Do Violent Video Games Stimulate Aggressive Tendencies?

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This study looked at the relationship between violent video game (VVG) play and aggressive tendencies. Participants were required to be at least 18 years of age or older and were recruited through flyers in the Library and Academic Resource Center and Young Hall on the Lindenwood University campus, as well as through the Lindenwood Participant Pool. Participants took a pretest on Qualtrics measuring aggressive tendencies and after the pretest, participants were systematically chosen to either play Grand Theft Auto V (GTAV); (Rockstar Games, 2014) or Stardew Valley (Barone & Sickhead Games, 2016). Following gameplay, participants then took a posttest on Qualtrics measuring aggressive tendencies again and finished by completing demographic questions. Hypotheses included: 1) VVG causes an increase in aggression in players; 2) People who identify as men will have a higher level of increase in aggression than other genders when playing the VVG whereas there will be no difference between people who identify as men and people who identify as women in level of aggression when playing the calm video game (CVG); 3) People with more experience playing video games will have less increase in aggression compared with less experienced players. Results showed Stardew Valley having higher increase in aggression levels compared to GTAV, men showing less increase in aggression than women when playing both games, and people with more experience with video games having less increase in aggression than less experienced players. The third hypothesis had the only statistically significant finding (t(13) = 2.49, p = .03).
 Keywords: violent video games, aggression, aggressive tendencies

In the current day and time, video games are becoming a common pastime for children, teens, young adults, and sometimes adults on a day-to-day basis. These video games come in a slew of different genres ranging from first-person shooters to farm simulators. With video games come violent video games (VVG), which have their own wide range of genres as well. The violence in these games can go from something small such as shooting animals in a hunting game or pushing another player in a sports game, to something very violent such as killing other humans in a criminal point-of-view game. VVG are games where the best or only resolution to

the situation at hand is to perform a violent act, such as killing someone. VVG have a current reputation to be the reason for violence in real life. A recent example of this occurring is President Donald Trump using VVG as the reasoning for school shootings (Keith & Naylor, 2019). According to Keith and Naylor (2019), in a speech occurring after the recent shootings in El Paso, Texas and Dayton, Ohio, Trump blamed violent video games and the Internet for the violence occurring out in society, that these sources made it easy for younger citizens to revel in violence, and that there is a great need to stop or reduce these actions. The rationale for the current study is VVG being used as a causing factor for school shootings. Rather than test for violent behaviors, I examined aggressive tendencies instead.

When looking at the relationship between violent video games and aggression, many previous researchers have found a positive correlation. Anderson and Dill (2000) conducted a study comparing the difference in exposure to video game violence as well as time spent playing video games with aggressive behavior, world view, academic achievement, and delinquency. To assess these different factors, Anderson and Dill used a self-report questionnaire that included multiple different scales. The Capara Irritability Scale (Capara et al., 1985) was used to measure how participants believe they would impulsively react to different situations of frustration or provocation (Anderson & Dill, 2000). To measure trait aggression, the Buss-Perry Aggression Questionnaire (Buss & Perry, 1992) was used to measure things such as hostility, anger, and physical and verbal aggression (Anderson & Dill, 2000). When measuring for delinquency, they used the same self-report delinquency measure that was made specifically for the National Youth Survey (Elliot et al., 1985). This self-report measure includes 45 different situations that are delved into two different categories; aggressive behavior and nonaggressive delinquency (Anderson & Dill, 2000). Finally, they included questions regarding how long participants play

video games a week, what their top five list of video games were and how much violence each

included, questions regarding their views on the world, and academic achievement. Their results

showed positive correlations between aggressive personality and high exposure to VVG and

aggressive personality VVG play and aggressive and nonaggressive delinquent behaviors.

Following this study, Anderson and Dill (2000) proceeded forward with another study to

measure short-term aggression after playing a violent video game. In this study, participants

were randomly chosen to either play the violent video game, Wolfenstein 3D (iD Software,

1992), or one of the nonviolent video games, Myst (Cyan, Inc., 1993) or Tetrix (Olinger, 1991).

Participants had two separate lab sessions to attend. In the first lab session, the participant played

whichever game they were assigned to for 15 min, took the State Hostility Scale and the world

view measure, played the video game for another 15 min, and finished by taking a cognitive

measure of aggressive thinking. After a week had passed, the participant came back for the

second lab session. At this lab session, participants played 15 min of their assigned video game

and then took the competitive reaction time task. For the competitive reaction time task,

participants were told that they wanted to push a button faster than their opponent, if they lost,

they would receive a blast of noise at a level that was set by their opponent – in reality their

"opponent" was a computer, when they believed it was another person (Anderson & Dill, 2000).

Aggression was measured by how loud and how long the participant decided to give the noise to

their opponent (the computer). The results of this study showed that playing the violent video

game had a positive correlation with increase in aggressive behaviors. They also found that

women displayed higher levels of aggression and state hostility than did the men (Anderson &

Dill, 2000).

Although Anderson and Dill (2000) found that women displayed higher levels of aggression than men, in a study conducted by Teng et al. (2019), there was no gender difference in aggression level found. Teng et al.'s (2019) longitudinal study looked at the relationship between violent video game exposure and aggression in Chinese adolescents over the course of 18 months and was given in three different waves, each being 6 months apart. Alongside age, Teng et al. (2019) also compared age differences in early and late adolescents. In order to measure exposure to violent video games, the participants listed their top three video games, said how frequently they played each game listed, and then rated how violent they believed the games were. Following this, the participants took the Moral Disengagement Scale (Bandura et al., 1996). Once completed, both self-reported aggression and peer-reported aggression was measured. Peer-reported aggression was measured by physical aggression and relational aggression. Self-reported aggression was measured with the Brief Aggression Questionnaire (Webster et al., 2014). Their results found a link between violent video game exposure and aggression, as well as a stronger association between the two for early adolescents compared to late adolescents.

In another longitudinal study conducted by Willoughby, Adachi, and Good (2012) over the course of four years, the relationship between violent video games and aggression in high school students was looked at. Each year of high school, the participants took a survey regarding demographic factors, direct aggression, time spent playing both violent and nonviolent video games, overall video game play, depressive symptoms, delay of gratification, peer deviance, sports involvement, friendship quality, parent-adolescent relationship quality, school culture, and parental control. The responses given each year were compared to note any changes, if any at all. Their results showed that when playing violent video games across all four years of high school,

a more rapid increase in aggression was shown than those who claimed less time spent playing

violent video games. An increase in aggression was not shown in those who played nonviolent

video games (Willoughby, et al., 2012).

Hasan, Bégue, Scharkow, and Bushman (2013) found similar results to Willoughby et

al.'s (2012) study. This study was conducted over three consecutive days. Each day, participants

played either a violent or nonviolent video game, to which they were randomly assigned. Each

day, a different game was randomly assigned. After gameplay, participants completed an

ambiguous story stem to which they would list 20 things that they believed the main character of

the story would say, think, do, or feel after the situation that had played out (Hasan et al., 2013).

Following this, participants were told they would be competing against another person, whom in

reality was a confederate, to push a button faster than the other. The winner would be able to

send a noise blast through headphones to the loser, similar to the second part of Anderson and

Dill's (2000) study (Hasan et al., 2013). The duration and intensity that the participant decided to

give to the "loser" was used to measure aggression. The results showed an increase over time in

aggression for violent video game players, but not for nonviolent video game players. They also

found no significant differences between genders (Hasan, et al., 2013).

Rillera Marzo, et al. (2019) conducted their study on a group of male adolescents in

Malaysia. In this study, they examined what the relationship between violent video games and

aggression and changes in behavior after playing the violent video games, to see the association

between empathetic behavior and video games, and the relationship between altruism and video

games. Four different sets of questionnaires were given to the participants; the Multi-

Dimensional Emotional Empathy Scale (Caruso & Mayer, 1998), the Buss-Perry Aggression

Questionnaire (Buss & Perry, 1992), a Self-Report Altruism Scale (Rillera Marzo, et al., 2019),

and demographic information. Rather than playing the video games during the study, the

demographic survey collected information on what type of video games – violent or nonviolent –

participants played, as well as how long they spent playing these games. Their results revealed a

relationship between playing video games and showing a low altruism score, a positive

correlation between playing video games and having aggressive behavior and showed a lower

sense of empathy among the male adolescents that played video games (Rillera Marzo et al.,

2019).

　　Some studies, such as that of Arriaga, Monteiro, and Esteves (2011), also looked at

previous experience with playing violent video games in analyzing their data. In this study,

participants played two of three different video games. To start, every participant, no matter if

put in the control or test group, started by playing Tetris Classic for 2 min in order to reduce

physiological impact (Arriaga et al., 2011). After this, participants were randomly assigned to

either play the violent game, Unreal Tournament (Epic Games & Digital Extremes, 1999), or the

nonviolent game, Motocross Madness (Rainbow Studios, 1998), for a period of 7 min. Following

gameplay, participants were then shown a set of pictures from the International Affective Picture

System (Center for the Study of Emotion and Attention, 1999) in order to evaluate emotional

responses (Arriaga et al., 2011). These pictures included a set of 10 unpleasant pictures, 12

neutral pictures, and 10 pleasant pictures, these pictures were shown in a random order to the

participant. Then, the participant played their assigned video game for another 4 min. After this,

participants' aggression level was measured by using methods also used by Anderson and Dill

(2000) and Hasan et al. (2013); participants were told they were competing in a reaction-time test

and the goal was to be quicker than their partner and the winner would then distribute a noise

through a headset to the loser. The intensity and duration of the noise given was used to measure

aggression (Hasan et al., 2013). The participants then filled out a demographic survey which included information regarding which video games they had played in the past three months, the amount of time spent playing said games, and their evaluation of how violent these games were, as well as other demographic information (Arriaga et al., 2011). The results showed that participants with more violent game experience previous to the study showed higher levels of aggression than participants with less experience. Arriaga et al. (2011) believed that this should not be interpreted as people having less experience with violent video games are not affected by the game; this could just be due to the participant not knowing how to get into the thick of the violence of the game.

Yang, Huesmann, and Bushman (2014) tested the stereotype that men tend to be more violent and aggressive than women. They believed that having both male and female participants would show more aggression when playing as a male avatar rather than a female avatar. To test this, participants were randomly assigned to either play Street Fighter IV (Capcom & Dimps, 2008) or Virtua Fighter (Sega-AM2, Suzuki, & Ishii, 1993) as either a male or female avatar for a 15 min period. Following gameplay, participants completed a survey on an irrelevant topic. The participants were led to believe that their choices were being put into a lottery for what their partner would end up eating. Unbeknownst to the participants, the lottery was rigged to choose hot sauce. The amount of hot sauce the participant chose for their partner to eat was used to measure aggression level (Yang, et al., 2014). The results showed that when playing as a male avatar, participants were found to give their partners more hot sauce, and were therefore considered to show more aggression than when playing as a female avatar for both male and female participants (Yang et al., 2014).

In the current research, an in-person study was conducted to measure the relationship between violent video games and aggressive tendencies. Participants were randomly assigned to either play a violent video game (Grand Theft Auto V [GTAV]; Rockstar Games, [2014]), or a nonviolent video game (Stardew Valley; Barone & Sickhead Games, [2016]) for 30 min. Before and after gameplay, participants answered how they would react to five different situational vignettes to measure changes in aggressive tendencies before and after gameplay and they also filled out a demographics survey. Research questions included 1) Do violent video games stimulate aggressive tendencies in players? 2) Is there a difference in aggression level based on gender? 3) Does the age that an individual begins playing video games have a relationship with the level of aggression stimulated when compared to a less experienced gamer?

Method

Participants

In the current in-person study, there were 16 participants whom were recruited through flyers placed in the Library and Academic Resource Center and Young Hall at Lindenwood University (see Appendix A), and through the Lindenwood Participant Pool (LPP). The LPP allows Lindenwood students enrolled in select psychology, anthropology, sociology, and criminology and criminal justice, classes to volunteer and participate in research studies in order to gain extra credit towards their class grade. To participate in this study, participants were required to be 18 years of age or older, as well as have the ability to see, hear, and manipulate the gaming console. Due to technological errors, only 15 of the 16 participants were used in data analysis. Of these participants, the age ranged from 18 to 26; 10 participants identified as women, and 5 identified as men.

Materials and Procedure

In recruitment, deception was used in describing what exactly was being measured throughout the study. Participants were told that a relationship between violent video games and conflict resolution was being looked for so that they did not know aggression was actually being measured. This was so that participants did not answer to what they believed was morally correct and answered each situation truthfully.

At the beginning of the study, participants were given an informed consent document (see Appendix B). Once participants agreed to continue with participating in the study, they started by taking a pretest created through Qualtrics consisting of a set of five situational vignettes which were retrieved from Tremblay and Belchevski's (2004) study. These vignettes consist of three different sets of eight situations that depicted intentional acts that are meant to provoke aggressive responses in the participants (intentional vignettes), unintentional acts that could provoke aggressive responses in participants (unintentional vignettes), and acts that may or may not be interpreted as intentionally provoking aggressive responses in the participants (ambiguous vignettes; Tremblay & Belchevski, 2004). An example of an intentional vignette is "You are standing at the bar waiting for a drink you ordered. A girl shoulders you roughly out of the way and gives you a dirty look," (Tremblay & Belchevski, 2004). An example of an ambiguous vignette is "You walk by three boys playing street hockey. As you pass them you hear one laughing, then the rubber ball hits you in the head," (Tremblay & Belchevski, 2004). An example of an unintentional vignette is "Your friends go to lunch without inviting you. When they see you after lunch, they tell you that they thought you had gone home early and apologize for not inviting you," (Tremblay & Belchevski, 2004). In this study, I examined the relationship

between trait aggression and aggressive behaviors found from responses in their situational

vignettes.

In the current study a total of 10 vignettes were used: 4 of the ambiguous vignettes, 4 of

the unintentional vignettes, and 2 of the intentional vignettes were used, with 2 of the

unintentional, 2 of the ambiguous, and 1 of the intentional being designated as one set and the

remaining vignettes were designated as the second set (see Appendix C). The two sets of 5

vignettes were randomized through Qualtrics to designate which set was given as the pretest and

which set was given as the posttest so that it was different for each participant. The responses to

the vignettes were the same multiple-choice options for every vignette. Each set of multiple-

choice responses was the same for every vignette throughout the survey. Some of the responses

were taken directly from Tremblay and Belchevski's (2004) survey and some responses were

created. All of the responses from Tremblay and Belchevski's (2004) survey were not used as

they were seen as all being fairly aggressive responses, and there was a need to have some

responses that were not too pessimistic, but not aggressive as well. All of these responses were

therefore rated on a scale of being least to most aggressive.

In between the pre- and post-test vignette surveys, participants were systematically

selected to either play a VVG on the XBOX, or a CVG on the PlayStation 4. Systematic

selection was used by having every other person play either the VVG or the CVG. The

participants in the violent game group played GTAV (Rockstar Games, 2014). GTAV (Rockstar

Games, 2014) allows the gamer to play as one of three criminals in the fictional city of Los

Santos and follows the storyline of their different heists. This game also allows a free-world

playing aspect where the gamer can roam around the town and do as they please – whether this

involves killing other characters, stealing cars, or doing random tasks such as participating in

triathlons. The participants in the calm game group played Stardew Valley (Barone & Sickhead Games, 2016) which is a more calming game involving a farm simulation where the main character is allowed to interact with different citizens, go fishing, gathering, and mining in the cave and growing crops on their farmland.

Following gameplay, participants completed the posttest of the other five situational vignettes and finished by responding to five demographic questions. These questions included information on age, gender, how frequently they play video games per week, when they started playing video games, and a list of up to five video games that they currently play on a regular basis (see Appendix C).

Once the session was completed, participants were debriefed on the actual intentions of the survey, being that we were measuring the relationship between violent video games and aggressive tendencies and were able to ask any questions (see Appendix D). After all data collection was complete, I exported my data from Qualtrics into Excel. I then coded my data and analyzed it using an independent samples *t*-test on Excel to find baseline aggression scores, the VVG and CVG groups, age beginning video game play, and for gender comparisons. When dividing the experience group, less experience was considered 1 to 10 years of playing video games, and more experience was considered 11 to 20 years playing video games.

Results

I hypothesized that 1) VVG cause an increase in aggression in players; 2) People who identify as male will have a higher level in increase in aggression than other genders when playing the VVG. There will be no difference between people who identify as men and people who identify as women in level of aggression when playing the CVG; 3) People with more

experience playing video games will have less increase in aggression compared with less experienced players. I used SPSS in order to analyze my data.

When analyzing baseline aggression scores, it was found that there were no preexisting differences in aggression scores between participants who were assigned to play GTAV ($\bar{x} = 16.43$, $s = 3.41$) and those who were assigned to play Stardew Valley ($\bar{x} = 14.00$, $s = 3.16$), $t(13) = 1.43$, $p = .18$). This was tested in order to confirm that there were no differences between groups before gameplay occurred.

When observing the first hypothesis, VVG cause an increase in aggression in players, I found that my hypothesis was not supported, nor statistically significant ($t(13) = -0.27$, $p = 0.40$). However, numerically speaking, Stardew Valley ($\bar{x} = 0.71$, $s = 4.61$) showed a higher increase in aggression levels than in GTAV ($\bar{x} = 1.38$, $s = 4.90$).

The second hypothesis, people who identify as men will have a higher level in increase in aggression than other genders when playing the VVG, whereas there will be no difference between people who identify as men and people who identify as women, was also found to be not supported, nor statistically significant (GTAV [$t(5) = 0.92$, $p = 0.20$]; Stardew Valley [$t(6) = 0.17$, $p = 0.87$]). However, numerically speaking, men (GTAV [$\bar{x} = -1$, $s = 1.41$]; Stardew Valley [$\bar{x} = 1$, $s = 4$]) showed less increase in aggression when playing both games compared to women (GTAV [$\bar{x} = 1.4$, $s = 5.41$]; Stardew Valley [$\bar{x} = 1.6$, $s = 5.81$]).

The third hypothesis, people with more experience playing video games will have less increase in aggression compared with less experienced players, was supported and found to be statistically significant ($t(13) = 2.49$, $p = .03$). This meaning that people with more experience ($\bar{x} = -1$, $s = 4.18$) with video games had less increase in aggression than people with less experience ($\bar{x} = 4.17$, $s = 3.49$) with video games.

Unrelated to the hypotheses, it was also asked what video games participants currently play on a regular basis, as well as the number of hours a week they spent playing video games. Of this, the most common games mentioned were Mario Kart (Nintendo, 2017), Call of Duty: Modern Warfare (Infinity Ward, 2019), and Fortnite (Epic Games & People Can Fly, 2017). The average amount of time spent playing video games a week was 10.2 hours.

Discussion

Possible reasoning's for my first hypothesis being unsupported are that some participants that were selected to play Stardew Valley did not seem enthused to be playing the game. Phrases such as "this is boring," and "do I have to play this the whole time?" were overheard during their gameplay. This could show their frustration in not getting to play the game that they wanted to (being GTAV), and therefore could have increased their aggression. Another factor at play could be that all players could hear the noise coming from the other participant's game as we had two participants playing and neither had headphones during their gameplay. Regarding participants who were selected to play GTAV, very few of them actually acted violently during their gameplay. As they were able to use the open world aspect of the game and play however they liked, the majority of these participants decided instead to drive boats and obey traffic laws during their entire 30 min. session. Only a select few of the participants decided to follow missions which required them to act violently or chose to act violently outside of missions.

Regarding my second hypothesis being unsupported, possible reasoning for the men having less aggression than the women could be solely due to not having very many men participants, being that there were only five. This result could also play into the stereotype that men play more video games than women. When the men played the games, they seemed much

more relaxed and experienced with video games than the majority of the women participants, which could therefore have had an effect on their aggression levels.

Some reasoning for my third hypothesis being supported could be that in having more experience playing video games, there would be less frustration in having to figure out how to play the game compared to less experienced participants. In having less experience with video games, it can cause frustration with not knowing the controls for the game and can become really frustrating when objectives do not come with ease. With more experience, it is not as hard to get farther in missions (had they chose to play the missions) which would prove to be less frustrating and therefore show less increase in aggression.

When data collection was taking place, a few things occurred that could potentially have an influence on how participants played their selected game and responded to the different vignettes. Some of the participants had outside people continuously coming into the gaming lab and conversing while they were partaking in the study. One of these outsiders decided to stay in the lab and scream at the screen that a participant was playing GTAV on, telling her what to do, and making remarks at the game.

Another participant's data was unable to be used as when they were taking their survey, they did not stop between the pretest, gameplay, and the posttest. That is, after they took the pretest, instead of pausing so that they could play their selected game, they ended up moving on to the posttest and finishing all surveys at once. This was not noted until after gameplay had taken place. Their data was discarded from the results.

Some limitations to the study are that only 16 participants took part in the study, with only 15 being able to be used in data analysis. Having more participants could change the results found and could therefore gain more information on the topic. Another limitation could be that

headphones were not used during gameplay. Therefore, when two participants were playing at the same time, they each could hear the other game being played. This could have had an effect on gameplay and responses to the vignettes. Another limitation could be that participants wanted to pick the most politically correct answer to the situational vignettes no matter what game they played.

In future research, I would take more precautions at the very beginning of the study to keep outsiders out of the gaming lab. I also would have headsets for each gaming participant, or only test one participant at a time as opposed to two. Future research could also explore the difference between multi-player and single-player games, or different types of VVG (sports games compared to killing aliens/zombies or killing humans). To prevent having politically correct responses to vignettes, future research could also include a different method of measuring aggression levels, such as how Anderson and Dill (2000) measured aggression through levels lengths of noise participants gave to their "opponent".

The implications of this study help us to look at what could be affecting violence in current society. Since VVG are being used as a factor relating to actual violence, this study can help aid the conversation. As my results showed that GTAV, the VVG, had less increase in aggression compared to Stardew Valley, the CVG, it truly shows that sometimes it is not the VVG that are the sole reasoning for aggression in people. I think continuing research on VVG and aggression can help aid toward the concept if they are a root for violence in society, or if we should be looking at different variables. These results and similar research can also aid in assisting parents decide which games they want their children to be playing, as well as how much supervision should be enacted. Looking at gender differences and experience differences

also plays a huge role in showing the differences between the two groups. Knowing these

differences can help us in assessing individuals for their aggression and violence.

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Appendix A

Flyer Recruitment Document

Appendix B

Informed Consent Document

LINDENWOOD

Research Information Sheet

You are being asked to participate in a research study. I am conducting this study to see if there is a relationship between violent video games and conflict resolution. During this study you will take three separate surveys: a demographic survey, a pre-test, and a post-test, as well as play a video game for 30 minutes. You will be randomly selected to either play Grand Theft Auto V (GTAV) or Stardew Valley. Your gameplay will be taken note of in order to record what types of behavior has occurred during gameplay. These notes will not include any identifiable information.

Information About the Games

GTAV (Rated M 18+) is an open world game where you assume the role of a criminal to play any way you like or choose to follow the storyline. Within the game, you are able to use melee attacks, firearms and explosives to fight enemies or civilians within the world. You are also able to carjack vehicles and are able to run over civilians while driving the vehicle. There are many different shops within the game – including a strip club that has naked women. If you commit any sort of crime, your "wanted" level goes up and the cops chase you down; in order for them to leave you either have the option to hide or fight back. When injuring others or becoming injured yourself, blood can be seen on the bodies. This game can be seen as disturbing to some and could therefore cause some psychological harm.

Stardew Valley (Rated E 10+) is an open-world farming simulation game. The premise is that you inherited a farm and that you are free to grow and harvest crops, raise livestock, fish, craft, mine, and interact with townspeople. When in the mines, players do fight different "mine monsters," to which some emit splashes of blood when defeated. There is no known psychological harm to adults associated with this video game.

The entire study will take less than one hour of your time to complete.

Your participation is voluntary. You may choose not to participate or withdraw at any time,

including during the video game play.

There are no risks from participating in this project. There are no direct benefits for you

participating in this study.

We will not collect any data which may identify you.

If you are in the LPP you will receive four extra credit points in the course for which you signed up for the LPP. You will receive extra credit simply for completing this information sheet. You are free to withdraw your participation at any time without penalty. Participants who are not part of the LPP will receive no compensation beyond the possible benefits listed above. However, your participation is an opportunity to contribute to psychological science.

We will do everything we can to protect your privacy. We do not intend to include information that could identify you in any publication or presentation. Any information we collect will be stored by the researcher in a secure location. The only people who will be able to see your data are: members of the research team, qualified staff of Lindenwood University, representatives of state or federal agencies.

Who can I contact with questions?

If you have concerns or complaints about this project, please use the following contact information:

Megan Hamilton: mth728@lindenwood.edu

Dr. Michiko Nohara-LeClair: mnohara-leclair@lindenwood.edu

If you have questions about your rights as a participant or concerns about the project and wish to talk to someone outside the research team, you can contact Michael Leary (Director - Institutional Review Board) at 636-949-4730 or mleary@lindenwood.edu.

Appendix C

Aggression Measure & Demographic Survey

Violent Video Games & Conflict Resolution

Start of Block: Group A

Q1 The following questions include a variation of situations. After reading each situation, chose

which statement fits how you believe you would react to the situation at hand.

Q2 As you are giving a speech in front of your class, you notice a couple of students whispering, laughing, and rolling their eyes at you. As you finish your talk and walk back to your seat, you hear one student saying "What a bunch of nonsense."

○ Do nothing (1)

○ Distance self from instigator (2)

○ Say something to elicit an apology or acknowledgment (3)

○ Say something to try to make the instigator feel badly (4)

○ Yell or swear at them (5)

○ Threaten them if the situation were not resolved (6)

○ Use physical force (ex: push or grab) if the situation were not resolved (7)

Q3 You are at a local dance club. While you are dancing a male stranger bumps into you very

roughly.

   ○ Do nothing (1)

   ○ Distance self from instigator (2)

   ○ Say something to elicit an apology or acknowledgment (3)

   ○ Say something to try to make the instigator feel badly (4)

   ○ Yell or swear at them (5)

   ○ Threaten them if the situation were not resolved (6)

   ○ Use physical force (ex: push or grab) if the situation were not resolved (7)

Q4 You are carrying a heavy load of groceries up to a check-out line at the grocery store and just as you are about to enter in line, someone cuts in front of you. You end up dropping some things on the floor.

○ Do nothing (1)

○ Distance self from instigator (2)

○ Say something to elicit an apology or acknowledgment (3)

○ Say something to try to make the instigator feel badly (4)

○ Yell or swear at them (5)

○ Threaten them if the situation were not resolved (6)

○ Use physical force (ex: push or grab) if the situation were not resolved (7)

Q5 You are having dinner at a restaurant with some friends. A man and a woman at the table

next to you are arguing. At one point the man who appears to be angry gets up and bumps into

you accidentally spilling your drink on your shirt.

○ Do nothing (1)

○ Distance self from instigator (2)

○ Say something to elicit an apology or acknowledgment (3)

○ Say something to try to make the instigator feel badly (4)

○ Yell or swear at them (5)

○ Threaten them if the situation were not resolved (6)

○ Use physical force (ex: push or grab) if the situation were not resolved (7)

Q6 You bring your car to the garage for an oil change. When you return home you notice that oil is leaking from underneath your car. You call the garage and the Service Manager asks you to bring the car back so that someone can look at it.

○ Do nothing (1)

○ Distance self from instigator (2)

○ Say something to elicit an apology or acknowledgment (3)

○ Say something to try to make the instigator feel badly (4)

○ Yell or swear at them (5)

○ Threaten them if the situation were not resolved (6)

○ Use physical force (ex: push or grab) if the situation were not resolved (7)

End of Block: Group A

Start of Block: Group B

Q8 The following questions include a variation of situations. After reading each situation, chose which statement fits how you believe you would react to the situation at hand.

Q9 You are at work trying to finish a job. You see your co-worker, who was supposed to be helping you, on the telephone. She has been talking for over half an hour with a friend. You ask her for some help but she tells you to get lost.

○ Do nothing (1)

○ Distance self from instigator (2)

○ Say something to elicit an apology or acknowledgment (3)

○ Say something to try to make the instigator feel badly (4)

○ Yell or swear at them (5)

○ Threaten them if the situation were not resolved (6)

○ Use physical force (ex: push or grab) if the situation were not resolved (7)

Q10 You go to your work and you are in a bad mood. As you walk in the office, a coworker

teases you about something that you are wearing.

○ Do nothing (1)

○ Distance self from instigator (2)

○ Say something to elicit an apology or acknowledgment (3)

○ Say something to try to make the instigator feel badly (4)

○ Yell or swear at them (5)

○ Threaten them if the situation were not resolved (6)

○ Use physical force (ex: push or grab) if the situation were not resolved (7)

Q11 You walk by three boys playing street hockey. As you pass them you hear one laughing,

then the rubber ball hits you in the head.

○ Do nothing (1)

○ Distance self from instigator (2)

○ Say something to elicit an apology or acknowledgment (3)

○ Say something to try to make the instigator feel badly (4)

○ Yell or swear at them (5)

○ Threaten them if the situation were not resolved (6)

○ Use physical force (ex: push or grab) if the situation were not resolved (7)

Q12 Two of your male friends who have been drinking get into a physical fight. You try to stop them from fighting but one of them punches you in the stomach accidentally.

○ Do nothing (1)

○ Distance self from instigator (2)

○ Say something to elicit an apology or acknowledgment (3)

○ Say something to try to make the instigator feel badly (4)

○ Yell or swear at them (5)

○ Threaten them if the situation were not resolved (6)

○ Use physical force (ex: push or grab) if the situation were not resolved (7)

Q13 You are at a bar and a very drunk guy dancing next to you steps on your foot and spills his

beer all over your new shirt.

○ Do nothing (1)

○ Distance self from instigator (2)

○ Say something to elicit an apology or acknowledgment (3)

○ Say something to try to make the instigator feel badly (4)

○ Yell or swear at them (5)

○ Threaten them if the situation were not resolved (6)

○ Use physical force (ex: push or grab) if the situation were not resolved (7)

End of Block: Group B

_____

Start of Block: Block 2

Q7
Please pause

 and

raise your hand.

_____

Q24 Timing

First Click (1)

Last Click (2)

Page Submit (3)

Click Count (4)

End of Block: Block 2

Start of Block: Demographic Questions

Q14 How do you identify your gender?

○ Female (1)

○ Male (2)

○ Self-Identify (3) _____

Q15 What is your age in years?

_____

Q16 At what age did you start playing video games?

_____

Q17 How many hours per week do you currently spend playing video games?

○ I do NOT play any video games (1)

○ Average hours of play per week: (2)

_____

Display This Question:

If How many hours per week do you currently spend playing video games? = Average hours

of play per week:

Q18 List up to **five** video games that you currently play on a regular basis:

_____

Q20 Which game did you play today?

○ Grand Theft Auto V (1)

○ Stardew Valley (2)

End of Block: Demographic Questions

Appendix D

Debriefing Statement

Thank you for participating in my study on violent video games and aggressive tendencies!

In this study you were randomly chosen to either be in the control group, or the test group. The

control group played the "calm game," Stardew Valley, while the test group played the "violent

game," Grand Theft Auto 5.

The situational vignettes were designed to measure level in aggression. Each response was rated

from least to most aggressive. To find the difference in aggression level, I will take the

difference between the pretest and posttest responses.

I am looking to see if playing violent video games results in an increase in aggressive tendencies,

as well as if there are gender differences, as well as differences with level of experience – being

how long the participant has been playing video games in their lifetime.

If you have any questions or are interested in the results, please feel free to contact Megan

Hamilton at mth728@lindenwood.edu.

Thank you again for participating!