

Video Games and Children: Violence in Video Games

Filiz Öztütüncü Doğan

Psychologist

Address: 101 Cosburn Ave. Apt. 803 M4K 2G3 Toronto ON. Canada
Tel: 0014164217164 Fax: 0014164217164

E-mail: filizdogan@rogers.com, filizdogan2000@yahoo.com

ABSTRACT

Technological developments have changed many things, but one of the biggest changes is in the playing habits of children. No sooner had video games been put on the market in 1970, than the spare time habits of children and adults became very different than they have ever been before. The children in the most prolific computer using countries such as the North America, Europe, Korea and Japan have exponentially spent more time on playing computer games. According to the latest statistics, 92% of youngsters aged 2-17 play video or computer games in the U.S, but, unfortunately, families and educators are not aware of what video games contain and how their children are influenced by them. The previous widespread opinion was that video games enhance visual attention, spatial visualization and hand-eye coordination, and help facilitate children gaining computer skills. However, in the recent studies, after evaluating the behaviors and brain functioning of the children playing video games, it is denoted that video games are not innocent. Not only are they addictive but also negatively affect children's behavior and brain functioning. As a result, these studies address the fact that violent and mature content in computer games pollutes children's cultural environment, stunts their brain development, and provokes aggressive behaviors in children. This article reviews the research on the social, organic and behavioral effects of video games on children and presents the summary of those findings.

Keywords: children, video games, violence

ÖZET

Teknolojik gelişmeler yaşamımızdaki birçok şeyi değiştirdiği gibi, çocukların oyun alışkanlıklarını da değiştirdi. 1970 yılında piyasaya ilk sürülen video oyunu ile birlikte çocukların ve yetişkinlerin boş zamanlarını değerlendirme alışkanlıkları giderek eskisinden çok farklı hale geldi. Özellikle Kuzey Amerika, Avrupa, Kore ve Japonya gibi bilgisayar çok fazla kullanan ülkelerdeki çocuklar giderek daha fazla bilgisayar oyunları ile zaman geçirmeye başladılar. Son istatistiklere göre, Amerika'daki 2-17 yaş grubundaki çocukların %92'si video oyunlarını oynuyor. Piyasada en çok satılan bilgisayar oyunları ciddi düzeylerde şiddet ve cinsel içeriğe sahipken, âileler ve eğitimciler çoğunlukla bu oyunların içeriğinden ve çocuklarını nasıl etkilediğinden habersiz. Eskiden beri yaygın olan kanaât bilgisayar oyunlarının görsel-uzaysal dikkati ve göz-el koordinasyonunu geliştirdiği ve bilgisayar becerileri kazanmayı kolaylaştırdığı yönündeydi. Buna karşılık, son yıllarda yapılan araştırmalarda, bilgisayar oyunu oynayan çocukların davranışları ve beyin aktiviteleri incelendiğinde, bu oyunların düşünüldüğü gibi masum olmadıkları, bağımlılık yarattıkları, çocukların hem davranışlarını hem de beyin gelişimlerini olumsuz yönde etkileyebilecekleri ortaya çıkmıştır. Sonuç olarak bu çalışmalar, video oyunlarının çocuklarımızın kültürel çevresini kirlettiğini, beyin gelişimini olumsuz yönde etkilediğini ve saldırgan davranışları teşvik ettiğine işâret etmektedir. Bu makalede, video oyunlarının çocuklar üzerindeki sosyal, organik ve davranışsal etkilerini inceleyen araştırmalar gözden geçirilmiş ve bulgular özet hâlinde sunulmuştur.

Anahtar Kelimeler: çocuklar, bilgisayar oyunları, şiddet

INTRODUCTION

A 17-year-old student, Warren Leblanc, faces a life sentence for repeatedly battering his 14-year-old friend Stefan Pakeerah with a hammer and stabbing him to death at a local park in Leicester, in the English Midlands ("Video Game Sparked' Hammer Murder"

2004). According to the CNN webpage, this boy was obsessed with the game called Manhunt in which the players score points for violent killings. "This is not an isolated incident" said Jack Thompson, a Miami attorney and video game regulation advocate. He added "we have had dozens of killing in the U.S. by children

who had played these types of games" ("Video Game Sparked Hammer Murder" 2004). The international gaming industry in 2002, a 28 billion Dollar a year business, was aimed primarily at boys 7 to 14 years of age (Lewis 2003, Hogarth 1995).

VIOLENCE AND SEXUALITY IN VIDEO AND COMPUTER GAMES

Although educational video games are excellent teaching tools for motivation and learning, the gaming industry produces mostly non-educational video games containing extreme violence and sexual content. Ninety-two percent of youngsters aged 2-17 play video or computer games in the U.S, but, unfortunately, families are not aware of what video games contain and how their children are influenced by them (Walsh 2002). The content of video games should be monitored by families because their violent and mature content pollutes children's cultural environment, stunts their brain development, and provokes aggressive behaviors in children.

The violent and mature content of video games creates a toxic cultural environment for children. A recent study, conducted by Jeanne Funk, a professor in clinical child psychology in The University of Toledo, found that approximately 65% of male and 57% of female students play video games at home for 1 to 6 hours per week. Moreover, 39% of males and 16% of females play 1 to 2 hours of video games per week in video arcades (Cesarone 1994). These children also spend several hours watching television. This media exposure contains a great degree of violence and of sexism. According to the Kaiser Family Foundation webpage "89% of the top selling video games contained violence: about 50% of all games contained serious violence, and 17% featured violence as the primary focus of the game" ("Children and Video Games" 2002). Unfortunately, seldom are parents aware of their children's playing habits and video games' contents (Funk 1999).

Children's ages, whether they play with peers or alone and how much they play are important determiners for the influence of violent and sexually explicit video games. Children mimic violence and perceive it as approval for hitting, bullying and humiliating their peers. It also encourages them to accept the treatment they suffer without seeking help. Finally, it reduces empathy toward the real-life victims in a violent incident (Brodeur 2005).

The gaming industry uses violence as a marketing

ingredient. Most of video games present fantasies and stereotypes that support an aggressive culture of violence, sexism and war. The main characters in video games are more likely white strong men who use a broad variety of weapons and solve problems by exterminating their opponents while women are docile victims or decorative trophies incapable of solving problems (Action Agenda 2004). According to Gary Ruskin, executive director of Commercial Alert, "advertisers taken advantage of to sell products include youth needs for peer acceptance, love, safety, desire to feel powerful or independent, aspirations to be and to act older than they actually are and the need for have an identity" (Bordeur 2005). As a result, violent and sexually explicit video games make mental manipulation, cause emotional desensitization and create stereotypical attitudes towards women and different races.

LOSS TO BENEFIT RATIO

Although some researchers claim the benefit of video games, recent studies have proved that video games retard children's brain development. One of these studies conducted by Ryuta Kawashima of Japan's Tohoku University compared brain activity in children playing Nintendo games and in children engaging in arithmetic exercise (Kawashima 2003). Functional Magnetic Resonance Imaging (fMRI) is used for measuring the brain pattern in subjects. His findings almost reversed previous studies which reveal the benefit of video games on children's brain development. Kawashima found that computer games only stimulate activity in the parts of the brain associated with vision and movement. Heavy computer players halt the developmental process in other key areas of the brain, affecting their ability to control potentially anti-social elements of their behavior. Conversely, math exercises stimulate brain activity in the left and right hemisphere of the frontal lobes - the area most linked with learning, memory, emotion and behavior control (Kawashima 2003).

Another study at the Indiana University School of Medicine identified the relationship between violent media exposure and unusual brain function (Mathews 2005). They measured two adolescent groups' brain patterns, who were normal and had disruptive behavior disorders (DBD), using functional MRI while they were playing violent video games. This study showed that there was less activity in the frontal lobe of the brains of the group previously diagnosed with DBD. This result can be interpreted that violent media

exposure causes changes in brain functioning. This study also demonstrated that there is a relationship in the amount of violent media exposure and in the unusual brain activity of normal children ("Playing with Kids' Minds?" 2005). These two cited studies prove that video games don't stimulate the brain's frontal lobe. The lack of stimulation in this area before the age of 20 prevents the neurons from thickening and connecting; this consequently impairs the brain's ability to control such impulses as violence and aggression. In order to improve brain development, children need reading aloud or learning arithmetic instead of playing video games ("Computer Games Cause Brain Damage" 2001, Hulett 2005). In addition, they need to play outside with other children and to interact and to communicate with others.

The violent content of video games provokes aggressive behavior in children. A great body of study shows that there is a close relationship between playing violent video games and aggressive behaviours (Funk 1999, Lynch 2001, Anderson 2005). Some researchers point to a stronger relationship between the media violence exposure and executive functioning for adolescents who had Disruptive Behaviour Disorder diagnoses (Kronenberger 2005, Anderson 2000). These researchers indicate that media violence exposure is related to poorer executive functioning and this relationship may be stronger for adolescents who have a history of aggressive-disruptive behaviour. Most researchers think that playing violent video games is more hazardous than watching violent movies because the interactive character of video games includes the player in the violence of the game. Many games reward players for killing innocent bystanders, police and prostitutes using a wide range of weapons. The study cited above, at the Indiana University, found that aggressive behaviour is associated with a higher degree of violent media exposure (Mathews 2005).

Some studies address the benefit of video games. Proponents of video games suggest that they provide a "training wheel" for computer literacy ("Children and Video Games" 2002). Some researches explain that video games increase visual attention, spatial visualization and hand-eye coordination (Cesarone 1994). After using MRI in neuropsychological studies, researchers obtained more accurate results about brain functioning. The cited studies above using fMRI proved the objections of video games especially containing violence and sexuality.

Brown (1997) and Lieberman (2001) also used edu-

cational video games as a therapeutic tool that teaches sick children useful health care skills related to their health problems. The characters of these interactive video games have the same health problem as the players such as asthma and diabetes. In these studies, the children having chronic health problems learned about health, improved their self-care and reduced their urgent care clinical visit after playing health education video games ("Video Games for Health Behavior Change: Research and Clinical Trials" 2005). However, these benefits are only in question for educational video games. In contrast, violent and sexually explicit video games have definitely negative impacts on children.

CONCLUSION

Parents should monitor not only how much time their children spend playing video games but also the contents. The government must assume the responsibility to regulate the detrimental contents of video games. Many parents are not aware that a rating system exists for video games (Wright 2004). Although this system has not been perfected, it provides a help for differentiating the content of video games while buying them. The American Academy of Pediatrics recommends that parents limit children's playing time, keeping children's room "media free" and keeping violent video games out of homes ("Children and Video Games" 2002). Before irreversible damages occur, parents should take precaution against the psychological, educational, social and organic hazards of video games.

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