effect. Experiencing physiological sensation plays an important role in aiding the mood someone might enter in, but does not guarantee someone will be solely entertained based on those resources. More important than the physiological experience, is the "level of psychological stimulation that is necessary to feel entertained" (Bryant & Oliver, 2009, p. 539).

The Mood Management Theory: Effects on Video Game Play

Video games are constantly rising in popularity, and a greater topic of interest is the psychology of why the popularity is rising. Researchers have investigated variables of different reasoning behind game play and the impact of variables such as control have been recently investigated (Klimmt, Hartmann, & Frey, 2007). When control is mentioned, it is referring to the player being able to predict the outcomes of whatever game that is being played in any manner they can imagine (Klimmt et al., 2007). Longer game play results when a player is completely immersed in a video game and loses their grip from reality rather than giving proper attention to non-gaming events.

Other theories have been used to investigate the enjoyment of video games. The Self-Determination Theory for example, suggests that people seek competence, autonomy, and relatedness due to the psychological needs they have. These needs that are satisfied provide the groundwork for self-motivated behavior (Deci & Ryan, 2000). In 2006, Ryan, Rigby and Przybylski used the Self-Determination Theory to examine the pleasure of video games. The

researchers considered that the interest of a video game depends on how well their psychological needs are met, therefore potentially raising enjoyment, motivation of game play, and short-term contentment. The study helped prove that players were more inclined to keep playing a video game when it fulfilled the feeling of competence and autonomy. The authors also found that increase of self-esteem and mood occurred when autonomy and competence within the game were perceived.

Crystine Serrone, a student from San Jose State University, wrote her thesis on *Mood Management and Video Game Engagement* in 2012. Her research showed that playing violent and non-violent video games could yield short-term positive mood repair in players. Serrone (2012) stated, "After random assignment to groups following a mood-induction, those in the violent video-game condition experienced the same level of improvement in mood and reduction in hostile feelings as did the nonviolent game condition" (Serrone, 2012, p. 85).

This paper studies the moods and motivations in participating in video game play among East Tennessee State University students and attempts to observe the differences and similarities of how many hours a week someone spends playing video games based on age and gender.

Students tend to play video games for longer periods of time when they are trying to beat a level or game, trying to beat the person they are playing against, or simply trying to avoid doing something else they should be doing. To understand the reason why students choose to play for such long periods of time per week, motivations for their usage must be examined first. The first research question is now proposed:

RQ1: What differences of mood are experienced depending on how many hours someone who plays video games per week?

If the motivations for mood in video game play usage are discovered, specific analysis

can be made on the similarities and differences of video game usage among East Tennessee State University students and the age group they fall under. What age group someone falls under when participating in video game play could yield influence on any similarities or differences to be discovered. The second research question is proposed:

RQ2: Are there differences between the age groups' experience when they play video games?

Since the social view of video games is predominately viewed as a masculine activity, females that continue to lose while playing video games will desensitize themselves from feeling included and affection they crave from other female peers will no longer be a priority (Lucas & Sherry, 2004). This can lead to females becoming publicly discouraged when playing video games, but does not negate they are not up for a challenge to draw them towards turning on a console and play behind closed doors. If they are drawn to playing video games, they may resort to playing something that allows them to feel like they are more in control. Therefore, the third research question is proposed:

RQ3: Is there a difference between males and females experience of mood when they play video games?

CHAPTER 3

METHOD

To examine the similarities and differences of male and female students who play video games, the number of hours played per week, and different age dimensions, an online questionnaire was used to further investigate participants' involvement. In this study, participants took a survey to indicate their level of agreement to the motivations of participating in video game play. Moreover, participants were asked to answer three demographics questions as the independent variables in this study.

Sample and Procedure

The relevant sample is respondents who play video games to a certain degree. Dr. Susan Waters, in the East Tennessee State University Department of Media and Communication requested from Dr. Bert Bach, Provost and Vice President of Academic Affairs, to administer the survey, after it was IRB approved, to the entire East Tennessee State University student body. Each survey is prefaced with an informed consent letter, which briefly describes how taking the survey was voluntary, the reasoning behind why the survey was being administered, and any mandatory information required. Taking part in this study involved completing a web survey that took about five minutes. This survey contained questions about students' opinions and perceptions about the relationships between the use of video gaming and sex of the user and their mood when playing video games.

Each student's confidentiality was maintained to the degree permitted by the technology used. Specifically, no guarantees can be made regarding the interception of data sent via the Internet by any third parties. Only the principal investigator, his advisor and the ETSU IRB have

access to the data. The data is being password protected. Only summarized data will be presented at meetings or in publications.

Participants received no incentive or gift for taking the survey (e.g., class bonus points, money). The findings were useful to the mass communication profession and educators for understanding the relationship between the use of video gaming and the sex of user and your motivation when playing video games. The university IRB process had been completed and approval was given for this study. The survey was voluntary and anonymous for the participants who had the choice to stop or contact the researcher and withdraw from the study later.

Every participant was required to be at least 18-years-old or older and a University student that possibly plays video games. Four-hundred and three East Tennessee State University students responded to the online survey on a voluntary basis. Of the 403 participants, 276 were males and 127 females.

Measures

The participants were selected by sending out the survey to the entire East Tennessee State University student body that were at least 18 years of age, male or female. Sherry and Lucas's study (2003) provided the questions for the quantitative survey tool. A 5-point Likert-type scale of 1 = *strongly agree* to 5 = *strongly disagree* was used to measure the relationship between the use of video gaming and the sex of user and your mood when playing video games with a total of 25 questions. The survey was constructed using the Qualtrics survey platform, a private research software company that allows users to do various types of online data collection and analysis. Twenty of the questions were measured along five dimensions to determine the relationship between the use of video gaming and the sex of user and their mood when playing video games. The five dimensions are *Competition, Challenge, Social Interaction, Diversion,*

Fantasy, and *Arousal.* The final five questions were to measure the specific demographics of each participant to get an accurate percentage of sex, age, hours played per week, and which video game system is preferred to be played on. Examples of the survey statements are: (1) When I lose to someone, I immediately want to play again in an attempt to beat him/her; (2) I play until I complete a level or win a game; (3) My friends and I use video games as a reason to get together; (4) I play video games instead of other things I should be doing; (5) I play video games because they let me do things I can't do in real life; (6) and I play video games because they stimulate my emotions. The survey included a section of demographic questions to measure the gender and age of the participants, as well as how many hours are played during the week.

The researcher and his advisor used SPSS and MANOVA to analyze the collected data. SPSS is a vastly used program for statistical analysis and social science. The program allows any level of researcher to complete their own statistical analysis. Other features of the program include data management and date documentation. The base software includes statistics such as *Descriptive statistics, Bivariate statistics, Prediction for numerical outcomes,* and *Prediction for identifying groups*. Command syntax is a language featured within the SPSS program that assists in simplifying tasks, reproducibility, and handling complex data manipulations and analyses.

Multivariate analysis of variance (MANOVA) was conducted to analyze the relationship between the use of video gaming and the sex of user and your mood when playing video games. SPSS software was used to conduct the MANOVA.

The independent variables are sex with two levels: *male and female*; age with three levels: *18-20, 21-23, 24 and older*; which video game system was played most: *Xbox, PlayStation,* Other; and time spent per week playing video games based on four levels: *zero hours, 1-2 hours, 3-4 hours, 5 or more hours.* The dependent variables are the 20 questions measured along five

dimensions to determine the relationship between the use of video gaming and the sex of user and their mood when playing video games.

In this study, the researchers focused on the relationship between gender, age of participant, and number of hours played per week. Data was collected in compliance with the research guidelines set by the East Tennessee State University Institutional Review Board. The subsequent section will present an analysis of the data gathered using SPSS.

CHAPTER 4

RESULTS

This study examines the similarities and differences in mood between male and female students at East Tennessee State University who may or may not play video games based on the five dimensions mentioned in the methods section of this paper and measured by 25 questions administered by the primary researcher. This section will include demographic results from the data, results from analysis of three research questions presented, as well as a summary of the findings.

The sample population for this study included 403 East Tennessee State University students. The students were asked to answer demographic questions and questions relating to the relationship between the use of video gaming and the sex of user and your mood when playing video games. The survey was set up in hopes of collecting at least 200 completed surveys. Thus, 403 surveys were completed in the analysis, and 276 (68.3%) were male and 127 (31.7%) were female. Among the 403 surveys, 138 (34.2%) of the participants surveyed were between the age of 18-20, 124 (30.7%) participants were between the age of 21-23, and 142 (35.2%) were age 24 or older. Seventeen (4.2%) of the participants self-reported that they spend zero hour per day playing video games, 74 (18.4%) participants claimed they spend 1-2 hours per day playing video games, 124 (30.8%) said they spend 3-4 hours per day playing video games, and 188 (46.6%) participants surveyed spend 5 or more hours per day playing video games.

Multivariate analysis of variance (MANOVA) was conducted to analyze the relationship between the use of video gaming and the sex of user and your mood when playing video games. SPSS software was used to conduct the MANOVA.

The independent variables are sex with two levels: *male and female*; age with three levels: *18-20, 21-23, 24 and older*; which video game system was played most: *Xbox, PlayStation,* Other; and time spent per day playing video games based on four levels: *zero hours, 1-2 hours, 3-4 hours, 5 or more hours.* The dependent variables are the 20 questions measured along five dimensions to determine the relationship between the use of video gaming and the sex of user and their mood when playing video games.

First, research question one was addressed:

RQ1: Is there a difference between males and females experience of mood when they play video games?

To answer the first research question, of the 20 variables on the difference between males and females experience of mood when they play video games, one was found to be significantly related to females playing video games. A one-way multivariate analysis of variance was conducted to determine the difference between males and females experience of mood when they play video games on the twenty dependent variables. The multivariate test results showed the differences found among the first research question, Wilks's Lambda = .79, $F(20, 383) = 4.5$, $p < .05$, $\eta^2 = .01$. The means and standard deviations of significant results the difference between males and females experience of mood when they play video games are presented in Table 1.

Table 1

Group Means and Standard Deviations for the Difference Between Males and Females Experience of Mood When They Play Video Games

Gender Dimensions	Mean	SD
Competition		
I like to play to prove to my friends That I am the best.		
Male	2.99*	1.32
Female	2.21	1.13
When I lose to someone, I immediately Want to play again in an attempt to beat Him/her.		
Male	3.64*	1.07
Female	3.15	1.20
It is important to me to be the fastest and Most skilled person playing the game.		
Male	3.20*	1.31
Female	2.56	1.23
I get upset when I lose to my friends.		
Male	2.70*	1.27
Female	2.37	1.13
Challenge		
I feel proud when I master an aspect of a game.		
Male	4.64	.57
Female	4.62	.60
I find it very rewarding to get to the next level.		
Male	4.50	.70
Female	4.60	.64

I play until I complete a level or win a game.		
Male	3.90	1.06
Female	3.68	1.12
I enjoy finding new and creative ways to work through video games.		
Male	4.44*	.76
Female	4.06	.95
Social Interaction		
My friends and I use video games as a reason to get together.		
Male	4.04*	1.13
Female	3.16	1.42
Often, a group of friends and I will spend time playing video games.		
Male	3.98*	1.21
Female	3.13	1.48
Diversion		
I play video games when I have other things to do.		
Male	3.55*	1.24
Female	3.23	1.45
I play video games instead of other things I should be doing.		
Male	3.26	1.33
Female	3.01	1.46
Fantasy		
I play video games because they let me do things I can't do in real life.		
Male	3.64*	1.29
Female	3.29	1.51

Video games allow me to pretend I am someone/somewhere else.		
Male	3.66	1.33
Female	3.55	1.45
I like to do something that I could not normally do in real life through a video game.		
Male	3.90*	1.20
Female	3.66	1.34
I enjoy the excitement of assuming an alter ego in a game.		
Male	3.67*	1.19
Female	3.50	1.37
Arousal		
I find that playing video games raises my level of adrenaline.		
Male	3.86*	1.01
Female	3.69	1.16
Video games keep me on the edge of my seat.		
Male	3.87	.99
Female	3.60	1.16
I play video games because they stimulate my emotions.		
Male	3.45*	1.21
Female	3.32	1.24
I play video games because they excite me.		
Male	4.24*	.87
Female	4.14	.97

Note: *Mean of the male gender differs significantly from means of the female gender at $p<.05$.
Total Respondents: 403

Among the 403 surveys, 276 (68.3%) participants were males, and 128 (31.7%) participants were females. The male mean was significantly higher for most questions than the female mean when determining the difference between gender and experience of mood when playing video games.

Next, research question two was addressed:

RQ2: Are there differences between the age groups' experience when they play video games?

To answer the second research question, of the 20 variables on the difference the age groups' experience when they play video games, a one-way multivariate analysis of variance was conducted to determine the difference the age groups' experience when they play video games on the twenty dependent variables. The multivariate test results showed the differences found among the second research question, Wilks's Lambda = .89, $F(40, 732) = 1.03$, $p < .05$, $\eta^2 = .01$. The means and standard deviations of significant results to determine the difference the age groups' experience when they play video games are presented in Table 2.

Table 2

Group Means and Standard Deviations for the difference the age groups' experience when they play video games

Age Dimensions	Mean	SD
Competition		
*I like to play to prove to my friends That I am the best.		
18-20	2.94	1.32
21-23	2.71	1.33
24 and above	2.56	1.25

When I lose to someone, I immediately Want to play again in an attempt to beat Him/her.		
18-20	3.55	1.15
21-23	3.37	1.13
24 and above	3.50	1.11
*It is important to me to be the fastest and most skilled person playing the game.		
18-20	3.06	1.29
21-23	3.10	1.33
24 and above	2.83	1.30
I get upset when I lose to my friends.		
18-20	2.61	1.25
21-23	2.77	1.22
24 and above	2.42	1.23
Challenge		
*I feel proud when I master an aspect of a game.		
18-20	4.70	.47
21-23	4.65	.51
24 and above	4.55	.72
*I find it very rewarding to get to the next level.		
18-20	4.53	.66
21-23	4.50	.65
24 and above	4.56	.73
*I play until I complete a level or win a game.		
18-20	3.78	1.05
21-23	3.76	1.13
24 and above	3.92	1.09
*I enjoy finding new and creative ways to work through video games.		
18-20	4.33	.85
21-23	4.30	.82
24 and above	4.34	.86

Social Interaction		
*My friends and I use video games as a reason to get together.		
18-20	3.86	1.23
21-23	3.96	1.23
24 and above	3.49	1.37
*Often, a group of friends and I will spend time playing video games.		
18-20	3.82	1.27
21-23	3.90	1.30
24 and above	3.44	1.46
Diversion		
*I play video games when I have other things to do.		
18-20	3.61	1.33
21-23	3.48	1.28
24 and above	3.25	1.30

Table 2 (continued)

*I play video games instead of other things I should be doing.		
18-20	3.42	1.33
21-23	3.19	1.34
24 and above	2.94	1.41
Fantasy		
*I play video games because they let me do things I can't do in real life.		
18-20	3.68	1.32
21-23	3.40	1.33
24 and above	3.52	1.46

Table 2 (continued)

*Video games allow me to pretend I am someone/somewhere else.		
18-20	3.80	1.31
21-23	3.41	1.46
24 and above	3.67	1.33

*I like to do something that I could not normally do in real life through a video game.		
18-20	3.96	1.15
21-23	3.62	1.29
24 and above	3.90	1.28
*I enjoy the excitement of assuming an alter ego in a game.		
18-20	3.72	1.18
21-23	3.45	1.33
24 and above	3.69	1.23
Arousal		
*I find that playing video games raises my level of adrenaline.		
18-20	3.86	1.01
21-23	3.74	1.12
24 and above	3.80	1.06
*Video games keep me on the edge of my seat.		
18-20	3.88	.99
21-23	3.76	1.07
24 and above	3.68	1.12

Table 2 (continued)

*I play video games because they stimulate my emotions.		
18-20	3.53	1.21
21-23	3.35	1.24
24 and above	3.32	1.21
*I play video games because they excite me.		
18-20	4.24	.92
21-23	4.19	.92
24 and above	4.20	.89

Among the 403 surveys, 138 (34.2%) of the participants surveyed were between the age of

18-20, 124 (30.7%) participants were between the age of 21-23, and 142 (35.2%) were age 24 or older.

Finally, research question three will be addressed:

RQ3: What differences of mood are experienced depending on how many hours someone who plays video games per week?

To answer the final research question, a MANOVA was conducted to evaluate the differences of mood are experienced depending on how many hours someone who plays video games per week. A one-way multivariate analysis of variance was conducted to determine the differences of mood are experienced depending on how many hours someone who plays video games per week on the twenty dependent variables. The multivariate test results showed the differences found among the third research question, Wilks's Lambda = .43, $F(60, 1128.58) = 6.15$, $p < .05$, $\eta^2 = .01$. The means and standard deviations of significant results to determine the differences of mood are experienced depending on how many hours someone who plays video games per week are presented in Table 3.

Table 3

Group Means and Standard Deviations for the differences of mood are experienced depending on how many hours someone who plays video games per week

Hours Played Dimensions	Mean	SD
Competition		
I like to play to prove to my friends That I am the best.		
0 hours	1.63	.88
1-2 hours	2.65	1.31
3-4 hours	2.65	1.28
5 or more hours	2.91	1.29

When I lose to someone, I immediately Want to play again in an attempt to beat Him/her.		
0 hours	2.69	1.40
1-2 hours	3.43	1.21
3-4 hours	3.53	1.15
5 or more hours	3.53	1.03
It is important to me to be the fastest and Most skilled person playing the game.		
0 hours	1.88	1.25
1-2 hours	2.81	1.38
3-4 hours	2.85	1.26
5 or more hours	3.24	1.26
* I get upset when I lose to my friends.		
0 hours	2.06	1.18
1-2 hours	2.53	1.25
3-4 hours	2.52	1.18
5 or more hours	2.70	1.26
Challenge		
I feel proud when I master an aspect of a game.		
0 hours	4.00	1.31
1-2 hours	4.57	.49
3-4 hours	4.64	.51
5 or more hours	4.70	.53
I find it very rewarding to get to the next level.		
0 hours	3.75	1.29
1-2 hours	4.50	.64
3-4 hours	4.62	.56
5 or more hours	4.55	.66
I play until I complete a level or win a game.		
0 hours	2.75	1.23
1-2 hours	3.45	1.11
3-4 hours	3.91	.99
5 or more hours	4.00	1.05

I enjoy finding new and creative ways to work through video games.		
0 hours	2.56	1.36
1-2 hours	4.15	.87
3-4 hours	4.45	.61
5 or more hours	4.44	.73
Social Interaction		
My friends and I use video games as a reason to get together.		
0 hours	2.06	1.52
1-2 hours	3.08	1.35
3-4 hours	3.69	1.25
5 or more hours	4.19	1.03
Often, a group of friends and I will spend time playing video games.		
0 hours	1.75	1.12
1-2 hours	2.85	1.39
3-4 hours	3.65	1.28
5 or more hours	4.24	1.07
Diversion		
I play video games when I have other things to do.		
0 hours	1.13	.50
1-2 hours	2.46	1.25
3-4 hours	3.40	1.15
5 or more hours	4.05	1.00
I play video games instead of other things I should be doing.		
0 hours	1.13	.34
1-2 hours	2.24	1.21
3-4 hours	3.15	1.26
5 or more hours	3.74	1.19

Fantasy		
I play video games because they let me do things I can't do in real life.		
0 hours	2.19	1.60
1-2 hours	3.16	1.40
3-4 hours	3.77	1.35
5 or more hours	3.63	1.29
Video games allow me to pretend I am someone/somewhere else.		
0 hours	2.56	1.63
1-2 hours	3.36	1.36
3-4 hours	3.73	1.38
5 or more hours	3.75	1.31
I like to do something that I could not normally do in real life through a video game.		
0 hours	2.94	1.61
1-2 hours	3.51	1.21
3-4 hours	3.99	1.29
5 or more hours	3.90	1.16
I enjoy the excitement of assuming an alter ego in a game.		
0 hours	2.75	1.43
1-2 hours	3.34	1.25
3-4 hours	3.77	1.20
5 or more hours	3.69	1.24
Arousal		
I find that playing video games raises my level of adrenaline.		
0 hours	2.94	1.52
1-2 hours	3.69	1.14
3-4 hours	3.76	.95
5 or more hours	3.93	1.03
Video games keep me on the edge of my seat.		
0 hours	2.81	1.60
1-2 hours	3.65	1.05
3-4 hours	3.75	.88
5 or more hours	3.91	1.07

I play video games because they stimulate my emotions.		
0 hours	1.88	.95
1-2 hours	3.16	1.23
3-4 hours	3.50	1.16
5 or more hours	3.57	1.18
I play video games because they excite me.		
0 hours	2.94	1.38
1-2 hours	3.91	1.13
3-4 hours	4.32	.68
5 or more hours	4.34	.79

Note: *Mean of 0 hours played per week differs significantly from means of the rest at p<.05. Total Respondents: 403

Of the fixed factors, for the students who played five or more hours a week, results were significantly higher than for students who played zero hours per week. Seventeen (4.2%) of the participants self-reported that they spend zero hour per day playing video games, 74 (18.4%) participants claimed they spend 1-2 hours per day playing video games, 124 (30.8%) said they spend 3-4 hours per day playing video games, and 187 (46.6%) participants surveyed spend 5 or more hours per day playing video games.

CHAPTER 5

DISCUSSION

The results of this study concluded that when examining the demographics of playing video games and the dependent variables, which were survey questions analyzing motivations behind playing video games, ten significant results were obtained for the independent variables, gender, age, and hours played per week.

For the first section of demographics for the independent variables, gender proved to have ten significant results: (1) *I like to play to prove to my friends that I am the best*; (2) *When I lose to someone, I immediately want to play again in an attempt to beat him/her*; (3) *It is important to me to be the fastest and most skilled person playing the game;* (4) *I get upset when I lose to my friends;* (5) *I enjoy finding new and creative ways to work through video games;* (6) *My friends and I use video games as a reason to get together;* (7) *Often, a group of friends and I will spend time playing video games;* (8) *I play video games when I have other things to do;* (9) *I play video games because they let me do things I can't do in real life;* (10) *Video games keep me on the edge of my seat.*

Based on these significant variables, male students who attend East Tennessee State University had significant higher results than females who attend East Tennessee State University. Within those significant questions and results, *competition* proved to be the most significant dimensional response with every question being significant. Females did score significantly higher when asked the following question: *I find it very rewarding to get to the next level.* This was the only question in which females scored higher than males in. The *challenge* dimensional response section only had one significant question dealing with gender.

As noted in the literature review, Tasks of mental rotation, in terms of spatial ability, are more dominate and easier for men than they are for women, and men have also had more experience with spatial differences (Terlecki & Newcombe, 2005). The question in which females scores significantly higher than males could suggest that they have a harder time gaining ground in a video game due to the lack of spatial ability. Women who scored lower in spatial ability, proved that they have more room for improvement. With the research gathered, it is a reasonable conclusion that men and women can benefit from learning how to increase spatial ability while playing video games. Even though the conclusion that men are more dominate over women when spatial reasoning is concerned, the rate of improvement may just be slightly skewed. Much of the currently video game world is geared towards masculinity, such as violence and aggression, which could contribute to the reason why women regard spatial ability to be more masculine (Hess & Niura, 1985; Provenzo, 1986; Rushbrook, 1986).

The second section of the demographics for the independent variables, Age proved to have seventeen significant results: (1) *I like to play to prove to my friends that I am the best*; (2) *It is important to me to be the fastest and most skilled person playing the game;* (3) *I feel proud when I master an aspect of a game;* (4) *I find it very rewarding to get to the next level;* (5) *I play until I complete a level or win a game;* (6) *I enjoy finding new and creative ways to work through video games;* (7) *My friends and I use video games as a reason to get together;* (8) *Often, a group of friends and I will spend time playing video games;* (9) *I play video games when I have other things to do;* (10) *I play video games instead of other things I should be doing;* (11) *I play video games because they let me do things I can't do in real life;* (11) *Video games keep me on the edge of my seat.* (12) *Video games allow me to pretend I am someone/somewhere else;* (13) *I like to do something that I could not normally do in real life through a video game;*(14) *I*

enjoy the excitement of assuming an alter ego in a game; (15) *I find that playing video games raises my level of adrenaline;* (16) *I play video games because they stimulate my emotions;* (17) *I play video games because they excite me.* Based on these significant variables, students that took the survey who were 18-20 years of age had significantly higher results than the rest of the participants. There were only two questions that did not have significant results, and they were under the *competition* dimensional responses section, and those questions are: *When I lose to someone, I immediately want to play again in an attempt to beat him/her*; and *I get upset when I lose to my friends.*

As noted in the literature review, a published meta-analysis (Uttal et al., 2013) gathered results that spatial skills improved from players when commercial shooter games were played, they were comparable to taking high school and college-level courses that were aimed to accomplished similar goals of spatial improvement. Because of this recent meta-analysis, it proved to be true that this type of spatial training can be used with video games in a short amount of time and the benefits from this training extends outside of the gaming context and can last for long periods of time (Granic et al., 2014).

The third section of the demographics for the independent variables, hours played per week proved to have one significant result under the *competition* dimensional responses section: (1) *I get upset when I lose to my friends.* Based on these significant variables, students who took the survey that claimed to play five or more hours per week had significantly higher results than the rest of the participants.

As noted in the literature review, per the Mood Management Theory, longer game play results when a player is completely immersed in a video-game and loses grip from reality rather

than giving proper attention to non-gaming events (Klimmt et al., 2007). When someone experiences a positive mood, it will "increase the ability to access positive memories, making it seem that positive events or behaviors are more likely to occur" (Wegener & Petty, 1994, p. 1036). Based off what Klimmt, Wegener, and Petty stated, this could show a reason why so many more of the East Tennessee State University students reported playing five or more hours of video game per week. Based off the third research question: *What differences of mood are experienced depending on how many hours someone who play video game per week;* the question from the survey that scored the highest from the rest of the questions was: *I feel proud when I master an aspect of a game.*

Conclusion

Video games are continuing to grow in popularity, and do not seem to have an end in sight. With virtual reality rounding the corner and making a debut to the more mainstream environments, real life and the virtual world are slowly blending together. Per the Entertainment Software Association, they surveyed over 4,000 American homes in 2016 and came up with some interesting statistics. As far as demographics go for who they surveyed, it was discovered that 63% of U.S. households include at least one frequent gamer and the average video game player admitted to playing video games for thirteen years (Frank, 2016). Males still dominate the video game world coming in at 59%, and females stand at 41%. An interesting twist to this survey is the average age between males and females who play video games. On average, males who play video games are 35-years-old, and females are 44-years-old (Frank, 2016).

This research aims to fill the gap by examining the reasons behind the usage of video games and to discover if there was any motivation behind putting in the hours spent per week. Additionally, the researchers attended to the comparison and contrast between the gender

differences that focuses more time on video games. Four-hundred-three East Tennessee State University students chose to participate in a survey about their moods and motivations on video games. Results showed that motivations and moods of male participants were significantly higher than female participants on video game usage.

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APPENDIX

Informed Consent Questionnaire for a Research Study entitled, "Video Game Engagement: Discovering Correlation with User-Experience and Mood Management"

You are invited to participate in a research study to learn about the effects of mood, age and gender on relationships when participating in videogame play. This study is being conducted by Joe Camarata under the direction of Dr. Susan Waters in the East Tennessee State University Department of Mass Communication. You were selected as a possible participant because you are age 18 or older and a University student that possibly plays videogames. Taking part in this study involves completing a web survey that will take about 5 minutes. This survey contains questions about your opinions and perceptions about the relationships between the use of video gaming and sex of the user and their mood when playing video game.

Your confidentiality will be maintained to the degree permitted by the technology used. Specifically, no guarantees can be made regarding the interception of data sent via the Internet by any third parties. Only the principal investigator, his advisor and the ETSU IRB will have access to the data. The data will be password protected. Only summarized data will be presented at meetings or in publications.

There will be no direct benefits to you, but the findings will be useful to the mass communication profession and educators for understanding the relationship between the use of video gaming and the sex of user and your mood when playing video games. The chief risk is that possibly some of the questions may make you uncomfortable. You may skip any questions you do not want to answer.

If you have questions about this study, please contact Joe Camarata at camarataj@mail.etsu.edu or Dr. Susan Waters at watersse@etsu.edu. A copy of this document can be printed for you to keep.

If you have questions about your rights as a research participant, you may contact the Chairperson of the Institutional Review Board at 423/439-6054 for any questions you may have about your rights as a research subject. If you have any questions or concerns about the research and want to talk to someone independent of the research team or you cannot reach the study staff, you may call an IRB Coordinator at 423/439-6055 or 423/439/6002.

YOUR PARTICIPATION IS COMPLETELY VOLUNTARY. You are free not to participate or you may stop participating any time before you submit your answers.

If you understand the statements above, are at least 18 years old, and freely consent to be in this study, click on the survey link to begin: (link here).

Thank you!
Joe Camarata

Questionnaire

Demographics questions
Sex
Male – 1
Female – 2
Age
18-20 – 1
21-23 – 2
24 and above – 3
Hours per week playing video games
0 – 1
1-2 – 2
3-4 – 3
5 and above – 4
Which video game system used
Playstation – 1
Xbox – 2
Nintendo – 3
Other – 4
How do you agree with these motivations and for playing video games? *(Click one level from a 5-point Likert-type scale of 1 = strongly agree to 5 = strongly disagree)*
***Level of Agreement**
1 – Strongly agree
2 – Somewhat agree
3 – Neither agree or disagree
4 – Somewhat disagree
5 – Strongly disagree
Competition
I like to play to prove to my friends that I am the best.
When I lose to someone, I immediately want to play again in an attempt to beat him/her.
It is important to me to be the fastest and most skilled person playing the game.
I get upset when I lose to my friends.
Challenge
I feel proud when I master an aspect of a game.
I find it very rewarding to get to the next level.
I play until I complete a level or win a game.
I enjoy finding new and creative ways to work through video games.
Social Interaction
My friends and I use video games as a reason to get together.
Often, a group of friends and I will spend time playing video games.
Diversion
I play video games when I have other things to do.
I play video games instead of other things I should be doing.
Fantasy

I play video games because they let me do things I can't do in real life.
Video games allow me to pretend I am someone/somewhere else.
I like to do something that I could not normally do in real life through a video game.
I enjoy the excitement of assuming an alter ego in a game.

Arousal

I find that playing video games raises my level of adrenaline.
Video games keep me on the edge of my seat.
I play video games because they stimulate my emotions.
I play video games because they excite me.

VITA

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