

Document name: The positive and negative effects of video games
Document date: No date
Copyright information: Proprietary and used under license
OpenLearn course: Childhood in the digital age
OpenLearn url: <http://www.open.edu/openlearn/ocw/course/view.php?id=1314>

Playing with pixels

Raise Smart Kid

Raise Smart Kid (no date) 'The positive and negative effects of video games online' [online]. Available at <http://www.raisesmartkid.com/3-to-6-years-old/4-articles/34-the-good-and-bad-effects-of-video-games>

Childhood in the Digital Age

The Positive and Negative Effects of Video Games (extract)

Is playing video games good or bad for you? It can be both.

Video games are frowned upon by parents as time-wasters, and worse, some education experts think that these games corrupt the brain. Playing violent video games is easily blamed by the media and some experts as the reason why some young people become violent or commit extreme anti-social behavior. But many scientists and psychologists find that video games can actually have many benefits – the main one is making kids smart. Video games may actually teach kids high-level thinking skills that they will need in the future.

‘Video games change your brain,’ according to University of Wisconsin psychologist C. Shawn Green. Playing video games changes the brain’s physical structure the same way as do learning to read, playing the piano, or navigating using a map. Much like exercise can build muscle, the powerful combination of concentration and rewarding surges of neurotransmitters like dopamine strengthen neural circuits that can build the brain.

Positive effects of video games

•••

- Video games can make your kid creative. A study by the Michigan State University’s Children and Technology Project found a relation between video game playing and greater creativity, regardless of gender, race or type of video game played. (In contrast, use of cell phones, the Internet and computers other than video games was unrelated to creativity, the study found).
- Video games can improve your kid’s decision making speed. People who played action-based video and computer games made decisions 25% faster than others without sacrificing accuracy, according to a study from the University of Rochester. Other studies suggest that most expert gamers can make choices and act on them up to six times a second – four times faster than most people, and can pay attention to more than six things at once without getting confused, compared to only four by the average person. Surprisingly, the violent action games that often worry parents most had the strongest beneficial effect on the brain, according to cognitive neuroscientist Daphne Bavelier, who studies the effect of action games at Switzerland’s University of Geneva and the University of Rochester in New York.

- Video games increase your kid's self-confidence and self-esteem as he masters games. In many games, the levels of difficulty are adjustable. As a beginner, your kid begins at the easy level and by constant practicing and slowly building skills, he becomes confident in handling more difficult challenges. Since the cost of failure is lower, he does not fear making mistakes. He takes more risks and explores more. Your kid can transfer this attitude to real life.
- Games that involve multiple players encourage your child to work cooperatively to achieve his goals. Your kid learns to listen to the ideas of others, formulate plans with other kids, and distribute tasks based on skills. Some online games are even played internationally, and this can introduce your kid to players of different nationalities and cultures. This fosters friendships among different people.

• • •

- Violent video games may act as a release of pent-up aggression and frustration of your kid. When your kid vents his frustration and anger in his game, this diffuses his stress. Games can provide a positive aggression outlet the same way as football and other violent sports.
- Playing video games is safer than having your teens do drugs, alcohol and street racing in the real world.

• • •

- A 2013 study by the Berlin's Max Planck Institute for Human Development and St. Hedwig-Hospital found a significant gray matter increase in the right hippocampus, the right prefrontal cortex and the cerebellum of those who played Super Mario 64 for 30 minutes a day over two months. These regions of the brain are crucial for spatial navigation, strategic planning, working memory and motor performance. ...

Negative effects of video games

- Most of the bad effects of video games are blamed on the violence they contain. Children who play more violent video games are more likely to have increased aggressive thoughts, feelings, and behaviors, and decreased prosocial helping, according to a scientific study (Anderson & Bushman, 2001). The effect of video game violence in kids is worsened by the games' interactive nature. In many games, kids are rewarded for being more violent. The act of violence is done repeatedly. The child is in control of the violence and experiences the violence in his own eyes (killings, kicking, stabbing and shooting). This active participation, repetition and reward are effective tools for learning behavior. Indeed, many studies seem to indicate that violent video games may be related to aggressive behavior (such as Anderson & Dill, 2000; Gentile, Lynch & Walsh, 2004). However, the evidence is not consistent and

this issue is far from settled. Many experts including Henry Jenkins of Massachusetts Institute of Technology have noted that there is a decreased rate of juvenile crime which coincides with the popularity of games such as Death Race, Mortal Kombat, Doom and Grand Theft Auto. He concludes that teenage players are able to leave the emotional effects of the game behind when the game is over. Indeed there are cases of teenagers who commit violent crimes who also spend great amounts of time playing video games such as those involved in the Columbine and Newport cases. It appears that there will always be violent people, and it just so happens that many of them also enjoy playing violent video games.

- Too much video game playing makes your kid socially isolated. Also, he may spend less time in other activities such as doing homework, reading, sports, and interacting with the family and friends. On the other hand, a study by researchers at the North Carolina State University, New York and the University Of Ontario Institute Of Technology points out that gamers usually do not replace their offline social lives with online game playing, but rather it expands them. In fact, among gamers, being a loner is not the norm.
- Some video games teach kids the wrong values. Violent behavior, vengeance and aggression are rewarded. Negotiating and other nonviolent solutions are often not options. Women are often portrayed as weaker characters that are helpless or sexually provocative. On the other hand, a University of Buffalo study suggests that violence and bad behavior played in the virtual world may be contributing to better behavior in the real world. Gamers who play violent games may feel guilty about their behavior in the virtual world and this may make them be more sensitive to the moral issues they violated during game play.
- Games can confuse reality and fantasy.
- Academic achievement may be negatively related to over-all time spent playing video games. Studies have shown that the more time a kid spends playing video games, the poorer is his performance in school. (Anderson & Dill, 2000; Gentile, Lynch & Walsh, 2004). A study by Argosy University's Minnesota School on Professional Psychology found that video game addicts argue a lot with their teachers, fight a lot with their friends, and score lower grades than others who play video games less often. Other studies show that many game players routinely skip their homework to play games, and many students admitted that their video game habits are often responsible for poor school grades.

• • •

- Video games may also have bad effects on some children's health, including obesity, video-induced seizures, and postural, muscular and skeletal disorders, such as tendonitis, nerve compression, carpal tunnel syndrome.
- When playing online, your kid can pick up bad language and behavior from other people, and may make your kid vulnerable to online dangers.
- A study by the Minneapolis-based National Institute for Media and the Family suggests that video games can be addictive for kids, and that the kids' addiction to video games increases their depression and anxiety levels.

Addicted kids also exhibit social phobias. Not surprisingly, kids addicted to video games see their school performance suffer.

- Kids spending too much time playing video games may exhibit impulsive behavior and have attention problems. This is according to a new study published in the February 2012 issue of the *Journal of Psychology and Popular Media Culture*. For the study, attention problems were defined as difficulty engaging in or sustaining behavior to reach a goal.

Extract from *Raise Smart Kid* (no date) 'The positive and negative effects of video games' [online].

The full article is available at:

<http://www.raisesmartkid.com/3-to-6-years-old/4-articles/34-the-good-and-bad-effects-of-video-games>