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An Empirical Study of Media Effects: A Comparison of Real-Life and Fictional Video Violence in Cyberspace

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AN EMPIRICAL STUDY OF MEDIA EFFECTS: A COMPARISON OF REAL-LIFE AND FICTIONAL VIDEO VIOLENCE IN CYBERSPACE

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Title: An Empirical Study of Media Effects: A Comparison of Real-Life and Fictional Video Violence in Cyberspace

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The purpose of this study was to determine the effects of real-life and dramatized media violence on undergraduate students' attitudes. An *a priori* power analysis determined the sample size of this 1x1 posttest only control group experiment based on a Cohen's d of 0.8 and a large effect size in order to appropriately extrapolate beyond the participants to the wider population. The control document was a one page excerpt from the novel *The Chocolate Wars* while the 15 treatment scenes were selected from various G, PG, and PG-13 rated movies as well as real-life videos with comparable levels of violence and delivered via YouTube. The instrument required participants to rank different dimensions of attitude based on a 100-point scale. Both the control and treatment instruments were tested for reliability with $\alpha = 0.769$ for the control and $\alpha = 0.958$ for the treatment.

The theoretical framework for the study was media effects theory. Specifically, the goal of the study was to determine if certain underlying differences between the two (e.g. production value, choreographed fight scenes, etc.) facilitated students' attitudes toward the scenes and furthermore provided students with enough cues to determine whether or not the scenes they were viewing were real or fictitious.

Post hoc analyses indicated there was indeed a significant difference for some aspects of participants' attitudes between the real-life and fictitious violent media. Participants found the

videos of dramatized video violence more entertaining than the real-life videos. Also, participants had the attitude that real-life violence was more excessive than the dramatized violence. Certain differences in attitude were able to be predicted by demographic factors. Participants were generally able to correctly identify the treatment videos as containing either real-life violence or dramatized violence based on the type of violence featured and the production quality of the videos. Finally, no significant sensitization or desensitization occurred throughout the period of participants viewing the various treatment videos.

This study helped broaden the scope of research on violent media in that most past studies focused on the behavioral effects while relatively few studies have examined hedonic aspects of violent media.

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CHAPTER 1

INTRODUCTION TO THE STUDY

Waves of stories involving mass murders, vicious flash mobs, and other violent acts have become commonplace in many U.S. news outlets. The recent Aurora, Colorado movie theater shootings and the Newtown, Connecticut elementary school shootings are but two of the most prominent examples still fresh in peoples' minds, particularly since both mass shootings targeted unprotected victims with little to no connection with the shooters. Accompanying stories such as these often is the question of what would lead someone to commit such a despicable act. Even though the U.S. murder rate per capita has seen a decline over the past decades some experts suggest this is a result of increased medical technology and techniques and the real indicator is that violent acts of assault and aggression have been on the increase. Some people blame the breakdown of the nuclear family unit in the U.S., others blame pop culture in general, while some charge violent media with inspiring violent acts through sensationalizing violent acts and conditioning youth with highly realistic, interactive, violent video games (Grossman, 2009).

Bushman and Anderson (2001) reported that mainstream news media outlets have undergone a trend in which violent media was at first reported to only have a weak effect on viewers, then the viewpoint changed to a moderate effect, and recently has reverted back to a weak effect. They, along with Murray (2008) argued, however, that an overwhelming majority of scientific studies suggests that the effects of violent media are both real and strong. Bushman and Anderson (2001) made a case that the huge increase in violent media available on television programming over the decades, the news included, is positively correlated with the number of violent crimes committed per capita in the U.S. Huesmann and Taylor (2006) have gone as far

as to suggest the effect size of violent media exposure is high enough to consider it a threat to public health. This trend does not have positive implications for new media and Web 2.0 programs that operate outside of government regulations.

Much of the current research in communications media and instructional technology is focused on Web 2.0 tools, their uses and audiences, and in particular the social interactions they provide (Williams, 2006; Lange, 2008; Ellison, Steinfield, & Lampe, 2007; Gross & Acquisti, 2005). Specifically, YouTube (UT) provides users the ability to both generate and consume video content that is sociopolitical, educational (Kim, 2009), persuasive or entertaining in nature (Moyer-Guse, 2008). While the Federal Communications Commission (FCC) regulates traditional forms of media in the U.S., Web 2.0 platforms such as UT exist outside the realm of FCC control and instead operate under socially constructed norms (Albarran & Goff, 2000; YouTube.com, 2011). For example, a television station has its broadcasted content monitored by the FCC for violence, sexual themes, etc. whereas videos with that type of content can be uploaded to UT and can exist until fellow users flag material as inappropriate. Moreover, since the content on UT is user-generated and its rules socially constructed, it provides a unique opportunity to study any possible discrepancies that might exist between different cultures' or groups of users' attitudes toward the videos with the traditional rules and rating systems of the FCC.

Even though a limited amount of preliminary research has been conducted on what type of media content is suitable for different portions of American culture, with such a diversity of ethnic backgrounds, age groups, religions, etc., it is difficult to define universal acceptances. This study will examine the effects of video delivery and attitude among undergraduate college students enrolled in a U.S. university. The study is unique in the field of communications media

and instructional technology as well as from the standpoint of the diversity of cultural opinions that college age adults may contribute to media platforms beyond the governance of the FCC.

Problem Statement

Though some preliminary research has been conducted on what qualifies as decent and indecent online material, there still exists a large degree of ambiguity on the subject in our society. For instance, a video of Daniel Pearl's execution may be argued as graphic violence while others have made the argument that the terroristic decapitation exemplified patriotism (Grindstaff & DeLuca, 2004). It is also possible that discrepancies exist between different generations within the same culture and also between different cultures. In other words, what is appealing to members of one group may be grotesque to members of another group. Several studies have used hedonic measurements to gauge the entertainment value of traditional forms of media (Babin, Darden, & Griffin, 1994; Chen & Wells, 1999). However, the theoretical model used to determine entertainment value developed by Dobni (2006) has yet to be applied to a social media networking site where users can act as both entertainment media generators and consumers (Oh, Susarla, & Tan, 2008).

Research Questions and Hypotheses

The following research questions and hypotheses will be addressed in this experimental study:

RQ1: What are the effects on students' attitudes of real and dramatized media violence among IUP undergraduates within a controlled environment?

Based on previous research (Bandura, Ross, & Ross, 1963; Black & Bevan, 1992; Bushman, 1995) on the behavioral effects of violent films the hypothesis that stems from RQ1 is:

H1: There will be a significant difference in the students' attitudes between real and dramatized violence.

While RQ1 encompasses an overarching theme of differences it is quite possible, and plausible based on prior research, that attitude differences could occur at the demographic level. Thus, a second research question is:

RQ2: What is the role of demographics in the effects of real and dramatized media violence among IUP undergraduates within a controlled environment on students' attitudes?

Based on the research of Cline, Croft, and Courrier (1973) in which television exposure, and hence violent media exposure, was shown to be negatively associated with reaction toward violent films, and with the assumption that an individual's age is positively associated with the amount of media exposure, the hypothesis resulting from RQ2 is:

H2a: There will be a correlation between students' attitudes toward real and dramatized violence and their age.

Prior research has indicated that males respond more aggressively to violent media exposure than do females (Bandura, Ross, & Ross, 1963) and consequently the hypothesis that was generated from this research question is:

H2b: There will be a significant difference between male and female attitudes toward real and dramatized violence.

The following hypotheses will also be tested based on demographic differences:

H2c: There will be a significant difference in the effects of real and dramatized media violence between the ethnicity of IUP undergraduates within a controlled environment on students' attitudes.

H2d: There will be a significant difference in the effects of real and dramatized media violence between the class rank of IUP undergraduates within a controlled environment on students' attitudes.

H2e: There will be a significant difference in the effects of real and dramatized media violence between the major of study of IUP undergraduates within a controlled environment on students' attitudes.

H2f: There will be a correlation in the effects of real and dramatized media violence with the religiosity of IUP undergraduates within a controlled environment on students' attitudes.

A third research question targets participants' metacognition of knowing whether or not they are viewing a dramatized form of violent media or media depicting real-life violence. This research question has been included in order to help root the study in media effects theory; that is, if viewers of different forms of media are able to acknowledge a difference between the forms then media effects is a viable framework.

RQ3: Can IUP undergraduate students correctly differentiate between real and dramatized violent media within a controlled environment?

Based on the intrinsic production differences between real-life and dramatized violence videos it stands to reason that participants would be able to correctly identify videos with realistic violence and those with fictitious violence which leads to the hypothesis:

H3: There will be a significant difference in the ratings for the type of violence between real-life and dramatized videos among IUP undergraduates in a controlled environment.

The fourth and final research question deals with the possibility of participants becoming overly sensitized or possibly desensitized to mild or moderately violent media throughout the course of the study.

> RQ4: Will there be a sensitization or desensitization to violent media among IUP undergraduates within a controlled environment as the number of exposures to violent media increases?

Sensitization would manifest itself in participants gradually rating all videos, dramatized violence and real violence, higher on the "excitement" scale and lower on the scale for "suitable for all ages" whereas desensitization would incur the opposite. Empirical studies conducted in the past on desensitization toward violent media (Huesmann, 2007; Levinson, 2009) lead to the hypothesis:

> H4: Throughout the length of the study there will be a significant change in IUP undergraduates' violence ratings of the video treatments in a controlled environment.

In accordance with the generally accepted alpha value for social sciences, all measurements will be analyzed at the $p < 0.05$ level to determine if a significant difference exists for t-tests or ANOVAs (Reinard, 2006). Should a significant difference be determined for an ANOVA a follow-up analysis using Tukey's HSD or Tamhane's T2 will be used to determine the source of the difference(s). For correlations the scale of $0.01 \leq r \leq 0.10$ will be used for very weak correlations, $0.11 \leq r \leq 0.25$ for weak, $0.26 \leq r \leq 0.50$ for moderate, $0.51 \leq r \leq 0.75$ for strong, $0.76 \leq r \leq 0.99$ for very strong, and $r = 1.0$ will be used for perfect correlations (Losh, 2002; Reinard, 2006).

Purpose of the Study

The purpose of this study is to determine the effects of video delivery and attitude among Indiana University of Pennsylvania (IUP) undergraduate students enrolled in communications media courses in a controlled environment. Research has been conducted on the effects of viewing different types of violence in media (Bushman, 1995); however, research on real violence versus dramatized violence has not been addressed. Additionally, studies on the use of UT in the past have focused on users' privacy choices (Lange, 2008), gender, attitudes towards perceived ease of use and usefulness (Yang, Hsu, & Tan, 2010), copyright and legal issues (Meisel, 2009; Latham, Butzer, & Brown, 2008), and social issues associated with the posting of user-created content (Linkletter, Gordon, & Dooley, 2010) with little research being conducted on why UT users choose to view certain videos based on their attitudes or the entertainment value perceived by users after viewing a particular video or videos. UT, among other online media sharing sites, provides a resource for individuals who are interested in viewing more than the videos available in movie theaters, on television, or available from rental services such as Netflix. The ability to post user-generated content is one of the unique features of UT that draws several million users to it daily.

Need for the Study

While research on the entertainment value of and attitude toward media has been conducted in the past and refined from a utilitarian to hedonic level of metrics, a theoretical model that incorporates those hedonisms is still relatively new (Dobni, 2006). Furthermore, this model has not been implemented to conduct research on a quantitative level in order to start making it functional. Considering UT as the context for this study presents a unique scenario for gauging entertainment levels and attitude since it allows users to access videos without the same

FCC regulations as traditional media and instead is governed by a socially constructed set of acceptable use guidelines (Levinson, 2009; YouTube.com, 2011).

Theoretical Framework

McLeod, Kosicki, and Pan (1991) stated media effects may be the most dominant paradigm in the study of mass communication and media. The basic premise of media effects began with direct media effects (Gerbner & Gross, 1976). Direct media effects were posited by research that prolonged exposure to violent programming resulted in aggressive behavioral traits. DeFleur (1970, pp. 122-123) proposed that media consumers can be considered to have individual differences or be part of a social category. A media consumer's unique differences allow people to react to media in various ways because of the individual psychological factors involved from person to person (Baran & Davis, 2009). Using Emmers-Sommer and Allen's (1999) definition of media effects of "independent or predictor variables that involved the mass media…or the effects of various independent or predictor variables…on media outcomes" (p. 487) is the most pertinent to this study regarding real-life movies involving violence and dramatized, produced movies involving violence as independent variables of the treatments.

Limitations

Due to the cross-sectional nature of this study, one of the primary limitations, despite statistical measures taken to ensure sampling and results take into account a normal distribution, is the ability to generalize to a wider population. A power analysis will be used to select the most appropriate sample size in an effort to minimize this limitation but even that technique is not enough to overcome the cross-sectional nature of the sample. Effectively this research will examine undergraduate college students but since they will only be sampled from one university this presents a limitation to extrapolate beyond the available sample. Also, as a result of the

cross-sectional nature of the study, it will be difficult to determine whether the results of the study are manifested from the study itself or oppositely a result of cumulative effects the participants have experienced over years of mass media consumption.

Additionally, this study is limited by the accuracy of participants' responses to the treatments on the research instrument's rating scales. There is no concrete measure of an individual's perceptions or feelings toward a specific stimulus. Also, because they will be reporting their perceptions and reactions to the control and treatments based on a 100-point scale the data is ordinal and carries with it the inherent limitations of that level of measurement (Buddenbaum & Novak, 2001; Reinard, 2006).

Definition of Terms

The definitions of the following terms will be used throughout this study in order to optimize clarity:

Attitude

Attitude encompasses a person's perception and reaction to different stimuli and will be utilized throughout this study in conjunction with entertainment value. A hedonic list of attitudinal responses to media can include "enjoyment," "excitement," "captivation," "imaginative," etc. (Babin, Darden, & Griffin, 1994; Chen & Wells, 1999).

Dramatized, Fictional, or Portrayed Violence

Dramatized, fictional, or portrayed violence will include any physically aggressive act that is judged to be scripted, rehearsed, and/or carried out with consideration for typical pre- or post-production elements. These acts of aggression may include but not be limited to physical posturing and yelling within another's personal space that is typically accepted as the area

immediately surrounding a person's body (Altman, 1975). This dramatized violence may involve either empty-handed confrontations or ones involving weaponry.

Entertainment Value

Used in parallel with attitudes, entertainment value includes the benefits to consumers that result from receiving entertainment including emotional arousal, recovery and regulation, aesthetic appreciation, and social development (Dobni, 2006). The expectation is that different cultures and cultural subgroups will find various content and media forms entertaining is a key component to the reception of media messages (Lull, 2000).

Media Effects Theory

Media effects theory is a theory of mass communications that suggests different forms of media elicit different responses from media consumers. Emmers-Sommer and Allen's (1999) definition of media effects is stated as "independent or predictor variables that involved the mass media…or the effects of various independent or predictor variables…on media outcomes" (p. 487). This theory suggests that audience members will react differently to movies than they would to radio broadcasts or text. It could be used to look even more specifically at how people would react differently to low quality screenings compared to high definition screenings.

Real-Life Violence

Real-life violence will include any physically aggressive act that is judged to be unscripted, unrehearsed, and/or carried out without consideration for typical pre- or post-production elements. These acts of aggressive may include but not be limited to physical posturing and yelling within another's personal space that is typically accepted as the area immediately surrounding a person's body (Altman, 1975). This real-life violence may involve either empty-handed confrontations or ones involving weaponry.

Defining the Population

The subjects selected for this study are Indiana University of Pennsylvania students enrolled in introductory undergraduate Communications Media courses. Specifically, the participants will be recruited from the courses COMM 101, COMM 103, COMM 230, and COMM 325, among others. The age limitation for the study will exclude participants under 18 years of age. Any responders to research instrument who do not meet those requirements will be excluded from any type of data analysis.

Significance to the Field of Communications Media

This study has the potential to not only provide a unique research opportunity in the field of communications media and instructional technology but also to confront the traditional paradigms for judging the appropriateness of media content maintained by the FCC. Since the FCC adopts a broad policy for judging traditional U.S. media content it does not totally represent individuals' viewpoints or even common social groups' attitudes toward what is decent versus what is indecent. This research will attempt to see if the guidelines followed by the FCC agree or disagree with a particular group's beliefs.

Organization of the Study

The remaining chapters are as follows: Chapter two, the literature review, examines the historical development of movie ratings in the U.S. and the previous major research conducted on violent films. The literature review then addresses traditional and new forms of media. Motion pictures were predecessors to the Internet; however, with the advent of online movie sharing a situation was created in which movies could be viewed that were not subjected to government regulation. Finally, the literature review concludes with examining entertainment values as a variable and media effects as the theoretical framework of the study.

Chapter three provides the research design of study along with the problems, research questions, and hypotheses. The sampling method for selecting the population will be outlined as well as the steps that went in to creating the research instrument (Appendices C & D). A discussion of the control and treatment selections and data collection concludes this chapter.

Chapters four and five outline the findings of the study and a discussion of those findings. Chapter four contains the resulting tables and figures of data whereas Chapter five provides an interpretation and discussion of those results, the limitations of the study, and suggestions for future research in the field.

CHAPTER 2

REVIEW OF THE LITERATURE

Introduction

DeFleur & Dennis (1998) trace the regulatory history of the U. S. communications industry back to the First Amendment of the U. S. Constitution, which protects free speech and free press. While the FCC has been able to monitor traditional media content in the U. S. since its inception in 1934, this is not true of new media and Web 2.0 tools. As Gates, Myhrvold, and Rinearson (1996) have pointed out, the rapid evolution of the Internet requires constant reassessment of the definitions of its content in terms of format, purpose, and delivery and whether the content is intended for interpersonal or mass communication. This is true of violent media featured online, particularly since new media provides a platform for easily sharing violent and aggressive content among users (David-Ferdon & Hertz, 2007).

Research on violence portrayed in the media and its effects has taken place since the popularity of motion pictures began to boom in the 1930's (Lowery & DeFleur, 1995). For example, the historic Payne Fund Studies were one of the first such attempts to explore the role of the burgeoning film industry in which 12 different studies were undertaken and represented some of the first attempts to apply the scientific method to communications research (Peters, 1933). Also in relatively early media effects research the Bobo doll experiment examined the imitations of adolescents who had been exposed to videos of aggressive behavior and confirmed some of the concern regarding the influence of mass media (Bandura, Ross, & Ross, 1963). Despite a few studies differentiating between real and fictitious violence (Meyer, 1972; Lowery & DeFleur, 1995 pp 294-309), none have examined the level of entertainment associated with

different types of violence. In the past, research on the entertainment value of media was not conducted to a great degree because it seemed an intrinsic value of media and was taken for granted (Dobni, 2006). Additionally, prior research did not take into account the impact that violent media could have in a realm in which users generated the regulations.

Media effects is often the theoretical lens through which public and government officials express a need for regulation and censorship concerning controversial material such as violence, sex, and drug or alcohol use (Eveland, 2003). In general, media effects have been studied based on two different dimensions. The first dimension focuses on media consumers and includes both individual and group effects while the second concentrates on media creators and includes framing, agenda setting, priming, and others (Scheufele & Tewksbury, 2007). Consumers' individual differences allow people to react to media in various ways because of the individual psychological factors involved from person to person (Baran & Davis, 2009). Consequently, not everyone will have the same response to media and some will find the same violent acts repulsive that others find entertaining.

The following sections of this chapter will review the literature on mass media regulation in the U.S. and how that regulation has been applied to traditional media and presents a gray area for new media. It will then provide an overview of the media effects as a theoretical framework that incorporates violence in media and even more specifically real versus portrayed violence. It will end by examining the relevant research on the entertainment value of different forms of media, both regulated and unregulated, to move past a utilitarian perspective of media choices and instead provide a hedonistic rationale for why certain forms of media are chosen over others.

Background of Ethical Framework and FCC Regulation of U.S. Media

To inquire about morality is to inquire about ethics (Audi, 1999). Simply put, "Law states what a person is required to do; ethics suggests what a person ought to do." (Foreman, 2010). According to Josephson (2001), ethics involves two aspects: the first is the ability to judge right from wrong, good from evil, and propriety from impropriety; the second involves the commitment to do what is right, good or proper. Potter (1972) suggested that moral and ethical decisions are based upon four dimensions: defining the question of morality or ethics, deciding one's ethical and moral values, examining the principals involved, and pledging a loyalty to a group or belief. The roots of American ethics can be traced back to five main sources including Artistotle, Immanuel Kant, John Mill, John Rawls, and a Judeo-Christian heritage (Christians, Fackler, Rotzoll, & McKee, 2001).

The influence of Aristotle is from the belief in means; the middle ground or middle state determined by practical wisdom is a moral virtue (Cunningham, 1999). The Aristotelian view holds that groups that hold beliefs on the two extremes will not be held ethical when compared to the views in the middle. This law of means attempts to establish compromise in order to agree on a common moral framework used for decision-making. Aristotle based this view on *phronesis* – the idea that practical wisdom and moral discernment results from knowing the proper methods of conduct and the means to attain them (Cunningham, 1999). In contrast, Mill's ethical guideline was more a principle of mode when he suggested that things considered moral will result in the greatest good for the greatest number of people (Mill, 1843). This led to the idea of Utilitarianism and promoting the greatest good for the masses (Gorovitz, 1971).

In 1971, John Rawls suggested that in order to decide what is ethical, one must wear a "cloak of ignorance" (Rawls, 1971). According to Rawls, if different members of a culture are

faced with a moral dilemma they should remove themselves from the situation and detach themselves of their status and interests. If all parties imagine a fictitious cloak that strips them of their status, and are presented with a dilemma that would affect them in this ignorant state, Rawls argued that people will naturally choose the option that will not be negative toward the vulnerable members.

Kant believed that certain moral categories had imperatives and that one should act on the axiom of will in order to establish universal rules (Kant, 1964). This philosophy relied on absolutes; if everyone broke promises then the meaning of promises would cease to exist, therefore suggesting that breaking promises is an immoral act. He used this logic to establish that other acts such as lying, cheating, and stealing will always be immoral, no matter what the circumstance. In agreement with the self-righting principle found in Milton's *Areopagitica*, fair trade, along with good and truthful arguments will always win over lies (Baran & Davis, 2009). This logic coincides with the Judeo-Christian heritage beliefs of "love your neighbor as yourself" and the laws of morality outlined by the Ten Commandments (Christians et. al., 2001) including *agape* – unselfishness, charity and benevolence (Outka, 1972)

These varying philosophies have resulted in different views on the regulation of media in the U.S. Two dialectic viewpoints that formed early on in the development of media were Libertarianism and Authoritarianism. Libertarians sought the deregulation of print and broadcast media believing that people would act only in good faith and avoid immorality (Baran & Davis, 2009). On the other side of the spectrum, Authoritarians felt that government should strictly control all forms of mass communication. The Aristotelian view would suggest a compromise between these two extremes in order to seek a mean ground (Cunningham, 1999). Social responsibility theory emerged at this middle ground by substituting the media industry and

public responsibility for total media freedom on one side and complete government control on the other (Baran & Davis, 2009).

The question becomes: how are decisions of morality made within the context of a socially responsible media industry? Lyons (1976) argued that in order to assess the validity of a moral or set of morals, two forms of relativism exist and must be taken into account. The first form is agent's-group relativism which states that an act is right if, and only if, it coincides with the norms of the agent's group or culture. The second form is appraiser's-group relativism which counters by stating that a moral judgment is valid if, and only if, it accords with the values of the appraiser's social group. These appraisals come in the forms of aesthetic values, professional values, logical values, socio-cultural values, and moral values (Christians et al., 2001).

Despite the social responsibility of the media, cases have arisen from time to time in which the morality of media cannot be judged by one of the preceding criteria, and when that has occurred the federal government has stepped in to make the decisions. The regulatory history of the U.S. communications industry can be traced back to the First Amendment to the U.S. Constitution, which protects free speech and free press (DeFleur & Dennis, 1998). *Roth v. United States* saw one of the first major challenges to the First Amendment as the Supreme Court defined content to be obscene when "the average person, applying contemporary community standards, would find that the work taken as a whole, appeals to the prurient interest" (Roth v. United States, 1957). In *Miller v. California* (1973), the Supreme Court added to the Roth case by mandating that an offensive work "must describe in a patently offensive way, sexual conduct as defined by an applicable state law" and that "the work must lack serious literary, artistic, political, scientific value." Later in the 1970's, the FCC used the *Roth* and *Miller* cases to define

indecent content in media as anything which is "patently offensive by contemporary community standards" and "utterly without social value" (Smith, Meeske, & Wright, 1995). By doing so the FCC adopted a Mill-type approach to discerning decent versus indecent media content. It should also be noted that one form of media, child pornography, enjoys no protection under the First Amendment (Esposito, 1998). While the FCC historically focused its efforts in monitoring traditional forms of media including radio and television broadcasts, new forms of media available online pose a unique challenge in a world becoming more interconnected.

Interestingly, despite the fact that the Motion Picture Production Code (MPPC), the precursor to the rating system of the Motion Picture Association of America (MPAA), was written between 1929-1930 and predated research on the negative effects of violent media exposure, the code was extremely consistent with current research in social science about the type of violence that should be prohibited for certain audiences (Timmer, 2011). For example, humorous violence was regarded differently than malicious violence in the rating system which was later confirmed as a difference by viewers in violent media research (Wilson, et al., 1997).

Traditional and New Media

While the FCC has been able to monitor traditional media content in the U.S. since its inception in the 1930's, this is not true of new media and Web 2.0 tools. As Gates, Myhrvold, and Rinearson (1996) have pointed out, the rapid evolution of the Internet requires constant reassessment of the definitions of its content in terms of format, purpose, and delivery and whether the content is intended for interpersonal or mass communication. In 1997, the Supreme Court cited the Communications Decency Act of 1996 as violating the First Amendment arguing that the Internet is a unique form of media compared to its print, radio and broadcast predecessors and that the standing definition of "indecent" was unclear (Albarran & Goff, 2000).

Despite evidence that young people can access indecent content online the Supreme Court has noted that websites can warn visitors of its content and that a user must take deliberate steps to access such material (Craig, 1998).

One of the primary issues with online content is that along with relatively rich social and educational information, there coexist sites containing pornography, obscene content, deceptive information, along with hate and prejudice (Albarran & Goff, 2000). In particular, parents have raised concerns about their children's exposure to pornography, invasions of privacy, and excessively violent online content (Eagle, Bulmer, & DeBruin, 2003). This is probably because, as Foreman (2010) suggests, photographs and videos showing graphic violence, nudity, or a perceived invasion of privacy are more likely than words to disturb audience members. Some argue that exposure to graphic violence and pornography leads to desensitization; however, it cannot be determined if desensitization is a result of online media in particular or if the same result would be just as plausible from exposure to traditional media (Levinson, 2009). In fact, Levinson suggests that it is plausible that witnessing real-life violence online could deter rather than provoke violence in children. Whichever the case, censorship attitudes are, at times, driven by perceived rather than demonstrated impacts (Wan & Youn, 2004) and it is difficult to argue that with increased connectivity users do not have a hard time accessing violent or explicit media (David-Ferdon & Hertz, 2007).

The concept of perceived dangers versus demonstrated dangers of online media has been described by others according to third-person effect theory (Wan & Youn, 2004). Third-person effect theory states that when people are confronted with negative content, they tend to overestimate the message's effect on others compared to themselves. It has been shown that estimated susceptibility and severity are mediated by third-person effects and that both traits

correlate to a person's willingness to censor media (Shah, Faber & Youn, 1999). With regard to violent media, Duck and Mullin (1995) suggested that people respond with a perception that they will not be impacted – unlike the "average" person. Research has been conducted with select forms of online media and has shown that women, along with older subjects, tend to have a larger gap in perceived impacts of online gambling, violent games, and pornography between themselves and others (Wan & Youn, 2004). Lo and Wei (2002) have used these findings to explain why women feel more strongly than men that Internet pornography should be subject to restriction.

Despite the regulatory differences that exist in the U.S. concerning traditional and new forms of media, the basic type of mass media (i.e. text, audio, or video) is one of the major contributing factors on the impact of a particular form of media. Media effects theory provides a framework that describes the varying levels of impact each form of media can have on media consumers.

Theoretical Perspective of Media Effects

As stated by McLeod, Kosicki, and Pan (1991) media effects may be the most dominant paradigm in the study of mass communication and media. Many times it is through the lens of media effects that public and government officials express a need for regulation and censorship concerning controversial material such as violence, sex, and drug or alcohol use (Eveland, 2003). In general, media effects have been studied based on two different dimensions. The first focuses on the media consumers and includes both individual and group effects while the second dimension concentrates on media creators and includes framing, agenda setting, priming, and others (Scheufele & Tewksbury, 2007).

The basic understanding of media effects began with direct media effects (Gerbner & Gross, 1976). Direct media effects research posited that prolonged exposure to violent programming resulted in aggressive behavioral traits. This view of media effects suggests that the type of media consumed has a direct impact on an individual's overall demeanor and outlook on the world. The other form of media effects, often referred to as limited effects, suggests a different perspective from the stance that reactions to different forms of media incorporate an active social component, as opposed to the passiveness of direct effects, and that the effects of the medium itself play a limited role in a person's thoughts and views (Lull, 2000).

There exist two durations in media effects, short- and long-term effects, from consuming different types of media. The short-term effects include embedded cognitive processes, such as priming, which is the activation of the brain in response to a specific stimulus thus leaving it in a readied state to make judgments, along with the other short-term effects of arousal and mimicry (Bushman, 1998; Bushman & Huesmann, 2006). Agenda setting and framing are two more closely related short-term effects. Framing is the process in which audience members make sense of new or complex ideas by integrating them with existing schemas (Shoemaker & Reese, 1996) while agenda setting is the phenomenon of the media suggesting to audience members what topics they should focus on (Scheufele & Tewksbury, 2007). Long-term effects include observational learning, desensitization, and learning through enacting, as is the case with realistic violent video games (Huesmann, 2007).

DeFleur (1970, pp. 122-123) proposed that media consumers can be considered to have individual differences or be part of a social category. A consumer's individual differences allow everyone to react to media in various ways because of the individual psychological factors involved from person to person (Baran & Davis, 2009). Consequently, not everyone will have

the same response to media and some will find the same acts repulsive while others find them entertaining. DeFleur (1970) also argued that there exist social categories into which people situate themselves based on broad sets of values which are typically aligned with demographics such as age, gender, sex, geographic location, religious beliefs, income level, etc. He further argued that people within the same social category will be influenced similarly by the effects of media.

From this limited effects perspective the impact of the content is shaped by the environment in which media messages are both created and received (Fejes, 1984). This is similar to Kim and Rubin's (1997) research that suggests in order to predict how an audience member will be influenced by any form of media the positive factors such as selectivity, attention, and involvement must be considered along with negative factors that include avoidance, distraction, and skepticism. Huesmman (1986) adds the individual differences in which violent media affects a person are, for the most part, the result of the cumulative learning process that occurs during childhood. As such, it is difficult to judge why some audience members react one way toward a form of media and why other audience members may act in a completely opposite manner in response to the same media. Stated another way, what is entertaining to one person can be repulsive to another.

Using Emmers-Sommer and Allen's (1999) definition of media effects of "independent or predictor variables that involved the mass media…or the effects of various independent or predictor variables…on media outcomes" (p. 487) is the most pertinent to this study regarding real-life violent movie scenes and dramatized violent movie scenes as the independent variables through which the treatments will be delivered.

Not all mass media researchers agree on the power of media effects; some studies have gone as far as to refute the strong influence of media effects. In Great Britain studies have suggested it is the content of media, not the specific form of media, which heavily influences audiences (Newton, 1999). Ball-Rokeach and DeFleur (1976), however, would suggest whether or not the type of media is of interest is decided upon within the cultural context of Great Britain and does not have the same applicability to other cultures.

Violence and Media Effects

Research on violence portrayed in the media and its effects has taken place since the popularity of motion pictures began to boom in the 1930's (Lowery & DeFleur, 1995). With many families making going to the movie theater a weekly ritual and the emergence of the field of mass communications as a social science, researchers began to wonder what implications motion pictures would have on U.S. society. The Payne Fund Studies was one of the first such attempts to explore the role of the burgeoning film industry in which 12 different studies were undertaken and represented some of the first attempts to apply the scientific method to communications research. Specifically, one of these 12 independent studies was conducted by Charles Peters (1933) who was one of the first social scientists to examine how the scenes depicted in motion pictures overlaid with viewers' morals. Peters (1933) found that films often portrayed scenes involving crime and sexual themes even though subjects reported having distaste for crime and sex. Thus, disconnect was established between the real-life morals of movie goers and what they enjoyed seeing on screen.

There are several effects as a result of exposure to violent media that have been researched with various mediating variables, such as gender and age. Berkowitz and Green (1966) along with Turner and Berkowitz (1972) found that violent media can affect audience

members even on the subconscious level of name associations: people can go as far as to transfer character's or actor's names to real-life individuals and act aggressively toward them depending on that actor's role in a violent scene. Additionally, Gerbner and Gross (1976) found that, as a result of the increased violent programming shown on television, adults have an exaggerated belief in the amount of real-world violence that takes place. In another study, men were found to react more aggressively when they identify with the winner of a violent situation on film and tend to display less aggressive behavior when they identify with the loser in a violent scenario (Perry & Perry, 1976). Men have also been found to be less prone than women to the effects that occur, such as arousal and enjoyment, when movie scenes involve heightened levels of violence (Berry, Gray, & Donnerstein, 1999). Women tend to find more violence less enjoyable and viewing it makes them more anxious than compared to men. Later research would also suggest that adult males have greater verbal reactions to violent films than females, but without actually carrying out violent acts (Black & Bevan, 1992). However, the type of violence depicted was not of major interest in many of these studies. Not only do males who find violent media enjoyable and thrilling display more aggressive behavior, they also perform lower in regard to academic achievement (Aluja-Fabregat & Torrubia-Beltri, 1998).

In addition to the behavioral manifestations resulting from exposure to violent media as a cognitive aggressive response, there can also be physiological responses. Bushman and Green (1990) found that exposure to violent media results in a rise in systolic blood pressure. It has also been found that frontal lobe activity in the brain differs in viewers of varying levels of violent media when compared to a non-violent control (Mathews et al, 2005). To address the aggressive behavior brought on from violent media consumption, a longitudinal study in

Germany found that 7th and 8th grade students could be treated over a five week period to behave less aggressively even after long term exposure to violent media (Moller et al., 2012).

Real versus Portrayed Violence

Despite the precedent set forth by the Payne Fund Studies much of the research concentrated on violence depicted in the media would not take place until the 1960's. The Bobo doll experiment examined the imitations of adolescents who had been exposed to videos of aggressive behavior and confirmed some of the concern regarding the influence of mass media (Bandura, Ross, & Ross, 1963). The focus of the Bobo experiment, however, was on the role that gender played on subjects rather than real or filmed violent acts. Despite ethical issues associated with stimulating young children to elicit aggressive behavior, the Bobo experiment was loosely structured around the concept of persons' reactions to real and portrayed violence.

While much of the research on the effects of real-life violent media involves experimental studies, correlation studies have also posited the effects violent media can have on audiences. It was found the rate of homicides in the U.S. is positively correlated immediately following the airing of heavyweight championship prize fights (Phillips, 1983).

Huesmann et al (1983) suggested that even children are aware that dramatized violence on television is not realistic. However, the nature of violent media content moderates the relationship between viewing media violence and acting aggressively in real-life (Huesmann & Taylor, 2006). While this aggressive behavior manifests itself among different viewers based on mitigating factors, it has been shown that, despite a relatively high exposure to violent media, people can be taught techniques to judge the content of violent media which lowers their aggressive behavior (Huesmann et al, 1983).

The two studies that came closest to singling out the type of violence, portrayed and real violence, involved in mass media were carried out by Meyer (1972) and the Violence Commission (Lowery & DeFleur, 1995 pp 294-309). Meyer's study posited that subjects who viewed justified real film violence displayed significantly greater aggressive behavior compared to unjustified real film violence, unjustified and justified fictional film violence, and nonviolent films. Entitled *Violence in the Media*, the second study utilized a content analysis of portrayed violence in the media and compared it to actual violence experienced or witnessed by adult and teen participants.

The Violence Commission's results showed that violence was inaccurately depicted and overemphasized in mass media when compared to real-life acts of violence. Once again the inherent difference in the effects of real-life or portrayed media violence was ignored in this study. Despite these two studies differentiating between real and fictitious violence, neither examined the level of entertainment viewers associated with the different types of violence.

According to Almeida (2013), along with other modifiers such as spatial remoteness, temporal remotes, and humorous versus serious narratives, fantasy versus reality is one of the most prevalent emotional modifiers one can use when producing media. Specifically, he states the more realistic a scene is the more emotional impact it will make on viewers compared to fantasy scenes and hence dramatized violence scenes should elicit a different response than the real-life violence videos. In order to gain a more complete understanding of media effects and its relation to violence that incorporates viewers' attitude toward different forms of media, and by taking into account the inherent difference between fictitious and realistic violence, the theoretical framework will move beyond a utilitarian model and begin to incorporate hedonic components as well.

Entertainment Value and American Attitudes

In the past, research on the entertainment value of media was not conducted to a great degree because it seemed an intrinsic value of media and was taken for granted (Dobni, 2006). The research evolved from a purely utilitarian approach – "how entertaining is such and such activity" – and was eventually refined to incorporate hedonic values – scaled items such as "enjoyment," "excitement," "captivation," "imaginative," etc. (Babin, Darden, & Griffin, 1994; Chen & Wells, 1999). While Chen and Wells (1999) examined users' attitude toward different websites and Babin, Darden and Griffin's (1994) research involved retail purchasing habits, the premise of attitude measurement can be transferred and thus their research molded the instrument utilized for this study.

Based on the hedonic value research, Dobni (2006) developed a theoretical model for determining general entertainment value based on two dimensions: consumer characteristics and entertainment characteristics, and how these dimensions are perceived by the consumer throughout the pre-consumption, consumption, and post-consumption stages in terms of benefits versus sacrifice.

Dobni (2006) identified media consumer characteristics as their level of involvement, personality, demographics and socioeconomics, and mood while receiving entertainment. She defined entertainment characteristics as occurring in live context or being media-dependent, in-home or out-of-home delivery, special event or specialty, passive or interactive.

Both entertainment and the information value have a strong effect on the probability of whether a media consumer will choose to continue watching a television program or movie, change to another program, or simply cease watching altogether (Woltman-Elpers, Wedel, & Pieters, 2003). It has also been found that peoples' enjoyment of a new film is directly tied to

the transfer of memories of other films. If a person enjoyed a similar film in the past they are likely to transfer that enjoyment to a new movie (Glass & Waterman, 1988).

Enjoyment of media has user prerequisites including suspension, empathy, parasocial interaction and relationships, presence, and interest. The motives behind enjoyment of media include escapism, mood management, achievement or competition. The media prerequisites of enjoyment include technology, design, aesthetics, and content while the effects of enjoyment can be excitation, catharsis, or learning (Vorderer, Klimmt, & Ritterfeld, 2004).

The benefits to consumers that result from receiving entertainment include emotional arousal, recovery and regulation, aesthetic appreciation, and social development (Dobni, 2006). A positive correlation has been observed between the emotions of pleasure and arousal with the hedonic value of movie watching (Shapiro & Biggers, 1987). Some consumers use entertainment to recover and regulate their moods to lower excitation levels or manage moods in other ways after being in a heightened state (Bosshart & Macconi, 1998). Aesthetic appreciation deals with the personal enrichment that results from watching media that has been skillfully, fluidly, and seemingly effortlessly designed (Wagner, 1999). Entertainment often occurs in a context of interactions that involve institutions, social norms, group behaviors, and traditions in a way that contributes to a viewer's social development (Mendelsohn & Spetnagel, 1980).

Sacrifices that consumers of media must make in order to receive entertainment include monetary costs, time, effort, and environmental nuisances (Dobni, 2006). As Blamires (1992) observed, prior to purchase consumers may use monetary prices as a major predictor for the potential value of the entertainment they are about to consume. However, Woodruff (1997) elaborated on this notion by adding that value is considered before and during consumption, not just at its conclusion. Since time is finite and scarce, consumers often have an interest in

conserving it when choosing to view media (Berry, Seiders, & Grewal, 2002). Because consuming media involves purchasing a ticket, going online to browse the World Wide Web, turning on a television or some other act, there is always a level of physiological and psychological effort that a consumer must sacrifice (Hirschman & Holbrook, 1982). Finally, having access to entertainment is also accompanied by environmental nuisances such as obstruction to movement, access, view, or privacy stemming from spatial layout, or discomfort arising from ambient conditions such as lighting, temperature, and noise (Palmgreen, Cook, Harvill, & Helm, 1988).

The idea that different cultures, organizations, and interpersonal groups hold different social rules regarding media messages is nothing new to social science research (Lull, 2000), nor is the idea that college students can share similar and dissimilar viewpoints on values (Osgood & Ware, 1961). However, as Oetzel (2009) suggests, UT provides users from different backgrounds the opportunity to engage in bottom-up intercultural media sharing and consuming practices. As such, this study will attempt to bring together the idea of media effects theory in college age American culture using UT as a context.

With regard to violent media and the viewer's attitude, acceptance and appeal of violent media is moderated by morality subculture of the viewer (Tamborini et al., 2012). That is, a viewer's enjoyment of violent media is mainly dependent on whether or not the violent acts seem justified as well as the outcomes of the violent scenes. Additionally, research has posited that while violence in media increases viewers' selective exposure it tends to decrease a person's overall enjoyment of the content when moderating traits such as sex, personality aggressiveness, and type of content are considered (Weaver, 2011). The popularity of low budget and low

production, violent films such as *Paranormal Activity* (2009) demonstrate an audience's interest in the thrill of user generated content (Ritzenhoff, 2010).

Anticipated Ethical Issues in the Study

One of the ethical issues associated with this study will be that the participants will be exposed to violent text and videos. Depending on the attitudes, religious views, and moral framework of each participant, the violent scenes shown in this study may have a greater or lesser impact on the participants. In order to deal with this issue preemptively, all subjects will be required to be over the age of 18 and will also be allowed to opt out of viewing a video at any time should they feel the material is too graphic. The control document was chosen from a popular novel used in many public high school literature courses and all scenes depicting violence were rated PG-13 or lower (or had comparable levels of violence in the real-life cases). Additionally, a consent form will be provided to the participants that identifies the researcher, the research institution, the selection method of participants, the purpose of the research, the level and type of participant involvement, the risks to the participant, a guarantee of confidentiality, assurance that the participant can withdraw at any time, and finally provisions of names and contact information of dissertation chairperson should questions arise (Creswell, 2009).

CHAPTER 3

RESEARCH DESIGN AND METHOD

Introduction

According to Bushman and Anderson (2001), reports in the mainstream news media have undergone a trend in which violent media was at first reported to only have a weak effect on viewers, then that viewpoint changed to a moderate effect, and recently has reverted back to a weak effect. They, along with Murray (2008) argue, however, that an overwhelming majority of scientific studies suggests that the effects of violent media are both real and strong. Bushman and Anderson (2001) make a case that the huge increase in violent media available on television programming over the decades, the news included, is positively correlated with the number of violent crimes committed per capita in the U.S.

As such, experimental research on the effects of violent media is nothing new. However, much of the research on violence in the media has concentrated on the behavioral effects of viewing violent television and films (Bandura, Ross, & Ross, 1963; Berkowitz & Rawlings, 1963; Cline, Croft, & Courrier, 1973; Drabman & Thomas, 1974). Consequently, since no prior study implemented an appropriate measure of participants' attitudes the instrument was adapted from Chen and Wells (1999) and Babin, Darden and Griffin (1994) in order to incorporate hedonic measurements for the impact the media had on the participants.

In keeping with the positivist traditions of communications media, psychology, sociology, and other fields in which much of the research on violent media has been conducted, it seems fitting to approach peoples' attitudes toward violent movies in the same experimental fashion. Furthermore, in order to strengthen the validity of any such study a true experimental

design should be chosen, such as a pre-test-post-test control-group design, Solomon four-group design, or in this case a post-test only control group study as opposed to a pre-experimental or quasi-experimental approach (Creswell, 2009). Institutional Review Board (IRB) approval was granted through IUP and can be found in Appendix A.

Experimental Design

The method utilized a true experiment with a 1 x 1 post-test only control group design with video delivery as the independent variable and attitudes as the dependent variable (Buddenbaum & Novak, 2001; Creswell, 2009). *Figure 1* provides a graphical representation of the concept of this experimental design. All participants reported to the research site at the same time. After signing the consent form (Appedix H) all participants were presented the 641 word control document from the novel *The Chocolate War* (Cromier, 1974) that featured a boxing match of sorts between two boys at school and can be found in Appendix B. Text was chosen as the control from Foreman's (2010) suggestion that people most likely react more strongly to pictures and video than words.

All participants silently read the document and completed the control instrument during the same session at the research site. Participants from the control group were then told they would be separated for the rest of the study and were escorted from the site by the dissertation chairperson to where the compensatory lunch was being served. Members of the treatment group stayed behind with the researcher to view the videos via a private YouTube (UT) channel created for this study. Responses to each of the treatment videos were recorded by the participants before the next scene was viewed as a group. Once the treatment group had finished viewing and responding to each of the 15 videos they were escorted to the lunch. While

participants from both groups were taking part in the lunch a $75 Amazon.com gift card was raffled off to one member of each group as extra compensation.

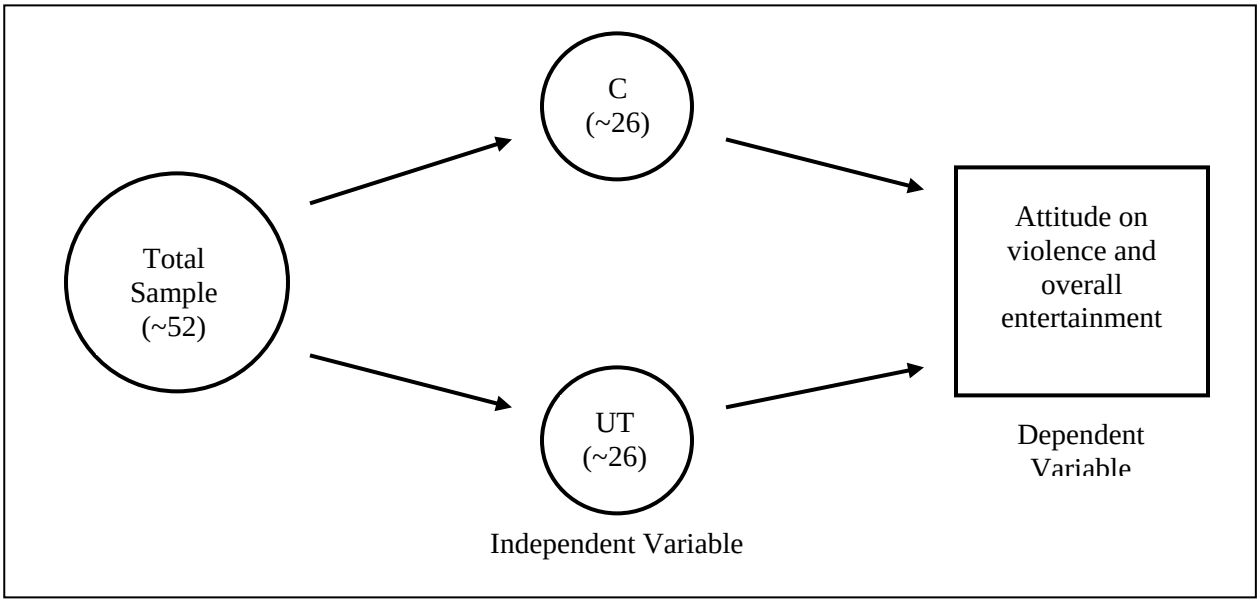

Figure 1. Graphical representation of the 1 x 1 post-test only control group design.

Research Instrument

The research instrument for the control group can be found in Appendix C and an abbreviated version of the instrument for the treatment group is found in Appendix D. The abbreviated treatment instrument reflects the ratings that participants gave each movie scene without including the same questions for each of the 15 scenes to avoid repetition. Both the control and treatment instruments asked the participants to report basic demographic data including class rank, age, college major, gender, ethnicity, and religiosity.

The rating system chosen for the dependent variable is a 0 (not at all) to 100 (completely) scale to attempt to shift the data from ordinal to interval level. Hedonic questions, loosely adapted from Chen and Wells (1999) and Babin, Darden and Griffin (1994), involved participants rating their overall entertainment, excitement, stirring of the imagination, connecting

with the scene, and the providing of an escape. Prior use of these instruments focused on marketing and advertising consumer reactions while this research took the concepts of "entertainment", "excitement" and others and fit them into the customized instrument for this study. The hedonic questions were followed by more direct questions that involved participants reporting whether or not they felt the scenes were too violent, if the scenes were real or fictitious, and if they were appropriate for any age group. The reliability of the research instrument was tested using Cronbach's alpha for both the control and treatment instruments.

Site

The study was conducted at Davis Hall in room B-23 at Indiana University of Pennsylvania's campus. This site was selected for a few reasons: Davis Hall is one of the two main buildings on IUP's campus that has undergraduate communications media classes and consequently since participants were recruited from those courses the students should have had familiarity with the location; secondly, B-23 is set up with adequate seating required for both the control and treatment groups without having wasted space; finally, the site features a digital projector, screen, and sound system connected to a computer with Internet access that allowed the screening of the movie scenes via a private UT channel for the treatment group.

Sampling, Population and Participants

The unit of analysis for the study was undergraduate students, sampling from a population of IUP undergraduate students enrolled in undergraduate communications media courses. An *a priori* power analysis with a Cohen's d of 0.8 and probability level of 0.05 indicates that for a two-tailed t-test or ANOVA the control and treatment groups should each have a minimum sample size of 26 participants. Based on the recruiting procedures 27 participants took part in the control group and 26 in the treatment group.

Participants were selected in the Spring of 2013 from a population of IUP undergraduates enrolled in introductory communication media courses including COMM 101, COMM 103, COMM 230 and COMM 325, among others, and invited to participate in the study by the instructors teaching courses during the semester of the study. Instructors were contacted and solicited for help with the email in Appendix E. The letter the instructors read to their students is found in Appendix F. Participants were required to be at least 18 years of age in order to be considered for the study and any student not meeting the age requirement was dropped from the data analysis as a case of mortality. The participants were systematically assigned to the control and treatment groups on the day of the study in order to strengthen the validity of the study (Buddenbaum & Novak, 2001). An email was sent to each participant providing them with instructions including when and where the study was going to be conducted (Appendix G). The letter of consent provided to the participants upon arrival can be found in Appendix H.

Variables

A 1 x 1 post-test only control group experimental design with video delivery as the independent variable and attitudes as the dependent variable was utilized (Buddenbaum & Novak, 2001; Creswell, 2009). Specifically, the independent variable was subdivided featuring two types of video violence: dramatized violence and real life violence. Attitudes as a dependent variable were reported on a hedonic rating system. Once they finished reading the control document or watching each video, participants responded to a hedonic 100-point measurement scale for their attitudes adapted from Chen and Wells (1999) and Babin, Darden and Griffin (1994) which was used to report the participants' reactions to the real and dramatized violence. The responses to the items on the instrument were analyzed for each treatment in order to see if a

significant difference occurred based on the particular treatment (Creswell, 2009; Reinard, 2006).

Movie Scenes

The eight fictitious treatment video clips were selected because they did not feature any movie actors or actresses who have been featured in any recent box office hits. They were retrieved from the Netflix "Watch Instantly" catalog, captured using BlueBerry Flashback Express Recorder and saved in .avi format. The time code indicates the chronological point in the movie where each short scene begins and is provided in the format of hour : minute : second. The seven real violence scenes were downloaded from UT using Keepvid.com and saved in mp4 format. Treatments were randomized using a random number generator. The treatments include:

Treatment #1: http://www.youtube.com/watch?v=VpPzRYaq2-k. This real violence video appears to take place outside of a high school and involves one teenage female, the aggressor, confronting another teenage female who is sitting on a window sill. After some words back and forth the aggressor pushes the seated female and a fight breaks out between the two. The overall length of this treatment is 38 seconds.

Treatment #2: Released in 2002, *First Shot* is a PG-13 rated action-drama film that involves Secret Service agents on the hunt of a militia rebel who attempted a presidential assassination. The film's main character, Agent McGregor, tracks the would-be assassin through different episodes and finally catches up with him at the end. The short scene used for this study takes place beginning at the time code 1:25:40 and depicts Agent McGregor confronting the assassin after a public chase on foot. After clearing innocent bystanders Agent McGregor is

forced to open fire on the assassin when he pulls a firearm that was hidden in the front of his pants. The overall length of this treatment is 57 seconds.

Treatment #3: Released in 1975, *Walking Tall: Part II* is a PG rated action-drama that features Sheriff Buford Pusser taking on the crime that has begun to run rampant in his small Tennessee hometown. While the Sheriff encounters different situations throughout the film, the short scene that was selected for this study occurs near the beginning at time code 0:17:40 and includes the Sheriff answering a call at a local bar for a drunken patron, Steamer, who is engaged in destructive behavior. Steamer refuses to let the Sheriff arrest him which leads to a physical altercation and the Sheriff shooting and wounding Steamer. The overall length of this treatment is one minute 40 seconds.

Treatment #4: http://www.youtube.com/watch?v=GPxUZlQ0cGg. This real violence video was filmed at a Russian aquarium with people swimming with dolphins and features a group of men fighting security guards on a set of bleachers. Some of the men are thrown into the swimming pool throughout the confrontation. The overall length of this treatment is one minute 35 seconds.

Treatment #5: Released in 1970, *The Crook* is a G rated French drama about the high and low points in the career of a thief named Simon Duroc dit 'le Suisse'. The film depicts Simon after he and his partner successfully complete a bank heist. The short scene chosen for this study takes place following the robbery at time code 1:18:00 and involves Simon and his partner arguing in Simon's car about whether or not to lay low or to spend the money. Simon pulls a gun on his partner and tells him to get out of the car, which he does. The overall length of this treatment is fifty seconds.

Treatment #6: Released in 2011, *Warrior* is a PG-13 rated action film that focuses on two brothers, Tommy and Brendan Riordan, who compete in Mixed Martial Arts (MMA) competitions. While Tommy is the favored fighter and has forged a path to the title fight, the cash-strapped Brendan enters in hopes of making some money and eventually finds himself working his way up as the underdog and is eventually matched against Tommy in the title fight. The short scene used for this study takes place near the end of the film at time code 1:59:00 and features the two engaged in the MMA title fight. The overall length of this treatment is 45 seconds.

Treatment #7: http://www.youtube.com/watch?v=lVLvAOsX95M. This real violence video features vigilante "superhero" Phoenix Jones exchanging blows with a person on the streets of Seattle. While there is a police presence in the video they allow the confrontation to occur as "mutual combat." Jones is able to knock his opponent down which ends the fight. The overall length of this treatment is 45 seconds.

Treatment #8: Released in 1967, *Kill a Dragon* is a PG-13 rated international action film that features the main character, Rick Masters, involved in some dangerous situations as he helps locals of a Chinese island smuggle dangerous contaminants off their shore. The short scene used for this study takes place beginning at the time code 0:11:03 and features Masters coming to the aid of three locals who are on the run from some American sea farers. The overall length of this treatment is one minute 36 seconds.

Treatment #9: http://www.youtube.com/watch?v=mp1ZxY_pS6Y. This real violence video features an Ultimate Fighting Championship mixed martial arts competition between Royce Gracie and Pat Smith from UFC 2. During the bout Gracie is able to gain a position of

advantage on the top while on the ground and Smith's corner throws in their towel indicating a submission. The overall length of this treatment is one minute 5 seconds.

Treatment #10: http://www.youtube.com/watch?v=NHGt3XfNvpM. This real violence video shows a California police officer opening fire on a suspect outside a residence. The video was filmed from an angle on the side of the suspect's vehicle such that not much detail can be seen other than the suspect dropping to the ground. The overall length of this treatment is 35 seconds.

Treatment #11: Released in 2011, *Knockout* is a PG rated action film based on a high school boxing team. Matthew Miller, the main character, is new at his high school and has aspirations of joining the boxing team. The team champion bullies Matthew throughout the film which causes him to seek instruction from the high school janitor who was a former champion. The short scene used for this study takes place early on in the film at time code 0:09:50 and showcases the first instance of Matthew being bullied by the team champion. The overall length of this treatment is 26 seconds.

Treatment #12: http://www.youtube.com/watch?v=uhmOzhPRxQs. This real violence video was reportedly filmed with a cell phone camera on an interstate near Los Angeles. One driver of a car felt another driver had cut him off while changing lanes and they got out of their cars when traffic came to a standstill to settle their differences. What results is a fist fight involving both drivers and eventually one of the other passengers. The overall length of this treatment is 45 seconds.

Treatment #13: Released in 2002, *XXX* is a PG-13 international action film that begins with its main character, Xander Cage, being recruited as a secret agent by the U.S. Government for his underground illegal extreme sports notoriety. Xander, known for the "XXX" tattoo on

the back of his neck, is sent to Prague to infiltrate an ex-Russian military terrorist group to derail their plans of unleashing a biological weapon on the world. The short scene used for this study takes place near the end of the film at time code 1:41:58 and features an international enforcement team taking on the terrorist group in gunfire. The overall length of this treatment is 53 seconds.

Treatment #14: http://www.youtube.com/watch?v=-rcyZmuuVV0. This real violence video shows a Middle Eastern television show during which a heated argument erupts. One of the guests, who is a politician, pulls out a revolver and threatens the other guest. After a short confrontation the gun is returned to its holster. The overall length of this treatment is 57 seconds.

Treatment #15: Released in 2011, *I am Number Four* is a PG-13 rated science fiction-action film that focuses on the life of John Smith, an alien living on Earth who attempts to live a normal teenage life. On the run from an alternate race of aliens attempting to wipe out his species, Smith finds himself having to constantly change small towns while his super-human alien powers begin to develop. The short scene used for this study takes place beginning at the time code 0:53:40 and depicts Smith fighting back at the high school football star bully who violently interrupted a date with Smith's love interest at the town fair. The overall length of this treatment is 32 seconds.

Compensation

Participants in this study were compensated for their time in two ways. First, during the study participants were provided with a pizza and salad lunch. Second, once students had finished completing the instrument a random drawing was made for a $75 Amazon.com gift card for both the control group and the treatment group. Both the lunch and the gift cards were

provided by the researcher.

Threats to Validity

The primary threats to internal validity include history, maturation, regression to the mean, selection, mortality, diffusion of treatment, compensatory/resentful demoralization, compensatory rivalry, testing, and instrumentation (Creswell, 2009). Since time passes during an experiment, events can occur that influence the results of the treatment. Because this experiment was conducted within the controlled environment of Davis B-23, the subjects in the control and treatment groups experienced the same external events throughout the study and thus history and diffusion of the treatment threats to validity were minimized.

Maturation involves the participants maturing at different rates throughout the experiment, influencing the results, and thus conducting the study at only one point in time minimized maturation threats based on the short duration of the experiment and similar experiences of the participants.

Since the participants were systematically assigned to control and treatment groups, threats to validity based on selection were minimized.

Because no direct benefit arose from participating in either the control group or treatment groups (e.g. receiving a therapeutic treatment or lack thereof) there was little threat to internal validity from compensatory demoralization and rivalry.

Finally, because the format of the measurement instrument was the same for both the control and the treatment groups during the post-test, testing and instrumentation presented minimal threats to internal validity.

The primary threats to external validity include interaction of selection and treatment, interaction of setting and treatment, and interaction of history and treatment (Creswell, 2009).

Because the content of the control document was chosen by the researcher, as were the treatment videos, a threat to the interaction of selection and treatment exists. In order to address the interaction of selection and treatment, further research could be conducted with other undergraduate students from colleges and universities across the U.S.

To address the threat to external validity resulting from the interaction of setting and the treatment, the experiment could be conducted in alternate environments in order to see if similar results occur.

Finally, in order to examine the threats to validity resulting from interaction of history and the treatment, the study could be replicated at a later date and the results compared with this study.

CHAPTER 4

RESULTS OF THE STUDY

Introduction

This study was conducted to determine the effects different forms of violent media have on undergraduate IUP students' attitudes. This chapter examines the post-test results of the research questions and hypotheses of the study. All data was entered and analyzed using SPSS version 20. The chapter will begin by presenting descriptive statistics for the demographics of the participants and show that no significant differences existed between the control and treatment groups based on age, gender, ethnicity, class rank, college major, or religiosity.

Secondly, this chapter will examine the reliability of the research instrument by using Cronbach's alpha as a statistical measure for the internal reliability.

The chapter will then shift its focus to quantitatively addressing the research questions and hypotheses which were evaluated using a number of analyses including ANOVA (with post hoc tests of Tukey's HSD or Tamhane's T2 when applicable) as well as Spearman's rho. ANOVA was used to look for significant differences among the control and treatment ratings and was followed up with either Tukey's HSD or Tamhane's T2 in order to locate the area of any differences. These tests were selected since the number of participants were close to the same (N = 27 for the control group, N = 26 for the treatment group). Specifically, Tukey's HSD was chosen when there was no significant difference in the variance of the samples whereas Tamhane's T2 was utilized when a significant difference occurred in the sampling variation. Spearman's rho was used for correlations between the ratings and ratio level data such as the age and religiosity of the participants (Reinard 2006).

Sample Demographics

Participants were recruited from undergraduate communications media courses at Indiana University of Pennsylvania. Students were invited to participate in the study by their professors a few days ahead of the study. Of the 94 students who signed up to participate 53 showed up to take part on the day of the study. The following sections will present the descriptive statistics of the control and treatment groups.

Class Rank

The first demographic question on both the control and treatment instruments asked participants to indicate their class rank. Table 1 provides a summary of the responses of both groups.

Table 1

Class Rank of Participants

		Group		
		Control	Treatment	Total
Class rank	Freshmen	5	6	11
	Sophomore	7	5	12
	Junior	10	8	18
	Senior	5	7	12
Total		27	26	53

Using Chi-Square, no significant difference was found to exist between the control and treatment group for class rank with $\chi^2(3, N = 53) = 0.961$, $p = 0.811$. Therefore any difference in attitude between the control group and treatment group would not be attributed to a difference in class rank between the two groups.

Age

Table 2 provides a summary of the responses of both the control and treatment groups for age, the second demographic variable requested of participants.

Table 2

Age of Participants

	N	Minimum	Maximum	Mean	Std. Deviation
Control	27	18	31	21.30	2.77
Treatment	26	18	35	20.88	3.25

Results of a t-test indicated that no significant difference in age existed between the control group (M = 21.30, SD = 2.77) and treatment group (M = 20.88, SD = 3.25), $t(51) = 0.507$, $p = 0.615$. Consequently, a difference in attitude between the control and the treatment would not be based on an age difference between the groups.

College Major

As with class rank and age, no significant difference existed between the control and treatment group for college major, the third demographic reported by participants. Chi-Square test results yielded $\chi^2(2, N = 53) = 0.431$, $p = 0.811$. As such, differences in attitude between the control group and treatment group would not be credited to a difference in college major between the two groups. A summary of responses of both groups is provided in Table 3.

Table 3

College Major of Participants

		Major			
		Comm Media	Other	Undecided	Total
Group	Control	19	6	2	27
	Treatment	20	5	1	26
Total		39	11	3	53

Gender

Gender was the fourth demographic question on both the control and treatment instruments. A summary of the participants' gender is provided in Table 4 for both groups. No significant difference existed between the control and treatment group for gender with $\chi^2(1, N = 53) = 0.172$, $p = 0.678$. Since no difference existed between the two groups regarding gender, any difference in attitude between the control group and treatment group would not be a result of a gender unbalance.

Table 4

Gender of Participants

		Group		
		Control	Treatment	Total
Gender	Female	13	14	27
	Male	14	12	26
Total		27	26	53

Ethnicity

In addition, information regarding ethnicity was collected as a demographic variable for both the control and treatment groups. A summary of the responses of both groups' ethnicity is provided in Table 5.

Table 5

Ethnicity of Participants

		Group		
		Control	Treatment	Total
Ethnicity	Afr Am	3	3	6
	White	23	22	45
	Other	1	1	2
Total		27	26	53

Use of Chi-Square suggested no significant difference existed between the control and treatment group for ethnicity with $\chi^2(2, N = 53) = 0.003$, $p = 0.998$. Because the two groups were nearly identical with regard to ethnicity, any difference in attitude would not be attributed to an ethnicity difference between the control and treatment participants. It should also be noted the low number of other ethnicities in both the control and treatment groups may have affected some of the statistical tests.

Religiosity

The last demographic question on both the control and treatment instruments asked participants to rate their religiosity on a 0-100 scale with 0 indicating religion plays no role in their life and 100 indicating religion plays a large role in their life. Table 6 provides a summary of the responses of both groups. Note the number of participants was only 52 in Table 6 because

one respondent was omitted for providing "Christian" instead of a 0-100 rating of religiosity. No significant difference in religiosity existed between the control group (M = 41.30, SD = 34.18) and treatment group (M = 54.88, SD = 28.17), $t(50) = 1.56$, $p = 0.126$. Therefore, as with all other demographic variables, any difference in attitude between the control and the treatment could not be attributed to a religiosity difference between the two groups.

Table 6

Religiosity of Participants

	N	Minimum	Maximum	Mean	Std. Deviation
Control	27	0	100	41.30	34.18
Treatment	25	0	100	54.88	28.17

Instrument Reliability

The internal reliability of the research instrument was tested using Cronbach's alpha. The control instrument resulted in $\alpha = 0.769$ which, being larger than 0.7, is considered adequate for social science research (Buddenbaum & Novak, 2001; Reinard, 2006). This value was determined from conducting a Cronbach's alpha analysis in SPSS of the different ratings reported from the control group. It should be noted that if control Item 8 – "I felt this text is appropriate for any age group" – was deleted the level increased to $\alpha = 0.816$ which is considered more than optimal for communications media research. Cronbach's alpha was also conducted for the treatment instrument and yielded $\alpha = 0.958$, indicating a high level of internal reliability. As with the control instrument, analysis was done in SPSS but using the different video ratings reported by the treatment group.

Research Questions and Hypotheses

Research Question One

RQ1: What are the effects on students' attitudes of real and dramatized media violence among IUP undergraduates within a controlled environment?

Based on previous research (Bandura, Ross, & Ross, 1963; Black & Bevan, 1992; Bushman, 1995) on the behavioral effects of violent films the hypothesis that stems from RQ1 is:

H1: There will be a significant difference in the students' attitudes between real and dramatized violence.

Scale items that asked participants to rate their entertainment, excitement, stirring of imagination, escape, perception of violence level, connection to the violent media, and age appropriateness were used to assess RQ1. The control and treatment instruments were designed to have similar formatting and sequence of questions, and for comparison, items 1-5 were identical with the words "text" and "video" being used interchangeably as appropriate.
In addition, participants' connection to the story was measured by item 6 on the control instrument and item 7 on the treatment instrument. Participants' attitude toward the age appropriateness of the violence, was measured by item 7 on the control instrument and item 9 on the treatment instrument

Analysis began with instrument item 1, a 0-100 rating of entertainment value, with 0 being not entertaining at all and 100 being very entertaining. Results of these ratings can be found in Table 7.

A test for the homogeneity of variances resulted in a Levene Statistic of 1.30 at $p = 0.198$ indicating there was no significant difference in variances between the control and any of the treatments beyond that which would occur from sampling. Consequently using a post hoc test

such as Tukey's HSD is an acceptable follow-up to an ANOVA (Reinard, 2006). Results from an ANOVA of Item 1 revealed that a significant difference existed overall $F(15, 400) = 4.94$, $p < .001$. However, Tukey's HSD showed that no significant difference existed at the $p < 0.05$ level between the control and any of the videos, real or dramatized.

Conversely, several significant differences did occur between the real and dramatized videos. Tukey's HSD showed participants found a difference at the $p = 0.005$ level between treatment video 4 (real violence) and treatment video 5 (dramatized violence). Thus the real violence depicted in treatment video 4 was found to be significantly more entertaining than the dramatized violence in *The Crook* (1970). In opposition, the rest of the significant differences favored the dramatized violence as more entertaining than the real violence.

Warrior (2011) was found to be significantly more entertaining than the real violence in treatment videos 1, 7, 10, and 12 with p values of $p = 0.037$, $p = 0.005$, $p = 0.004$, and $p = 0.020$, respectively. Additionally it was found to be significantly more entertaining than *Walking Tall: Part II* (1975) with $p = 0.031$.

XXX (2002) was found to be significantly more entertaining than the real violence in treatment videos 7 and 10 with p values of $p = 0.021$and $p = 0.019$, respectively. It was found to be significantly more entertaining than *Knockout* (2011) with $p = 0.014$.

Because the dramatized treatment videos contained more cases of significantly higher means for entertainment than did the real-life treatment videos, Item 1 of the instrument supports H1 and would suggest more specifically that dramatized violence is more entertaining than real-life violence videos.

Table 7

Descriptive Statistics for Entertainment

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Control	26	50.8846	22.18887	4.35160	41.9223	59.8469
Girl Fight	26	37.8462	32.98811	6.46950	24.5220	51.1703
First Shot	26	59.2308	27.06482	5.30785	48.2991	70.1625
Walk Tall	26	37.3462	30.34988	5.95210	25.0876	49.6047
Aquarium	26	60.7692	28.86840	5.66156	49.1090	72.4294
Crook	26	25.2692	26.76349	5.24875	14.4592	36.0792
Warrior	26	68.4615	33.77719	6.62425	54.8186	82.1044
Jones	26	32.8846	29.14149	5.71512	21.1141	44.6551
Treatment 8	26	54.5000	33.75470	6.61984	40.8662	68.1338
UFC	26	42.8846	34.07442	6.68254	29.1217	56.6476
Police	26	32.6923	33.61520	6.59248	19.1148	46.2698
Knockout	26	31.9615	31.40634	6.15929	19.2762	44.6468
Car Fight	26	36.2308	33.83762	6.63610	22.5635	49.8981
XXX	26	65.0000	34.47434	6.76097	51.0755	78.9245
TV Gun	26	50.7308	30.68623	6.01806	38.3363	63.1252
Number 4	26	59.3077	32.93481	6.45905	46.0050	72.6103
Total	416	46.6250	33.32200	1.63375	43.4136	49.8364

Note. Treatments in boldface are the real-life violence videos and treatments in italics are the dramatized violence videos.

Analysis was also conducted for instrument item 2. This item had participants rate their excitement on a scale of 0-100 with 0 being not exciting at all and 100 being very exciting. Results of these ratings can be found in Table 8.

The Levene Statistic of 2.02 at $p = 0.013$ indicated there was a significant difference in variances between the control and the treatments beyond that which would occur from sampling. Consequently using a post hoc test such as Tamhane's T2 is an acceptable follow-up to an ANOVA (Reinard, 2006). Results from an ANOVA of Item 2 revealed that a significant difference existed overall $F(15, 401) = 5.46$, $p < .001$. Tamhane's T2 showed a significant difference existed at the $p < 0.05$ level between the control and *The Crook* (1970). Interestingly, the control text had a significantly higher mean excitement than the treatment video 5 with $p = 0.030$.

Treatment video 4 was the only real-life video that had a significantly higher mean excitement rating than any of the dramatized treatment videos. It had higher excitement ratings than *Walking Tall: Part II* (1975), *The Crook* (1970), and *Knockout* (2011) with *p*-values of $p = 0.007$, $p < 0.001$, and $p = 0.027$, respectively.

Oppositely, *Warrior* (2011) had a significantly higher mean excitement rating than real-life treatment videos 7 ($p = 0.006$) and 12 ($p = 0.021$). Additionally, dramatized treatment video 13 resulted in a higher mean excitement rating than real-life treatment video 7 with $p = 0.038$.

The dramatized treatment videos also resulted in significantly higher ratings than one another. For instance, *The Crook* (1970) was significantly lower than *First Shot* (2002) with $p = 0.005$, *Warrior* (2011) with $p < 0.001$ and *I am Number Four* (2011) with $p = 0.014$) while *Walking Tall: Part II* (1975) was significantly lower than *Warrior* (2011) with $p = 0.004$ and *Knockout* (2011) with $p = 0.025$.

Because three videos in the real-life treatment group had higher means for excitement than dramatized videos and three dramatized videos in the treatment group had higher means for excitement than real-life videos, Item 2 cannot definitively support H1.

Table 8

Descriptive Statistics for Excitement

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Control	27	46.4815	24.56603	4.72774	36.7635	56.1995
Girl Fight	26	37.7692	32.21963	6.31879	24.7554	50.7830
First Shot	26	50.3846	24.35418	4.77625	40.5477	60.2215
Walk Tall	26	26.8077	27.03334	5.30167	15.8887	37.7267
Aquarium	26	60.7692	28.86840	5.66156	49.1090	72.4294
Crook	26	20.0385	24.33513	4.77251	10.2093	29.8676
Warrior	26	66.6154	34.60298	6.78620	52.6389	80.5918
Jones	26	27.4231	28.32267	5.55453	15.9833	38.8629
Dragon	26	46.4615	29.53538	5.79236	34.5319	58.3911
UFC	26	41.6923	31.71469	6.21976	28.8825	54.5021
Police	26	39.8846	38.67746	7.58527	24.2624	55.5068
Knockout	26	27.8462	30.78791	6.03801	15.4106	40.2817
Car Fight	26	29.0769	31.99615	6.27496	16.1534	42.0004
XXX	26	62.5769	36.43863	7.14620	47.8590	77.2948
TV Gun	26	43.5000	28.90848	5.66942	31.8236	55.1764
Number 4	26	54.0385	33.30043	6.53075	40.5881	67.4888
Total	417	42.5947	32.98137	1.61510	39.4199	45.7695

Note. Treatments in boldface are the real-life violence videos and treatments in italics are the dramatized violence videos.

Analysis proceeded with item 3, and evaluation of how the control or treatment stirred participants' imagination on a scale of 0-100 with 0 being not at all and 100 being very much. Results of these ratings can be found in Table 9.

Using the Levene Statistic of 2.54 at $p = 0.002$ a test for the homogeneity of variances indicated there was once again a significant difference in variances of imagination stirring between the control and the treatments beyond that which would occur from sampling. In this case, as with item 2, a post hoc test such as Tamhane's T2 is an acceptable follow-up to an ANOVA (Reinard, 2006). Results from an ANOVA of Item 3 revealed that a significant difference existed overall $F(15, 401) = 4.44$, $p < .001$.

Tamhane's T2 showed a significant difference existed between the control and all of the real-life treatment videos except for treatment video 10. Specifically, the control stirred participants' imaginations significantly more than real-life treatment videos 1 ($p < 0.001$), 4 ($p = 0.001$), 7 ($p < 0.001$), 9 ($p = 0.001$), 12 ($p = 0.006$), and 14 ($p = 0.038$). The control also resulted in significantly higher ratings than *Walking Tall: Part II* (1975) with $p = 0.001$ and *Knockout* (2011) with $p = 0.005$.

There only existed one significant difference in ratings for Item 3 between the dramatized and real-life treatment videos. *First Shot* (2002) was rated significantly higher than real-life treatment video 7 with $p = 0.006$.

Because there was only one higher rating for dramatized videos than real-life videos and since there was one more dramatized video than real-life videos, it cannot be conclusively determined that real-life or dramatized violent videos stir the imagination to any greater or lesser extent in viewers. However, with so many differences existing between the control and the treatments it can be determined that text narratives stir the imagination more than video as a medium regarding violence.

Table 9

Descriptive Statistics for Imagination

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Control	27	58.0741	26.82124	5.16175	47.4639	68.6842
Girl Fight	26	18.4615	26.14457	5.12737	7.9015	29.0216
First Shot	26	44.8077	31.42104	6.16217	32.1165	57.4989
Walk Tall	26	21.6538	27.13513	5.32164	10.6937	32.6140
Aquarium	26	22.0385	25.27525	4.95689	11.8296	32.2474
Crook	26	21.1923	29.35032	5.75607	9.3375	33.0472
Warrior	26	41.0000	34.41046	6.74845	27.1013	54.8987
Jones	26	11.9615	19.68854	3.86124	4.0092	19.9139
Dragon	26	37.5769	33.96842	6.66176	23.8568	51.2971
UFC	26	19.2308	29.98974	5.88147	7.1177	31.3439
Police	26	33.6923	34.37879	6.74224	19.8064	47.5782
Knockout	26	24.1923	28.22200	5.53479	12.7932	35.5914
Car Fight	26	22.5769	30.98151	6.07597	10.0632	35.0906
XXX	26	41.0769	35.24193	6.91151	26.8424	55.3114
TV Gun	26	29.2308	27.52643	5.39838	18.1126	40.3489
Number 4	26	37.5385	32.80150	6.43290	24.2896	50.7873
Total	417	30.3357	31.64911	1.54986	27.2892	33.3823

Note. Treatments in boldface are the real-life violence videos and treatments in italics are the dramatized violence videos.

Next, item 4 on the instrument had participants rate how the control or treatment provided an escape on a scale of 0-100 with 0 being not at all and 100 being very much. Results of these ratings can be found in Table 10. A test for the homogeneity of variances resulted in a

Levene Statistic of 5.53 at $p < 0.001$ indicating there was a significant difference in variances between the control and the treatments beyond that which would occur from sampling.

Table 10

Descriptive Statistics for Escape

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Control	27	25.4074	24.14421	4.64656	15.8563	34.9585
Girl Fight	26	8.7308	16.57361	3.25035	2.0365	15.4250
First Shot	26	25.7692	27.30173	5.35431	14.7418	36.7966
Walk Tall	26	13.8462	26.35556	5.16875	3.2009	24.4914
Aquarium	26	10.8462	23.45667	4.60023	1.3718	20.3205
Crook	26	14.0000	22.87706	4.48656	4.7598	23.2402
Warrior	26	32.5769	37.21631	7.29872	17.5449	47.6089
Jones	26	7.8462	14.23430	2.79158	2.0968	13.5955
Dragon	26	20.6538	27.99134	5.48955	9.3479	31.9598
UFC	26	20.0385	29.30868	5.74790	8.2004	31.8765
Police	26	13.5769	25.20821	4.94374	3.3951	23.7587
Knockout	26	21.8462	28.84814	5.65759	10.1941	33.4982
Car Fight	26	11.6923	22.17344	4.34857	2.7363	20.6484
XXX	26	32.7308	36.50047	7.15833	17.9879	47.4736
TV Gun	26	18.4615	23.32763	4.57493	9.0393	27.8838
Number 4	26	26.6923	33.29957	6.53058	13.2423	40.1423
Total	417	19.0600	27.48608	1.34600	16.4141	21.7058

Note. Treatments in boldface are the real-life violence videos and treatments in italics are the dramatized violence videos.

Tamhane's T2 was again an acceptable follow-up to an ANOVA (Reinard, 2006). Results from an ANOVA of Item 4 revealed that a significant difference existed overall $F(15, 401) = 2.32$, $p = .004$. Oddly, even though the F-test indicated a significant difference occurred somewhere in the means for this data Tamhane's T2 did not reveal any differences between groups. This was possibly due to the relatively low mean ($M = 19.1$) and relatively high standard deviation ($SD = 27.5$). As such, this item was not factored into answering RQ1.

Continuing, item 5 on the instrument had participants rate whether or not they felt the control or treatment was too violent on a scale of 0-100 with 0 being not at all and 100 being very much. Results of these ratings can be found in Table 11.

A Levene Statistic of 4.73 at $p < 0.001$ indicated there was a significant difference in the variances of violence levels between the control and the treatments beyond that which would occur from sampling; therefore Tamhane's T2 was employed again (Reinard, 2006). Results from an ANOVA of Item 5 revealed that a significant difference existed overall $F(15, 400) = 7.04$, $p < .001$.

There were no significant differences between the control group and any of the treatment videos. There were, however, significantly higher violence ratings between two of the real-life treatment videos, videos 1 and 10, and several of the dramatized treatment videos. Realistic treatment video 1 had a significantly higher mean rating for violence than *First Shot* (2002) with $p = 0.003$, *Walking Tall: Part II* (1975) with $p = 0.032$, *The Crook* (1970) with $p < 0.001$, *Kill a Dragon* (1967) with $p = 0.032$, *Knockout* (2011) with $p = 0.012$) and *I am Number Four* (2011) with $p = 0.047$. Additionally, real-life treatment video 10 had a significantly higher mean rating than *First Shot* (2002) with $p = 0.003$, *Walking Tall: Part II* (1975) with $p = 0.019$, *The Crook*

(1970) with $p < 0.001$, *Knockout* (2011) with $p = 0.008$, and *I am Number Four* (2011) with $p = 0.026$.

Table 11

Descriptive Statistics for Violence

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Control	27	30.3704	31.22271	6.00881	18.0191	42.7217
Girl Fight	26	51.2692	31.36056	6.15031	38.6024	63.9360
First Shot	26	17.3462	18.81264	3.68946	9.7476	24.9447
Walk Tall	26	21.6923	21.69934	4.25559	12.9278	30.4569
Aquarium	26	19.4231	20.01634	3.92553	11.3383	27.5079
Crook	26	7.0000	20.64171	4.04817	-1.3374	15.3374
Warrior	26	27.4615	26.23163	5.14445	16.8664	38.0567
Jones	26	19.0385	20.03293	3.92878	10.9470	27.1299
Dragon	26	21.4231	22.40031	4.39306	12.3754	30.4708
UFC	25	21.9600	27.38534	5.47707	10.6559	33.2641
Police	26	56.1538	36.30063	7.11914	41.4917	70.8160
Knockout	26	19.5385	21.11536	4.14106	11.0098	28.0671
Car Fight	26	46.2692	33.11381	6.49415	32.8943	59.6442
XXX	26	40.6154	33.15428	6.50209	27.2241	54.0067
TV Gun	26	22.8462	23.36098	4.58147	13.4104	32.2819
Number 4	26	22.0385	23.26453	4.56255	12.6417	31.4352
Total	416	27.7981	28.94811	1.41930	25.0082	30.5880

Note. Treatments in boldface are the real-life violence videos and treatments in italics are the dramatized violence videos.

None of the dramatized treatment videos had significantly higher mean ratings for violence levels than did the real-life treatment videos. As such it can be concluded that viewers find videos featuring real acts of violence more graphic than dramatized acts.

Item 6 on the control instrument and Item 7 on the treatment instrument had participants rate whether or not they felt connected to the control or treatment using the scale of 0-100 with 0 being not at all and 100 being very much. Results of these ratings can be found in Table 12. None of the mean ratings yielded a significant difference at the $p < 0.05$ level. Results from an ANOVA of control Item 6 and treatment Item 7 revealed that no significant difference existed overall for the participants' connection to the control or any of the treatment videos with $F(15, 401) = 1.52$, $p = .095$.

The homogeneity of variances was tested and resulted in a Levene Statistic of 4.08 at $p < 0.001$ indicating there was a significant difference in variances of connection between the control and the treatments beyond that which would occur from sampling. However, that did not affect any significant differences and is not of consequence.

Table 12

Descriptive Statistics for Connection

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Control	27	15.2963	21.56531	4.15025	6.7653	23.8272
Girl Fight	26	3.4615	6.28796	1.23317	.9218	6.0013
First Shot	26	14.3077	23.85082	4.67753	4.6741	23.9412
Walk Tall	26	4.3462	10.52214	2.06356	.0962	8.5961
Aquarium	26	12.1923	23.68463	4.64494	2.6259	21.7587
Crook	26	9.3846	19.25425	3.77607	1.6077	17.1616
Warrior	26	20.1154	29.47857	5.78122	8.2087	32.0220
Jones	26	5.4231	11.91024	2.33579	.6124	10.2337
Dragon	26	12.8077	22.29263	4.37195	3.8035	21.8119
UFC	26	16.7308	23.68891	4.64578	7.1626	26.2989
Police	26	8.9231	21.80261	4.27584	.1168	17.7293
Knockout	26	20.5000	28.09164	5.50922	9.1535	31.8465
Car Fight	26	10.8462	19.93528	3.90963	2.7941	18.8982
XXX	26	16.8846	27.45080	5.38354	5.7970	27.9722
TV Gun	26	10.0000	16.79286	3.29335	3.2172	16.7828
Number 4	26	15.3846	23.83624	4.67467	5.7570	25.0123
Total	417	12.2950	21.77997	1.06657	10.1984	14.3915

Note. Treatments in boldface are the real-life violence videos and treatments in italics are the dramatized violence videos.

Item 8 of the control instrument, which dealt with participants' attitude toward the age appropriateness of the violence, was equivalent to Item 9 of the treatment instrument. This item asked participants to rate the age appropriateness on a scale of 0-100 with 0 being not

appropriate for all ages and 100 being appropriate for any age. Table 13 provides the results from these items.

For age appropriateness, a test for the homogeneity of variances resulted in a Levene Statistic of 6.16 at $p < 0.001$ indicating there was once again a significant difference in variances between the control and the treatments. Consequently using a post hoc test such as Tamhane's T2 is an acceptable follow-up to an ANOVA (Reinard, 2006). Results from an ANOVA of Item 3 revealed that a significant difference existed overall $F(15, 401) = 3.30$, $p < .001$.

Tamhane's T2 showed a significant difference existed real-life treatment video 1 and the control along with numerous dramatized treatment videos. Specifically, real-life treatment video 1 was found to be significantly less appropriate for any age than the control ($p = 0.002$). Real-life treatment video 1 also was found to be significantly less appropriate for any age compared to *The Crook* (1970) with $p = 0.013$, *Kill a Dragon* (1967) with $p = 0.019$, and *Knockout* (2011) with $p = 0.016$. Interestingly participants found this example of real-life school yard violence less age appropriate than real-life treatment video 10 that depicted police officers shooting a suspected criminal outside a residence, perhaps because of their close age to the girls featured in the video and the fact that participants may have witnessed similar acts in high school a few years back.

Table 13

Descriptive Statistics for Appropriateness

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Control	27	32.8889	28.24935	5.43659	21.7138	44.0640
Girl Fight	26	3.9615	10.06173	1.97327	-.1025	8.0256
First Shot	26	26.3077	30.80360	6.04108	13.8659	38.7495
Walk Tall	26	21.0769	27.95986	5.48338	9.7837	32.3702
Aquarium	26	27.5000	32.00781	6.27725	14.5718	40.4282
Crook	26	38.5769	38.10740	7.47348	23.1850	53.9688
Warrior	26	25.5769	32.62903	6.39908	12.3978	38.7561
Jones	26	13.7692	22.98749	4.50822	4.4844	23.0541
Dragon	26	30.4615	29.79158	5.84261	18.4285	42.4946
UFC	26	30.2692	31.64624	6.20634	17.4870	43.0514
Police	26	9.2692	20.57680	4.03544	.9581	17.5804
Knockout	26	35.7308	35.41249	6.94496	21.4274	50.0342
Car Fight	26	11.9615	17.29851	3.39252	4.9745	18.9486
XXX	26	15.6538	18.01764	3.53355	8.3764	22.9313
TV Gun	26	21.0769	24.69157	4.84242	11.1038	31.0501
Number 4	26	25.4231	30.05751	5.89476	13.2826	37.5636
Total	417	23.1175	28.97675	1.41900	20.3282	25.9068

Note. Treatments in boldface are the real-life violence videos and treatments in italics are the dramatized violence videos.

To summarize the results of RQ1 the type of violent media affected viewers' attitudes in some ways but not others. Participants found the videos of dramatized video violence more entertaining than the real-life videos. Evidence was found to support that reading the text document with violent themes stirred participants' imaginations more than did any of the video

treatments, real and dramatized alike. Also, participants had the attitude that real-life violence was more excessive than the dramatized violence. Finally, viewers found a video of a real-life fight between two females less age appropriate than the control or any of the dramatized violence videos. From those perspectives H1 would be supported that there was a difference in the students' attitudes toward real and dramatized violent media. Despite these differences, no conclusive evidence was found to suggest real-life violence videos were any more or less exciting than the dramatized videos nor was there evidence to suggest that the text, dramatized videos or real-life videos provided any difference in providing an escape for viewers.

While RQ1 encompassed an overarching theme of differences, it is quite possible - and plausible based on prior research - that attitude differences could occur at the demographic level. The next research question, RQ2, attempts to probe deeper into the differences in the demographics of participants to see if inconsistencies in attitude exist based on the characteristics of the viewer.

Research Question Two

> RQ2: What is the role of demographics in the effects of real and dramatized media violence among IUP undergraduates within a controlled environment on students' attitudes?

Based on the research of Cline, Croft, and Courrier (1973) in which television exposure, and hence violent media exposure, was shown to be negatively associated with reaction toward violent films, and with the assumption that an individual's age is positively associated with the amount of media exposure, the hypothesis resulting from RQ2 is:

> H2a: There will be a correlation between students' attitudes toward real and dramatized violence and their age.

Results from a correlation analysis between the age of participants and different items on the instrument can be found in Table 14.

Table 14

Correlation Matrix with Direct Oblimin Rotation of Items and Age of Participants

		Entertain	Excite	Imagine	Escape	Violent	Connect	Appropriate
Correlation	Control	.115	.093	.189	.089	-.107	-.066	-.166
	Girl Fight	-.179	-.110	.235	-.045	-.289	.040	.011
	First Shot	.124	.032	.263	.341	.031	.444	-.186
	Walk Tall	-.099	-.096	.021	.008	-.039	-.017	-.033
	Aquarium	-.434	-.163	-.018	-.018	.103	-.057	-.274
	Crook	.028	-.012	-.017	.027	-.014	.063	-.228
	Warrior	-.183	-.276	-.164	-.044	-.082	.016	-.143
	Jones	-.141	-.079	.059	-.100	.007	.119	.014
	Dragon	-.025	-.131	-.119	.290	-.096	.113	-.040
	UFC	-.142	-.112	-.011	-.015	.000	.073	-.182
	Police	-.132	-.085	.070	-.008	-.297	.044	.087
	Knockout	-.111	-.072	-.046	-.129	-.332	-.049	-.084
	Car Fight	-.106	-.063	-.081	-.052	-.227	.087	-.117
	XXX	.063	-.004	-.064	.199	-.117	.066	-.027
	TV Gun	-.182	-.119	-.018	-.043	-.055	-.026	-.025
	Number 4	-.465	-.381	-.237	-.153	-.139	-.188	.054

Note. Treatments in boldface are the real-life violence videos and treatments in italics are the dramatized violence videos. Underlined correlations are significant at the $p < 0.05$ level.

No statistically significant correlations occurred between age and any items for the control. There were statistically significant moderate negative correlations between age and entertainment for real-life treatment video 4 and *I am Number Four* (2011). A statistically significant moderate negative correlation between age and excitement level resulted from *I am Number Four* (2011). A statistically significant moderate positive correlation between age and the video providing an escape existed for dramatized treatment video 2 as did connection to the

video. While some moderate correlations existed between age and attitude, both positive and negative, not enough were exhibited to provide a sound determination of the role age played on students' attitudes. This would most likely be attributed to the relatively small difference in participants' ages (see Table 2).

Prior research has indicated that males respond more aggressively to violent media exposure than do females (Bandura, Ross, & Ross, 1963) and consequently the hypothesis that was generated from this research question is:

> H2b: There will be a significant difference between male and female attitudes toward real and dramatized violence.

A full report of the descriptive statistics for each item regarding gender can be found in Appendix I. Results from an ANOVA between the gender of participants and different items on the instrument can be found in Table 15. The Levene Statistic for the control and all treatments was above the $p < 0.05$ level and as such the between groups variances were not statistically significant and the dataset was considered homogeneous.

Based on Table 15, males rated *XXX* (2002) significantly more entertaining than did females. That treatment video relied on a scene that featured a large amount of gun fire and explosions. Males also found *Walking Tall: Part II* (1975), *Kill a Dragon* (1967) and *XXX* (2002) as well as real-life treatment videos 7 and 14 statistically more exciting than females. Additionally, males found that real-life treatment video 10 as well as the previous dramatized treatment videos stirred their imagination significantly more than females. Furthermore males found that *Kill a Dragon* (1967) and *XXX* (2002) provided significantly more of an escape than females did. Neither males nor females found any of the videos significantly too violent. Males also felt significantly more connected to real-life treatment video 4 and *Kill a Dragon* (1967)

than did females. Finally, males found the control along with *Warrior* (2011) and *I am Number Four* (2011) to be significantly more appropriate for any age group than did females. Therefore, H2b was supported by a significant difference between male and female attitudes toward real and dramatized violent media.

Table 15

Results of ANOVA for Items and Gender of Participants

	Entertain	Excite	Imagine	Escape	Violent	Connect	Appropriate
Control	2.29	.305	1.31	.063	1.58	.560	9.72
Girl Fight	2.14	4.18	.120	1.01	1.45	.009	1.44
First Shot	.953	3.57	3.22	.525	.062	2.95	.644
Walk Tall	3.84	6.89	4.59	3.80	1.25	.721	1.85
Aquarium	2.65	3.19	.191	.748	1.27	6.71	.015
Crook	.073	1.36	.609	3.68	.101	1.25	.860
Warrior	1.42	2.96	.727	1.54	1.41	.122	6.21
Jones	3.11	5.04	.714	1.22	.830	.725	1.59
Dragon	2.91	4.82*	5.85	4.71	1.20	4.67	3.77
UFC	2.60	2.50	.097	.060	.004	.115	1.38
Police	1.90	1.91	7.01	.485	.014	.509	.144
Knockout	.564	.122	1.09	.680	1.72	1.63	1.25
Car Fight	1.16	1.61	.592	.039	.511	3.20	.718
XXX	8.09	10.6	5.62	4.73	.438	3.01	3.26
TV Gun	3.28	6.44	4.00	2.91	.725	.213	1.90
Number 4	.172	.436	.012	.556	1.08	2.03	9.83

Note. Treatments in boldface are the real-life violence videos and treatments in italics are the dramatized violence videos. Underlined F-values are significant at the $p < 0.05$ level.

Similar to H2a and H2b, ethnicity is another demographic that could be analyzed for differences in attitude leading to:

H2c: There will be a significant difference in the effects of real and dramatized media

violence between the ethnicity of IUP undergraduates within a controlled environment on students' attitudes.

A full report of the descriptive statistics for each item regarding ethnicity can be found in Appendix J. Results from an ANOVA between the ethnicity of participants and different items on the instrument can be found in Table 16. The Levene Statistic for the control and all treatments was above the $p < 0.05$ level and as such the between groups variances were not statistically significant and the dataset was considered homogeneous.

The results of the ANOVA for Item 1 revealed that African American participants as well as white participants found the control significantly more entertaining than students who identified their ethnicity as "other". It should be noted that for the control group N = 26 instead of N = 27 due to one participant from that group not providing an entertainment rating. While the ANOVA revealed a difference in entertainment level between African American participants, whites and the other ethnicity for *Walking Tall: Part II* (1975) the other ethnicity had only one member and thus Tukey's HSD could not be completed; however, upon examining the mean ratings for this item in Appendix J it appears as though African American and white participants rated it significantly more entertaining than the member who had the other ethnicity.

Table 16

Results of ANOVA for Items and Ethnicity of Participants

	Entertain	Excite	Imagine	Escape	Violent	Connect	Appropriate
Control	4.80	3.90	4.73	1.34	.429	.526	2.02
Girl Fight	.496	1.01	1.02	.637	2.38	.542	.347
First Shot	3.86	2.51	1.07	.470	1.65	.184	1.84
Walk Tall	.782	2.18	1.38	.633	3.06	.263	1.05
Aquarium	.224	.365	.387	.485	.567	.607	1.20
Crook	.443	1.12	1.10	.720	6.24	.541	2.76
Warrior	.296	1.05	1.04	.397	5.92	.532	.952
Jones	.226	1.36	2.57	.701	.312	.469	.232
Dragon	1.80	1.48	1.71	.407	1.62	.493	1.87
UFC	2.15	2.33	.840	.533	.754	1.01	1.60
Police	.773	1.09	1.32	.667	.769	.376	.131
Knockout	.974	.650	1.86	1.40	.579	1.22	1.11
Car Fight	.432	1.12	1.13	.638	.801	.682	.418
XXX	.163	1.48	2.05	.407	.859	.186	.869
TV Gun	.120	2.40	.818	1.55	2.31	.827	.761
Number 4	.541	2.42	.689	.318	.605	.359	1.12

Note. Treatments in boldface are the real-life violence videos and treatments in italics are the dramatized violence videos. Underlined F-values are significant at the $p < 0.05$ level.

As shown in Table 16, the results of the ANOVA for Item 2 revealed that African American participants as well as white participants found the control significantly more exciting than students who identified their ethnicity as "other." Additionally, the control document stirred the imagination of African American and white participants significantly more than for students who identified their ethnicity as "other." No significant differences existed based on ethnicity for how much the control or treatments provided an escape for students. Students who identified themselves as having an "other" ethnicity found *The Crook* (1970) and *Warrior* (2011) significantly more violent than white or African American participants. No significant

differences existed based on ethnicity for the participants' connection with the control and treatment videos. Additionally, no significant differences existed based on ethnicity for the participants' rating of the age appropriateness of the control and treatment videos. Because some of the treatments resulted in different attitudes toward real and dramatized violence based on ethnicity, H2c was supported.

In addition to gender, age, and ethnicity, a fourth demographic characteristic that serves as a possible influence on students' attitude toward violent media types is college class rank. This leads to a fourth hypothesis for this research question:

> H2d: There will be a significant difference in the effects of real and dramatized media violence between the class rank of IUP undergraduates within a controlled environment on students' attitudes.

A full report of the descriptive statistics for each item regarding class rank can be found in Appendix K. Results from an ANOVA between the class rank of participants and different items on the instrument can be found in Table 17. The Levene Statistic for the control and all treatments was above the $p < 0.05$ level and as such the between groups variances were not statistically significant and the dataset was considered homogeneous.

The results of the ANOVA for Item 1 revealed that there was no significant difference between the entertainment ratings of the control or various treatments when class rank was considered a factor. It should once again be noted that for the control group N = 26 instead of N = 27 due to one participant from that group not providing an entertainment rating for Item 1. Nor did a significant difference occur across the class ranks for excitement rankings or the amount of escape each treatment provided. Seniors found real-life video treatment 14, the video depicting a Middle Eastern politician threatening another with a pistol on live television, stirred

Table 17

Results of ANOVA for Items and Class Rank of Participants

	Entertain	Excite	Imagine	Escape	Violent	Connect	Appropriate
Control	1.35	.644	.171	.660	1.11	.065	.170
Girl Fight	.347	.352	.482	.985	1.20	2.08	1.11
First Shot	.410	.678	1.70	1.49	.499	2.85	.133
Walk Tall	1.81	1.17	1.91	.726	1.38	.729	1.47
Aquarium	2.25	2.48	1.52	.657	3.94	1.46	.532
Crook	1.04	.568	.821	1.32	1.73	1.68	.978
Warrior	.257	.247	.095	.821	.671	1.24	1.44
Jones	2.69	1.24	1.26	1.44	.536	1.44	1.96
Dragon	.721	1.37	.793	1.39	.190	1.75	.511
UFC	.070	.122	.469	.903	.562	3.04	.651
Police	1.39	1.25	1.76	1.36	1.26	1.08	.571
Knockout	.973	1.22	1.19	1.24	3.89	1.50	.370
Car Fight	.619	.257	.222	1.34	1.69	1.41	.521
XXX	.962	.540	.424	1.78	2.16	1.04	.560
TV Gun	.652	1.28	3.20	2.48	.467	2.24	.373
Number 4	1.28	1.21	.772	.664	1.16	1.28	.126

Note. Treatments in boldface are the real-life violence videos and treatments in italics are the dramatized violence videos. Underlined F-values are significant at the $p < 0.05$ level.

their imagination significantly more than it did freshmen. Juniors rated real-life treatment video 4 significantly more violent than freshmen and sophomores while freshmen rated dramatized treatment video 11, *Knockout* (2011), significantly more violent than did seniors. Seniors felt significantly more connected than did sophomores to real-life treatment video 9 that featured one of the early Ultimate Fighting Championship fights. Finally, no significant difference existed between participants' attitude toward the age appropriateness of any of the treatments based on class rank. With only a few significant differences resulting based on class rank, H2d cannot be supported.

In addition to the demographic characteristics previously analyzed, a fifth factor, college major, could also influence students' attitude toward violent media type.. This leads to a fifth hypothesis for this research question:

> H2e: There will be a significant difference in the effects of real and dramatized media violence between the major of study of IUP undergraduates within a controlled environment on students' attitudes.

A full report of the descriptive statistics for each item regarding ethnicity can be found in Appendix L. Results from an ANOVA between the participants' major of study and different items on the instrument can be found in Table 18. The Levene Statistic for the control and all treatments was above the $p < 0.05$ level and as such the between groups variances were not statistically significant and the dataset was considered homogeneous. It should be noted once again that for Item 1 the control group N = 26 instead of N = 27 due to one participant from that group not providing an entertainment rating.

The results of an ANOVA for Item 1 revealed that participants with an undecided college major were significantly more entertained with the control than students with communications media or other majors. No significant differences in attitude were reported for Item 2 with participants' excitement to the treatments, nor was there a significant difference for how much the treatments stirred students' imagination based on their college major. There was also no significant different in participants' attitude toward which treatment provided them with the most escape. The undecided college majors rated real-life treatment video 9 and *Knockout* (2011) significantly more violent than did communications media majors. There was no significant difference between how connected participants felt to the treatments and their college major. Communications media majors felt that dramatized treatment video 13 was significantly more

appropriate for any age group than did undecided majors or other majors. With only a few significant differences resulting based on college major, H2e cannot be supported.

Table 18

Results of ANOVA for Items and College Major of Participants

	Entertain	Excite	Imagine	Escape	Violent	Connect	Appropriate
Control	3.37	1.64	.489	.043	1.99	.591	.180
Girl Fight	.752	.915	3.07	1.09	.981	1.20	.584
First Shot	1.61	.797	.623	.162	1.80	.856	.164
Walk Tall	1.96	1.76	2.59	1.08	.453	.610	2.10
Aquarium	.759	.911	.393	.822	.214	.137	.304
Crook	.677	.455	.344	1.33	.330	.921	.043
Warrior	2.38	2.30	1.32	.389	1.02	.752	.852
Jones	1.87	1.11	.903	1.20	2.10	.380	.190
Dragon	.247	.684	.619	.268	2.76	.163	1.03
UFC	.465	.699	.203	.289	3.66	.306	.962
Police	.515	.537	.488	1.14	.618	.831	.411
Knockout	.606	.486	.401	.713	4.13	.869	.512
Car Fight	.591	.548	1.07	.155	1.03	.147	.992
XXX	1.57	.281	.702	.065	1.91	.350	3.54
TV Gun	1.16	1.75	1.09	.755	1.92	.399	.381
Number 4	1.33	1.22	.770	.483	.057	.326	.733

Note. Treatments in boldface are the real-life violence videos and treatments in italics are the dramatized violence videos. Underlined F-values are significant at the $p < 0.05$ level.

There also exists the possibility of students' attitudes toward violent media correlating with how religious they are. That is, the more religious a person is the more negative their attitude toward violence may be which leads to a final demographic hypothesis:

> H2f: There will be a correlation in the effects of real and dramatized media violence with the religiosity of IUP undergraduates within a controlled environment on students' attitudes.

The same items as the previous hypotheses in this research question were analyzed according to the religiosity of participants. A summary of the factor loadings for each item with religiosity can be found in Table 19.

Table 19

Correlation Matrix with Direct Oblimin Rotation of Items and Religiosity of Participants

		Entertain	Excite	Imagine	Escape	Violent	Connect	Appropriate
Correlation	Control	.109	.099	-.187	-.053	-.050	.056	-.268
	Girl Fight	-.155	-.280	.053	-.543	.040	-.130	-.074
	First Shot	-.336	-.289	-.455	-.375	-.055	.120	-.257
	Walk Tall	-.331	-.431	-.219	-.419	-.042	-.070	-.211
	Aquarium	-.424	-.196	-.326	-.502	-.045	-.080	-.294
	Crook	.103	.015	-.013	-.093	-.293	.120	-.274
	Warrior	-.082	-.121	-.098	-.352	.257	.054	-.227
	Jones	-.202	-.197	-.212	-.263	-.374	.006	-.106
	Dragon	-.264	-.323	-.279	-.130	.208	.053	-.313
	UFC	-.111	-.284	-.058	-.112	.070	.051	-.037
	Police	-.363	-.329	-.382	-.418	-.062	-.088	.119
	Knockout	-.181	-.204	-.122	-.405	.063	-.300	-.357
	Car Fight	-.089	-.090	-.218	-.182	-.068	-.004	-.094
	XXX	.101	-.266	-.149	-.289	.073	-.025	-.198
	TV Gun	-.051	-.217	-.434	-.353	-.026	.031	.006
	Number 4	-.020	-.096	-.198	-.325	.310	-.014	-.171

Note. Treatments in boldface are the real-life violence videos and treatments in italics are the dramatized violence videos. Underlined correlations are significant at the $p < 0.05$ level.

Participants' religiosity had a weak negative correlation with entertainment level for real-life treatment video 9 and a moderate negative correlation with their entertainment level for real-life treatment video 4. Religiosity also had a moderate negative correlation with participants' excitement level for *Walking Tall: Part II* (1975). Additionally, religiosity had a moderate

negative correlation with how much *First Shot* (2002) as well as treatment videos 10 and 14 stirred participants' imaginations. How much the treatment videos provided an escape also had a moderate negative correlation with religiosity for *First Shot* (2002), *Walking Tall: Part II* (1975), *Warrior* (2011), and *Knockout* (2011) as well as real-life treatment videos 4, 10, and 14 while real-life treatment video 1 had a strong negative correlation with religiosity. Oppositely, religiosity had a moderate negative correlation with the level of violence for real-life treatment video 7 which featured two people engaging in mutual combat on a city street. No significant correlations existed between religiosity and participants' connection to the treatment videos. Finally, religiosity had a moderate negative correlation with participants' attitude toward the age appropriateness of *Knockout* (2011). Overall religiosity was negatively correlated with participants' attitudes toward the treatment videos, both realistic and fictitious and H2f was supported.

To summarize the results of RQ2 age played virtually no role in students' attitudes toward the various violent media they were presented with in the study which could be in part due to the relatively small range of ages of the participants. Regarding gender, males found the violent treatment videos more entertaining, exciting, appropriate for all ages, able to stir the imagination and create a connection than did female participants. Ethnicity played a role in students' attitudes in that students who identified themselves as "other" found the control more entertaining, exciting and imaginative than the treatment videos for African American or white participants. "Other" ethnic students also found dramatized treatment videos featuring the threat of gun violence and MMA more violent than white or African American students. However, so few participants self-identifying as "other" ethnicities ($N = 2$) could have inaccurately resulted in significance compare to white or African Americans. Class rank had little to do with

participants' attitude toward the treatments as did college major. Finally, it was found that religiosity often had a moderate negative correlation with viewers' attitudes toward violent media.

Research Question Three

The third research question targeted participants' metacognition of knowing whether or not they were viewing a dramatized form of violent media or media depicting real-life violence. This research question was included in order to help root the study in media effects theory; that is, if viewers of different forms of media are able to acknowledge a difference between the forms, then media effects is a viable framework.

RQ3: Can IUP undergraduate students correctly differentiate between real and dramatized violent media within a controlled environment?

H3: There will be a significant difference in the ratings for the type of violence between real-life and dramatized videos among IUP undergraduates in a controlled environment.

Item 7 from the control instrument and Items 6 and 8 from the treatment instrument were analyzed for this research question. Control instrument Item 7 and treatment instrument Item 8 were similar in that both asked participants to rate how realistic or dramatized the violence seemed to be with 0 being realistic and 100 being fictitious. Results from an exploratory factor analysis of Item 7 from the control instrument and Item 8 from the treatment instrument can be found in Table 20. The method used for this alpha factor analysis in SPSS utilized the Kaiser criterion for determining the number of factors, maximum likelihood estimation method of extraction based on Eigenvalues greater than one, and a direct oblimin rotation.

Table 20

Factor Loadings for Exploratory Factor Analysis with Direct Oblimin Rotation of Real/Fictitious Violence

		Control	**Girl Fight**	*First Shot*	*Walk Tall*	**Aquarium**	*Crook*	*Warrior*	**Jones**
Correlation	Control	1.000	-.264	.365	.010	.058	.186	.197	.069
	Girl Fight	-.264	1.000	-.280	-.658	.190	-.382	.110	.514
	First Shot	.365*	-.280	1.000	.336*	-.300	.453	.251	-.401
	Walk Tall	.010	-.658	.336	1.000	-.193	.366	-.035	-.464
	Aquarium	.058	.190	-.300	-.193	1.000	-.163	.027	.359
	Crook	.186	-.382	.453	.366	-.163	1.000	.038	-.280
	Warrior	.197	.110	.251	-.035	.027	.038	1.000	.075
	Jones	.069	.514	-.401	-.464	.359	-.280	.075	1.000
	Dragon	.302	-.279	.694	.496	-.147	.516	.136	-.155
	UFC	.123	.229	.136	-.272	.168	-.463	.305	.209
	Police	.025	.236	-.125	-.554	-.066	-.462	.064	-.153
	Knockout	.287	-.635	.369	.719	-.149	.522	-.053	-.278
	Car Fight	-.046	.391*	-.086	-.353	.191	-.469	-.040	-.010
	XXX	.215	-.724	.619	.600	-.460	.350	.168	-.603
	TV Gun	.095	-.123	-.272	.068	.177	-.658	-.090	-.017
	Number 4	-.205	-.341	.068	.444	-.698	.074	-.153	-.463

Note. Treatments in boldface are the real-life violence videos and treatments in italics are the dramatized violence videos. Underlined correlations are significant at the $p < 0.05$ level.

Table 20 (continued)

Factor Loadings for Exploratory Factor Analysis with Direct Oblimin Rotation of Real/Fictitious Violence

		Dragon	**UFC**	**Police**	*Knockout*	**Car Fight**	*XXX*	**TV Gun**	*Number 4*
Correlation	Control	.302	.123	.025	.287	-.046	.215	.095	-.205
	Girl Fight	-.279	.229	.236	-.635	.391	-.724	-.123	-.341
	First Shot	.694	.136	-.125	.369	-.086	.619	-.272	.068
	Walk Tall	.496	-.272	-.554	.719	-.353	.600	.068	.444
	Aquarium	-.147	.168	-.066	-.149	.191	-.460	.177	-.698
	Crook	.516	-.463	-.462	.522	-.469	.350	-.658	.074
	Warrior	.136	.305	.064	-.053	-.040	.168	-.090	-.153
	Jones	-.155	.209	-.153	-.278	-.010	-.603	-.017	-.463
	Dragon	1.000	.009	-.601	.670	-.323	.413	-.165	.155
	UFC	.009	1.000	.088	-.164	.189	-.128	.443	-.363
	Police	-.601	.088	1.000	-.572	.676	-.042	.217	-.052
	Knockout	.670	-.164	-.572	1.000	-.240	.506	-.105	.239
	Car Fight	-.323	.189	.676	-.240	1.000	-.087	.161	-.190
	XXX	.413	-.128	-.042	.506	-.087	1.000	-.086	.441
	TV Gun	-.165	.443	.217	-.105	.161	-.086	1.000	.127
	Number 4	.155	-.363	-.052	.239	-.190	.441	.127	1.000

Note. Treatments in boldface are the real-life violence videos and treatments in italics are the dramatized violence videos. Underlined correlations are significant at the $p < 0.05$ level.

As shown in Table 20 the factor loadings for the real-life treatment videos generally have positive correlations with the other real-life treatment videos and negative correlations with the dramatized treatment videos at the $p < 0.05$ level whereas the dramatized treatment videos generally have positive correlations with the other dramatized treatment videos and negative correlations with the real-life treatment videos at the $p < 0.05$ level. These results suggest that participants were able to correctly identify the type of violence featured in the treatment videos

as either fictitious or realistic. Other than with dramatized video treatment 2, overall participants were unable to significantly determine the control contained fictitious violence.

In addition to gauging the reality of the violence directly, an indirect measure was used in Item 6 from the treatment instrument which asked participants to rate how well the videos were produced with 0 being not well and 100 being very well. From a media effects viewpoint the real-life videos would be expected to have a lower production quality compared to the dramatized violence videos. It should also be noted that the control group did not have this item on their instrument.

Results from an exploratory factor analysis of Item 6 from the treatment instrument can be found in Table 21. As before, the method used for this alpha factor analysis in SPSS utilized the Kaiser criterion for determining the number of factors, maximum likelihood estimation method of extraction based on Eigenvalues greater than one, and a direct oblimin rotation.

As shown in Table 21 the factor loadings for the real-life treatment videos generally have positive correlations with the other real-life treatment videos at the $p < 0.05$ level while dramatized treatment videos generally have positive correlations with the other dramatized treatment videos at the $p < 0.05$ level. While there were some significantly and positively correlated factor loadings between real-life and dramatized videos most were weak to moderate based on Losh (2002). These results suggest that participants were able to correctly identify the type of violence featured in the treatment videos as either fictitious or realistic based on production quality, which supports H3.

Table 21

Factor Loadings for Exploratory Factor Analysis with Direct Oblimin Rotation of Production

		Girl Fight	*First Shot*	*Walk Tall*	**Aquarium**	*Crook*	*Warrior*	**Jones**
Correlation	**Girl Fight**	1.000	.233	.060	.383	.122	.185	.622
	First Shot	.233	1.000	.560	.036	.346	.152	.165
	Walk Tall	.060	.560	1.000	-.220	.257	-.100	-.111
	Aquarium	.383	.036	-.220	1.000	.104	.184	.682
	Crook	.122	.346	.257	.104	1.000	.459	.224
	Warrior	.185	.152	-.100	.184	.459	1.000	.143
	Jones	.622	.165	-.111	.682	.224	.143	1.000
	Dragon	.083	.457	.372	.200	.684	.411	.283
	UFC	.398	.352	.193	.346	.681	.502	.411
	Police	.426	-.018	-.337	.881	.209	.312	.619
	Knockout	.258	.388	.233	.358	.770	.418	.298
	Car Fight	.593	.127	-.219	.872	.161	.367	.705
	XXX	.206	.509	.153	.180	.502	.483	.209
	TV Gun	.187	.420	.245	.006	.423	.335	.092
	Number 4	.236	.314	.370	.080	.609	.640	.174

Note. Treatments in boldface are the real-life violence videos and treatments in italics are the dramatized violence videos. Underlined correlations are significant at the $p < 0.05$ level.

Table 21 (continued)

Factor Loadings for Exploratory Factor Analysis with Direct Oblimin Rotation of Production

		Dragon	**UFC**	**Police**	*Knockout*	**Car Fight**	*XXX*	**TV Gun**	*Number 4*
Correlation	**Girl Fight**	.083	.398	.426	.258	.593	.206	.187	.236
	First Shot	.457	.352	-.018	.388	.127	.509	.420	.314
	Walk Tall	.372	.193	-.337	.233	-.219	.153	.245	.370
	Aquarium	.200	.346	.881	.358	.872	.180	.006	.080
	Crook	.684	.681	.209	.770	.161	.502	.423	.609
	Warrior	.411	.502	.312	.418	.367	.483	.335	.640
	Jones	.283	.411	.619	.298	.705	.209	.092	.174
	Dragon	1.000	.691	.230	.586	.250	.277	.289	.405
	UFC	.691	1.000	.521	.757	.497	.424	.343	.622
	Police	.230	.521	1.000	.488	.831	.260	.115	.217
	Knockout	.586	.757	.488	1.000	.467	.681	.661	.615
	Car Fight	.250	.497	.831	.467	1.000	.295	.120	.242
	XXX	.277	.424	.260	.681	.295	1.000	.559	.500
	TV Gun	.289	.343	.115	.661	.120	.559	1.000	.501
	Number 4	.405	.622	.217	.615	.242	.500	.501	1.000

Note. Treatments in boldface are the real-life violence videos and treatments in italics are the dramatized violence videos. Underlined correlations are significant at the $p < 0.05$ level.

To summarize the results of RQ3, participants were generally able to correctly identify the treatment videos as containing either real-life violence or dramatized violence based on the type of violence featured and the production quality of the videos. However, they were not able to determine, to an acceptable level of significance, whether or not the control was realistic or fictitious.

Research Question Four

The fourth and final research question deals with the possibility of participants becoming overly sensitized or possibly desensitized to mild or moderately violent media throughout the course of the study.

> RQ4: Will there be a sensitization or desensitization to violent media among IUP undergraduates within a controlled environment as the number of exposures to violent media increases?

Should an overall sensitization or desensitization toward the level of video violence occur then some form of convergence would occur for Item 5 of the treatment instrument. That is, if participants were desensitized as a result of receiving numerous treatments the mean scores would converge to a lower rating on the scale whereas if the participants were sensitized to the violent treatments the mean scores would converge to an overall higher rating on the scale. This lead to the hypothesis:

> H4: Throughout the length of the study there will be a significant change in IUP undergraduates' violence ratings of the video treatments in a controlled environment.

Figure 2 shows an overall linear regression analysis of the mean violence ratings for both the dramatized and real-life treatment videos from Item 5 of the treatment instrument. While the ratings did exhibit a slight increase as a function of $y = 0.458x + 23.9$ the correlation was very low with $r^2 = 0.021$. A correlation coefficient that low is considered very weak according to Losh (2002) and thus no discernible trend exists overall for the sensitization or desensitization regarding the violence levels of the treatments.

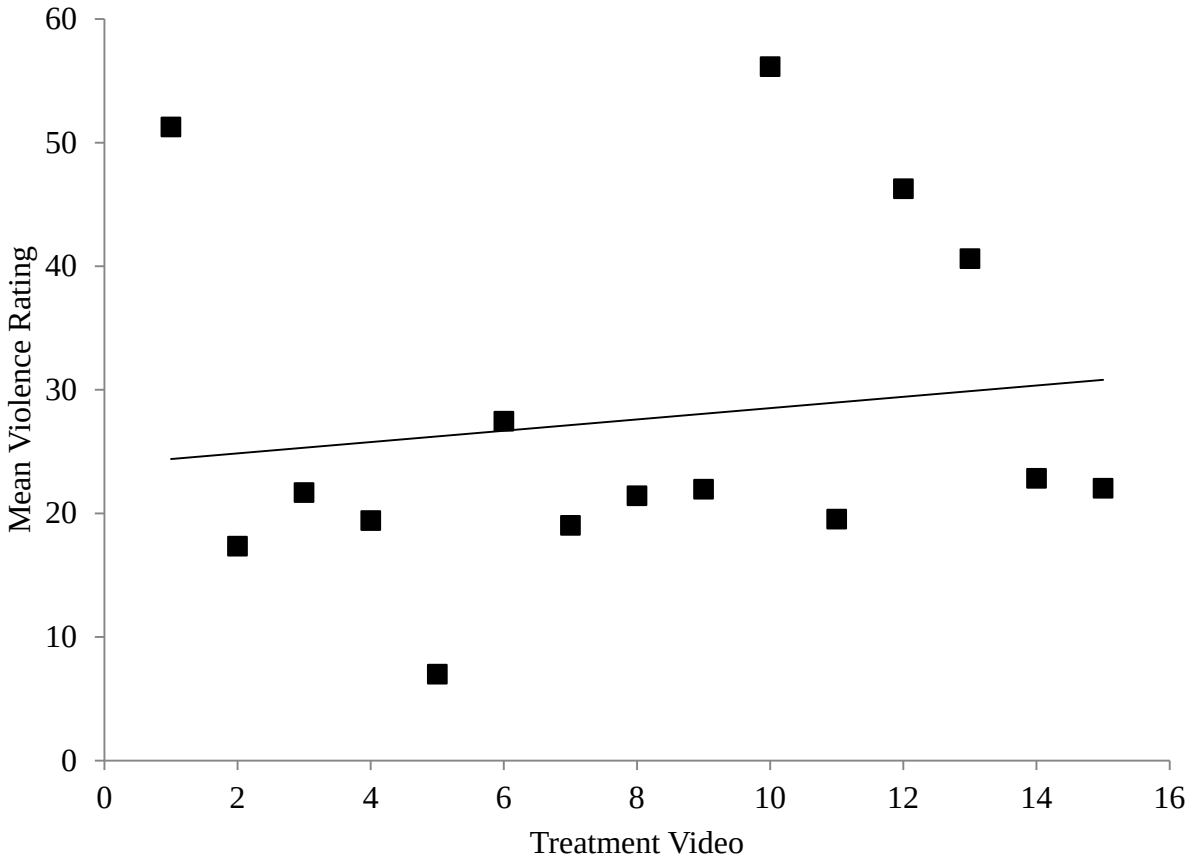

Figure 2. Overall linear regression model for the level of violence in the treatment videos.

It is plausible, however, that participants could have been sensitized or desensitized toward only one type of treatment, real or dramatized. Separate linear regressions of just the violence ratings from Item 5 of the treatment instrument for the real-life videos and dramatized videos would reveal if sensitization or desensitization occurred based on the particular treatment type.

Figure 3 shows a linear regression analysis of the mean violence ratings for just the real-life treatment videos from Item 5 of the treatment instrument. While the ratings did exhibit a slight decrease as a function of $y = -0.269x + 36.0$ the correlation was very low with $r^2 = 0.005$. As before, according to Losh (2006), a correlation coefficient that low is considered very weak

and thus no discernible trend exists overall for the sensitization or desensitization regarding the violence levels of the treatments.

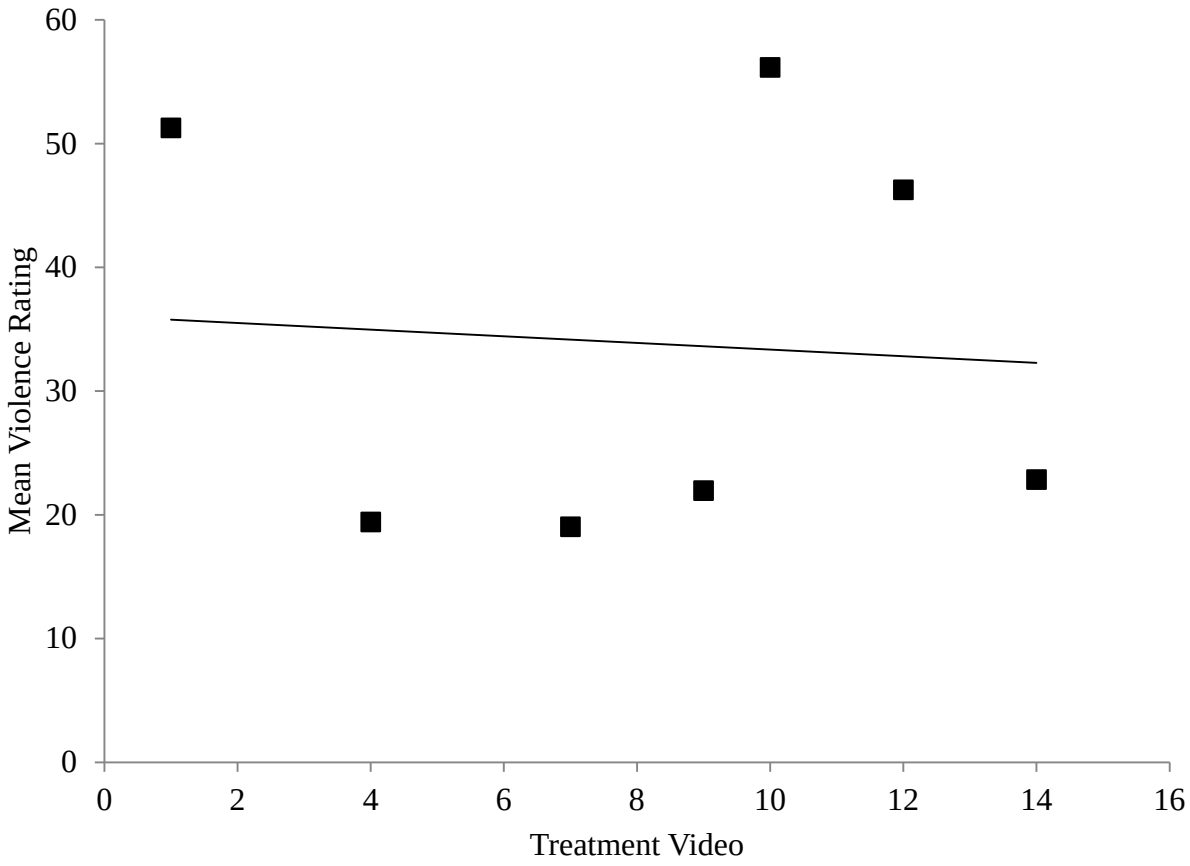

Figure 3. Linear regression model for the level of violence in the real-life treatment videos.

Figure 4 shows a linear regression analysis of the mean violence ratings for just the dramatized treatment videos from Item 5 of the treatment instrument. While the ratings did exhibit a slight increase as a function of $y = 0.954x + 14.6$ the correlation was low with $r^2 = 0.227$. A correlation coefficient that low is considered weak according to Losh (2006) and thus no discernible trend exists overall for the sensitization or desensitization regarding the violence levels of the treatments.

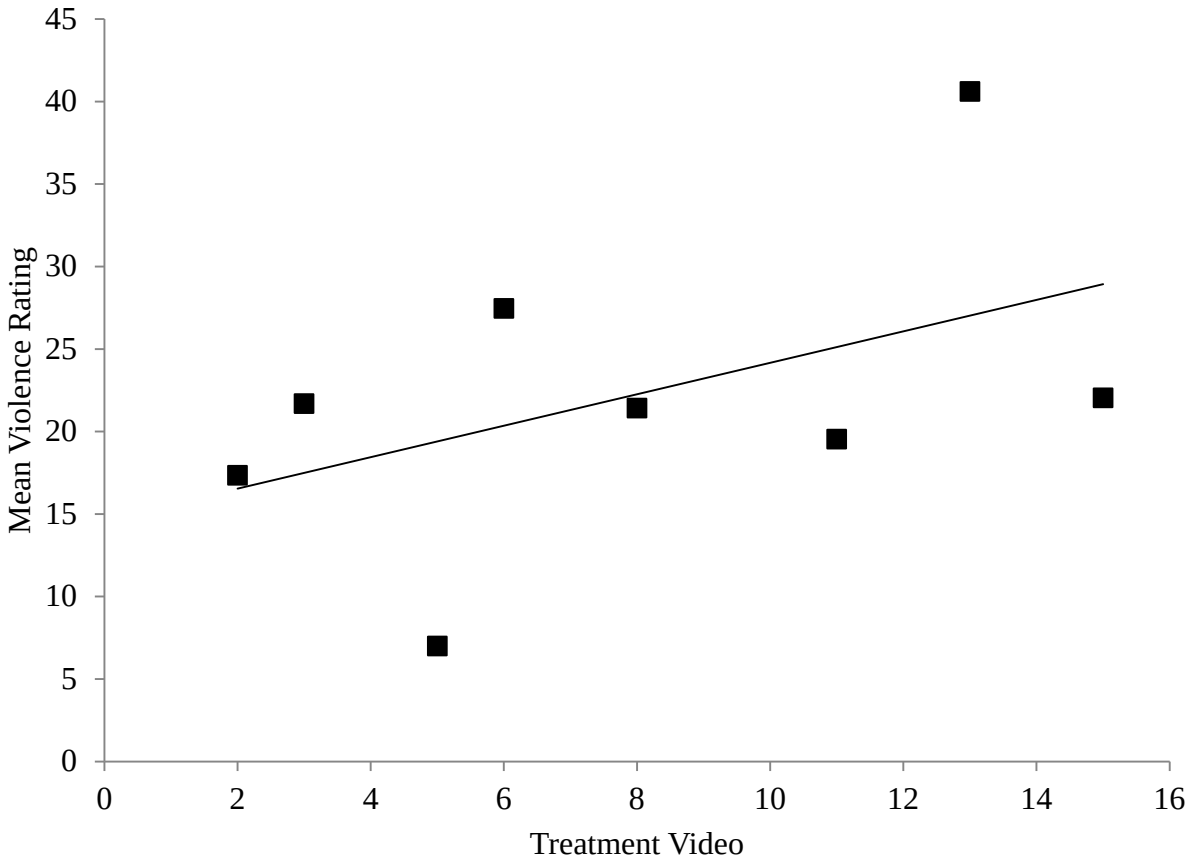

Figure 4. Linear regression model for the level of violence in the dramatized treatment videos.

To summarize the results of RQ4 no significant sensitization or desensitization occurred throughout the period of participants viewing the various treatment videos. This can be stated for both types of videos overall as well as considering the real-life treatment videos separately from the dramatized treatment videos. Thus, H4 was refuted.

Summary

RQ1 suggested the type of violent media effected viewers' attitudes in some ways but not others. Participants found the videos of dramatized video violence more entertaining than the real-life videos. Evidence was found to support that reading the text document with violent themes stirred participants' imaginations more than did any of the video treatments, real and

dramatized alike. Also, participants had the attitude that real-life violence was more excessive than the dramatized violence. Despite these differences, no conclusive evidence was found to suggest real-life violence videos were any more or less exciting than the dramatized videos nor was there evidence to suggest that the text, dramatized videos or real-life videos provided any difference in providing an escape for viewers.

According to the data for RQ2, age played virtually no role in students' attitudes toward the various violent media they were presented with in the study which could be in part due to the relatively small range of ages of the participants. Regarding gender, males found the violent treatment videos more entertaining, exciting, appropriate for all ages, able to stir the imagination and create a connection than did female participants. Ethnicity played a role in students' attitudes in that students who identified themselves as "other" found the control more entertaining, exciting and imaginative than the treatment videos for African American or white participants. "Other" ethnic students also found dramatized treatment videos featuring the threat of gun violence and MMA more violent than white or African American students. Class rank had little to do with participants' attitude toward the treatments as did college major. Finally, it was found that religiosity often had a moderate negative correlation with viewers' attitudes toward violent media.

Results of RQ3 revealed that participants were generally able to correctly identify the treatment videos as containing either real-life violence or dramatized violence based on the type of violence featured and the production quality of the videos. However, they were not able to determine to an acceptable level of significance whether or not the control was realistic or fictitious.

Finally, the results of RQ4 suggested no significant sensitization or desensitization occurred throughout the period of participants viewing the various treatment videos. This can be stated for both types of videos overall as well as considering the real-life treatment videos separately from the dramatized treatment videos.

CHAPTER 5

DISCUSSION OF THE RESULTS

Introduction

The purpose of this study was to determine the effects different forms of violent media have on students' attitudes. While research has been conducted on the effects of viewing different types of violence in media (Bushman, 1995) very little has been conducted on real violence versus dramatized violence. Using YouTube (UT) as a context provided a means of connecting violent media to online user-posted content sharing platforms. While studies on the use of UT in the past have focused on facets such as users' privacy choices (Lange, 2008), gender, attitudes towards perceived ease of use and usefulness (Yang, Hsu, & Tan, 2010), copyright and legal issues (Meisel, 2009; Latham, Butzer, & Brown, 2008), and social issues associated with posting user-created content (Linkletter, Gordon, & Dooley, 2010) little research was conducted on why UT users choose to view certain videos based on their attitudes or the entertainment value perceived by users after viewing a particular video or videos.

The following sections will present an interpretation of the results from the previous chapter and attempt to uncover the implications that consuming different forms of violent media have on a culture. Some parts of the research questions were answered with relative ease while others were dependent on specific factors, such as demographics. When applicable the discussion will tie back into prior research outlined in the review of the literature. Finally, the chapter culminates with a discussion about the limitations of the study, possible future research opportunities, and an overall conclusion.

Interpretation of the Results and Discussion

Research Question One

RQ1 analyzed how the type of violent media affected viewers' attitudes in some ways but not others. Participants' found the videos of dramatized video violence more entertaining than the real-life videos. Evidence was found to support that reading the text document with violent themes stirred participants' imaginations more than did any of the video treatments, real and dramatized alike. This result provides an interesting counter insight into the direction many education programs have gone with regard to pushing the use of multimedia technology into teaching (Reinking, Labbo, & McKenna, 2000; Miller, 2011). Perhaps in certain subject areas where creative thinking and imaginative processes are encouraged the use of text should not be considered lesser than the use of audio and visual multimedia. The connection of text to the imagination also aligns with anecdotal evidence of people saying "the book was better than the movie."

Moreover, participants had the attitude that real-life violence was more excessive in scope than the dramatized violence. Despite these differences, no conclusive evidence was found to suggest real-life violence videos were any more or less exciting than the dramatized videos nor was there evidence to suggest that the text, dramatized videos or real-life videos provided any difference in providing an escape for viewers.

As shown in the review of the literature, past research on the entertainment value and viewers' attitudes toward media was not conducted to a great degree because it seemed that those intrinsic values of media were taken for granted (Dobni, 2006). The results of RQ1 show that overall viewers' attitudes toward even relatively short clips are multidimensional and that while they may find some aspects of a scene appealing they may not find all aspects engaging.

Real-life treatment video 4, a large fight at a Russian aquarium, was found to be more entertaining than dramatized treatment video 5, *The Crook* (1970). Many of the student viewers laughed while watching the aquarium scene when one of the security guards was shown to be repeatedly thrown into the water by some unruly aquarium patrons. This finding agreed with prior research that had found that comedic elements often overshadow violent acts in movies and television programs (Kirsh, 2006; Potter & Warren, 1998). Additionally, it agrees with the scriptwriting technique of using humorous as opposed to serious violence to elicit different emotional responses (Almeida, 2013). Contrastingly, *The Crook* (1970) featured rather dry dialogue in French with no subtitles and contained the threat of violence only for the last few seconds when a pistol was pointed at one of the characters. Real-life video 4 was also found to be more exciting than dramatized treatment videos 3, 5, and 11 which also featured fighting. The difference between the excitement of the real-life Russian aquarium fight and the dramatized scenes can also be linked to the comedic element in the Russian fight since it agrees with the scriptwriting technique of using humorous as opposed to serious violence to elicit different emotional responses (Almeida, 2013). Because the guard was repeatedly pushed into the water that may have provided comedic anticipation in him being pushed in again and resulted in increased excitement.

Warrior (2011) was more entertaining to participants than real-life videos 1, 7, 10, and 12 and was more exciting than real-life video 7. With the exception of video 10, all of those real-life videos involved fist fights, as did *Warrior* (2011). However, during the real-life videos there were also lulls in the action whereas in *Warrior* (2011) the action was fairly non-stop. Additionally, *Warrior* (2011) had an overt sport theme for viewers familiar with UFC-type fights whereas the real-life videos had no sport component to them and were in essence “street fights.”

Lastly, Warrior (2011) contained a primal sounding musical score to compliment the scene while the real-life videos had only the naturally occurring audio from the surroundings.

XXX (2002) was found to be significantly more entertaining than real-life treatment videos 7 and 10 and was also more exciting than real-life video 7. Real-life video 10 involved gunfire, as did *XXX* (2002); however, the gunfire in video 10 ended quickly whereas the gunfire in *XXX* (2002) lasted the entire duration of the scene. Once again there was also a difference in the audio between the two; *XXX* (2002) had a complimentary soundtrack while real-life video 10 was devoid of audio for the majority of its duration and only had yelling and the sound of gunshots at the very end.

The difference that existed in how much a particular treatment video stirred the participants' imagination occurred between dramatized video 2, *First Shot* (2002) and real-life video 7 that featured Phoenix Jones. Viewers' imagination may have been stirred more due to the anticipation of the perpetrator pulling his firearm in *First Shot* (2002) contrasted with the inevitability of the street fight in the Phoenix Jones video 7. This anticipation was augmented with a suspenseful soundtrack in *First Shot* (2002) while the Phoenix Jones video only featured the audio of the surroundings.

Participants found real-life treatment videos 1 and 10 significantly more violent than several of the dramatized treatment videos. Video 1, which featured a school yard fight between two girls, was rated more violent than *First Shot* (2002), *Walking Tall: Part II* (1975), *The Crook* (1970), *Kill a Dragon* (1968), *Knockout* (2011), and *I am Number Four* (2011). It is difficult to judge whether or not media effects played a role in this difference. While video 1 did not contain a soundtrack and was appreciable lower in video quality than the dramatized videos these are not the only reasons that video 1 could have been rated higher. Like video 1, each of the

dramatized videos also featured hand-to-hand combat in some fashion. However, video 1 depicted a real-life fight where there were more than just one or two blows exchanged before the fight ended, as was the case in *Knockout* (2011) and *I am Number Four* (2011). The reality showcased in video 1 was that at times when there is no one to intervene fights do not end once one or two punches have been thrown; on the contrary, video 1 showed that in reality fights take place much differently than when they are represented in mass media.

Students also had the attitude that real-life treatment video 1 was less appropriate for viewers of all ages than *The Crook* (1970), *Kill a Dragon* (1967), *Knockout* (2011) as well as real-life treatment video 10 that featured police shooting an alleged perpetrator as he was emerging from his car. Of most interest in these differences is the participants rating video 1 less age appropriate than video 10. The fact that students rated a video that showed real-life police shooting a suspect as more age appropriate than a high school fist fight between two girls could be the result of three possibilities.

The first explanation comes from media effects and the difference between the production qualities of the two videos. Video 1 had audio throughout the entire video whereas video 10 only had audio during the last few seconds of the video and this difference may have caused participants to rate the two videos' age appropriateness contrarily.

The second possible explanation comes from the age of the girls depicted in video 1 and a possible connection on the part of the participants; the girls appeared to be high school aged in video 1 and since the mean age of participants was between 20-21 years old there may have been more of a connection to video 1 than video 10. This second explanation is negated, however, by the fact that participants did not indicate a significant difference in how connected they felt to video 1 or video 10.

The final explanation comes from cultural relativism and the possibility that the participants feel that police shooting a suspected perpetrator is more justified and hence appropriate for viewers of all ages than a fist fight between two high school girls (Lyons, 1976).

Research Question Two

The purpose of RQ2 was to further dissect RQ1 based on demographic qualities of the participants. According to the data for RQ2, age played virtually no role in students' attitudes toward the various violent media they were presented with in the study which could be in part due to the relatively small range of ages of the participants. The research of Cline, Croft, and Courrier (1973) supports the finding that there was no significant difference in participants' attitude toward the videos because of the small age range involved in the study.

Regarding gender, males found the violent treatment videos more entertaining, exciting, appropriate for all ages, able to stir the imagination and create a connection than did female participants. Males rated dramatized treatment video 13 significantly more entertaining than did females (See Table 15). That treatment video was the scene from the movie *XXX* (2002) that featured a large amount of gun fire and explosions. Males also found dramatized treatment videos 3, 8 and 13 as well as real-life treatment videos 7 and 14 statistically more exciting than females. Additionally, males found that real-life treatment video 10 as well as dramatized treatment videos 3, 8 and 13 stirred their imagination significantly more than females. This could have been due to not only to difference in reactions to violent media between the genders (Berry et al., 1999) but also due to participants' identification with the predominantly male characters involved in these scenes (Almeida, 2013).

Furthermore males found that dramatized treatment videos 8 and 13 provided significantly more of an escape than females did. Males also felt significantly more connected to

real-life treatment video 4 and dramatized treatment video 8 than did females. Both of these differences can be directly connected to identification as an emotion modifier (Almeida, 2013). Finally, males found the control along with dramatized treatment videos 6 and 15 to be significantly more appropriate for any age group than did females. Thus, males experienced less third-person effects than did female participants, which is in agreement with previous third-person effects research (Lo & Wei, 2002).

Ethnicity played a role in students' attitudes by way of students who identified themselves as "other" found the control more entertaining, exciting and imaginative than the treatment videos for African American or white participants. "Other" ethnic students also found dramatized treatment videos featuring the threat of gun violence and MMA more violent than white or African American students. Lull (2000) would suggest that it should not be surprising that viewers from one culture would find certain violent acts more or less violent than individuals from another culture. This could be particularly true with the threat of violence versus outright violence, or implied versus overt violence, when applied to high and low context cultures (Hall, 1976).

Finally, it was found that religiosity often had a moderate negative correlation with viewers' attitudes toward violent media. While no research on violent media in the past had placed an emphasis on this demographic, it stands to reason that, because the U.S. is ethically rooted in Judeo-Christian heritage, participants who identified themselves as more religious would find violence less entertaining and less appropriate for viewers of all ages due to Judeo-Christian beliefs such as "thou shalt not kill" and "turn the other cheek" (Christians et. al., 2001). That is, the more religious a viewer of violent media is, the more she will view the media as in opposition to her religious view and the less appealing she will find the media.

Research Question Three

Since the Bobo doll experiment the role that exposure to violent media, both realistic and fictitious, plays on behavior has been of interest (Bandura et al., 1963). At the core of real versus fictitious violence is the viewers' ability to distinguish between the two. Results of RQ3 revealed that participants were generally able to correctly identify the treatment videos as containing either real-life violence or dramatized violence based on the type of violence featured and the production quality of the videos. However, they were not able to determine at an acceptable level of significance whether or not the control was realistic or fictitious.

The results of this third research question aligned with the prediction that even young children should be able to discern between video violence that is dramatized versus realistic (Huesmann et al., 1983). As articulated by The Violence Commission, the difference in violence levels portrayed in mass media do not accurately reflect real-life acts of violence which may be one of the primary contributing factors, along with production value, that allows audiences to distinguish between the two types of violence (Lowery & DeFleur, 1995). This relates back to the results of RQ1which indicated participants found the real-life treatment videos more violent than the dramatized treatment counterparts.

Research Question Four

RQ4 focused on whether or not participants became sensitized or desensitized to the violent videos throughout the duration of the study. According to Huesmann (2007) one of the long-term effects of violent media exposure is desensitization. The results of RQ4 suggested no significant sensitization or desensitization occurred throughout the period of participants viewing the various treatment videos. This can be stated for both types of videos overall as well as considering the real-life treatment videos separately from the dramatized treatment videos. Since

no significant desensitization occurred during this study as it did with Huesmann's (2007) research it can be concluded that showing participants 15 relatively short scenes depicting violence did not qualify as long-term exposure.

Also, each treatment video had scenes with not only varying levels of violence but also different durations of violence depicted. For example, dramatized treatment video 5 featured a scene from *The Crook* (1970) that was mostly dialogue and featured the character Simon Duroc producing a pistol only at the very end of the scene and no one is physically harmed. That treatment could be staunchly contrasted with dramatized treatment video 13 that featured a scene from *XXX* (2002) in which the entire duration of the scene featured gunfire and explosions from start to finish.

Similarly, real-life treatment video 14 featured a scene that contained mostly arguing between two Middle Eastern men and eventually a pistol was drawn before being holstered. The relatively small amount of time of violent content in that video was contrasted with real-life treatment video 4 that showcased a several person brawl at a Russian aquarium and had violence occurring throughout the entire scene.

Limitations

Despite the best efforts to avoid flaws this research did contain some elements that inherently limited the scope of the study. First, anytime quantitative research utilizes statistical analyses there is a probability associated with running the risk of committing a Type I or Type II error (Reinard, 2006; Buddenbaum & Novak, 2001). An attempt was made to avoid these errors by employing the long-standing tradition of rejecting any statistic beyond an alpha level of $p < 0.05$. Still, when attempting to generalize to the wider population even a high alpha level cannot

guarantee accurate conclusions. This is particularly true if flaws exist in the instrumentation, which leads to a second limitation.

Secondly, all participants were recruited from undergraduate communications media courses at IUP and it could be inferred that, even though some were communications media majors and some were not, at the very least they had an interest in media studies and may not have represented a typical IUP student studying in other departments. Nor do the students at IUP necessarily represent the same attitudinal views on violent media as other undergraduate students across the U.S. Hence, the students selected for participation in this study create an additive limitation to the research.

The third limitation of this study involved the use of rating scales on the research instrument. After the demographic information was answered, each item on the instrument asked participants to rate their attitudes on a 0-100 point scale. According to Reinard (2006) some scholars argue that scale measurements only really tell the relative difference among respondents rather than absolute differences that interval or ratio level data would indicate. However, others have made the case for social science research that scaled responses can be considered "quasi-interval," particularly as the range of the scale gets larger (Ender, 2003; Cohen, 2001). For example, a 7-point scale would be considered closer to interval level than a 5-point scale, which is the reason a 100-point scale was chosen for this study. Nevertheless, primarily relying on scaled responses presented a limitation to this study according to Reinard (2006).

Another limitation of this study surrounds the fact that it made use of different forms of violence and those forms represented various levels of violence, ranging along a spectrum of threats to unarmed fights to armed combat. While researching a varying array of violence was

one of the themes of this research it also presented a limitation in the conclusions drawn since participants were exposed to more unarmed fights than any other type of violence and the results may have been contaminated as a result. Also, the level of violence in each treatment was limited to the PG-13 level and thus not all forms of violence were represented in the study.

The final limitation of this study dealt with the issue of the production quality involved with each of the treatment videos. While this was likely one of the determinants participants used to judge whether or not the treatment had real or fictitious violence, some major inconsistencies were present. For instance, real-life treatment video 10 did not have sound for the majority of its duration and dramatized treatment video 5 had poor lighting and was not as clearly visible when projected. The lack of production quality may very well have been a factor that led to participants' overall entertainment perception level of each scene.

Future Research

This study only examined a few facets of real and dramatized violent media which created limitations for overly generalizing its impact on media effects theory. Some of those limitations could be accounted for and consequently several possibilities for future research arose from this study.

The participants selected for this study were enrolled in undergraduate communications media courses at IUP and thus brought with them a certain bias toward the violent videos. It is quite possible due to varying levels of media analysis conducted in their undergraduate coursework that students with more experience in studying media would be savvier regarding video analysis than other students without much experience. As such, one way to remedy the bias would be to incorporate an item in the instrument that would have participants report their respective levels of media studies so that it could be controlled for. Anther means of

accomplishing this would be to repeat the study pooling from departments outside of communications media or, on a larger scale, outside of IUP in general.

Additionally, other age ranges could also be studied in order to examine how a larger range than the one chosen for this research reacts to violent media in order to examine more of the population. As stated previously, while the participants in this study found a fist fight between two teenage girls more violent than a police officer shooting a suspect multiple times that difference in violence level may very well be relative to the particular age group represented in this study. An older population could very well connect with other videos from the study and have different attitudes toward the various acts of violence represented in the study.

In conjunction with examining different ages and media analysis abilities, controlling for violent media exposure would also be an avenue for future research. Since it has been shown there are cumulative effects from increased exposure to violent media over long periods of time (Huesmann et al., 1983; Huesmann 1986) controlling for participants' exposure levels may indicate differences in attitudes toward the real-life and dramatized video violence. This goes for both age and the average amount of media the viewer consumes over a given period of time.

It has also been shown that crime rates in neighborhoods are negatively correlated with the median socioeconomic status of a particular neighborhood (Patterson, 1991). Consequently, participants from varying socioeconomic backgrounds would likely have different exposure rates to real-life violence in addition to violence depicted in mass media. Therefore, conducting the study to account for differences in socioeconomic status could possibly be a direction for future research by isolating the factors that determine a person's attitude toward real-life and dramatized violent media.

Because production value was the crux of what separated the real-life from the fictitious violent videos it would be worth investigating how viewers' attitudes would be affected if the production quality (e.g. video or sound quality) was artificially altered for the dramatized video treatments. This could include making any of the videos black and white instead of color, changing the aspect ratio of the videos, allowing some to be in high definition while others could be presented in lower quality, muting videos, or adding completely different soundtracks and audio to the videos. Specifically, audio could potentially have a strong effect on viewers' attitudes toward the videos since it is regarded as an emotional modifier involved in script writing (Almeida, 2013).

Another factor to be considered is the scenes selected for this study each contained varying levels of violence depictions. As such, it would be valuable to attempt to control for the level of violence by, instead of selecting scenes based on MPAA ratings, select scenes that contain similar acts of violence. Furthermore the scenes of similar violence would also require comparable action depicted in the control document.

Moreover, past studies in media violence had examined the difference between justified versus unjustified violence (Berkowitz & Rawlings, 1963; Meyer 1972). In other words, did the scenes depict two mutual aggressors confronting one another or did the scene depict an aggressor moving in on a victim? However, those studies were conducted from a behaviorist standpoint and examined aggressive behavior following the viewing of violent videos. It would be worth combining aspects of this study with aspects from the justified and unjustified violence studies to determine if participants' attitudes vary with respect to real-life justified video violence, real-life unjustified video violence, dramatized justified video violence, and dramatized unjustified video violence.

Since the control document was dramatized and its selection may have also influenced the results of this study it would be interesting to examine the effects of choosing a textual control that featured real-life violence. Similarly, and to achieve a more complete measurement of some of the items in the research instrument, repeating the study with both a real and fictitious control document or documents would be worthwhile in order to determine if participants could differentiate between real-life and dramatized textual violence which reverts to the cognitive process of the participant mentally generating the image or scenario as opposed to a producer generating for her.

Not all levels of violence were represented in this experimental study. Due to pragmatic issues of conducting the study without all the ideal resources available, including post-experimental counseling for distraught participants, scenes depicting real or dramatized gratuitous violence were not considered. By keeping all violence levels at the PG-13 level or lower a large portion of the violence spectrum was not represented in this research and thus future research into real-life and dramatized violent videos should also incorporate rated R levels of violence that are more intense than the treatments presented to students in this study.

Finally, quantitative measurements were used to gauge students' attitudes toward the control and treatment videos; however, particularly when the flaws associated with scaled responses are accounted for (Reinard, 2006), quantitative measurements may not be the most appropriate means of gathering hedonic data. Specifically, it would be worth repeating the study using a similar procedure but also collecting qualitative data for the participants' responses in order to incorporate a mixed methods approach.

Conclusion

This experimental study attempted to probe further into UT users' attitudes toward violent media and examine why some might find a particular video appealing while others may not. Additionally it sought to inquire if the specific form of media (print, video, etc.) played a role in peoples' enjoyment of violence consumption. Specifically, some videos go viral that are scripted and well-produced while others are seemingly recorded in an impromptu fashion using a cellphone camera without regard to typical production factors.

Also, the moral component to this study cannot be overlooked. When viewers are cognizant they are watching a fictitious or dramatized scene media effects theory would suggest they are influenced differently than when they view a real-life scene (McLeod et al., 1991; Almeida, 2013), even if their only reaction is that the video would not be suitable for people of all ages (Wan & Youn, 2004). This influence has become increasingly harder for government agencies to control, particularly in an age when online media sharing is so prevalent (Eagle et al., 2003).

This research has implications for the social responsibility of online media as well as the basic formulation of creating mass media for consumption that involves violence, both realistic and fictitious. It has been shown that certain demographic factors, such as gender and religiosity, play a large role in viewers' attitudes toward violent media as well as production factors, such as humorous versus serious violence and fantasy versus realistic violence. It was also shown that the limited exposure to violent media in this study did not constitute a long enough period of time or large enough quantity to result in desensitization. All of these factors should be taken into consideration when determining the age appropriateness of online media and also when choosing target demographics for violent mass media consumption.

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APPENDICES

Appendix A: Indiana University of Pennsylvania IRB Approval

Indiana University of Pennsylvania
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Institutional Review Board for the
Protection of Human Subjects
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April 5, 2013

Matthew Kohler
2191 Route 217 South
Blairsville, PA 15717

Dear Mr. Kohler:

Your proposed research project, "An Empirical Study of Media Effects: A Comparison of Real Life and Fictional Video Violence in Cyberspace," (Log No. 13-052) has been reviewed by the IRB and is approved as an expedited review for the period of April 4, 2013 to April 4, 2014.

It is also important for you to note that IUP adheres strictly to Federal Policy that requires you to notify the IRB promptly regarding:

1. any additions or changes in procedures you might wish for your study (additions or changes must be approved by the IRB before they are implemented),
2. any events that affect the safety or well-being of subjects, and
3. any modifications of your study or other responses that are necessitated by any events reported in (2).

Should you need to continue your research beyond April 4, 2014 you will need to file additional information for continuing review. Please contact the IRB office at (724) 357-7730 or come to Room 113, Stright Hall for further information.

Although your human subjects review process is complete, the School of Graduate Studies and Research requires submission and approval of a Research Topic Approval Form (RTAF) before you can begin your research. If you have not yet submitted your RTAF, the form can be found at http://www.iup.edu/page.aspx?id=91683 .

This letter indicates the IRB's approval of your protocol. IRB approval does not supersede or obviate compliance with any other University policies, including, but not limited to, policies regarding program enrollment, topic approval, and conduct of university-affiliated activities.

I wish you success as you pursue this important endeavor.

Sincerely,

John A. Mills, Ph.D., ABPP
Chairperson, Institutional Review Board for the Protection of Human Subjects
Professor of Psychology

JAM:jeb

Cc: Dr. Jay Start, Dissertation Advisor
Ms. Brenda Boal, Secretary

Appendix B: Control Document

The next raffle ticket gave Jerry his chance to strike back at Janza. A kid Jerry had never heard of – someone named Arthur Robilard – called for a right cross. Whatever that was. Jerry had only a vague idea but he wanted to hit Janza now, to repay him for that first vicious blow. He cocked his right arm. He tasted bile in his mouth. He let his arm go. The glove struck Janza full face and Janza staggered back. The result surprised Jerry. He had never struck anyone like that before, in fury, premeditated, and he'd enjoyed catapulting all his power toward the target, the release of all his frustrations, hitting back at last, lashing out, getting revenge finally, revenge not only against Janza but all that he represented.

Janza's eyes leaped with surprise at the strength behind Jerry's blow. His immediate reaction was to counterpunch but he held himself in control.

Carter's voice. "Janza. Left uppercut."

Again, the quick jolting neck-snapping pain as Janza, without pause or preparation, struck out. Jerry backpedaled weakly. Why should his knees give way when the blow struck his jaw?

The guys were shouting from the bleachers for more action now. The noise chilled Jerry. "Action, action," came the shouts from the audience.

That was when Carter made the mistake. He took the slip of paper Obie handed him and read the instructions without pausing. "Janza, low blow to the groin." As soon as the words were out of his mouth, Carter realized his error. They hadn't warned the crowd about illegal punches – and there was always a wise guy out there ready to pull a fast one.

At the words, Janza aimed for Jerry's pelvic area. Jerry saw the fist coming. He raised his fists and looked toward Carter, sensing that something was wrong. Janza's fist sank into his lower stomach but Jerry had deflected part of the force of the blow.

The crowd didn't understand what had happened. Most of them hadn't heard the illegal instruction. The only saw that Jerry had tried to defend himself, and that was against the rules. "Kill 'im, Janza," a voice cried from the crowd.

Janza, too, was puzzled, but only for a moment. Hell, he'd followed instructions and here was Renault, the chicken, breaking the rules. The hell with the rules, then. Janza let his fists fly in a flurry of violence, hitting Renault almost at will, on the head, the cheeks, once in the stomach. Carter withdrew to the far side of the platform. Obie had fled the scene, sensing disaster. Where the hell was Archie? Carter couldn't see him.

Jerry did his best to build defenses against Janza's fists but it was impossible. Janza was too strong and too fast, all instinct, sensing a kill. Finally, Jerry covered his head and face with the gloves, letting the blows rain on him, but waiting, waiting. The crowd was in turmoil now, shouting, jeering, urging Janza on.

One more shot at Janza, that's what Jerry wanted. Crouching, absorbing the attack, Jerry waited. There was something wrong with his jaw, the pain was intense, but he didn't care if he could hit Janza again, renew that earlier beautiful punch. He was being hit everywhere now and the crowd noises leaped to lift as if someone had turned up the volume on a monstrous stereo.

Emile was getting tired. The kid wouldn't go down. He drew back his arm, pausing a moment, seeking true aim, wanting to come up with the final devastating blow. And that was when Jerry saw his opening. Through the pain and his nausea, he saw Janza's chest and stomach unprotected. He swung – and it was beautiful again. The full force of all his strength and

determination and revenge caught Janza unguarded, off balance. Janza staggered backward, surprise and pain rampant on his face.

Appendix C: Control Instrument

BACKGROUND ITEM 1

Please circle your class rank: Freshmen Sophomore Junior Senior Graduate

BACKGROUND ITEM 2

Please provide your age in years:_____

BACKGROUND ITEM 3

Please choose your major of study:

- ☐ Communications Media
- ☐ Other: _____
- ☐ Undecided

BACKGROUND ITEM 4

Please circle your gender: Male / Female

BACKGROUND ITEM 5

Please place an 'x' next to your ethnicity:

_____ American Indian or Alaskan Native
_____ Asian
_____ Black or African American
_____ Hispanic or Latino
_____ Native Hawaiian or Other Pacific Islander
_____ White
_____ Other:_____

BACKGROUND ITEM 6

On a scale of 0–100 with 0 being not at all and 100 being extremely involved, please indicate what role religion plays in your life.

_____

TEXT

On a scale of 0-100 with 0 being not at all and 100 being complete agreement, please rate the following statements regarding the document:

Rating:

1) I found this text to be entertaining _____

2) I found this text to be exciting _____

3) I felt this text stirred my imagination _____

4) I felt reading this text provided an escape _____

5) I found this text to be too violent _____

6) I felt I connected to this text _____

7) I felt this text depicted fictitious violence _____

8) I felt this text is appropriate for any age group _____

Thank you for taking the time to participate in this study. Your input is very important to us.

Appendix D: Abbreviated Treatment Instrument

BACKGROUND ITEM 1

Please circle your class rank: Freshmen Sophomore Junior Senior Graduate

BACKGROUND ITEM 2

Please provide your age in years:_____

BACKGROUND ITEM 3

Please choose your major of study:

- ☐ Communications Media
- ☐ Other: _____
- ☐ Undecided

BACKGROUND ITEM 4

Please circle your gender: Male / Female

BACKGROUND ITEM 5

Please indicate your ethnicity:

_____ American Indian or Alaskan Native
_____ Asian
_____ Black or African American
_____ Hispanic or Latino
_____ Native Hawaiian or Other Pacific Islander
_____ White
_____ Other:_____

BACKGROUND ITEM 6

On a scale of 0–100 with 0 being not at all and 100 being extremely involved, please indicate what role religion plays in your life.

_____

TEXT

On a scale of 0-100 with 0 being not at all and 100 being complete agreement, please rate the following statements regarding the document:

Rating:

1) I found this text to be entertaining _____

2) I found this text to be exciting _____

3) I felt this text stirred my imagination _____

4) I felt reading this text provided an escape _____

5) I found this text to be too violent _____

6) I felt I connected to this text _____

7) I felt this text depicted fictitious violence _____

8) I felt this text is appropriate for any age group _____

VIDEO 1

On a scale of 0-100 with 0 being not at all and 100 being complete agreement, please rate the following statements regarding Video 1:

Rating:

1) I found this video to be entertaining _____

2) I found this video to be exciting _____

3) I felt this video stirred my imagination _____

4) I felt watching this video provided an escape _____

5) I found this video to be too violent _____

6) I found this video to be well produced _____

7) I felt I connected to this video _____

8) I felt this video depicted scripted/dramatized violence _____

9) I felt this video is appropriate for any age group _____

Thank you for taking the time to participate in this study. Your input is very important to us.

Appendix E: Email Soliciting Instructors

Hello Everyone,

For those who don't know me my name is Matt Kohler and I am a Cohort 2 doctoral candidate in the CMIT PhD program. I am in the dissertation phase of the program and have Dr. Start as my dissertation chair along with Drs. Piwinsky and Almeida as my committee members. The reason I am writing you is that I would like to use IUP students enrolled in certain undergraduate Communications Media courses that you are teaching as participants in my study. Specifically, I am focusing on the sections of COMM 101, 103, 230, and 325. The experimental study will examine media effects on students' perception of violence. The plan, pending IRB approval, is to collect data shortly after Spring Break.

I am hoping to get at least 60 participants which is why I am writing to all of you for support. It will really help me a lot, after I receive IRB approval, if you will be willing to announce the study and send around an email signup sheet during class so that I may contact students who volunteer to participate. The study will require a control group and a treatment group. The experiment for both groups will take place on the same day from 11:30-12:30 and should last approximately 10 minutes for the control group and approximately 30 minutes for the treatment group. I will provide a pizza and salad lunch (you are also invited to partake in the lunch). As added incentive to participate, the students in the control group and the treatment group will have the chance to win one of two $75 Amazon.com gift cards from a random drawing.

I will contact you once again after I have heard back from the IRB committee.

Thank you for your time,
Matthew Kohler, MAT
Indiana University of Pennsylvania CMIT PhD Candidate

Appendix F: Letter Inviting Participation

Hello Everyone,

My name is Matthew Kohler and I am a doctoral candidate in the Communications Media & Instructional Technology PhD program. I am in the dissertation phase of the program and am in need of IUP students 18 years of age and up enrolled in certain undergraduate Communications Media courses to participate in my study. The experimental study will examine media effects on students' perception of violence.

The study will require a control group and a treatment group. The experiment for both groups will take place Wednesday, April 17th from 11:30-12:45. Participants will be provided a pizza and salad lunch. As added incentive, students will be entered to win one of two $75 Amazon.com gift cards from a random drawing. If you are willing to participate please provide your email on the signup list I've provided to your instructor and I will contact you with further directions.

Thank you,
Matthew Kohler, MAT
Indiana University of Pennsylvania CMIT PhD Candidate

EMAIL ADDDRESS	**EMAIL ADDDRESS**
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Appendix G: Email Contacting Participants

Greetings,

Thank you for expressing interest in helping me conduct a study that will partially fulfill the requirements to finish my degree in IUP's Communications Media & Instructional Technology PhD program.

I am asking that you arrive at Davis B-23 promptly at 11:30 AM on Wednesday, April 17th. A consent form outlining your role in the study will be provided upon your arrival to Davis B-23. The study should last no longer than 30 minutes and I will provide a pizza and salad lunch for all participants. Additionally, you will be entered to win a $75 Amazon.com gift card for your participation.

If you have any questions or should need to withdraw before April 17th please contact me. If you have incorrectly received this message or did not sign up to participate please disregard this email.

Thank you,
Matthew Kohler, MAT
Indiana University of Pennsylvania CMIT PhD Candidate

Appendix H: Consent Form

You are invited to take part in this research study. This information is given to help you make an informed decision about whether or not to participate in this study. You are being asked to participate in this study because you are enrolled in an undergraduate Communications Media course at Indiana University of Pennsylvania.

The purpose of this study is to investigate whether or not individuals react differently when exposed to media containing mild to moderate violence. Specifically, I will be looking for differences in the type of violence to which participants will be exposed (real life and dramatized).

I am conducting this research as a doctoral student in Communications Media and Instructional Technology at the Indiana University of Pennsylvania. The information that is obtained from the study will be used for my dissertation and may be published in a journal or presented at a meeting. However, the information presented will not have any identifying information about you. If you choose to participate, you will complete an initial demographic survey to find out your background. You will then be asked to watch some short video clips and complete a brief questionnaire following each video.

Participation and Confidentiality
Your participation in this research study is completely voluntary. If you do not want to be part of this study or do not want your responses included in the study please do not submit the information below. Your name will not be listed on the demographic survey or video questionnaire. Instead each participant will be assigned a number. Once I finish gathering the data and record it, I will destroy the data collection instrument. No one, other than me, will know who participated in this study. The data for the study will be kept in a locked drawer and protected by a password on a computer used in the study. All data will be kept for three years on a protected network drive of the University that meets the terms of the Indiana University of Pennsylvania's Protection Policy.

Risks and Benefits
There is no anticipated risk to participants. All results will be presented anonymously. You may choose to withdraw from participation at any time in the process. The benefits of the research are to assist in better understanding how video violence affects individuals based on its realism.

This research is being done by Matthew S. Kohler under the direction of Dr. Jay Start.

Investigator
Matthew S. Kohler
2191 Route 217 South
Blairsville, PA 15717
(412) 952-0365
m.kohler@iup.edu

Dissertation Chair

Dr. Jay Start
B-3 Davis Hall
Indiana, PA 15705
(724) 357-2490
jstart@iup.edu

This project has been approved by the Indiana University of Pennsylvania Institutional Review Board for the Protection of Human Subjects (Phone number: 724-357-7730)

If you agree to participate in this study, please sign your name in the space provided below. By signing you are agreeing to participate in this research study. Please understand that your responses will be kept confidential and you have the right to withdraw from the study at any time.

_____
Participant's Printed Name

_____
Participant's Signature

_____
Date

Appendix I: Descriptive Statistics for RQ2 Based on Gender

Descriptive Statistics for Entertainment Based on Gender

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Control	Female	13	47.52	31.091	6.218	34.69	60.35
	Male	14	58.08	16.961	3.326	51.23	64.93
	Total	27	52.90	25.224	3.532	45.81	60.00
Girl Fight	Female	14	29.29	34.910	9.330	9.13	49.44
	Male	12	47.83	28.825	8.321	29.52	66.15
	Total	26	37.85	32.988	6.470	24.52	51.17
First Shot	Female	14	54.43	29.404	7.858	37.45	71.41
	Male	12	64.83	24.071	6.949	49.54	80.13
	Total	26	59.23	27.065	5.308	48.30	70.16
Walk Tall	Female	14	27.14	25.246	6.747	12.57	41.72
	Male	12	49.25	32.452	9.368	28.63	69.87
	Total	26	37.35	30.350	5.952	25.09	49.60
Aquarium	Female	14	52.50	23.432	6.262	38.97	66.03
	Male	12	70.42	32.506	9.384	49.76	91.07
	Total	26	60.77	28.868	5.662	49.11	72.43
Crook	Female	14	23.93	28.902	7.724	7.24	40.62
	Male	12	26.83	25.215	7.279	10.81	42.85
	Total	26	25.27	26.763	5.249	14.46	36.08
Warrior	Female	14	61.21	38.599	10.316	38.93	83.50
	Male	12	76.92	26.217	7.568	60.26	93.57
	Total	26	68.46	33.777	6.624	54.82	82.10
Jones	Female	14	23.93	26.031	6.957	8.90	38.96
	Male	12	43.33	30.134	8.699	24.19	62.48
	Total	26	32.88	29.141	5.715	21.11	44.66
Dragon	Female	14	44.43	35.593	9.513	23.88	64.98
	Male	12	66.25	28.506	8.229	48.14	84.36
	Total	26	54.50	33.755	6.620	40.87	68.13
UFC	Female	14	33.21	35.928	9.602	12.47	53.96
	Male	12	54.17	29.248	8.443	35.58	72.75
	Total	26	42.88	34.074	6.683	29.12	56.65
Police	Female	14	24.43	31.889	8.523	6.02	42.84
	Male	12	42.33	34.323	9.908	20.53	64.14
	Total	26	32.69	33.615	6.592	19.11	46.27

Knockout	Female	14	27.64	34.565	9.238	7.69	47.60
	Male	12	37.00	27.899	8.054	19.27	54.73
	Total	26	31.96	31.406	6.159	19.28	44.65
Car Fight	Female	14	29.64	34.998	9.354	9.44	49.85
	Male	12	43.92	32.171	9.287	23.48	64.36
	Total	26	36.23	33.838	6.636	22.56	49.90
XXX	Female	14	49.29	35.619	9.519	28.72	69.85
	Male	12	83.33	22.821	6.588	68.83	97.83
	Total	26	65.00	34.474	6.761	51.08	78.92
TV Gun	Female	14	41.07	26.760	7.152	25.62	56.52
	Male	12	62.00	32.195	9.294	41.54	82.46
	Total	26	50.73	30.686	6.018	38.34	63.13
Number 4	Female	14	56.79	33.143	8.858	37.65	75.92
	Male	12	62.25	33.904	9.787	40.71	83.79
	Total	26	59.31	32.935	6.459	46.01	72.61

Descriptive Statistics for Excitement Based on Gender

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Control	Female	13	47.96	31.782	6.117	35.39	60.54
	Male	14	52.00	19.829	3.889	43.99	60.01
	Total	27	49.94	26.424	3.630	42.66	57.23
Girl Fight	Female	14	26.50	33.990	9.084	6.87	46.13
	Male	12	50.92	25.372	7.324	34.80	67.04
	Total	26	37.77	32.220	6.319	24.76	50.78
First Shot	Female	14	42.43	25.243	6.746	27.85	57.00
	Male	12	59.67	20.504	5.919	46.64	72.69
	Total	26	50.38	24.354	4.776	40.55	60.22
Walk Tall	Female	14	15.21	17.690	4.728	5.00	25.43
	Male	12	40.33	30.338	8.758	21.06	59.61
	Total	26	26.81	27.033	5.302	15.89	37.73
Aquarium	Female	14	34.79	24.928	6.662	20.39	49.18
	Male	12	52.92	26.838	7.747	35.86	69.97
	Total	26	43.15	26.926	5.281	32.28	54.03
Crook	Female	14	14.93	22.311	5.963	2.05	27.81
	Male	12	26.00	26.185	7.559	9.36	42.64
	Total	26	20.04	24.335	4.773	10.21	29.87
Warrior	Female	14	56.21	39.476	10.550	33.42	79.01
	Male	12	78.75	24.110	6.960	63.43	94.07
	Total	26	66.62	34.603	6.786	52.64	80.59
Jones	Female	14	16.71	19.602	5.239	5.40	28.03
	Male	12	39.92	32.447	9.367	19.30	60.53
	Total	26	27.42	28.323	5.555	15.98	38.86
Dragon	Female	14	35.50	26.509	7.085	20.19	50.81
	Male	12	59.25	28.649	8.270	41.05	77.45
	Total	26	46.46	29.535	5.792	34.53	58.39
UFC	Female	14	32.86	31.053	8.299	14.93	50.79
	Male	12	52.00	30.514	8.809	32.61	71.39
	Total	26	41.69	31.715	6.220	28.88	54.50
Police	Female	14	30.36	39.049	10.436	7.81	52.90
	Male	12	51.00	36.708	10.597	27.68	74.32
	Total	26	39.88	38.677	7.585	24.26	55.51
Knockout	Female	14	25.86	35.995	9.620	5.07	46.64

	Male	12	30.17	24.742	7.142	14.45	45.89
	Total	26	27.85	30.788	6.038	15.41	40.28
Car Fight	Female	14	21.79	31.720	8.478	3.47	40.10
	Male	12	37.58	31.480	9.088	17.58	57.58
	Total	26	29.08	31.996	6.275	16.15	42.00
XXX	Female	14	44.29	36.101	9.648	23.44	65.13
	Male	12	83.92	23.554	6.800	68.95	98.88
	Total	26	62.58	36.439	7.146	47.86	77.29
TV Gun	Female	14	31.43	24.054	6.429	17.54	45.32
	Male	12	57.58	28.526	8.235	39.46	75.71
	Total	26	43.50	28.908	5.669	31.82	55.18
Number 4	Female	14	50.00	37.417	10.000	28.40	71.60
	Male	12	58.75	28.649	8.270	40.55	76.95
	Total	26	54.04	33.300	6.531	40.59	67.49

Descriptives Statistics for Imagination Based on Gender

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Control	Female	13	54.81	33.382	6.424	41.61	68.02
	Male	14	63.38	18.768	3.681	55.80	70.97
	Total	27	59.02	27.299	3.750	51.49	66.54
Girl Fight	Female	14	16.79	29.063	7.767	.01	33.57
	Male	12	20.42	23.400	6.755	5.55	35.28
	Total	26	18.46	26.145	5.127	7.90	29.02
First Shot	Female	14	35.00	30.509	8.154	17.38	52.62
	Male	12	56.25	29.641	8.557	37.42	75.08
	Total	26	44.81	31.421	6.162	32.12	57.50
Walk Tall	Female	14	11.79	21.980	5.874	-.90	24.48
	Male	12	33.17	28.879	8.337	14.82	51.52
	Total	26	21.65	27.135	5.322	10.69	32.61
Aquarium	Female	14	20.00	29.023	7.757	3.24	36.76
	Male	12	24.42	21.095	6.090	11.01	37.82
	Total	26	22.04	25.275	4.957	11.83	32.25
Crook	Female	14	17.00	29.441	7.868	.00	34.00
	Male	12	26.08	29.749	8.588	7.18	44.98
	Total	26	21.19	29.350	5.756	9.34	33.05
Warrior	Female	14	35.64	36.727	9.816	14.44	56.85
	Male	12	47.25	31.904	9.210	26.98	67.52
	Total	26	41.00	34.410	6.748	27.10	54.90
Jones	Female	14	15.00	25.570	6.834	.24	29.76
	Male	12	8.42	9.100	2.627	2.63	14.20
	Total	26	11.96	19.689	3.861	4.01	19.91
Dragon	Female	14	23.93	31.512	8.422	5.73	42.12
	Male	12	53.50	30.581	8.828	34.07	72.93
	Total	26	37.58	33.968	6.662	23.86	51.30
UFC	Female	14	17.50	34.236	9.150	-2.27	37.27
	Male	12	21.25	25.506	7.363	5.04	37.46
	Total	26	19.23	29.990	5.881	7.12	31.34
Police	Female	14	18.86	29.262	7.821	1.96	35.75
	Male	12	51.00	32.669	9.431	30.24	71.76
	Total	26	33.69	34.379	6.742	19.81	47.58
Knockout	Female	14	18.86	30.931	8.267	1.00	36.72

	Male	12	30.42	24.515	7.077	14.84	45.99
	Total	26	24.19	28.222	5.535	12.79	35.59
Car Fight	Female	14	18.21	34.228	9.148	-1.55	37.98
	Male	12	27.67	27.284	7.876	10.33	45.00
	Total	26	22.58	30.982	6.076	10.06	35.09
XXX	Female	14	27.14	35.557	9.503	6.61	47.67
	Male	12	57.33	28.163	8.130	39.44	75.23
	Total	26	41.08	35.242	6.912	26.84	55.31
TV Gun	Female	14	19.79	26.411	7.059	4.54	35.04
	Male	12	40.25	25.528	7.369	24.03	56.47
	Total	26	29.23	27.526	5.398	18.11	40.35
Number 4	Female	14	38.21	39.007	10.425	15.69	60.74
	Male	12	36.75	25.413	7.336	20.60	52.90
	Total	26	37.54	32.802	6.433	24.29	50.79

Descriptive Statistics for Escape Based on Gender

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Control	Female	13	28.67	30.529	5.875	16.59	40.74
	Male	14	30.62	25.874	5.074	20.16	41.07
	Total	27	29.62	28.086	3.858	21.88	37.36
Girl Fight	Female	14	5.71	12.381	3.309	-1.43	12.86
	Male	12	12.25	20.446	5.902	-.74	25.24
	Total	26	8.73	16.574	3.250	2.04	15.42
First Shot	Female	14	22.14	28.060	7.499	5.94	38.34
	Male	12	30.00	26.968	7.785	12.87	47.13
	Total	26	25.77	27.302	5.354	14.74	36.80
Walk Tall	Female	14	5.00	13.301	3.555	-2.68	12.68
	Male	12	24.17	33.967	9.806	2.58	45.75
	Total	26	13.85	26.356	5.169	3.20	24.49
Aquarium	Female	14	7.14	20.636	5.515	-4.77	19.06
	Male	12	15.17	26.635	7.689	-1.76	32.09
	Total	26	10.85	23.457	4.600	1.37	20.32
Crook	Female	14	6.43	17.368	4.642	-3.60	16.46
	Male	12	22.83	25.978	7.499	6.33	39.34
	Total	26	14.00	22.877	4.487	4.76	23.24
Warrior	Female	14	24.29	38.723	10.349	1.93	46.64
	Male	12	42.25	34.441	9.942	20.37	64.13
	Total	26	32.58	37.216	7.299	17.54	47.61
Jones	Female	14	5.00	13.445	3.593	-2.76	12.76
	Male	12	11.17	14.984	4.325	1.65	20.69
	Total	26	7.85	14.234	2.792	2.10	13.60
Dragon	Female	14	10.36	21.346	5.705	-1.97	22.68
	Male	12	32.67	30.820	8.897	13.08	52.25
	Total	26	20.65	27.991	5.490	9.35	31.96
UFC	Female	14	18.71	32.700	8.739	-.17	37.59
	Male	12	21.58	26.148	7.548	4.97	38.20
	Total	26	20.04	29.309	5.748	8.20	31.88
Police	Female	14	10.36	23.408	6.256	-3.16	23.87
	Male	12	17.33	27.714	8.000	-.28	34.94
	Total	26	13.58	25.208	4.944	3.40	23.76
Knockout	Female	14	17.50	29.006	7.752	.75	34.25

	Male	12	26.92	29.069	8.391	8.45	45.39
	Total	26	21.85	28.848	5.658	10.19	33.50
Car Fight	Female	14	12.50	23.758	6.349	-1.22	26.22
	Male	12	10.75	21.179	6.114	-2.71	24.21
	Total	26	11.69	22.173	4.349	2.74	20.65
XXX	Female	14	19.29	29.539	7.895	2.23	36.34
	Male	12	48.42	38.707	11.174	23.82	73.01
	Total	26	32.73	36.500	7.158	17.99	47.47
TV Gun	Female	14	11.50	21.827	5.834	-1.10	24.10
	Male	12	26.58	23.240	6.709	11.82	41.35
	Total	26	18.46	23.328	4.575	9.04	27.88
Number 4	Female	14	22.14	32.917	8.797	3.14	41.15
	Male	12	32.00	34.388	9.927	10.15	53.85
	Total	26	26.69	33.300	6.531	13.24	40.14

Descriptive Statistics for Violence Based on Gender

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Control	Female	13	32.04	31.509	6.064	19.57	44.50
	Male	14	22.77	20.904	4.100	14.33	31.21
	Total	27	27.49	26.988	3.707	20.05	34.93
Girl Fight	Female	14	58.07	35.967	9.613	37.30	78.84
	Male	12	43.33	24.058	6.945	28.05	58.62
	Total	26	51.27	31.361	6.150	38.60	63.94
First Shot	Female	14	18.21	20.532	5.487	6.36	30.07
	Male	12	16.33	17.437	5.034	5.25	27.41
	Total	26	17.35	18.813	3.689	9.75	24.94
Walk Tall	Female	14	26.07	23.385	6.250	12.57	39.57
	Male	12	16.58	19.261	5.560	4.35	28.82
	Total	26	21.69	21.699	4.256	12.93	30.46
Aquarium	Female	14	15.36	17.261	4.613	5.39	25.32
	Male	12	24.17	22.647	6.538	9.78	38.56
	Total	26	19.42	20.016	3.926	11.34	27.51
Crook	Female	14	8.21	26.502	7.083	-7.09	23.52
	Male	12	5.58	11.587	3.345	-1.78	12.95
	Total	26	7.00	20.642	4.048	-1.34	15.34
Warrior	Female	14	33.07	29.053	7.765	16.30	49.85
	Male	12	20.92	21.898	6.322	7.00	34.83
	Total	26	27.46	26.232	5.144	16.87	38.06
Jones	Female	14	15.71	16.274	4.349	6.32	25.11
	Male	12	22.92	23.846	6.884	7.77	38.07
	Total	26	19.04	20.033	3.929	10.95	27.13
Dragon	Female	14	25.86	26.317	7.034	10.66	41.05
	Male	12	16.25	16.360	4.723	5.86	26.64
	Total	26	21.42	22.400	4.393	12.38	30.47
UFC	Female	13	22.31	31.531	8.745	3.25	41.36
	Male	12	21.58	23.481	6.778	6.66	36.50
	Total	25	21.96	27.385	5.477	10.66	33.26
Police	Female	14	55.36	39.441	10.541	32.58	78.13
	Male	12	57.08	33.980	9.809	35.49	78.67
	Total	26	56.15	36.301	7.119	41.49	70.82
Knockout	Female	14	24.50	25.497	6.814	9.78	39.22

	Male	12	13.75	13.308	3.842	5.29	22.21
	Total	26	19.54	21.115	4.141	11.01	28.07
Car Fight	Female	14	41.93	38.076	10.176	19.94	63.91
	Male	12	51.33	26.959	7.782	34.20	68.46
	Total	26	46.27	33.114	6.494	32.89	59.64
XXX	Female	14	44.64	36.240	9.685	23.72	65.57
	Male	12	35.92	30.023	8.667	16.84	54.99
	Total	26	40.62	33.154	6.502	27.22	54.01
TV Gun	Female	14	19.21	28.219	7.542	2.92	35.51
	Male	12	27.08	16.211	4.680	16.78	37.38
	Total	26	22.85	23.361	4.581	13.41	32.28
Number 4	Female	14	26.43	27.134	7.252	10.76	42.10
	Male	12	16.92	17.516	5.056	5.79	28.05
	Total	26	22.04	23.265	4.563	12.64	31.44

Descriptive Statistics for Connection Based on Gender

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Control	Female	27	14.37	24.462	4.708	4.69	24.05
	Male	26	19.31	23.530	4.615	9.80	28.81
	Total	53	16.79	23.908	3.284	10.20	23.38
Girl Fight	Female	14	3.57	7.187	1.921	-.58	7.72
	Male	12	3.33	5.365	1.549	-.08	6.74
	Total	26	3.46	6.288	1.233	.92	6.00
First Shot	Female	14	7.14	18.157	4.853	-3.34	17.63
	Male	12	22.67	27.599	7.967	5.13	40.20
	Total	26	14.31	23.851	4.678	4.67	23.94
Walk Tall	Female	14	2.71	5.045	1.348	-.20	5.63
	Male	12	6.25	14.636	4.225	-3.05	15.55
	Total	26	4.35	10.522	2.064	.10	8.60
Aquarium	Female	14	2.14	5.789	1.547	-1.20	5.49
	Male	12	23.92	30.932	8.929	4.26	43.57
	Total	26	12.19	23.685	4.645	2.63	21.76
Crook	Female	14	5.50	14.426	3.856	-2.83	13.83
	Male	12	13.92	23.558	6.801	-1.05	28.88
	Total	26	9.38	19.254	3.776	1.61	17.16
Warrior	Female	14	18.21	32.793	8.764	-.72	37.15
	Male	12	22.33	26.345	7.605	5.59	39.07
	Total	26	20.12	29.479	5.781	8.21	32.02
Jones	Female	14	3.57	9.078	2.426	-1.67	8.81
	Male	12	7.58	14.681	4.238	-1.74	16.91
	Total	26	5.42	11.910	2.336	.61	10.23
Dragon	Female	14	4.64	12.163	3.251	-2.38	11.67
	Male	12	22.33	27.763	8.015	4.69	39.97
	Total	26	12.81	22.293	4.372	3.80	21.81
UFC	Female	14	18.21	27.429	7.331	2.38	34.05
	Male	12	15.00	19.498	5.629	2.61	27.39
	Total	26	16.73	23.689	4.646	7.16	26.30
Police	Female	14	6.07	14.435	3.858	-2.26	14.41
	Male	12	12.25	28.490	8.224	-5.85	30.35
	Total	26	8.92	21.803	4.276	.12	17.73
Knockout	Female	14	14.07	21.585	5.769	1.61	26.53

	Male	12	28.00	33.599	9.699	6.65	49.35
	Total	26	20.50	28.092	5.509	9.15	31.85
Car Fight	Female	14	4.64	12.163	3.251	-2.38	11.67
	Male	12	18.08	24.945	7.201	2.23	33.93
	Total	26	10.85	19.935	3.910	2.79	18.90
XXX	Female	14	8.57	19.057	5.093	-2.43	19.57
	Male	12	26.58	33.058	9.543	5.58	47.59
	Total	26	16.88	27.451	5.384	5.80	27.97
TV Gun	Female	14	11.43	20.041	5.356	-.14	23.00
	Male	12	8.33	12.673	3.658	.28	16.39
	Total	26	10.00	16.793	3.293	3.22	16.78
Number 4	Female	14	21.43	28.449	7.603	5.00	37.85
	Male	12	8.33	15.299	4.416	-1.39	18.05
	Total	26	15.38	23.836	4.675	5.76	25.01

Descriptive Statistics for Appropriateness Based on Gender

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Control	Female	27	17.41	27.678	5.327	6.46	28.36
	Male	26	40.19	25.418	4.985	29.93	50.46
	Total	53	28.58	28.738	3.948	20.66	36.51
Girl Fight	Female	14	1.79	3.725	.995	-.36	3.94
	Male	12	6.50	14.165	4.089	-2.50	15.50
	Total	26	3.96	10.062	1.973	-.10	8.03
First Shot	Female	14	21.79	33.085	8.842	2.68	40.89
	Male	12	31.58	28.398	8.198	13.54	49.63
	Total	26	26.31	30.804	6.041	13.87	38.75
Walk Tall	Female	14	14.29	25.257	6.750	-.30	28.87
	Male	12	29.00	29.927	8.639	9.99	48.01
	Total	26	21.08	27.960	5.483	9.78	32.37
Aquarium	Female	14	26.79	29.975	8.011	9.48	44.09
	Male	12	28.33	35.569	10.268	5.73	50.93
	Total	26	27.50	32.008	6.277	14.57	40.43
Crook	Female	14	32.14	35.987	9.618	11.36	52.92
	Male	12	46.08	40.691	11.746	20.23	71.94
	Total	26	38.58	38.107	7.473	23.19	53.97
Warrior	Female	14	12.14	20.354	5.440	.39	23.89
	Male	12	41.25	37.847	10.925	17.20	65.30
	Total	26	25.58	32.629	6.399	12.40	38.76
Jones	Female	14	8.57	13.648	3.648	.69	16.45
	Male	12	19.83	30.105	8.691	.71	38.96
	Total	26	13.77	22.987	4.508	4.48	23.05
Dragon	Female	14	20.50	29.228	7.811	3.62	37.38
	Male	12	42.08	27.091	7.820	24.87	59.30
	Total	26	30.46	29.792	5.843	18.43	42.49
UFC	Female	14	23.57	31.527	8.426	5.37	41.77
	Male	12	38.08	31.269	9.026	18.22	57.95
	Total	26	30.27	31.646	6.206	17.49	43.05
Police	Female	14	10.71	21.738	5.810	-1.84	23.27
	Male	12	7.58	19.952	5.760	-5.09	20.26
	Total	26	9.27	20.577	4.035	.96	17.58
Knockout	Female	14	28.57	35.649	9.528	7.99	49.15

	Male	12	44.08	34.739	10.028	22.01	66.16
	Total	26	35.73	35.412	6.945	21.43	50.03
Car Fight	Female	14	9.29	16.274	4.349	-.11	18.68
	Male	12	15.08	18.637	5.380	3.24	26.93
	Total	26	11.96	17.299	3.393	4.97	18.95
XXX	Female	14	10.00	17.974	4.804	-.38	20.38
	Male	12	22.25	16.366	4.724	11.85	32.65
	Total	26	15.65	18.018	3.534	8.38	22.93
TV Gun	Female	14	15.00	23.038	6.157	1.70	28.30
	Male	12	28.17	25.623	7.397	11.89	44.45
	Total	26	21.08	24.692	4.842	11.10	31.05
Number 4	Female	14	10.71	19.400	5.185	-.49	21.92
	Male	12	42.58	31.810	9.183	22.37	62.79
	Total	26	25.42	30.058	5.895	13.28	37.56

Appendix J: Descriptive Statistics for RQ2 Based on Ethnicity

Descriptive Statistics for Entertainment Based on Ethnicity

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Control	Afr Am	3	56.60	28.112	12.572	21.69	91.51
	White	22	54.77	23.296	3.512	47.69	61.86
	Other	1	2.50	3.536	2.500	-29.27	34.27
	Total	26	52.90	25.224	3.532	45.81	60.00
Girl Fight	Afr Am	3	40.00	45.826	26.458	-73.84	153.84
	White	22	39.05	32.279	6.882	24.73	53.36
	Other	1	5.00	.	.	.	.
	Total	26	37.85	32.988	6.470	24.52	51.17
First Shot	Afr Am	3	78.33	16.073	9.280	38.41	118.26
	White	22	59.32	25.064	5.344	48.21	70.43
	Other	1	.00	.	.	.	.
	Total	26	59.23	27.065	5.308	48.30	70.16
Walk Tall	Afr Am	3	36.67	37.859	21.858	-57.38	130.71
	White	22	39.14	29.837	6.361	25.91	52.37
	Other	1	.00	.	.	.	.
	Total	26	37.35	30.350	5.952	25.09	49.60
Aquarium	Afr Am	3	50.00	45.826	26.458	-63.84	163.84
	White	22	62.27	27.806	5.928	49.94	74.60
	Other	1	60.00	.	.	.	.
	Total	26	60.77	28.868	5.662	49.11	72.43
Crook	Afr Am	3	26.67	34.034	19.650	-57.88	111.21
	White	22	26.23	26.660	5.684	14.41	38.05
	Other	1	.00	.	.	.	.
	Total	26	25.27	26.763	5.249	14.46	36.08
Warrior	Afr Am	3	55.00	43.301	25.000	-52.57	162.57
	White	22	69.77	33.847	7.216	54.77	84.78
	Other	1	80.00	.	.	.	.
	Total	26	68.46	33.777	6.624	54.82	82.10
Jones	Afr Am	3	26.67	46.188	26.667	-88.07	141.40
	White	22	32.95	28.077	5.986	20.51	45.40
	Other	1	50.00	.	.	.	.
	Total	26	32.88	29.141	5.715	21.11	44.66
Dragon	Afr Am	3	71.67	22.546	13.017	15.66	127.67

	White	22	54.64	33.533	7.149	39.77	69.50
	Other	1	.00	.	.	.	.
	Total	26	54.50	33.755	6.620	40.87	68.13
UFC	Afr Am	3	16.67	10.408	6.009	-9.19	42.52
	White	22	48.41	33.973	7.243	33.35	63.47
	Other	1	.00	.	.	.	.
	Total	26	42.88	34.074	6.683	29.12	56.65
Police	Afr Am	3	20.00	34.641	20.000	-66.05	106.05
	White	22	35.91	33.855	7.218	20.90	50.92
	Other	1	.00	.	.	.	.
	Total	26	32.69	33.615	6.592	19.11	46.27
Knockout	Afr Am	3	17.33	28.308	16.344	-52.99	87.65
	White	22	35.41	31.721	6.763	21.34	49.47
	Other	1	.00	.	.	.	.
	Total	26	31.96	31.406	6.159	19.28	44.65
Car Fight	Afr Am	3	20.00	34.641	20.000	-66.05	106.05
	White	22	37.82	34.634	7.384	22.46	53.17
	Other	1	50.00	.	.	.	.
	Total	26	36.23	33.838	6.636	22.56	49.90
XXX	Afr Am	3	58.33	30.139	17.401	-16.54	133.20
	White	22	66.59	36.175	7.713	50.55	82.63
	Other	1	50.00	.	.	.	.
	Total	26	65.00	34.474	6.761	51.08	78.92
TV Gun	Afr Am	3	33.33	35.119	20.276	-53.91	120.57
	White	22	55.41	28.545	6.086	42.75	68.07
	Other	1	.00	.	.	.	.
	Total	26	50.73	30.686	6.018	38.34	63.13
Number 4	Afr Am	3	40.00	45.826	26.458	-73.84	153.84
	White	22	62.36	32.002	6.823	48.17	76.55
	Other	1	50.00	.	.	.	.
	Total	26	59.31	32.935	6.459	46.01	72.61

Descriptive Statistics for Excitement Based on Ethnicity

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Control	Afr Am	3	57.50	29.791	12.162	26.24	88.76
	White	23	51.04	24.753	3.690	43.61	58.48
	Other	1	2.50	3.536	2.500	-29.27	34.27
	Total	27	49.94	26.424	3.630	42.66	57.23
Girl Fight	Afr Am	3	25.00	30.414	17.559	-50.55	100.55
	White	22	41.18	32.371	6.901	26.83	55.53
	Other	1	1.00	.	.	.	.
	Total	26	37.77	32.220	6.319	24.76	50.78
First Shot	Afr Am	3	50.00	.000	.000	50.00	50.00
	White	22	52.73	24.072	5.132	42.05	63.40
	Other	1	.00	.	.	.	.
	Total	26	50.38	24.354	4.776	40.55	60.22
Walk Tall	Afr Am	3	2.67	2.517	1.453	-3.58	8.92
	White	22	31.32	27.030	5.763	19.33	43.30
	Other	1	.00	.	.	.	.
	Total	26	26.81	27.033	5.302	15.89	37.73
Aquarium	Afr Am	3	30.67	43.143	24.909	-76.51	137.84
	White	22	44.55	25.677	5.474	33.16	55.93
	Other	1	50.00	.	.	.	.
	Total	26	43.15	26.926	5.281	32.28	54.03
Crook	Afr Am	3	4.67	5.033	2.906	-7.84	17.17
	White	22	23.05	25.303	5.395	11.83	34.26
	Other	1	.00	.	.	.	.
	Total	26	20.04	24.335	4.773	10.21	29.87
Warrior	Afr Am	3	40.00	35.000	20.207	-46.94	126.94
	White	22	69.64	34.489	7.353	54.34	84.93
	Other	1	80.00	.	.	.	.
	Total	26	66.62	34.603	6.786	52.64	80.59
Jones	Afr Am	3	6.67	11.547	6.667	-22.02	35.35
	White	22	31.27	29.004	6.184	18.41	44.13
	Other	1	5.00	.	.	.	.
	Total	26	27.42	28.323	5.555	15.98	38.86
Dragon	Afr Am	3	40.00	17.321	10.000	-3.03	83.03
	White	22	49.45	29.863	6.367	36.21	62.69

	Other	1	.00	.	.	.	.
	Total	26	46.46	29.535	5.792	34.53	58.39
UFC	Afr Am	3	16.67	10.408	6.009	-9.19	42.52
	White	22	47.00	31.390	6.692	33.08	60.92
	Other	1	.00	.	.	.	.
	Total	26	41.69	31.715	6.220	28.88	54.50
Police	Afr Am	3	20.00	34.641	20.000	-66.05	106.05
	White	22	44.41	38.896	8.293	27.16	61.65
	Other	1	.00	.	.	.	.
	Total	26	39.88	38.677	7.585	24.26	55.51
Knockout	Afr Am	3	17.33	28.308	16.344	-52.99	87.65
	White	22	30.55	31.493	6.714	16.58	44.51
	Other	1	.00	.	.	.	.
	Total	26	27.85	30.788	6.038	15.41	40.28
Car Fight	Afr Am	3	10.00	17.321	10.000	-33.03	53.03
	White	22	33.00	32.891	7.012	18.42	47.58
	Other	1	.00	.	.	.	.
	Total	26	29.08	31.996	6.275	16.15	42.00
XXX	Afr Am	3	48.33	40.104	23.154	-51.29	147.96
	White	22	66.91	35.316	7.529	51.25	82.57
	Other	1	10.00	.	.	.	.
	Total	26	62.58	36.439	7.146	47.86	77.29
TV Gun	Afr Am	3	23.33	32.146	18.559	-56.52	103.19
	White	22	48.23	26.923	5.740	36.29	60.16
	Other	1	.00	.	.	.	.
	Total	26	43.50	28.908	5.669	31.82	55.18
Number 4	Afr Am	3	33.33	49.329	28.480	-89.21	155.87
	White	22	59.32	29.307	6.248	46.32	72.31
	Other	1	.00	.	.	.	.
	Total	26	54.04	33.300	6.531	40.59	67.49

Descriptive Statistics for Imagination Based on Ethnicity

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Control	Afr Am	3	65.00	37.148	15.166	26.02	103.98
	White	23	60.62	24.138	3.598	53.37	67.87
	Other	1	5.00	7.071	5.000	-58.53	68.53
	Total	27	59.02	27.299	3.750	51.49	66.54
Girl Fight	Afr Am	3	36.67	32.146	18.559	-43.19	116.52
	White	22	16.82	25.474	5.431	5.52	28.11
	Other	1	.00	.	.	.	.
	Total	26	18.46	26.145	5.127	7.90	29.02
First Shot	Afr Am	3	45.00	39.686	22.913	-53.59	143.59
	White	22	46.82	30.422	6.486	33.33	60.31
	Other	1	.00	.	.	.	.
	Total	26	44.81	31.421	6.162	32.12	57.50
Walk Tall	Afr Am	3	1.67	2.887	1.667	-5.50	8.84
	White	22	25.36	27.963	5.962	12.97	37.76
	Other	1	.00	.	.	.	.
	Total	26	21.65	27.135	5.322	10.69	32.61
Aquarium	Afr Am	3	25.00	39.051	22.546	-72.01	122.01
	White	22	22.64	24.301	5.181	11.86	33.41
	Other	1	.00	.	.	.	.
	Total	26	22.04	25.275	4.957	11.83	32.25
Crook	Afr Am	3	1.67	2.887	1.667	-5.50	8.84
	White	22	24.82	30.580	6.520	11.26	38.38
	Other	1	.00	.	.	.	.
	Total	26	21.19	29.350	5.756	9.34	33.05
Warrior	Afr Am	3	28.33	44.814	25.874	-82.99	139.66
	White	22	44.59	33.194	7.077	29.87	59.31
	Other	1	.00	.	.	.	.
	Total	26	41.00	34.410	6.748	27.10	54.90
Jones	Afr Am	3	1.67	2.887	1.667	-5.50	8.84
	White	22	11.64	19.404	4.137	3.03	20.24
	Other	1	50.00	.	.	.	.
	Total	26	11.96	19.689	3.861	4.01	19.91
Dragon	Afr Am	3	13.33	15.275	8.819	-24.61	51.28
	White	22	42.59	34.262	7.305	27.40	57.78

	Other	1	.00	.	.	.	.
	Total	26	37.58	33.968	6.662	23.86	51.30
UFC	Afr Am	3	1.67	2.887	1.667	-5.50	8.84
	White	22	22.50	31.576	6.732	8.50	36.50
	Other	1	.00	.	.	.	.
	Total	26	19.23	29.990	5.881	7.12	31.34
Police	Afr Am	3	11.67	10.408	6.009	-14.19	37.52
	White	22	38.23	35.381	7.543	22.54	53.91
	Other	1	.00	.	.	.	.
	Total	26	33.69	34.379	6.742	19.81	47.58
Knockout	Afr Am	3	.00	.000	.000	.00	.00
	White	22	28.59	28.573	6.092	15.92	41.26
	Other	1	.00	.	.	.	.
	Total	26	24.19	28.222	5.535	12.79	35.59
Car Fight	Afr Am	3	1.67	2.887	1.667	-5.50	8.84
	White	22	26.45	32.240	6.874	12.16	40.75
	Other	1	.00	.	.	.	.
	Total	26	22.58	30.982	6.076	10.06	35.09
XXX	Afr Am	3	13.33	5.774	3.333	-1.01	27.68
	White	22	46.73	35.378	7.543	31.04	62.41
	Other	1	.00	.	.	.	.
	Total	26	41.08	35.242	6.912	26.84	55.31
TV Gun	Afr Am	3	20.00	17.321	10.000	-23.03	63.03
	White	22	31.82	28.523	6.081	19.17	44.46
	Other	1	.00	.	.	.	.
	Total	26	29.23	27.526	5.398	18.11	40.35
Number 4	Afr Am	3	35.00	39.686	22.913	-63.59	133.59
	White	22	39.59	32.534	6.936	25.17	54.02
	Other	1	.00	.	.	.	.
	Total	26	37.54	32.802	6.433	24.29	50.79

Descriptive Statistics for Escape Based on Ethnicity

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Control	Afr Am	3	37.33	39.768	16.235	-4.40	79.07
	White	23	29.91	26.541	3.957	21.94	37.89
	Other	1	.00	.000	.000	.00	.00
	Total	27	29.62	28.086	3.858	21.88	37.36
Girl Fight	Afr Am	3	.00	.000	.000	.00	.00
	White	22	10.32	17.602	3.753	2.51	18.12
	Other	1	.00	.	.	.	.
	Total	26	8.73	16.574	3.250	2.04	15.42
First Shot	Afr Am	3	23.33	40.415	23.333	-77.06	123.73
	White	22	27.27	26.400	5.629	15.57	38.98
	Other	1	.00	.	.	.	.
	Total	26	25.77	27.302	5.354	14.74	36.80
Walk Tall	Afr Am	3	.00	.000	.000	.00	.00
	White	22	16.36	27.996	5.969	3.95	28.78
	Other	1	.00	.	.	.	.
	Total	26	13.85	26.356	5.169	3.20	24.49
Aquarium	Afr Am	3	.00	.000	.000	.00	.00
	White	22	12.82	25.071	5.345	1.70	23.93
	Other	1	.00	.	.	.	.
	Total	26	10.85	23.457	4.600	1.37	20.32
Crook	Afr Am	3	1.67	2.887	1.667	-5.50	8.84
	White	22	16.32	24.198	5.159	5.59	27.05
	Other	1	.00	.	.	.	.
	Total	26	14.00	22.877	4.487	4.76	23.24
Warrior	Afr Am	3	30.00	43.589	25.166	-78.28	138.28
	White	22	34.41	37.589	8.014	17.74	51.08
	Other	1	.00	.	.	.	.
	Total	26	32.58	37.216	7.299	17.54	47.61
Jones	Afr Am	3	.00	.000	.000	.00	.00
	White	22	9.27	15.078	3.215	2.59	15.96
	Other	1	.00	.	.	.	.
	Total	26	7.85	14.234	2.792	2.10	13.60
Dragon	Afr Am	3	13.33	23.094	13.333	-44.04	70.70
	White	22	22.59	29.156	6.216	9.66	35.52

	Other	1	.00	.	.	.	.
	Total	26	20.65	27.991	5.490	9.35	31.96
UFC	Afr Am	3	8.33	10.408	6.009	-17.52	34.19
	White	22	22.55	31.097	6.630	8.76	36.33
	Other	1	.00	.	.	.	.
	Total	26	20.04	29.309	5.748	8.20	31.88
Police	Afr Am	3	.00	.000	.000	.00	.00
	White	22	16.05	26.739	5.701	4.19	27.90
	Other	1	.00	.	.	.	.
	Total	26	13.58	25.208	4.944	3.40	23.76
Knockout	Afr Am	3	.00	.000	.000	.00	.00
	White	22	25.82	29.720	6.336	12.64	39.00
	Other	1	.00	.	.	.	.
	Total	26	21.85	28.848	5.658	10.19	33.50
Car Fight	Afr Am	3	.00	.000	.000	.00	.00
	White	22	13.82	23.549	5.021	3.38	24.26
	Other	1	.00	.	.	.	.
	Total	26	11.69	22.173	4.349	2.74	20.65
XXX	Afr Am	3	36.67	15.275	8.819	-1.28	74.61
	White	22	33.68	38.854	8.284	16.45	50.91
	Other	1	.00	.	.	.	.
	Total	26	32.73	36.500	7.158	17.99	47.47
TV Gun	Afr Am	3	.00	.000	.000	.00	.00
	White	22	21.82	23.898	5.095	11.22	32.41
	Other	1	.00	.	.	.	.
	Total	26	18.46	23.328	4.575	9.04	27.88
Number 4	Afr Am	3	26.67	30.551	17.638	-49.22	102.56
	White	22	27.91	34.579	7.372	12.58	43.24
	Other	1	.00	.	.	.	.
	Total	26	26.69	33.300	6.531	13.24	40.14

Descriptive Statistics for Violence Based on Ethnicity

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Control	Afr Am	3	27.50	40.218	16.419	-14.71	69.71
	White	23	28.27	25.650	3.824	20.56	35.97
	Other	1	10.00	14.142	10.000	-117.06	137.06
	Total	27	27.49	26.988	3.707	20.05	34.93
Girl Fight	Afr Am	3	26.67	28.868	16.667	-45.04	98.38
	White	22	52.41	29.842	6.362	39.18	65.64
	Other	1	100.00	.	.	.	.
	Total	26	51.27	31.361	6.150	38.60	63.94
First Shot	Afr Am	3	33.33	32.146	18.559	-46.52	113.19
	White	22	15.95	16.433	3.504	8.67	23.24
	Other	1	.00	.	.	.	.
	Total	26	17.35	18.813	3.689	9.75	24.94
Walk Tall	Afr Am	3	46.67	32.146	18.559	-33.19	126.52
	White	22	19.27	18.561	3.957	11.04	27.50
	Other	1	.00	.	.	.	.
	Total	26	21.69	21.699	4.256	12.93	30.46
Aquarium	Afr Am	3	25.00	13.229	7.638	-7.86	57.86
	White	22	19.55	20.926	4.461	10.27	28.82
	Other	1	.00	.	.	.	.
	Total	26	19.42	20.016	3.926	11.34	27.51
Crook	Afr Am	3	3.33	2.887	1.667	-3.84	10.50
	White	22	3.27	8.838	1.884	-.65	7.19
	Other	1	100.00	.	.	.	.
	Total	26	7.00	20.642	4.048	-1.34	15.34
Warrior	Afr Am	3	35.00	21.794	12.583	-19.14	89.14
	White	22	23.14	22.263	4.747	13.27	33.01
	Other	1	100.00	.	.	.	.
	Total	26	27.46	26.232	5.144	16.87	38.06
Jones	Afr Am	3	26.67	15.275	8.819	-11.28	64.61
	White	22	18.41	21.046	4.487	9.08	27.74
	Other	1	10.00	.	.	.	.
	Total	26	19.04	20.033	3.929	10.95	27.13
Dragon	Afr Am	3	40.00	36.056	20.817	-49.57	129.57
	White	22	19.86	19.996	4.263	11.00	28.73

	Other	1	.00	.	.	.	.
	Total	26	21.42	22.400	4.393	12.38	30.47
UFC	Afr Am	3	36.67	37.859	21.858	-57.38	130.71
	White	21	20.90	26.437	5.769	8.87	32.94
	Other	1	.00	.	.	.	.
	Total	25	21.96	27.385	5.477	10.66	33.26
Police	Afr Am	3	50.00	45.826	26.458	-63.84	163.84
	White	22	55.00	35.642	7.599	39.20	70.80
	Other	1	100.00	.	.	.	.
	Total	26	56.15	36.301	7.119	41.49	70.82
Knockout	Afr Am	3	26.67	15.275	8.819	-11.28	64.61
	White	22	19.45	21.980	4.686	9.71	29.20
	Other	1	.00	.	.	.	.
	Total	26	19.54	21.115	4.141	11.01	28.07
Car Fight	Afr Am	3	36.67	55.076	31.798	-100.15	173.48
	White	22	49.23	30.521	6.507	35.70	62.76
	Other	1	10.00	.	.	.	.
	Total	26	46.27	33.114	6.494	32.89	59.64
XXX	Afr Am	3	63.33	47.258	27.285	-54.06	180.73
	White	22	37.09	31.701	6.759	23.04	51.15
	Other	1	50.00	.	.	.	.
	Total	26	40.62	33.154	6.502	27.22	54.01
TV Gun	Afr Am	3	46.33	39.879	23.024	-52.73	145.40
	White	22	20.68	19.740	4.209	11.93	29.43
	Other	1	.00	.	.	.	.
	Total	26	22.85	23.361	4.581	13.41	32.28
Number 4	Afr Am	3	30.00	20.000	11.547	-19.68	79.68
	White	22	21.95	23.959	5.108	11.33	32.58
	Other	1	.00	.	.	.	.
	Total	26	22.04	23.265	4.563	12.64	31.44

Descriptive Statistics for Connection Based on Ethnicity

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Control	Afr Am	3	15.50	30.716	12.540	-16.73	47.73
	White	23	17.71	23.546	3.510	10.64	24.78
	Other	1	.00	.000	.000	.00	.00
	Total	27	16.79	23.908	3.284	10.20	23.38
Girl Fight	Afr Am	3	6.67	11.547	6.667	-22.02	35.35
	White	22	3.18	5.679	1.211	.66	5.70
	Other	1	.00	.	.	.	.
	Total	26	3.46	6.288	1.233	.92	6.00
First Shot	Afr Am	3	16.67	28.868	16.667	-55.04	88.38
	White	22	14.64	24.232	5.166	3.89	25.38
	Other	1	.00	.	.	.	.
	Total	26	14.31	23.851	4.678	4.67	23.94
Walk Tall	Afr Am	3	1.00	1.732	1.000	-3.30	5.30
	White	22	5.00	11.339	2.417	-.03	10.03
	Other	1	.00	.	.	.	.
	Total	26	4.35	10.522	2.064	.10	8.60
Aquarium	Afr Am	3	.00	.000	.000	.00	.00
	White	22	14.41	25.186	5.370	3.24	25.58
	Other	1	.00	.	.	.	.
	Total	26	12.19	23.685	4.645	2.63	21.76
Crook	Afr Am	3	.00	.000	.000	.00	.00
	White	22	11.09	20.531	4.377	1.99	20.19
	Other	1	.00	.	.	.	.
	Total	26	9.38	19.254	3.776	1.61	17.16
Warrior	Afr Am	3	8.33	10.408	6.009	-17.52	34.19
	White	22	22.64	31.280	6.669	8.77	36.51
	Other	1	.00	.	.	.	.
	Total	26	20.12	29.479	5.781	8.21	32.02
Jones	Afr Am	3	.00	.000	.000	.00	.00
	White	22	6.41	12.738	2.716	.76	12.06
	Other	1	.00	.	.	.	.
	Total	26	5.42	11.910	2.336	.61	10.23
Dragon	Afr Am	3	3.33	5.774	3.333	-11.01	17.68
	White	22	14.68	23.751	5.064	4.15	25.21

	Other	1	.00	.	.	.	.
	Total	26	12.81	22.293	4.372	3.80	21.81
UFC	Afr Am	3	1.67	2.887	1.667	-5.50	8.84
	White	22	19.55	24.763	5.280	8.57	30.52
	Other	1	.00	.	.	.	.
	Total	26	16.73	23.689	4.646	7.16	26.30
Police	Afr Am	3	.00	.000	.000	.00	.00
	White	22	10.55	23.409	4.991	.17	20.92
	Other	1	.00	.	.	.	.
	Total	26	8.92	21.803	4.276	.12	17.73
Knockout	Afr Am	3	.67	1.155	.667	-2.20	3.54
	White	22	24.14	29.142	6.213	11.22	37.06
	Other	1	.00	.	.	.	.
	Total	26	20.50	28.092	5.509	9.15	31.85
Car Fight	Afr Am	3	.00	.000	.000	.00	.00
	White	22	12.82	21.134	4.506	3.45	22.19
	Other	1	.00	.	.	.	.
	Total	26	10.85	19.935	3.910	2.79	18.90
XXX	Afr Am	3	16.67	15.275	8.819	-21.28	54.61
	White	22	17.68	29.336	6.254	4.67	30.69
	Other	1	.00	.	.	.	.
	Total	26	16.88	27.451	5.384	5.80	27.97
TV Gun	Afr Am	3	.00	.000	.000	.00	.00
	White	22	11.82	17.698	3.773	3.97	19.66
	Other	1	.00	.	.	.	.
	Total	26	10.00	16.793	3.293	3.22	16.78
Number 4	Afr Am	3	23.33	20.817	12.019	-28.38	75.04
	White	22	15.00	24.792	5.286	4.01	25.99
	Other	1	.00	.	.	.	.
	Total	26	15.38	23.836	4.675	5.76	25.01

Descriptive Statistics for Appropriateness Based on Ethnicity

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Control	Afr Am	6	13.33	21.833	8.913	-9.58	36.25
	White	45	31.78	29.130	4.342	23.03	40.53
	Other	2	2.50	3.536	2.500	-29.27	34.27
	Total	53	28.58	28.738	3.948	20.66	36.51
Girl Fight	Afr Am	3	.00	.000	.000	.00	.00
	White	22	4.68	10.816	2.306	-.11	9.48
	Other	1	.00	.	.	.	.
	Total	26	3.96	10.062	1.973	-.10	8.03
First Shot	Afr Am	3	.00	.000	.000	.00	.00
	White	22	31.09	31.206	6.653	17.26	44.93
	Other	1	.00	.	.	.	.
	Total	26	26.31	30.804	6.041	13.87	38.75
Walk Tall	Afr Am	3	3.33	5.774	3.333	-11.01	17.68
	White	22	24.45	29.145	6.214	11.53	37.38
	Other	1	.00	.	.	.	.
	Total	26	21.08	27.960	5.483	9.78	32.37
Aquarium	Afr Am	3	6.67	11.547	6.667	-22.02	35.35
	White	22	31.59	33.036	7.043	16.94	46.24
	Other	1	.00	.	.	.	.
	Total	26	27.50	32.008	6.277	14.57	40.43
Crook	Afr Am	3	.00	.000	.000	.00	.00
	White	22	45.59	37.333	7.959	29.04	62.14
	Other	1	.00	.	.	.	.
	Total	26	38.58	38.107	7.473	23.19	53.97
Warrior	Afr Am	3	6.67	11.547	6.667	-22.02	35.35
	White	22	29.32	34.027	7.255	14.23	44.40
	Other	1	.00	.	.	.	.
	Total	26	25.58	32.629	6.399	12.40	38.76
Jones	Afr Am	3	10.00	17.321	10.000	-33.03	53.03
	White	22	14.91	24.250	5.170	4.16	25.66
	Other	1	.00	.	.	.	.
	Total	26	13.77	22.987	4.508	4.48	23.05
Dragon	Afr Am	3	6.67	11.547	6.667	-22.02	35.35
	White	22	35.09	29.939	6.383	21.82	48.37

	Other	1	.00	.	.	.	.
	Total	26	30.46	29.792	5.843	18.43	42.49
UFC	Afr Am	3	6.67	11.547	6.667	-22.02	35.35
	White	22	34.86	32.159	6.856	20.61	49.12
	Other	1	.00	.	.	.	.
	Total	26	30.27	31.646	6.206	17.49	43.05
Police	Afr Am	3	6.67	11.547	6.667	-22.02	35.35
	White	22	10.05	22.038	4.698	.27	19.82
	Other	1	.00	.	.	.	.
	Total	26	9.27	20.577	4.035	.96	17.58
Knockout	Afr Am	3	16.67	28.868	16.667	-55.04	88.38
	White	22	39.95	35.807	7.634	24.08	55.83
	Other	1	.00	.	.	.	.
	Total	26	35.73	35.412	6.945	21.43	50.03
Car Fight	Afr Am	3	6.67	11.547	6.667	-22.02	35.35
	White	22	13.23	18.195	3.879	5.16	21.29
	Other	1	.00	.	.	.	.
	Total	26	11.96	17.299	3.393	4.97	18.95
XXX	Afr Am	3	6.67	11.547	6.667	-22.02	35.35
	White	22	17.59	18.618	3.969	9.34	25.85
	Other	1	.00	.	.	.	.
	Total	26	15.65	18.018	3.534	8.38	22.93
TV Gun	Afr Am	3	10.00	17.321	10.000	-33.03	53.03
	White	22	23.55	25.538	5.445	12.22	34.87
	Other	1	.00	.	.	.	.
	Total	26	21.08	24.692	4.842	11.10	31.05
Number 4	Afr Am	3	6.67	11.547	6.667	-22.02	35.35
	White	22	29.14	31.102	6.631	15.35	42.93
	Other	1	.00	.	.	.	.
	Total	26	25.42	30.058	5.895	13.28	37.56

Appendix K: Descriptive Statistics for RQ2 Based on Class Rank

Descriptive Statistics for Entertainment Based on Class Rank

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Control	Freshmen	5	62.27	27.144	8.184	44.04	80.51
	Sophomore	6	41.36	24.707	7.450	24.76	57.96
	Junior	10	55.00	20.973	5.087	44.22	65.78
	Senior	5	51.92	28.260	8.158	33.96	69.87
	Total	26	52.90	25.224	3.532	45.81	60.00
Girl Fight	Freshmen	6	31.67	43.089	17.591	-13.55	76.89
	Sophomore	5	50.00	32.404	14.491	9.77	90.23
	Junior	8	39.88	30.475	10.774	14.40	65.35
	Senior	7	32.14	31.604	11.945	2.91	61.37
	Total	26	37.85	32.988	6.470	24.52	51.17
First Shot	Freshmen	6	61.67	26.394	10.775	33.97	89.37
	Sophomore	5	70.00	34.641	15.492	26.99	113.01
	Junior	8	53.13	24.127	8.530	32.95	73.30
	Senior	7	56.43	28.826	10.895	29.77	83.09
	Total	26	59.23	27.065	5.308	48.30	70.16
Walk Tall	Freshmen	6	21.67	17.224	7.032	3.59	39.74
	Sophomore	5	52.00	38.341	17.146	4.39	99.61
	Junior	8	49.50	35.785	12.652	19.58	79.42
	Senior	7	26.43	18.867	7.131	8.98	43.88
	Total	26	37.35	30.350	5.952	25.09	49.60
Aquarium	Freshmen	6	51.67	16.021	6.540	34.85	68.48
	Sophomore	5	86.00	19.494	8.718	61.80	110.20
	Junior	8	63.13	32.617	11.532	35.86	90.39
	Senior	7	47.86	30.803	11.642	19.37	76.34
	Total	26	60.77	28.868	5.662	49.11	72.43
Crook	Freshmen	6	16.67	27.325	11.155	-12.01	45.34
	Sophomore	5	14.00	15.166	6.782	-4.83	32.83
	Junior	8	37.13	32.144	11.365	10.25	64.00
	Senior	7	27.14	25.142	9.503	3.89	50.40
	Total	26	25.27	26.763	5.249	14.46	36.08
Warrior	Freshmen	6	68.33	38.687	15.794	27.73	108.93
	Sophomore	5	76.00	43.359	19.391	22.16	129.84
	Junior	8	71.88	20.808	7.357	54.48	89.27

	Senior	7	59.29	39.836	15.057	22.44	96.13
Jones	Total	26	68.46	33.777	6.624	54.82	82.10
	Freshmen	6	18.33	22.949	9.369	-5.75	42.42
	Sophomore	5	48.00	35.637	15.937	3.75	92.25
	Junior	8	47.50	29.933	10.583	22.48	72.52
	Senior	7	17.86	16.036	6.061	3.03	32.69
Dragon	Total	26	32.88	29.141	5.715	21.11	44.66
	Freshmen	6	45.33	37.345	15.246	6.14	84.52
	Sophomore	5	71.00	42.778	19.131	17.88	124.12
	Junior	8	58.75	30.751	10.872	33.04	84.46
	Senior	7	45.71	28.929	10.934	18.96	72.47
UFC	Total	26	54.50	33.755	6.620	40.87	68.13
	Freshmen	6	46.67	40.332	16.465	4.34	88.99
	Sophomore	5	46.00	31.305	14.000	7.13	84.87
	Junior	8	38.75	37.427	13.232	7.46	70.04
	Senior	7	42.14	33.894	12.811	10.80	73.49
Police	Total	26	42.88	34.074	6.683	29.12	56.65
	Freshmen	6	21.67	40.208	16.415	-20.53	63.86
	Sophomore	5	58.00	39.623	17.720	8.80	107.20
	Junior	8	24.38	29.664	10.488	-.43	49.18
	Senior	7	33.57	23.223	8.777	12.09	55.05
Knockout	Total	26	32.69	33.615	6.592	19.11	46.27
	Freshmen	6	23.33	39.328	16.055	-17.94	64.61
	Sophomore	5	38.00	25.884	11.576	5.86	70.14
	Junior	8	22.00	29.814	10.541	-2.92	46.92
	Senior	7	46.43	29.257	11.058	19.37	73.49
Car Fight	Total	26	31.96	31.406	6.159	19.28	44.65
	Freshmen	6	20.00	40.000	16.330	-21.98	61.98
	Sophomore	5	44.00	37.815	16.912	-2.95	90.95
	Junior	8	42.75	31.130	11.006	16.72	68.78
	Senior	7	37.14	31.339	11.845	8.16	66.13
XXX	Total	26	36.23	33.838	6.636	22.56	49.90
	Freshmen	6	46.67	36.148	14.757	8.73	84.60
	Sophomore	5	78.00	43.818	19.596	23.59	132.41
	Junior	8	73.13	25.239	8.923	52.03	94.22
	Senior	7	62.14	35.574	13.446	29.24	95.04

TV Gun	Total	26	65.00	34.474	6.761	51.08	78.92
	Freshmen	6	40.00	30.332	12.383	8.17	71.83
	Sophomore	5	66.00	34.351	15.362	23.35	108.65
	Junior	8	51.75	33.393	11.806	23.83	79.67
	Senior	7	47.86	27.364	10.343	22.55	73.16
Number 4	Total	26	50.73	30.686	6.018	38.34	63.13
	Freshmen	6	71.67	34.303	14.004	35.67	107.67
	Sophomore	5	76.00	43.359	19.391	22.16	129.84
	Junior	8	50.88	17.884	6.323	35.92	65.83
	Senior	7	46.43	35.203	13.306	13.87	78.99
	Total	26	59.31	32.935	6.459	46.01	72.61

Descriptive Statistics for Excitement Based on Class Rank

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Control	Freshmen	5	59.09	26.535	8.001	41.26	76.92
	Sophomore	7	45.00	32.683	9.435	24.23	65.77
	Junior	10	50.11	21.535	5.076	39.40	60.82
	Senior	5	46.25	27.396	7.909	28.84	63.66
	Total	27	49.94	26.424	3.630	42.66	57.23
Girl Fight	Freshmen	6	28.33	44.907	18.333	-18.79	75.46
	Sophomore	5	48.00	32.711	14.629	7.38	88.62
	Junior	8	40.88	32.516	11.496	13.69	68.06
	Senior	7	35.00	22.361	8.452	14.32	55.68
	Total	26	37.77	32.220	6.319	24.76	50.78
First Shot	Freshmen	6	45.00	20.736	8.466	23.24	66.76
	Sophomore	5	64.00	31.305	14.000	25.13	102.87
	Junior	8	50.00	23.851	8.433	30.06	69.94
	Senior	7	45.71	24.226	9.157	23.31	68.12
	Total	26	50.38	24.354	4.776	40.55	60.22
Walk Tall	Freshmen	6	15.00	10.488	4.282	3.99	26.01
	Sophomore	5	40.00	30.822	13.784	1.73	78.27
	Junior	8	34.00	34.810	12.307	4.90	63.10
	Senior	7	19.29	22.066	8.340	-1.12	39.69
	Total	26	26.81	27.033	5.302	15.89	37.73
Aquarium	Freshmen	6	24.17	16.857	6.882	6.48	41.86
	Sophomore	5	65.00	14.142	6.325	47.44	82.56
	Junior	8	44.63	30.326	10.722	19.27	69.98
	Senior	7	42.14	28.557	10.793	15.73	68.55
	Total	26	43.15	26.926	5.281	32.28	54.03
Crook	Freshmen	6	13.33	23.381	9.545	-11.20	37.87
	Sophomore	5	12.00	16.432	7.348	-8.40	32.40
	Junior	8	23.88	28.623	10.120	-.05	47.80
	Senior	7	27.14	26.435	9.991	2.69	51.59
	Total	26	20.04	24.335	4.773	10.21	29.87
Warrior	Freshmen	6	68.33	38.166	15.581	28.28	108.39
	Sophomore	5	78.00	43.818	19.596	23.59	132.41
	Junior	8	62.75	31.079	10.988	36.77	88.73
	Senior	7	61.43	34.727	13.126	29.31	93.55

	Total	26	66.62	34.603	6.786	52.64	80.59
Jones	Freshmen	6	15.83	19.854	8.105	-5.00	36.67
	Sophomore	5	44.00	41.593	18.601	-7.64	95.64
	Junior	8	33.00	28.320	10.012	9.32	56.68
	Senior	7	19.14	20.980	7.930	-.26	38.55
	Total	26	27.42	28.323	5.555	15.98	38.86
Dragon	Freshmen	6	32.83	30.531	12.464	.79	64.87
	Sophomore	5	66.00	41.593	18.601	14.36	117.64
	Junior	8	50.13	24.942	8.818	29.27	70.98
	Senior	7	40.00	20.207	7.638	21.31	58.69
	Total	26	46.46	29.535	5.792	34.53	58.39
UFC	Freshmen	6	38.33	34.303	14.004	2.33	74.33
	Sophomore	5	44.00	29.665	13.266	7.17	80.83
	Junior	8	38.00	39.889	14.103	4.65	71.35
	Senior	7	47.14	26.435	9.991	22.69	71.59
	Total	26	41.69	31.715	6.220	28.88	54.50
Police	Freshmen	6	23.33	39.328	16.055	-17.94	64.61
	Sophomore	5	60.00	41.833	18.708	8.06	111.94
	Junior	8	29.63	39.978	14.134	-3.80	63.05
	Senior	7	51.43	31.717	11.988	22.10	80.76
	Total	26	39.88	38.677	7.585	24.26	55.51
Knockout	Freshmen	6	18.33	40.208	16.415	-23.86	60.53
	Sophomore	5	28.00	21.679	9.695	1.08	54.92
	Junior	8	19.25	27.238	9.630	-3.52	42.02
	Senior	7	45.71	29.358	11.096	18.56	72.87
	Total	26	27.85	30.788	6.038	15.41	40.28
Car Fight	Freshmen	6	19.17	40.052	16.351	-22.87	61.20
	Sophomore	5	35.00	35.000	15.652	-8.46	78.46
	Junior	8	29.50	31.767	11.231	2.94	56.06
	Senior	7	32.86	28.115	10.627	6.85	58.86
	Total	26	29.08	31.996	6.275	16.15	42.00
XXX	Freshmen	6	51.67	31.885	13.017	18.21	85.13
	Sophomore	5	80.00	44.721	20.000	24.47	135.53
	Junior	8	60.25	39.895	14.105	26.90	93.60
	Senior	7	62.14	33.399	12.624	31.25	93.03
	Total	26	62.58	36.439	7.146	47.86	77.29

TV Gun	Freshmen	6	28.33	22.286	9.098	4.95	51.72
	Sophomore	5	62.00	37.014	16.553	16.04	107.96
	Junior	8	42.63	29.046	10.269	18.34	66.91
	Senior	7	44.29	25.565	9.663	20.64	67.93
	Total	26	43.50	28.908	5.669	31.82	55.18
Number 4	Freshmen	6	70.00	35.214	14.376	33.05	106.95
	Sophomore	5	66.00	38.471	17.205	18.23	113.77
	Junior	8	41.88	27.042	9.561	19.27	64.48
	Senior	7	45.71	33.094	12.509	15.11	76.32
	Total	26	54.04	33.300	6.531	40.59	67.49

Descriptive Statistics for Imagination Based on Class Rank

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Control	Freshmen	5	59.09	25.770	7.770	41.78	76.40
	Sophomore	7	58.17	28.626	8.263	39.98	76.35
	Junior	10	56.39	23.124	5.450	44.89	67.89
	Senior	5	63.75	35.170	10.153	41.40	86.10
	Total	27	59.02	27.299	3.750	51.49	66.54
Girl Fight	Freshmen	6	23.33	38.297	15.635	-16.86	63.52
	Sophomore	5	8.00	17.889	8.000	-14.21	30.21
	Junior	8	15.63	24.118	8.527	-4.54	35.79
	Senior	7	25.00	23.629	8.931	3.15	46.85
	Total	26	18.46	26.145	5.127	7.90	29.02
First Shot	Freshmen	6	30.00	28.983	11.832	-.42	60.42
	Sophomore	5	64.00	37.815	16.912	17.05	110.95
	Junior	8	35.00	32.089	11.345	8.17	61.83
	Senior	7	55.00	21.985	8.309	34.67	75.33
	Total	26	44.81	31.421	6.162	32.12	57.50
Walk Tall	Freshmen	6	1.67	4.082	1.667	-2.62	5.95
	Sophomore	5	24.00	24.083	10.770	-5.90	53.90
	Junior	8	34.75	34.874	12.330	5.59	63.91
	Senior	7	22.14	24.809	9.377	-.80	45.09
	Total	26	21.65	27.135	5.322	10.69	32.61
Aquarium	Freshmen	6	10.00	20.000	8.165	-10.99	30.99
	Sophomore	5	20.00	20.000	8.944	-4.83	44.83
	Junior	8	18.50	25.873	9.148	-3.13	40.13
	Senior	7	37.86	28.702	10.848	11.31	64.40
	Total	26	22.04	25.275	4.957	11.83	32.25
Crook	Freshmen	6	13.33	32.660	13.333	-20.94	47.61
	Sophomore	5	10.00	14.142	6.325	-7.56	27.56
	Junior	8	22.88	32.652	11.544	-4.42	50.17
	Senior	7	34.00	31.016	11.723	5.31	62.69
	Total	26	21.19	29.350	5.756	9.34	33.05
Warrior	Freshmen	6	35.00	37.283	15.221	-4.13	74.13
	Sophomore	5	44.00	39.115	17.493	-4.57	92.57
	Junior	8	40.13	35.462	12.538	10.48	69.77
	Senior	7	45.00	35.000	13.229	12.63	77.37

	Total	26	41.00	34.410	6.748	27.10	54.90
Jones	Freshmen	6	5.00	12.247	5.000	-7.85	17.85
	Sophomore	5	6.00	13.416	6.000	-10.66	22.66
	Junior	8	10.75	16.525	5.842	-3.07	24.57
	Senior	7	23.57	28.536	10.785	-2.82	49.96
	Total	26	11.96	19.689	3.861	4.01	19.91
Dragon	Freshmen	6	28.33	40.208	16.415	-13.86	70.53
	Sophomore	5	58.00	41.473	18.547	6.50	109.50
	Junior	8	36.50	31.341	11.081	10.30	62.70
	Senior	7	32.14	26.435	9.991	7.69	56.59
	Total	26	37.58	33.968	6.662	23.86	51.30
UFC	Freshmen	6	18.33	40.208	16.415	-23.86	60.53
	Sophomore	5	6.00	8.944	4.000	-5.11	17.11
	Junior	8	21.25	31.024	10.969	-4.69	47.19
	Senior	7	27.14	31.604	11.945	-2.09	56.37
	Total	26	19.23	29.990	5.881	7.12	31.34
Police	Freshmen	6	8.50	20.821	8.500	-13.35	30.35
	Sophomore	5	52.00	35.637	15.937	7.75	96.25
	Junior	8	37.50	41.207	14.569	3.05	71.95
	Senior	7	37.86	27.967	10.570	11.99	63.72
	Total	26	33.69	34.379	6.742	19.81	47.58
Knockout	Freshmen	6	8.33	20.412	8.333	-13.09	29.75
	Sophomore	5	28.00	22.804	10.198	-.31	56.31
	Junior	8	22.38	29.335	10.372	-2.15	46.90
	Senior	7	37.14	34.017	12.857	5.68	68.60
	Total	26	24.19	28.222	5.535	12.79	35.59
Car Fight	Freshmen	6	16.67	40.825	16.667	-26.18	59.51
	Sophomore	5	18.00	17.889	8.000	-4.21	40.21
	Junior	8	23.38	34.595	12.231	-5.55	52.30
	Senior	7	30.00	29.721	11.233	2.51	57.49
	Total	26	22.58	30.982	6.076	10.06	35.09
XXX	Freshmen	6	27.50	37.383	15.262	-11.73	66.73
	Sophomore	5	50.00	33.166	14.832	8.82	91.18
	Junior	8	46.00	36.727	12.985	15.30	76.70
	Senior	7	40.71	37.686	14.244	5.86	75.57
	Total	26	41.08	35.242	6.912	26.84	55.31
TV Gun	Freshmen	6	6.17	8.010	3.270	-2.24	14.57
	Sophomore	5	46.00	31.305	14.000	7.13	84.87
	Junior	8	25.38	27.407	9.690	2.46	48.29
	Senior	7	41.43	24.785	9.368	18.51	64.35

	Total	26	29.23	27.526	5.398	18.11	40.35
Number 4	Freshmen	6	41.67	47.504	19.394	-8.19	91.52
	Sophomore	5	38.00	26.833	12.000	4.68	71.32
	Junior	8	23.88	27.258	9.637	1.09	46.66
	Senior	7	49.29	28.785	10.880	22.66	75.91
	Total	26	37.54	32.802	6.433	24.29	50.79

Descriptive Statistics for Escape Based on Class Rank

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Control	Freshmen	5	30.00	28.983	8.739	10.53	49.47
	Sophomore	7	25.83	26.097	7.534	9.25	42.41
	Junior	10	25.50	25.908	6.106	12.62	38.38
	Senior	5	39.25	33.199	9.584	18.16	60.34
	Total	27	29.62	28.086	3.858	21.88	37.36
Girl Fight	Freshmen	6	6.67	16.330	6.667	-10.47	23.80
	Sophomore	5	20.00	30.822	13.784	-18.27	58.27
	Junior	8	4.63	6.844	2.420	-1.10	10.35
	Senior	7	7.14	9.940	3.757	-2.05	16.34
	Total	26	8.73	16.574	3.250	2.04	15.42
First Shot	Freshmen	6	25.00	30.822	12.583	-7.35	57.35
	Sophomore	5	20.00	27.386	12.247	-14.00	54.00
	Junior	8	15.00	22.039	7.792	-3.43	33.43
	Senior	7	42.86	26.904	10.169	17.98	67.74
	Total	26	25.77	27.302	5.354	14.74	36.80
Walk Tall	Freshmen	6	.00	.000	.000	.00	.00
	Sophomore	5	18.00	40.249	18.000	-31.98	67.98
	Junior	8	20.00	32.514	11.495	-7.18	47.18
	Senior	7	15.71	17.895	6.764	-.84	32.26
	Total	26	13.85	26.356	5.169	3.20	24.49
Aquarium	Freshmen	6	.00	.000	.000	.00	.00
	Sophomore	5	18.00	40.249	18.000	-31.98	67.98
	Junior	8	10.25	14.753	5.216	-2.08	22.58
	Senior	7	15.71	27.753	10.490	-9.95	41.38
	Total	26	10.85	23.457	4.600	1.37	20.32
Crook	Freshmen	6	.00	.000	.000	.00	.00
	Sophomore	5	12.00	16.432	7.348	-8.40	32.40
	Junior	8	16.75	25.872	9.147	-4.88	38.38
	Senior	7	24.29	29.781	11.256	-3.26	51.83
	Total	26	14.00	22.877	4.487	4.76	23.24
Warrior	Freshmen	6	18.33	40.208	16.415	-23.86	60.53
	Sophomore	5	32.00	40.866	18.276	-18.74	82.74
	Junior	8	28.38	35.512	12.556	-1.31	58.06
	Senior	7	50.00	35.473	13.408	17.19	82.81

	Total	26	32.58	37.216	7.299	17.54	47.61
Jones	Freshmen	6	1.67	4.082	1.667	-2.62	5.95
	Sophomore	5	16.00	21.909	9.798	-11.20	43.20
	Junior	8	3.63	5.805	2.052	-1.23	8.48
	Senior	7	12.14	18.225	6.888	-4.71	29.00
	Total	26	7.85	14.234	2.792	2.10	13.60
Dragon	Freshmen	6	6.67	16.330	6.667	-10.47	23.80
	Sophomore	5	10.00	22.361	10.000	-17.76	37.76
	Junior	8	27.13	31.266	11.054	.99	53.26
	Senior	7	32.86	32.385	12.241	2.91	62.81
	Total	26	20.65	27.991	5.490	9.35	31.96
UFC	Freshmen	6	20.33	39.808	16.251	-21.44	62.11
	Sophomore	5	6.00	13.416	6.000	-10.66	22.66
	Junior	8	16.75	25.750	9.104	-4.78	38.28
	Senior	7	33.57	31.187	11.788	4.73	62.41
	Total	26	20.04	29.309	5.748	8.20	31.88
Police	Freshmen	6	.00	.000	.000	.00	.00
	Sophomore	5	18.00	40.249	18.000	-31.98	67.98
	Junior	8	9.75	17.702	6.259	-5.05	24.55
	Senior	7	26.43	28.094	10.619	.45	52.41
	Total	26	13.58	25.208	4.944	3.40	23.76
Knockout	Freshmen	6	10.00	24.495	10.000	-15.71	35.71
	Sophomore	5	32.00	33.466	14.967	-9.55	73.55
	Junior	8	13.50	25.088	8.870	-7.47	34.47
	Senior	7	34.29	31.415	11.874	5.23	63.34
	Total	26	21.85	28.848	5.658	10.19	33.50
Car Fight	Freshmen	6	11.67	28.577	11.667	-18.32	41.66
	Sophomore	5	.00	.000	.000	.00	.00
	Junior	8	8.00	17.664	6.245	-6.77	22.77
	Senior	7	24.29	26.209	9.906	.05	48.52
	Total	26	11.69	22.173	4.349	2.74	20.65
XXX	Freshmen	6	7.50	9.874	4.031	-2.86	17.86
	Sophomore	5	28.00	32.711	14.629	-12.62	68.62
	Junior	8	38.88	44.755	15.823	1.46	76.29
	Senior	7	50.71	36.564	13.820	16.90	84.53
	Total	26	32.73	36.500	7.158	17.99	47.47

TV Gun	Freshmen	6	1.00	1.673	.683	-.76	2.76
	Sophomore	5	28.00	25.884	11.576	-4.14	60.14
	Junior	8	14.88	22.203	7.850	-3.69	33.44
	Senior	7	30.71	25.889	9.785	6.77	54.66
	Total	26	18.46	23.328	4.575	9.04	27.88
Number 4	Freshmen	6	16.67	40.825	16.667	-26.18	59.51
	Sophomore	5	34.00	37.148	16.613	-12.13	80.13
	Junior	8	19.25	30.311	10.717	-6.09	44.59
	Senior	7	38.57	29.257	11.058	11.51	65.63
	Total	26	26.69	33.300	6.531	13.24	40.14

Descriptive Statistics for Violence Based on Class Rank

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Control	Freshmen	5	33.18	32.193	9.706	11.55	54.81
	Sophomore	7	35.00	23.837	6.881	19.85	50.15
	Junior	10	18.72	24.338	5.736	6.62	30.83
	Senior	5	27.92	28.241	8.152	9.97	45.86
	Total	27	27.49	26.988	3.707	20.05	34.93
Girl Fight	Freshmen	6	65.00	35.637	14.549	27.60	102.40
	Sophomore	5	55.00	21.794	9.747	27.94	82.06
	Junior	8	54.13	36.728	12.985	23.42	84.83
	Senior	7	33.57	23.929	9.044	11.44	55.70
	Total	26	51.27	31.361	6.150	38.60	63.94
First Shot	Freshmen	6	10.00	10.954	4.472	-1.50	21.50
	Sophomore	5	16.00	20.736	9.274	-9.75	41.75
	Junior	8	18.88	18.597	6.575	3.33	34.42
	Senior	7	22.86	24.300	9.184	.38	45.33
	Total	26	17.35	18.813	3.689	9.75	24.94
Walk Tall	Freshmen	6	19.17	17.440	7.120	.86	37.47
	Sophomore	5	6.00	13.416	6.000	-10.66	22.66
	Junior	8	27.38	23.862	8.437	7.43	47.32
	Senior	7	28.57	24.785	9.368	5.65	51.49
	Total	26	21.69	21.699	4.256	12.93	30.46
Aquarium	Freshmen	6	9.17	9.174	3.745	-.46	18.79
	Sophomore	5	9.00	12.450	5.568	-6.46	24.46
	Junior	8	36.25	26.288	9.294	14.27	58.23
	Senior	7	16.43	10.293	3.891	6.91	25.95
	Total	26	19.42	20.016	3.926	11.34	27.51
Crook	Freshmen	6	.83	2.041	.833	-1.31	2.98
	Sophomore	5	1.00	2.236	1.000	-1.78	3.78
	Junior	8	20.25	34.940	12.353	-8.96	49.46
	Senior	7	1.43	2.440	.922	-.83	3.68
	Total	26	7.00	20.642	4.048	-1.34	15.34
Warrior	Freshmen	6	18.67	19.044	7.775	-1.32	38.65
	Sophomore	5	20.00	28.284	12.649	-15.12	55.12
	Junior	8	36.50	33.696	11.913	8.33	64.67
	Senior	7	30.00	21.602	8.165	10.02	49.98

	Total	26	27.46	26.232	5.144	16.87	38.06
Jones	Freshmen	6	11.67	14.376	5.869	-3.42	26.75
	Sophomore	5	19.00	24.083	10.770	-10.90	48.90
	Junior	8	25.63	25.646	9.067	4.18	47.07
	Senior	7	17.86	15.236	5.759	3.77	31.95
	Total	26	19.04	20.033	3.929	10.95	27.13
Dragon	Freshmen	6	18.33	22.286	9.098	-5.05	41.72
	Sophomore	5	17.00	24.900	11.136	-13.92	47.92
	Junior	8	25.88	27.570	9.748	2.83	48.92
	Senior	7	22.14	17.995	6.801	5.50	38.79
	Total	26	21.42	22.400	4.393	12.38	30.47
UFC	Freshmen	5	19.00	31.702	14.177	-20.36	58.36
	Sophomore	5	9.00	12.450	5.568	-6.46	24.46
	Junior	8	28.63	33.806	11.952	.36	56.89
	Senior	7	25.71	25.889	9.785	1.77	49.66
	Total	25	21.96	27.385	5.477	10.66	33.26
Police	Freshmen	6	70.00	37.417	15.275	30.73	109.27
	Sophomore	5	51.00	35.777	16.000	6.58	95.42
	Junior	8	66.25	41.517	14.678	31.54	100.96
	Senior	7	36.43	25.612	9.680	12.74	60.12
	Total	26	56.15	36.301	7.119	41.49	70.82
Knockout	Freshmen	6	41.67	27.325	11.155	12.99	70.34
	Sophomore	5	12.20	16.254	7.269	-7.98	32.38
	Junior	8	14.63	16.945	5.991	.46	28.79
	Senior	7	11.43	8.997	3.401	3.11	19.75
	Total	26	19.54	21.115	4.141	11.01	28.07
Car Fight	Freshmen	6	61.67	36.560	14.926	23.30	100.03
	Sophomore	5	40.00	29.791	13.323	3.01	76.99
	Junior	8	56.00	33.407	11.811	28.07	83.93
	Senior	7	26.43	26.570	10.042	1.86	51.00
	Total	26	46.27	33.114	6.494	32.89	59.64
XXX	Freshmen	6	40.00	35.777	14.606	2.45	77.55
	Sophomore	5	17.00	17.889	8.000	-5.21	39.21
	Junior	8	60.75	29.266	10.347	36.28	85.22
	Senior	7	35.00	35.473	13.408	2.19	67.81
	Total	26	40.62	33.154	6.502	27.22	54.01

TV Gun	Freshmen	6	13.33	21.602	8.819	-9.34	36.00
	Sophomore	5	22.00	16.432	7.348	1.60	42.40
	Junior	8	28.00	28.889	10.214	3.85	52.15
	Senior	7	25.71	24.398	9.221	3.15	48.28
	Total	26	22.85	23.361	4.581	13.41	32.28
Number 4	Freshmen	6	31.67	33.714	13.764	-3.71	67.05
	Sophomore	5	12.00	8.367	3.742	1.61	22.39
	Junior	8	14.75	14.607	5.164	2.54	26.96
	Senior	7	29.29	26.525	10.025	4.75	53.82
	Total	26	22.04	23.265	4.563	12.64	31.44

Descriptive Statistics for Connection Based on Class Rank

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Control	Freshmen	5	18.64	28.115	8.477	-.25	37.52
	Sophomore	7	17.08	22.508	6.498	2.78	31.38
	Junior	10	14.83	24.433	5.759	2.68	26.98
	Senior	5	17.75	23.313	6.730	2.94	32.56
	Total	27	16.79	23.908	3.284	10.20	23.38
Girl Fight	Freshmen	6	.00	.000	.000	.00	.00
	Sophomore	5	2.00	4.472	2.000	-3.55	7.55
	Junior	8	3.13	5.939	2.100	-1.84	8.09
	Senior	7	7.86	8.591	3.247	-.09	15.80
	Total	26	3.46	6.288	1.233	.92	6.00
First Shot	Freshmen	6	.00	.000	.000	.00	.00
	Sophomore	5	6.00	5.477	2.449	-.80	12.80
	Junior	8	14.00	27.192	9.614	-8.73	36.73
	Senior	7	32.86	28.702	10.848	6.31	59.40
	Total	26	14.31	23.851	4.678	4.67	23.94
Walk Tall	Freshmen	6	1.67	4.082	1.667	-2.62	5.95
	Sophomore	5	.00	.000	.000	.00	.00
	Junior	8	7.88	17.374	6.142	-6.65	22.40
	Senior	7	5.71	7.319	2.766	-1.05	12.48
	Total	26	4.35	10.522	2.064	.10	8.60
Aquarium	Freshmen	6	.00	.000	.000	.00	.00
	Sophomore	5	24.00	32.863	14.697	-16.81	64.81
	Junior	8	19.63	31.641	11.187	-6.83	46.08
	Senior	7	5.71	7.868	2.974	-1.56	12.99
	Total	26	12.19	23.685	4.645	2.63	21.76
Crook	Freshmen	6	.00	.000	.000	.00	.00
	Sophomore	5	.00	.000	.000	.00	.00
	Junior	8	14.63	26.774	9.466	-7.76	37.01
	Senior	7	18.14	20.514	7.753	-.83	37.11
	Total	26	9.38	19.254	3.776	1.61	17.16
Warrior	Freshmen	6	18.33	40.208	16.415	-23.86	60.53
	Sophomore	5	.00	.000	.000	.00	.00
	Junior	8	23.50	29.885	10.566	-1.48	48.48
	Senior	7	32.14	26.592	10.051	7.55	56.74

	Total	26	20.12	29.479	5.781	8.21	32.02
Jones	Freshmen	6	.00	.000	.000	.00	.00
	Sophomore	5	.00	.000	.000	.00	.00
	Junior	8	8.25	17.285	6.111	-6.20	22.70
	Senior	7	10.71	12.051	4.555	-.43	21.86
	Total	26	5.42	11.910	2.336	.61	10.23
Dragon	Freshmen	6	.00	.000	.000	.00	.00
	Sophomore	5	6.00	8.944	4.000	-5.11	17.11
	Junior	8	24.75	34.772	12.294	-4.32	53.82
	Senior	7	15.00	14.434	5.455	1.65	28.35
	Total	26	12.81	22.293	4.372	3.80	21.81
UFC	Freshmen	6	10.83	16.857	6.882	-6.86	28.52
	Sophomore	5	2.00	4.472	2.000	-3.55	7.55
	Junior	8	13.13	21.970	7.768	-5.24	31.49
	Senior	7	36.43	28.970	10.950	9.64	63.22
	Total	26	16.73	23.689	4.646	7.16	26.30
Police	Freshmen	6	.00	.000	.000	.00	.00
	Sophomore	5	.00	.000	.000	.00	.00
	Junior	8	14.63	34.883	12.333	-14.54	43.79
	Senior	7	16.43	17.491	6.611	.25	32.61
	Total	26	8.92	21.803	4.276	.12	17.73
Knockout	Freshmen	6	7.50	14.053	5.737	-7.25	22.25
	Sophomore	5	35.00	39.051	17.464	-13.49	83.49
	Junior	8	12.25	26.130	9.238	-9.60	34.10
	Senior	7	30.71	27.451	10.376	5.33	56.10
	Total	26	20.50	28.092	5.509	9.15	31.85
Car Fight	Freshmen	6	.00	.000	.000	.00	.00
	Sophomore	5	4.00	5.477	2.449	-2.80	10.80
	Junior	8	17.13	28.342	10.020	-6.57	40.82
	Senior	7	17.86	20.788	7.857	-1.37	37.08
	Total	26	10.85	19.935	3.910	2.79	18.90
XXX	Freshmen	6	.00	.000	.000	.00	.00
	Sophomore	5	18.00	24.900	11.136	-12.92	48.92
	Junior	8	22.38	40.525	14.328	-11.50	56.25
	Senior	7	24.29	20.500	7.748	5.33	43.24
	Total	26	16.88	27.451	5.384	5.80	27.97
TV Gun	Freshmen	6	9.17	22.454	9.167	-14.40	32.73
	Sophomore	5	.00	.000	.000	.00	.00
	Junior	8	6.25	9.161	3.239	-1.41	13.91
	Senior	7	22.14	19.548	7.389	4.06	40.22

	Total	26	10.00	16.793	3.293	3.22	16.78
Number 4	Freshmen	6	21.67	40.208	16.415	-20.53	63.86
	Sophomore	5	2.00	4.472	2.000	-3.55	7.55
	Junior	8	10.00	18.547	6.557	-5.51	25.51
	Senior	7	25.71	15.924	6.019	10.99	40.44
	Total	26	15.38	23.836	4.675	5.76	25.01

Descriptive Statistics for Appropriateness Based on Class Rank

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Control	Freshmen	5	24.55	33.871	10.213	1.79	47.30
	Sophomore	7	32.08	27.424	7.917	14.66	49.51
	Junior	10	30.28	28.596	6.740	16.06	44.50
	Senior	5	26.25	28.375	8.191	8.22	44.28
	Total	27	28.58	28.738	3.948	20.66	36.51
Girl Fight	Freshmen	6	1.67	4.082	1.667	-2.62	5.95
	Sophomore	5	.00	.000	.000	.00	.00
	Junior	8	9.13	16.999	6.010	-5.09	23.34
	Senior	7	2.86	3.934	1.487	-.78	6.50
	Total	26	3.96	10.062	1.973	-.10	8.03
First Shot	Freshmen	6	30.00	40.988	16.733	-13.01	73.01
	Sophomore	5	32.00	29.496	13.191	-4.62	68.62
	Junior	8	23.63	31.341	11.081	-2.58	49.83
	Senior	7	22.14	27.516	10.400	-3.31	47.59
	Total	26	26.31	30.804	6.041	13.87	38.75
Walk Tall	Freshmen	6	15.00	27.386	11.180	-13.74	43.74
	Sophomore	5	44.00	37.815	16.912	-2.95	90.95
	Junior	8	15.38	18.814	6.652	-.35	31.10
	Senior	7	16.43	26.882	10.160	-8.43	41.29
	Total	26	21.08	27.960	5.483	9.78	32.37
Aquarium	Freshmen	6	35.00	28.810	11.762	4.77	65.23
	Sophomore	5	38.00	47.645	21.307	-21.16	97.16
	Junior	8	17.50	25.912	9.161	-4.16	39.16
	Senior	7	25.00	31.491	11.902	-4.12	54.12
	Total	26	27.50	32.008	6.277	14.57	40.43
Crook	Freshmen	6	48.33	40.702	16.617	5.62	91.05
	Sophomore	5	58.00	41.473	18.547	6.50	109.50
	Junior	8	31.63	40.876	14.452	-2.55	65.80
	Senior	7	24.29	29.358	11.096	-2.87	51.44
	Total	26	38.58	38.107	7.473	23.19	53.97
Warrior	Freshmen	6	14.17	21.075	8.604	-7.95	36.28
	Sophomore	5	50.00	50.000	22.361	-12.08	112.08
	Junior	8	26.88	31.616	11.178	.44	53.31
	Senior	7	16.43	22.493	8.502	-4.37	37.23

	Total	26	25.58	32.629	6.399	12.40	38.76
Jones	Freshmen	6	5.00	5.477	2.236	-.75	10.75
	Sophomore	5	.00	.000	.000	.00	.00
	Junior	8	26.63	34.628	12.243	-2.33	55.58
	Senior	7	16.43	17.728	6.701	.03	32.82
	Total	26	13.77	22.987	4.508	4.48	23.05
Dragon	Freshmen	6	23.33	30.111	12.293	-8.27	54.93
	Sophomore	5	36.00	26.077	11.662	3.62	68.38
	Junior	8	39.00	32.395	11.453	11.92	66.08
	Senior	7	22.86	31.997	12.094	-6.74	52.45
	Total	26	30.46	29.792	5.843	18.43	42.49
UFC	Freshmen	6	38.33	40.208	16.415	-3.86	80.53
	Sophomore	5	30.00	30.000	13.416	-7.25	67.25
	Junior	8	36.50	36.206	12.801	6.23	66.77
	Senior	7	16.43	18.867	7.131	-1.02	33.88
	Total	26	30.27	31.646	6.206	17.49	43.05
Police	Freshmen	6	7.50	16.047	6.551	-9.34	24.34
	Sophomore	5	14.00	31.305	14.000	-24.87	52.87
	Junior	8	2.38	4.138	1.463	-1.08	5.83
	Senior	7	15.29	27.366	10.343	-10.02	40.60
	Total	26	9.27	20.577	4.035	.96	17.58
Knockout	Freshmen	6	23.33	39.328	16.055	-17.94	64.61
	Sophomore	5	46.00	37.815	16.912	-.95	92.95
	Junior	8	36.13	36.946	13.062	5.24	67.01
	Senior	7	38.57	33.753	12.758	7.35	69.79
	Total	26	35.73	35.412	6.945	21.43	50.03
Car Fight	Freshmen	6	7.50	16.047	6.551	-9.34	24.34
	Sophomore	5	20.00	20.000	8.944	-4.83	44.83
	Junior	8	9.50	17.744	6.274	-5.33	24.33
	Senior	7	12.86	17.762	6.713	-3.57	29.28
	Total	26	11.96	17.299	3.393	4.97	18.95
XXX	Freshmen	6	10.00	20.000	8.165	-10.99	30.99
	Sophomore	5	24.00	15.166	6.782	5.17	42.83
	Junior	8	16.50	19.581	6.923	.13	32.87
	Senior	7	13.57	17.962	6.789	-3.04	30.18
	Total	26	15.65	18.018	3.534	8.38	22.93
TV Gun	Freshmen	6	12.50	17.819	7.274	-6.20	31.20
	Sophomore	5	24.00	21.909	9.798	-3.20	51.20
	Junior	8	26.63	29.631	10.476	1.85	51.40
	Senior	7	20.00	28.431	10.746	-6.29	46.29

	Total	26	21.08	24.692	4.842	11.10	31.05
Number 4	Freshmen	6	6.67	12.111	4.944	-6.04	19.38
	Sophomore	5	44.00	32.094	14.353	4.15	83.85
	Junior	8	35.13	35.699	12.621	5.28	64.97
	Senior	7	17.14	24.976	9.440	-5.96	40.24
	Total	26	25.42	30.058	5.895	13.28	37.56

Appendix L: Descriptive Statistics for RQ2 Based on College Major

Descriptive Statistics for Entertainment Based on College Major

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Control	Comm Media	18	47.51	23.783	3.910	39.58	55.44
	Other	6	66.82	27.411	8.265	48.40	85.23
	Undecided	2	68.33	2.887	1.667	61.16	75.50
	Total	26	52.90	25.224	3.532	45.81	60.00
Girl Fight	Comm Media	20	40.70	31.133	6.962	26.13	55.27
	Other	5	34.00	42.190	18.868	-18.39	86.39
	Undecided	1	.00	.	.	.	.
	Total	26	37.85	32.988	6.470	24.52	51.17
First Shot	Comm Media	20	58.25	28.230	6.312	45.04	71.46
	Other	5	71.00	15.166	6.782	52.17	89.83
	Undecided	1	20.00	.	.	.	.
	Total	26	59.23	27.065	5.308	48.30	70.16
Walk Tall	Comm Media	20	43.55	30.744	6.875	29.16	57.94
	Other	5	16.00	20.736	9.274	-9.75	41.75
	Undecided	1	20.00	.	.	.	.
	Total	26	37.35	30.350	5.952	25.09	49.60
Aquarium	Comm Media	20	64.50	27.477	6.144	51.64	77.36
	Other	5	50.00	36.056	16.125	5.23	94.77
	Undecided	1	40.00	.	.	.	.
	Total	26	60.77	28.868	5.662	49.11	72.43
Crook	Comm Media	20	28.10	26.648	5.959	15.63	40.57
	Other	5	19.00	29.240	13.077	-17.31	55.31
	Undecided	1	.00	.	.	.	.
	Total	26	25.27	26.763	5.249	14.46	36.08
Warrior	Comm Media	20	70.75	30.129	6.737	56.65	84.85
	Other	5	73.00	39.937	17.861	23.41	122.59
	Undecided	1	.00	.	.	.	.
	Total	26	68.46	33.777	6.624	54.82	82.10
Jones	Comm Media	20	38.50	29.980	6.704	24.47	52.53
	Other	5	17.00	17.176	7.681	-4.33	38.33
	Undecided	1	.00	.	.	.	.
	Total	26	32.88	29.141	5.715	21.11	44.66
Dragon	Comm Media	20	55.75	34.140	7.634	39.77	71.73

	Other	5	46.40	37.879	16.940	-.63	93.43
	Undecided	1	70.00	.	.	.	.
	Total	26	54.50	33.755	6.620	40.87	68.13
UFC	Comm Media	20	44.00	31.952	7.145	29.05	58.95
	Other	5	45.00	46.098	20.616	-12.24	102.24
	Undecided	1	10.00	.	.	.	.
	Total	26	42.88	34.074	6.683	29.12	56.65
Police	Comm Media	20	35.00	31.654	7.078	20.19	49.81
	Other	5	30.00	44.721	20.000	-25.53	85.53
	Undecided	1	.00	.	.	.	.
	Total	26	32.69	33.615	6.592	19.11	46.27
Knockout	Comm Media	20	34.55	29.330	6.558	20.82	48.28
	Other	5	28.00	42.071	18.815	-24.24	80.24
	Undecided	1	.00	.	.	.	.
	Total	26	31.96	31.406	6.159	19.28	44.65
Car Fight	Comm Media	20	37.10	31.141	6.963	22.53	51.67
	Other	5	40.00	46.904	20.976	-18.24	98.24
	Undecided	1	.00	.	.	.	.
	Total	26	36.23	33.838	6.636	22.56	49.90
XXX	Comm Media	20	69.25	32.057	7.168	54.25	84.25
	Other	5	59.00	40.682	18.193	8.49	109.51
	Undecided	1	10.00	.	.	.	.
	Total	26	65.00	34.474	6.761	51.08	78.92
TV Gun	Comm Media	20	54.45	29.072	6.501	40.84	68.06
	Other	5	44.00	36.469	16.310	-1.28	89.28
	Undecided	1	10.00	.	.	.	.
	Total	26	50.73	30.686	6.018	38.34	63.13
Number 4	Comm Media	20	59.60	29.759	6.654	45.67	73.53
	Other	5	68.00	43.243	19.339	14.31	121.69
	Undecided	1	10.00	.	.	.	.
	Total	26	59.31	32.935	6.459	46.01	72.61

Descriptive Statistics for Excitement Based on College Major

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Control	Comm Media	19	46.08	26.061	4.173	37.63	54.52
	Other	6	60.00	28.373	8.555	40.94	79.06
	Undecided	2	63.33	10.408	6.009	37.48	89.19
	Total	27	49.94	26.424	3.630	42.66	57.23
Girl Fight	Comm Media	20	41.35	29.308	6.554	27.63	55.07
	Other	5	31.00	43.932	19.647	-23.55	85.55
	Undecided	1	.00	.	.	.	.
	Total	26	37.77	32.220	6.319	24.76	50.78
First Shot	Comm Media	20	51.50	26.544	5.935	39.08	63.92
	Other	5	52.00	10.954	4.899	38.40	65.60
	Undecided	1	20.00	.	.	.	.
	Total	26	50.38	24.354	4.776	40.55	60.22
Walk Tall	Comm Media	20	32.10	28.490	6.371	18.77	45.43
	Other	5	9.00	10.247	4.583	-3.72	21.72
	Undecided	1	10.00	.	.	.	.
	Total	26	26.81	27.033	5.302	15.89	37.73
Aquarium	Comm Media	20	45.85	25.105	5.614	34.10	57.60
	Other	5	39.00	34.713	15.524	-4.10	82.10
	Undecided	1	10.00	.	.	.	.
	Total	26	43.15	26.926	5.281	32.28	54.03
Crook	Comm Media	20	22.05	24.837	5.554	10.43	33.67
	Other	5	16.00	25.100	11.225	-15.17	47.17
	Undecided	1	.00	.	.	.	.
	Total	26	20.04	24.335	4.773	10.21	29.87
Warrior	Comm Media	20	67.35	32.336	7.231	52.22	82.48
	Other	5	77.00	35.637	15.937	32.75	121.25
	Undecided	1	.00	.	.	.	.
	Total	26	66.62	34.603	6.786	52.64	80.59
Jones	Comm Media	20	31.65	29.932	6.693	17.64	45.66
	Other	5	16.00	17.819	7.969	-6.12	38.12
	Undecided	1	.00	.	.	.	.
	Total	26	27.42	28.323	5.555	15.98	38.86
Dragon	Comm Media	20	50.05	29.384	6.570	36.30	63.80
	Other	5	36.40	32.323	14.455	-3.73	76.53

	Undecided	1	25.00	.	.	.	.
	Total	26	46.46	29.535	5.792	34.53	58.39
UFC	Comm Media	20	44.95	29.828	6.670	30.99	58.91
	Other	5	35.00	41.231	18.439	-16.20	86.20
	Undecided	1	10.00	.	.	.	.
	Total	26	41.69	31.715	6.220	28.88	54.50
Police	Comm Media	20	41.85	36.657	8.197	24.69	59.01
	Other	5	40.00	50.498	22.583	-22.70	102.70
	Undecided	1	.00	.	.	.	.
	Total	26	39.88	38.677	7.585	24.26	55.51
Knockout	Comm Media	20	30.20	28.486	6.370	16.87	43.53
	Other	5	24.00	42.778	19.131	-29.12	77.12
	Undecided	1	.00	.	.	.	.
	Total	26	27.85	30.788	6.038	15.41	40.28
Car Fight	Comm Media	20	28.55	29.154	6.519	14.91	42.19
	Other	5	37.00	45.497	20.347	-19.49	93.49
	Undecided	1	.00	.	.	.	.
	Total	26	29.08	31.996	6.275	16.15	42.00
XXX	Comm Media	20	65.10	36.722	8.211	47.91	82.29
	Other	5	57.00	41.170	18.412	5.88	108.12
	Undecided	1	40.00	.	.	.	.
	Total	26	62.58	36.439	7.146	47.86	77.29
TV Gun	Comm Media	20	48.05	28.484	6.369	34.72	61.38
	Other	5	34.00	26.077	11.662	1.62	66.38
	Undecided	1	.00	.	.	.	.
	Total	26	43.50	28.908	5.669	31.82	55.18
Number 4	Comm Media	20	53.25	30.031	6.715	39.19	67.31
	Other	5	66.00	44.497	19.900	10.75	121.25
	Undecided	1	10.00	.	.	.	.
	Total	26	54.04	33.300	6.531	40.59	67.49

Descriptive Statistics for Imagination Based on College Major

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Control	Comm Media	19	56.79	27.637	4.425	47.84	65.75
	Other	6	65.73	29.186	8.800	46.12	85.33
	Undecided	2	63.33	15.275	8.819	25.39	101.28
	Total	27	59.02	27.299	3.750	51.49	66.54
Girl Fight	Comm Media	20	13.50	18.925	4.232	4.64	22.36
	Other	5	42.00	40.866	18.276	-8.74	92.74
	Undecided	1	.00	.	.	.	.
	Total	26	18.46	26.145	5.127	7.90	29.02
First Shot	Comm Media	20	46.50	31.467	7.036	31.77	61.23
	Other	5	45.00	33.912	15.166	2.89	87.11
	Undecided	1	10.00	.	.	.	.
	Total	26	44.81	31.421	6.162	32.12	57.50
Walk Tall	Comm Media	20	27.90	28.103	6.284	14.75	41.05
	Other	5	1.00	2.236	1.000	-1.78	3.78
	Undecided	1	.00	.	.	.	.
	Total	26	21.65	27.135	5.322	10.69	32.61
Aquarium	Comm Media	20	23.40	25.775	5.763	11.34	35.46
	Other	5	21.00	26.552	11.874	-11.97	53.97
	Undecided	1	.00	.	.	.	.
	Total	26	22.04	25.275	4.957	11.83	32.25
Crook	Comm Media	20	23.30	28.956	6.475	9.75	36.85
	Other	5	17.00	35.285	15.780	-26.81	60.81
	Undecided	1	.00	.	.	.	.
	Total	26	21.19	29.350	5.756	9.34	33.05
Warrior	Comm Media	20	39.05	32.915	7.360	23.65	54.45
	Other	5	57.00	38.665	17.292	8.99	105.01
	Undecided	1	.00	.	.	.	.
	Total	26	41.00	34.410	6.748	27.10	54.90
Jones	Comm Media	20	14.80	21.649	4.841	4.67	24.93
	Other	5	3.00	4.472	2.000	-2.55	8.55
	Undecided	1	.00	.	.	.	.
	Total	26	11.96	19.689	3.861	4.01	19.91
Dragon	Comm Media	20	38.85	32.422	7.250	23.68	54.02
	Other	5	40.00	43.012	19.235	-13.41	93.41

	Undecided	1	.00	.	.	.	.
	Total	26	37.58	33.968	6.662	23.86	51.30
UFC	Comm Media	20	19.75	27.409	6.129	6.92	32.58
	Other	5	21.00	44.215	19.774	-33.90	75.90
	Undecided	1	.00	.	.	.	.
	Total	26	19.23	29.990	5.881	7.12	31.34
Police	Comm Media	20	35.50	33.270	7.439	19.93	51.07
	Other	5	33.20	42.763	19.124	-19.90	86.30
	Undecided	1	.00	.	.	.	.
	Total	26	33.69	34.379	6.742	19.81	47.58
Knockout	Comm Media	20	25.95	28.618	6.399	12.56	39.34
	Other	5	22.00	30.332	13.565	-15.66	59.66
	Undecided	1	.00	.	.	.	.
	Total	26	24.19	28.222	5.535	12.79	35.59
Car Fight	Comm Media	20	19.60	24.539	5.487	8.12	31.08
	Other	5	39.00	51.284	22.935	-24.68	102.68
	Undecided	1	.00	.	.	.	.
	Total	26	22.58	30.982	6.076	10.06	35.09
XXX	Comm Media	20	42.15	31.675	7.083	27.33	56.97
	Other	5	45.00	50.498	22.583	-17.70	107.70
	Undecided	1	.00	.	.	.	.
	Total	26	41.08	35.242	6.912	26.84	55.31
TV Gun	Comm Media	20	33.15	25.783	5.765	21.08	45.22
	Other	5	19.40	34.158	15.276	-23.01	61.81
	Undecided	1	.00	.	.	.	.
	Total	26	29.23	27.526	5.398	18.11	40.35
Number 4	Comm Media	20	37.55	28.014	6.264	24.44	50.66
	Other	5	45.00	50.744	22.694	-18.01	108.01
	Undecided	1	.00	.	.	.	.
	Total	26	37.54	32.802	6.433	24.29	50.79

Descriptive Statistics for Escape Based on College Major

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Control	Comm Media	19	28.97	28.921	4.631	19.60	38.35
	Other	6	31.82	29.264	8.823	12.16	51.48
	Undecided	2	30.00	17.321	10.000	-13.03	73.03
	Total	27	29.62	28.086	3.858	21.88	37.36
Girl Fight	Comm Media	20	11.35	18.170	4.063	2.85	19.85
	Other	5	.00	.000	.000	.00	.00
	Undecided	1	.00	.	.	.	.
	Total	26	8.73	16.574	3.250	2.04	15.42
First Shot	Comm Media	20	24.50	25.231	5.642	12.69	36.31
	Other	5	32.00	39.623	17.720	-17.20	81.20
	Undecided	1	20.00	.	.	.	.
	Total	26	25.77	27.302	5.354	14.74	36.80
Walk Tall	Comm Media	20	18.00	28.901	6.462	4.47	31.53
	Other	5	.00	.000	.000	.00	.00
	Undecided	1	.00	.	.	.	.
	Total	26	13.85	26.356	5.169	3.20	24.49
Aquarium	Comm Media	20	14.10	25.994	5.812	1.93	26.27
	Other	5	.00	.000	.000	.00	.00
	Undecided	1	.00	.	.	.	.
	Total	26	10.85	23.457	4.600	1.37	20.32
Crook	Comm Media	20	17.95	24.827	5.551	6.33	29.57
	Other	5	1.00	2.236	1.000	-1.78	3.78
	Undecided	1	.00	.	.	.	.
	Total	26	14.00	22.877	4.487	4.76	23.24
Warrior	Comm Media	20	33.35	36.255	8.107	16.38	50.32
	Other	5	36.00	46.152	20.640	-21.31	93.31
	Undecided	1	.00	.	.	.	.
	Total	26	32.58	37.216	7.299	17.54	47.61
Jones	Comm Media	20	10.20	15.535	3.474	2.93	17.47
	Other	5	.00	.000	.000	.00	.00
	Undecided	1	.00	.	.	.	.
	Total	26	7.85	14.234	2.792	2.10	13.60
Dragon	Comm Media	20	21.35	30.316	6.779	7.16	35.54
	Other	5	22.00	20.494	9.165	-3.45	47.45

	Undecided	1	.00	.	.	.	.
	Total	26	20.65	27.991	5.490	9.35	31.96
UFC	Comm Media	20	19.80	26.803	5.993	7.26	32.34
	Other	5	25.00	42.720	19.105	-28.04	78.04
	Undecided	1	.00	.	.	.	.
	Total	26	20.04	29.309	5.748	8.20	31.88
Police	Comm Media	20	17.65	27.576	6.166	4.74	30.56
	Other	5	.00	.000	.000	.00	.00
	Undecided	1	.00	.	.	.	.
	Total	26	13.58	25.208	4.944	3.40	23.76
Knockout	Comm Media	20	25.40	29.657	6.631	11.52	39.28
	Other	5	12.00	26.833	12.000	-21.32	45.32
	Undecided	1	.00	.	.	.	.
	Total	26	21.85	28.848	5.658	10.19	33.50
Car Fight	Comm Media	20	11.70	20.785	4.648	1.97	21.43
	Other	5	14.00	31.305	14.000	-24.87	52.87
	Undecided	1	.00	.	.	.	.
	Total	26	11.69	22.173	4.349	2.74	20.65
XXX	Comm Media	20	32.80	37.219	8.322	15.38	50.22
	Other	5	35.00	41.231	18.439	-16.20	86.20
	Undecided	1	20.00	.	.	.	.
	Total	26	32.73	36.500	7.158	17.99	47.47
TV Gun	Comm Media	20	21.40	23.845	5.332	10.24	32.56
	Other	5	10.40	22.154	9.908	-17.11	37.91
	Undecided	1	.00	.	.	.	.
	Total	26	18.46	23.328	4.575	9.04	27.88
Number 4	Comm Media	20	29.70	31.292	6.997	15.06	44.34
	Other	5	20.00	44.721	20.000	-35.53	75.53
	Undecided	1	.00	.	.	.	.
	Total	26	26.69	33.300	6.531	13.24	40.14

Descriptive Statistics for Violence Based on College Major

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Control	Comm Media	19	25.05	24.949	3.995	16.96	33.14
	Other	6	28.18	29.178	8.798	8.58	47.78
	Undecided	2	56.67	38.188	22.048	-38.20	151.53
	Total	27	27.49	26.988	3.707	20.05	34.93
Girl Fight	Comm Media	20	51.65	27.886	6.235	38.60	64.70
	Other	5	42.00	44.385	19.849	-13.11	97.11
	Undecided	1	90.00	.	.	.	.
	Total	26	51.27	31.361	6.150	38.60	63.94
First Shot	Comm Media	20	20.05	19.909	4.452	10.73	29.37
	Other	5	4.00	5.477	2.449	-2.80	10.80
	Undecided	1	30.00	.	.	.	.
	Total	26	17.35	18.813	3.689	9.75	24.94
Walk Tall	Comm Media	20	21.95	21.698	4.852	11.80	32.10
	Other	5	17.00	24.393	10.909	-13.29	47.29
	Undecided	1	40.00	.	.	.	.
	Total	26	21.69	21.699	4.256	12.93	30.46
Aquarium	Comm Media	20	20.75	22.140	4.951	10.39	31.11
	Other	5	14.00	11.402	5.099	-.16	28.16
	Undecided	1	20.00	.	.	.	.
	Total	26	19.42	20.016	3.926	11.34	27.51
Crook	Comm Media	20	8.85	23.322	5.215	-2.07	19.77
	Other	5	1.00	2.236	1.000	-1.78	3.78
	Undecided	1	.00	.	.	.	.
	Total	26	7.00	20.642	4.048	-1.34	15.34
Warrior	Comm Media	20	31.10	27.108	6.061	18.41	43.79
	Other	5	12.40	21.420	9.579	-14.20	39.00
	Undecided	1	30.00	.	.	.	.
	Total	26	27.46	26.232	5.144	16.87	38.06
Jones	Comm Media	20	21.50	21.010	4.698	11.67	31.33
	Other	5	5.00	5.000	2.236	-1.21	11.21
	Undecided	1	40.00	.	.	.	.
	Total	26	19.04	20.033	3.929	10.95	27.13
Dragon	Comm Media	20	22.85	22.751	5.087	12.20	33.50
	Other	5	8.00	8.367	3.742	-2.39	18.39

	Undecided	1	60.00	.	.	.	.
	Total	26	21.42	22.400	4.393	12.38	30.47
UFC	Comm Media	19	23.89	27.266	6.255	10.75	37.04
	Other	5	4.00	5.477	2.449	-2.80	10.80
	Undecided	1	75.00	.	.	.	.
	Total	25	21.96	27.385	5.477	10.66	33.26
Police	Comm Media	20	58.50	32.430	7.252	43.32	73.68
	Other	5	42.00	53.104	23.749	-23.94	107.94
	Undecided	1	80.00	.	.	.	.
	Total	26	56.15	36.301	7.119	41.49	70.82
Knockout	Comm Media	20	14.90	16.029	3.584	7.40	22.40
	Other	5	29.00	28.810	12.884	-6.77	64.77
	Undecided	1	65.00	.	.	.	.
	Total	26	19.54	21.115	4.141	11.01	28.07
Car Fight	Comm Media	20	46.15	32.182	7.196	31.09	61.21
	Other	5	38.00	37.014	16.553	-7.96	83.96
	Undecided	1	90.00	.	.	.	.
	Total	26	46.27	33.114	6.494	32.89	59.64
XXX	Comm Media	20	39.80	30.684	6.861	25.44	54.16
	Other	5	32.00	37.683	16.852	-14.79	78.79
	Undecided	1	100.00	.	.	.	.
	Total	26	40.62	33.154	6.502	27.22	54.01
TV Gun	Comm Media	20	25.20	24.076	5.384	13.93	36.47
	Other	5	8.00	13.038	5.831	-8.19	24.19
	Undecided	1	50.00	.	.	.	.
	Total	26	22.85	23.361	4.581	13.41	32.28
Number 4	Comm Media	20	21.65	19.980	4.468	12.30	31.00
	Other	5	22.00	38.341	17.146	-25.61	69.61
	Undecided	1	30.00	.	.	.	.
	Total	26	22.04	23.265	4.563	12.64	31.44

Descriptive Statistics for Connection Based on College Major

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Control	Comm Media	19	14.74	21.652	3.467	7.72	21.76
	Other	6	23.64	33.473	10.093	1.15	46.12
	Undecided	2	18.33	2.887	1.667	11.16	25.50
	Total	27	16.79	23.908	3.284	10.20	23.38
Girl Fight	Comm Media	20	4.50	6.863	1.535	1.29	7.71
	Other	5	.00	.000	.000	.00	.00
	Undecided	1	.00	.	.	.	.
	Total	26	3.46	6.288	1.233	.92	6.00
First Shot	Comm Media	20	12.10	20.152	4.506	2.67	21.53
	Other	5	26.00	37.148	16.613	-20.13	72.13
	Undecided	1	.00	.	.	.	.
	Total	26	14.31	23.851	4.678	4.67	23.94
Walk Tall	Comm Media	20	5.15	11.762	2.630	-.35	10.65
	Other	5	.00	.000	.000	.00	.00
	Undecided	1	10.00	.	.	.	.
	Total	26	4.35	10.522	2.064	.10	8.60
Aquarium	Comm Media	20	12.35	22.871	5.114	1.65	23.05
	Other	5	14.00	31.305	14.000	-24.87	52.87
	Undecided	1	.00	.	.	.	.
	Total	26	12.19	23.685	4.645	2.63	21.76
Crook	Comm Media	20	12.20	21.252	4.752	2.25	22.15
	Other	5	.00	.000	.000	.00	.00
	Undecided	1	.00	.	.	.	.
	Total	26	9.38	19.254	3.776	1.61	17.16
Warrior	Comm Media	20	17.90	25.352	5.669	6.03	29.77
	Other	5	33.00	45.222	20.224	-23.15	89.15
	Undecided	1	.00	.	.	.	.
	Total	26	20.12	29.479	5.781	8.21	32.02
Jones	Comm Media	20	6.55	13.284	2.970	.33	12.77
	Other	5	2.00	4.472	2.000	-3.55	7.55
	Undecided	1	.00	.	.	.	.
	Total	26	5.42	11.910	2.336	.61	10.23
Dragon	Comm Media	20	13.15	22.397	5.008	2.67	23.63
	Other	5	14.00	26.077	11.662	-18.38	46.38
	Undecided	1	.00	.	.	.	.

	Total	26	12.81	22.293	4.372	3.80	21.81
UFC	Comm Media	20	18.25	25.645	5.734	6.25	30.25
	Other	5	14.00	17.103	7.649	-7.24	35.24
	Undecided	1	.00	.	.	.	.
	Total	26	16.73	23.689	4.646	7.16	26.30
Police	Comm Media	20	6.60	12.738	2.848	.64	12.56
	Other	5	20.00	44.721	20.000	-35.53	75.53
	Undecided	1	.00	.	.	.	.
	Total	26	8.92	21.803	4.276	.12	17.73
Knockout	Comm Media	20	24.40	30.282	6.771	10.23	38.57
	Other	5	9.00	15.166	6.782	-9.83	27.83
	Undecided	1	.00	.	.	.	.
	Total	26	20.50	28.092	5.509	9.15	31.85
Car Fight	Comm Media	20	11.10	19.098	4.270	2.16	20.04
	Other	5	12.00	26.833	12.000	-21.32	45.32
	Undecided	1	.00	.	.	.	.
	Total	26	10.85	19.935	3.910	2.79	18.90
XXX	Comm Media	20	15.95	23.801	5.322	4.81	27.09
	Other	5	24.00	43.359	19.391	-29.84	77.84
	Undecided	1	.00	.	.	.	.
	Total	26	16.88	27.451	5.384	5.80	27.97
TV Gun	Comm Media	20	9.25	15.413	3.446	2.04	16.46
	Other	5	15.00	23.979	10.724	-14.77	44.77
	Undecided	1	.00	.	.	.	.
	Total	26	10.00	16.793	3.293	3.22	16.78
Number 4	Comm Media	20	13.50	17.491	3.911	5.31	21.69
	Other	5	20.00	44.721	20.000	-35.53	75.53
	Undecided	1	30.00	.	.	.	.
	Total	26	15.38	23.836	4.675	5.76	25.01

Descriptive Statistics for Appropriateness Based on College Major

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Control	Comm Media	19	29.74	27.637	4.426	20.78	38.70
	Other	6	26.82	34.948	10.537	3.34	50.30
	Undecided	2	20.00	26.458	15.275	-45.72	85.72
	Total	27	28.58	28.738	3.948	20.66	36.51
Girl Fight	Comm Media	20	5.15	11.259	2.518	-.12	10.42
	Other	5	.00	.000	.000	.00	.00
	Undecided	1	.00	.	.	.	.
	Total	26	3.96	10.062	1.973	-.10	8.03
First Shot	Comm Media	20	26.20	28.458	6.363	12.88	39.52
	Other	5	30.00	44.721	20.000	-25.53	85.53
	Undecided	1	10.00	.	.	.	.
	Total	26	26.31	30.804	6.041	13.87	38.75
Walk Tall	Comm Media	20	26.90	29.488	6.594	13.10	40.70
	Other	5	.00	.000	.000	.00	.00
	Undecided	1	10.00	.	.	.	.
	Total	26	21.08	27.960	5.483	9.78	32.37
Aquarium	Comm Media	20	30.25	34.848	7.792	13.94	46.56
	Other	5	18.00	21.679	9.695	-8.92	44.92
	Undecided	1	20.00	.	.	.	.
	Total	26	27.50	32.008	6.277	14.57	40.43
Crook	Comm Media	20	38.15	39.262	8.779	19.77	56.53
	Other	5	38.00	41.473	18.547	-13.50	89.50
	Undecided	1	50.00	.	.	.	.
	Total	26	38.58	38.107	7.473	23.19	53.97
Warrior	Comm Media	20	30.00	34.028	7.609	14.07	45.93
	Other	5	13.00	26.363	11.790	-19.73	45.73
	Undecided	1	.00	.	.	.	.
	Total	26	25.58	32.629	6.399	12.40	38.76
Jones	Comm Media	20	13.90	22.095	4.941	3.56	24.24
	Other	5	16.00	30.496	13.638	-21.87	53.87
	Undecided	1	.00	.	.	.	.
	Total	26	13.77	22.987	4.508	4.48	23.05
Dragon	Comm Media	20	34.60	28.627	6.401	21.20	48.00
	Other	5	20.00	34.641	15.492	-23.01	63.01

	Undecided	1	.00	.	.	.	.
	Total	26	30.46	29.792	5.843	18.43	42.49
UFC	Comm Media	20	28.35	27.895	6.238	15.29	41.41
	Other	5	44.00	45.607	20.396	-12.63	100.63
	Undecided	1	.00	.	.	.	.
	Total	26	30.27	31.646	6.206	17.49	43.05
Police	Comm Media	20	11.30	23.102	5.166	.49	22.11
	Other	5	3.00	4.472	2.000	-2.55	8.55
	Undecided	1	.00	.	.	.	.
	Total	26	9.27	20.577	4.035	.96	17.58
Knockout	Comm Media	20	37.45	32.521	7.272	22.23	52.67
	Other	5	36.00	49.800	22.271	-25.83	97.83
	Undecided	1	.00	.	.	.	.
	Total	26	35.73	35.412	6.945	21.43	50.03
Car Fight	Comm Media	20	14.55	18.591	4.157	5.85	23.25
	Other	5	4.00	8.944	4.000	-7.11	15.11
	Undecided	1	.00	.	.	.	.
	Total	26	11.96	17.299	3.393	4.97	18.95
XXX	Comm Media	20	20.35	18.071	4.041	11.89	28.81
	Other	5	.00	.000	.000	.00	.00
	Undecided	1	.00	.	.	.	.
	Total	26	15.65	18.018	3.534	8.38	22.93
TV Gun	Comm Media	20	21.40	22.516	5.035	10.86	31.94
	Other	5	24.00	35.777	16.000	-20.42	68.42
	Undecided	1	.00	.	.	.	.
	Total	26	21.08	24.692	4.842	11.10	31.05
Number 4	Comm Media	20	29.05	29.121	6.512	15.42	42.68
	Other	5	16.00	35.777	16.000	-28.42	60.42
	Undecided	1	.00	.	.	.	.
	Total	26	25.42	30.058	5.895	13.28	37.56