

Performance Task Item: Views on Video Games

Grade Level: English I

Focus Areas: Informational Text; Research; Argument Writing

Essential Question: How are children’s brains affected by technology?

Learning Targets:

- Students will draw evidence from the text to make logical inferences.
- Students will determine the purpose of the text and its effect on the reader.
- Students will evaluate claims made in the text.
- Students will analyze research to establish an independent claim.

STANDARDS

Content Standards:

- Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
- Determine an author’s point of view or purpose in a text and analyze how an author uses rhetoric to advance that point of view or purpose.
- Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is valid and the evidence is relevant and sufficient; identify false statements and fallacious reasoning.
- Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
- Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

Supporting Standards:

- Determine a central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.
- Analyze in detail how an author’s ideas or claims are developed and refined by particular sentences, paragraphs, or larger portions of a text (e.g., a section or chapter).
- Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- Draw evidence from literary or informational texts to support analysis, reflection, and research.

Materials/Resources:

- “Playing Video Games is Good for Your Brain” Lexile 1640
- “The Positive and Negative Effects of Video Games” Lexile 1240
- “Effect of Video Games on Child Development” Lexile 1310
- Constructed Response Rubric
- Chart: Claim, Reason, Evidence
- Argument Rubric

Part A:

1. In “Playing video games is good for your brain,” the author cites purported negative effects of playing video games. What are they? (DOK 1)
2. What mental skills does the author list in “The Positive and Negative Effects of Video Games”? (DOK 1)
3. What is the author’s purpose in presenting both the positive and negative effects of video games in the article by that title? (DOK 2)
4. In the article, “Effect of Video Games on Child Development,” how does the author add credibility to his claim? (DOK 2)

Part B:

5. Complete the chart below evaluating the argument in each source by identifying the claim and assessing whether the reasoning is valid and the evidence is relevant and sufficient. (DOK 3)

Article	Claim	Reason(s)	Evidence
“Playing Video Games is Good for Your Brain”			
“The Positive and Negative Effects of Video Games”			
“Effect of Video Games on Child Development”			

Part C:

6. Based on your readings, answer the question, “Are video games harmful?” How useful was each article in answering the question? Draw evidence from each source to support your analysis, reflection, and research. Write an argument in which you introduce your claim supplying evidence for each point you make. Use words and phrases that clarify the relationship between your reasons and the evidence you select. Include a concluding statement that supports your argument. (DOK 3)

ARTICLES/STUDENT MATERIALS/RUBRICS

Playing Video Games is Good for Your Brain L1640

By Mark Griffiths November 11, 2014

Mark Griffiths is the director of the International Gaming Research Unit and Professor of Gambling Studies at Nottingham Trent University.

<https://www.washingtonpost.com/.../playing-video-games-is-good-for-your-brain/>

Whether playing video games has negative effects is something that has been debated for 30 years, in much the same way that rock and roll, television, and even the novel faced similar criticisms in their time.

Purported negative effects such as addiction, increased aggression, and various health consequences such as obesity and repetitive strain injuries tend to get far more media coverage than the positives. I know from my own research examining both sides that my papers on video game addiction receive far more publicity than my research into the social benefits of, for example, playing online role-playing games.

However there is now a wealth of research which shows that video games can be put to educational and therapeutic uses, as well as many studies which reveal how playing video games can improve reaction times and hand-eye co-ordination. For example, research has shown that spatial visualization ability, such as mentally rotating and manipulating two- and three-dimensional objects, improves with video game playing.

To add to this long line of studies demonstrating the more positive effects of video games is a study in the Proceedings of the National Academy of Sciences by Vikranth Bejjanki and colleagues. Their newly published paper demonstrates that the playing of action video games – the sort of fast-paced, 3D shoot-em-up beloved of doomsayers in the media – confirms what other studies have revealed, that players show improved performance in perception, attention, and cognition.

In a series of experiments on small numbers of gamers (10 to 14 people in each study), the researchers reported that gamers with previous experience of playing such action video games were better at perceptual tasks such as pattern discrimination than gamers with less experience.

In another experiment, they trained gamers who had little previous experience of playing action games, giving them 50 hours practice. It was shown that these gamers performed much

better on perceptual tasks than they had prior to their training. The paper concludes: The enhanced learning of the regularity and structure of environments may act as a core mechanism by which action video game play influences performance in perception, attention, and cognition.

In my own papers, I have pointed out many features and qualities that make video games potentially useful. For instance, in an educational context, video games can be fun and stimulating, which means it's easier to maintain a pupil's undivided attention for a longer period of time. Because of the excitement, video games may also be a more appealing way of learning than traditional methods for some.

Video games have an appeal that crosses many demographic boundaries, such as age, gender, ethnicity, or educational attainment. They can be used to help set goals and rehearse working toward them, provide feedback, reinforcement, self-esteem, and maintain a record of behavioral change.

Their interactivity can stimulate learning, allowing individuals to experience novelty, curiosity and challenge that stimulates learning. There is the opportunity to develop transferable skills, or practice challenging or extraordinary activities, such as flight simulators, or simulated operations.

Because video games can be so engaging, they can also be used therapeutically. For instance, they can be used as a form of physiotherapy as well as in more innovative contexts. A number of studies have shown that when children play video games following chemotherapy, they need fewer painkillers than do others.

Video games have great educational potential in addition to their entertainment value. Games specifically designed to address a specific problem or teach a specific skill have been very successful, precisely because they are motivating, engaging, interactive, and provide rewards and reinforcement to improve.

But the transferability of skills outside the game-playing context is an important factor. What's also clear from the scientific literature is that the negative consequences of playing almost always involve people who are excessive video game players. There is little evidence of serious acute adverse effects on health from moderate play.

The Positive and Negative Effects of Video Games L1240

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

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 are 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 change 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.

Below are the good and bad effects of video games – their benefits and disadvantages, according to researchers and child experts:

The Benefits: Positive Effects of Video Games

When your child plays video games, it gives his brain a real workout. In many video games, the skills required to win involve abstract and high level thinking. These skills are not even taught at school. Some of the mental skills enhanced by video games include:

1. **Following instructions**
2. **Problem solving and logic** – When a child plays a game such as The Incredible Machine, Angry Birds or Cut The Rope, he trains his brain to come up with creative ways to solve puzzles and other problems in short bursts
3. **Hand-eye coordination, fine motor and spatial skills.** In shooting games, the character may be running and shooting at the same time. This requires the real-world player to keep track of the position of the character, where he/she is heading, his speed, where the gun is aiming, if the gunfire is hitting the enemy, and so on. All these factors need to be taken into account, and then the player must then coordinate the brain’s interpretation and reaction with the movement in his hands and fingertips. This process requires a great deal of eye-hand coordination and visual-spatial ability to be successful. Research also suggests that people can learn iconic, spatial, and visual

attention skills from video games. There have been even studies with adults showing that experience with video games is related to better surgical skills. Also, a reason given by experts as to why fighter pilots of today are more skillful is that this generation's pilots are being weaned on video games.

4. **Planning, resource management and logistics.** The player learns to manage resources that are limited, and decide the best use of resources, the same way as in real life. This skill is honed in strategy games such as SimCity, Age of Empires, and Railroad Tycoon. Notably, The American Planning Association, the trade association of urban planners and Maxis, the game creator, have claimed that SimCity has inspired a lot of its players to take a career in urban planning and architecture.
5. **Multitasking, simultaneous tracking of many shifting variables and managing multiple objectives.** In strategy games, for instance, while developing a city, an unexpected surprise like an enemy might emerge. This forces the player to be flexible and quickly change tactics.

Cognitive researcher Daphne Bavalier talks about how video games can help us learn, focus and, fascinatingly, multitask.

1. **Quick thinking, making fast analysis and decisions.** Sometimes the player does this almost every second of the game giving the brain a real workout. According to researchers at the University of Rochester, led by Daphne Bavelier, a cognitive scientist, games simulating stressful events such as those found in battle or action games could be a training tool for real-world situations. The study suggests that playing action video games primes the brain to make quick decisions. Video games can be used to train soldiers and surgeons, according to the study. Importantly, decisions made by action-packed video game players are no less accurate. According to Bavelier, "Action game players make more correct decisions per unit time. If you are a surgeon or you are in the middle of a battlefield that can make all the difference."
2. **Accuracy** – Action games, according to a study by the University of Rochester, train the player's brain to make faster decisions without losing accuracy. In today's world, it is important to move quickly without sacrificing accuracy.
3. **Strategy and anticipation** – Steven Johnson, author of **Everything Bad is Good for You: How Today's Popular Culture is Actually Making Us Smarter**, calls this "telescoping." The gamer must deal with immediate problems while keeping his long-term goals on his horizon.
4. **Situational awareness** – Defense News reported that the Army include video games to train soldiers to improve their situational awareness in combat. Many strategy games

also require the player to become mindful of sudden situational changes in the game and adapt accordingly.

5. **Developing reading and math skills** – The young gamer reads to get instructions, follow storylines of games, and get information from the game texts. Also, using math skills is important to win in many games that involves quantitative analysis like managing resources.
6. **Perseverance** – In higher levels of a game, the player usually fails the first time around, but he keeps on trying until he succeeds and move on to the next level.
7. **Pattern recognition** – Games have internal logic in them, and the player figures it out by recognizing patterns.
8. **Estimating skills**
9. **Inductive reasoning and hypothesis testing** – James Paul Gee, professor of education at the University of Wisconsin-Madison, says that playing a video game is similar to working through a science problem. Like a student in a laboratory, the gamer must come up with a hypothesis. For example, the gamer must constantly try out combinations of weapons and powers to use to defeat an enemy. If one does not work, he changes hypothesis and try the next one. Video games are goal-driven experiences, says Gee, which are fundamental to learning.
10. **Mapping** – The gamer use in-game maps or build maps on his head to navigate around virtual worlds.
11. **Memory** – Playing first person shooter games such as Call of Duty and Battlefield series enables the player to effectively judge what information should be stored in his working memory and what can be discarded considering the task at hand, according to a study published in the Psychological Research.
12. **Concentration** – A study conducted by the Appalachia Educational Laboratory reveal that children with attention-deficit disorder who played Dance Revolution improve their reading scores by helping them concentrate.
13. **Improved ability to rapidly and accurately recognize visual information** – A study from Beth Israel Medical Center NY, found a direct link between skill at video gaming and skill at keyhole, or laparoscopic, surgery. Another study found that people who play video games on a regular basis are better at registering visual data and are therefore quicker visual learners. They are also more resistant to perceptual interference, and are therefore able to learn for a longer period of time in distracting environments.
14. **Reasoned judgments**
15. **Taking risks** – Winning in any game involves a player’s courage to take risks. Most games do not reward players who play safely.

16. **How to respond to challenges**
17. **How to respond to frustrations**
18. **How to explore and rethink goals**
19. **Teamwork and cooperation when played with others** – Many multiplayer games such as Team Fortress 2 involve cooperation with other online players in order to win. These games encourage players to make the most of their individual skills to contribute to the team. According to a survey by Joan Ganz Cooney Center, teachers report that their students become better collaborators after using digital games in the classroom.
20. **Management** – Management simulation games such as Rollercoaster Tycoon and Zoo tycoon teach the player to make management decisions and manage the effective use of finite resources. Other games such as Age of Empires and Civilization even simulate managing the course of a civilization.
21. **Simulation, real world skills.** The most well- known simulations are flight simulators, which attempt to mimic the reality of flying a plane. All of the controls, including airspeed, wing angles, altimeter, and so on, are displayed for the player, as well as a visual representation of the world, and are updated in real time.

Other Benefits of Video Games:

- Video games introduce your kid to computer technology and the online world. You should recognize that we are now living in a high-tech, sophisticated world. Video games make your kid adapt and be comfortable with the concepts of computing. This is particularly important for girls who typically are not as interested in high technology as much as boys.
- Video games allow you and your kid to play together and can be a good bonding activity. Some games are attractive to kids as well as adults, and they could be something that they share in common. When your child knows more than you, he can teach you how to play and this allows you to understand your child's skills and talents.
- Video games make learning fun. Your kid likes games because of the colors, the animation, the eye candy, as well as the interactivity and the challenge and the rewards of winning. The best way to learn is when the learner is having fun at the same time. That's why video games are natural teachers. Having fun gives your kid motivation to keep on practicing, which is the only way to learn skills. Video games is also capable of making difficult subjects such as [math fun](#).
- 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 suggests 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.
- Video games give your child a feeling of happiness or well-being, which is a human psychological need, according to Berni Good, a cyberpsychologist. In addition to giving your child a sense of competence or mastery when he progresses through game levels, video gaming also helps him relate to others in a meaningful way when he shares his gaming experiences with others in multiplayer gaming or in social media. It also gives him a feeling of being a master of his own destiny.
- 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.
- Video games that require your kid to be active, such as Dance Revolution and Nintendo Wii Boxing, and games that use Kinect, give your kid a good workout. When playing these active games for 10 minutes, your kid spends energy equal to or exceeding that produced by spending the same amount of time on a three miles an hour treadmill walk.
- Video games make players' visions become more sensitive to slightly different shades of color, according to a University of Rochester study. This is called contrast sensitivity,

and observed particularly in first person shooter games players. “When people play action games, they’re changing the brain’s pathway responsible for visual processing,” according to lead researcher Daphne Bavelier. The training might be helping the visual system to make better use of the information it receives.

- Video games may improve eyesight. Studies have shown that video gaming have better than average eyesight. A study performed by researchers from McMaster University has also found that playing video games could help [improve eyesight](#) by teaching the brain to spot small details, follow movements and spot subtle light changes, at least for people with visual difficulties. Another study by vision scientists at the University of Rochester and Vanderbilt University found that children with poor vision see vast improvement in their peripheral vision after only eight hours of training via kid-friendly video games.
- Video games help children with dyslexia read faster and with better accuracy, according to a study by the journal [Current Biology](#). In addition, Spatial and temporal attention also improved during action video game training. Attentional improvement can directly translate into better reading abilities.
- Kids are not necessarily drawn to video games because of their violence. The attraction lies in their being rewarded by awesome displays of explosions, fireworks, and yes, blood splattering. Also, violent games have the most emotional appeal for kids. But these factors are only secondary to what kids actually enjoy in these games – the opportunity to develop and master skills and have the freedom to make choices in the game universe.
- 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 study done by researchers at North Carolina State University, York University and the University of Ontario Institute of Technology concluded that playing online games do not replace offline social lives, but is expanding it. Loners are the outliers in gaming, not the norm.
- 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. Indeed, the

increased gray matter in these parts of the brain is positively correlated with better memory. Decreased gray matter is correlated with bipolar disorder and dementia. What's also striking is that those who enjoyed playing the game has a more pronounced gain in gray matter volume. The [study](#) suggests that video game training could be used to counteract known risk factors for smaller hippocampus and prefrontal cortex volume in, for example, post-traumatic stress disorder, schizophrenia and neurodegenerative disease.

- Another [study](#) published in Scientific Reports have found that Action Video Gamers have more gray matter and better integration of brain networks associated with attention and sensorimotor function.
- A Bristol University [research](#) shows that the “gamification” of learning can reduce the activity of a particular brain network which is responsible for mind wandering. When designed and developed properly, computer-based games can have a beneficial effect on learning.
- A study published in the journal [Social Psychiatry and Psychiatric Epidemiology](#) in 2016 suggests that “video game use is not associated with an increased risk of mental health problems. On the contrary, the data presented here suggest that video games are a protective factor, especially regarding peer relationship problems for the children who are the most involved in video games. Finally, video games seem to be linked to better intellectual functioning and academic achievement.”
- Another [study](#) suggests that playing some video games may even overcome the cognitive skills affected by poverty like focus, self-control, and memory, and may help reduce the achievement gaps related to poverty that are seen in school.
- Finally, according to a [study](#), gamers actually tend to be more social, more successful and more educated than people who make fun of them.

The Drawbacks: 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). Also according to Dmitri A. Christakis of the Seattle Children's Research Institute, those who watch a lot of simulated violence, such as those in video games, can become immune to it, more inclined to act violently themselves, and are less likely to behave emphatically.

- 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.
- The American Psychological Association (APA) also [concluded](#) that there is a “consistent correlation” between violent game use and aggression, but finds insufficient evidence to link violent video play to criminal violence. An [open letter](#) by a number of media scholars, psychologists and criminologists, however, find APA's study and conclusion to be misleading and alarmist. On the other hand, 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 amount 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 happen 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.
- Although some studies suggest that playing video games enhances a child's concentration, other studies, such as a 2012 paper published in [Psychology of Popular Media Culture](#), have found that games can hurt and help children's attention issues — improving the ability to concentrate in short bursts but damaging long-term concentration.
- 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.
- According to Catherine Steiner-Adair, a Harvard-affiliated psychologist and author of the best-selling book "The Big Disconnect: Protecting Childhood and Family Relationship in the Digital Age", if kids are allowed to play "Candy Crush" on the way to school, the trip will be quiet, but it's not what kids need. "They need time to daydream, deal with anxieties, process their thoughts and share them with parents, who can provide reassurance."

Effect of Video Games on Child Development L1310

Danielle Dai and Amanda Fry <https://my.vanderbilt.edu/developmentalpsychologyblog/>

If you are a parent in this era of information and technology, chances are you have a child who has played, is playing, or will be playing video games. The video game industry is a rapid-growing market that went from having a market volume of \$100 million in 1985 to \$4 billion in 1990 (Gartner, 2013). How did this industry gain so much ground? Where did it start? Prior to the 1980's, there were what we may consider rudimentary computer games, commercially sold coin-operated games, and home consoles. Shortly after the North-American Video Game Crash of 1983 –a massive recession that hit the industry– the Nintendo Entertainment System induced a resurgence in popularity that has only continued to grow (Cesarone, 2014). In the years since, the gaming world has expanded and subdivided into numerous categories. There are casual, serious and educational games in mediums ranging from console games to online RPG's (role playing games) to the most recent and flourishing market of mobile games. In 2013, the worldwide market volume totaled \$93 billion (Metrics 2.0, 2007).

So what does this mean for our kids today?

In America, 81% of youths play at least once a month, 8.5% of them are addicted and “the average 8- to 12 year-old now plays 13 hours of video games per week, while the average 13- to 18 year old plays 14 hours of video games per week” (Metrics 2.0, 2007). Because video games are so prominent in children's lives, it is difficult to prevent them from playing video games entirely– but is that even necessary? With such a variety of game types out there, it is difficult to say if video games in general are good or bad. Luckily, there have been countless studies done on this and information on the pros and cons can be easily found.

Negatives of Video Games

There are various types of video games available in today's industry. Video games are intended to target different aspects of a child's life. These video games are comprised of a variety of educational, serious, and casual games, but in reality, what child is going to choose a game about learning versus a game where they can kill zombies or drive cars at unruly amounts of speed? A study from Buchman and Funk found that “violent games became consistently popular across grades for both boys and girls” (Cesarone, 1998). Educational games were more popular for some of the girls being asked, but throughout all the age groups, violent video games never lost their superior power in the gaming industry.

Studies have shown the negative effects violent video games have on the younger generation. Calvert and Tan did a study on young adults, where they compared the differences between playing versus observing violent video games. Studies found that “students who had played a



violent virtual reality game had a higher heart rate, reported more dizziness and nausea, and exhibited more aggressive thoughts in a posttest than those who had played a nonviolent game” (Cesarone, 1998). Although these studies do not directly determine if aggression increases in their experimenters, they are able to observe behavioral changes that include more aggressive patterns.

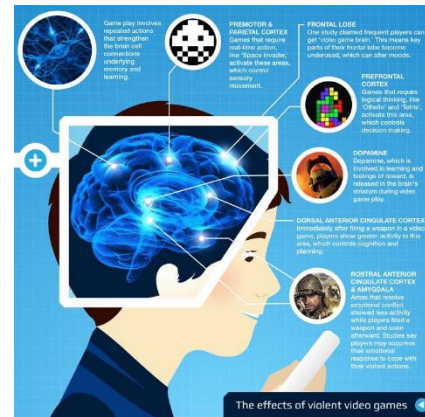
Another negative aspect of video games is the fact that kids are spending too much time playing the games rather than physically playing outside. From the quote above, it is evident that kids involved with video games are spending 13 and 14 hours a week playing them rather than just an hour here and there. By spending so much time on their game console or on the computer, children are missing out on their social life. Children are less likely to go out and compete in extracurricular activities which inhibit them from meeting new people and making friends. Funk and Buchman did another study on the effects video games have on kids, but in this one, they were testing for self-competence. Results found that “for boys, but not for girls, a stronger preference for each of the three types of violent games was associated with lower self-competence scores in one or more developmentally important areas, including academic, interpersonal, and behavioral skills” (Cesarone, 1998). This finding factors into the idea of taking time away from doing other things for these boys because they are suffering in important factors in life that will allow them to succeed.

Lastly, let’s take a look at the obvious reason why video games are not beneficial to a child’s development, obesity. According to the CDC, in 2009-2010, 12.1 percent of children ages 2 to 5 are obese, 18 percent of 6 to 11 year olds are obese, and 18.4 percent of 12 to 19 year olds are obese. Now, this is only the percentages of obesity, and does not account for the amount of children who are overweight as well. What is causing this to occur? I can tell you, the amount of time children are now spending playing video games is a factor in that. By spending much of their free time on the computer or on their game console, kids are not going out and participating in activities that will keep them physically fit in healthy. Kids get the lazy mindset and would rather not go play outside.

Benefits of Playing Video Games

Research has shown that playing video games can be beneficial for a number of cognitive functions and may also contain social benefits. The first and foremost thing one discovers in a game is that *following directions* is of the utmost importance. In order to progress in games,

one must first learn to follow the guidelines, restrictions and components of them. As the player confronts new challenges, he must use *problem-solving* to find solutions. This is true for educational games, mind games, and RPGs alike. The player cannot get through with what they already have or know and must find new combinations and incorporate old skills with new skills to overcome obstacles such as the level or quest (Gee, 2003). In relation to this, the player can also learn *strategy and anticipation, management of resources* (simulation games), *mapping, pattern recognition*, how to *judge the situation* and practice *reading* (with directions, dialogue, etc.) and *quantitative calculations* (through educational games, managing finances, buying and selling for profit, etc. (Tumbokon, 2014).



Gamers also get used to *multitasking*. As games become more intricate, players must juggle different objectives while keeping track of all the changing elements and connecting ideas. Games also induce *quick thinking*. According to cognitive scientist Daphne Bavelier of the University of Rochester, results of a study found that people who play video games become more attuned to their environment and able to keep visual tabs on friends in crowds, able to navigate better and better at everyday things like driving and reading small print. Playing games also “significantly reduced reaction times without sacrificing accuracy” beyond the context of the games (Bavelier et al., 2009) and into making correct real-world decisions. Because of this effect on perceptual reaction times, even the U.S. military uses warfare simulation games in training and claims its benefits (Vargas, 2006).

Video games also increase *hand-eye coordination, fine motor skills* and *spatial reasoning* (Tumbokon, 2014). For example, in shooter games, the player keeps track of their position, direction, speed, aim, results and more. The brain processes all this information and then coordinates with the hands since all actions are done through the controller or keyboard. These skills can be applied to real world situations like surgical procedure (Florida Hospital, 2013).

Finally, gaming is *stimulating, a learning experience* and a *social activity*. The reason why people find it so enjoyable is that games are usually the right degree of challenging and the player takes an active role (unlike watching television) so there is an incentive to achieve (Gee, 2003). Let’s also not forget that many games, like “Rise of Nations” or “Age of Mythology” are educational and have a lot to offer in areas like science, politics, history and cultural studies and some games are practical, like pilot-training simulations. The gaming world is very

popular. Thus, playing video games has become a social activity. In fact, nearly 60% of frequent gamers play with friends, 33% with siblings and 25% with a spouse or parents. Many games require cooperative play and logistics, comradeship and frequent interactions between team members.

Wrap-up

Like so many other issues these days, the concept of video games is controversial. The line between a healthy amount of gaming and an excessive amount is easily blurred and crossed—especially when video games are as addicting as studies claim. As parents, it is prudent to find moderation in all things. Banning games entirely may be good for some households, but others (depending on the prominence of gaming within the environment) will find that it may socially isolate their children, take away a source of joy and possibly cognitive development. However, opening the door to the good, will also allow access to the bad including exposing the children’s minds to the realm of violence, taking their free time away from doing other things, and putting them at risk for obesity. In the end, it is important that the parent monitors what kinds of games children are playing and being exposed to. Part of this job is to know the descriptors and the genres they represent. The Entertainment Software Rating Board has ratings that provide concerned parents information about the content of the games (ESRB, 2014). Efficient use of these ratings can help parents to make more informed choices for their children.

Constructed Response Rubric

Score Point	Descriptor
3	<p>The 3 response fully accomplishes the task requirements. It</p> <ul style="list-style-type: none"> • includes a complete interpretation that goes beyond the text, • has clear logic or reasoning, and • provides specific, relevant support from the text.
2	<p>The 2 response adequately accomplishes the task requirements. It</p> <ul style="list-style-type: none"> • includes an adequate interpretation, • may have minor flaws in logic or reasoning, and • provides general but relevant support from the text.
1	<p>The 1 response minimally accomplishes the task requirements. It</p> <ul style="list-style-type: none"> • includes a minimal interpretation, • may have gaps in understanding or flaws in logic or reasoning, and • may provide sparse or irrelevant support from the text.
0	<p>The 0 response does not accomplish the task requirements. It</p> <ul style="list-style-type: none"> • may provide no support from the text, • may be limited to information copied directly from the text and presented as the student's own ideas, and • may be incorrect or illogical.

Article	Claim	Reason(s)	Evidence

Argument Writing Rubric

Purpose and Forms: “Arguments are used for many purposes—to change the reader’s point of view, to bring about some action on the reader’s part, or to ask the reader to accept the writer’s explanation or evaluation of a concept, issue, or problem. An argument is a reasoned, logical way of demonstrating that the writer’s position, belief, or conclusion is valid.”

Argument	Advanced 4 90-100	Proficient 3 70-89	Basic 2 60-69	Below Basic 1 50-59
<p>Ideas/Purpose: The argument is focused and clearly states the claim(s).</p>	<ul style="list-style-type: none"> • Claim(s) is clearly stated and distinguished from alternate or opposing claims • Claim(s) is purposefully focused and consistent • Complex claims are well-developed • Alternate or opposing claims are thoroughly addressed 	<ul style="list-style-type: none"> • Claim(s) is clearly stated and distinguished from alternate or opposing claims • Claim(s) is focused and consistent • Alternate or opposing claims are addressed 	<ul style="list-style-type: none"> • Claim(s) is sometimes clear, focused or consistent • Alternate or opposing claims are sometimes addressed 	<ul style="list-style-type: none"> • Claim(s) is unclear, unfocused, inconsistent or missing • Alternate or opposing claims are not addressed or missing
<p>Organization: The writing has a clear and effective organizational structure creating unity and completeness.</p>	<p>Claims, reasons, and evidence are organized into clear categories:</p> <ul style="list-style-type: none"> • Skillful and varied use of transitions • Logical progression of ideas from beginning to end • Purposeful introduction and conclusion • Strong connections among ideas 	<p>Claims, reasons, and evidence are organized into clear categories:</p> <ul style="list-style-type: none"> • Appropriate use of transitions with some variety • Adequate progression of ideas from beginning to end • Evident introduction and conclusion • Adequate connections among ideas 	<p>Claims, reasons, and evidence are inconsistently organized into categories:</p> <ul style="list-style-type: none"> • Some use of transitions • Inadequate progression of ideas from beginning to end • Ineffective introduction and conclusion • Weak connections among ideas 	<p>Claims, reasons, and evidence are inconsistently organized into categories:</p> <ul style="list-style-type: none"> • Little or no use of transitions • Confusing progression of ideas • Missing introduction and/or conclusion • No connections among ideas

<p>Elaboration of Evidence: The claim is developed and supported with logical reasoning and relevant evidence using accurate, credible sources.</p>	<ul style="list-style-type: none"> • Provides comprehensive support/evidence for the claim(s), demonstrating a thorough understanding of the topic or text • Presents well-chosen evidence (sources, facts, and details) • Skillfully integrates evidence with correct citations • Analyzes and draws strong conclusions from evidence 	<ul style="list-style-type: none"> • Provides adequate support/evidence for the claim(s), demonstrating an understanding of the topic or text • Uses relevant, logical evidence (sources, facts, and details) • Integrates evidence from sources with generally correct citations • Analyzes and draws logical conclusions from evidence 	<ul style="list-style-type: none"> • Provides inadequate support/evidence for the claim(s), demonstrating a partial understanding of the topic or text • Uses some irrelevant, repetitive, or inadequate evidence (sources, facts, and details) • Limited integration of evidence from sources with some attempt at citations • Inconsistently analyzes evidence • Conclusions drawn are sometimes not logical 	<ul style="list-style-type: none"> • Provides little or no support/evidence for the claim(s), demonstrating a lack of understanding of the topic or text • Frequently uses irrelevant, repetitive, or inadequate evidence (sources, facts, and details) • Does not integrate evidence from sources or lacks citations • Fails to analyze evidence • Conclusions drawn are not logical or are missing
<p>Language and Vocabulary: The writing uses precise and topic-specific language and maintains a formal/appropriate style.</p>	<ul style="list-style-type: none"> • Uses precise, academic language • Use of topic-specific vocabulary is clearly appropriate for the audience and purpose • Establishes and consistently maintains a formal/appropriate style 	<ul style="list-style-type: none"> • Uses a mix of precise with more general language • Use of topic-specific vocabulary is generally appropriate for the audience and purpose • Establishes and generally maintains a formal/ 	<ul style="list-style-type: none"> • Uses simplistic language • Inconsistent use of topic-specific vocabulary • Lacks a consistent formal/appropriate style 	<ul style="list-style-type: none"> • Uses limited or vague language • Lacks topic-specific vocabulary • Lack of formal/appropriate style shows little sense of audience and purposes

		appropriate style		
Conventions: The writing demonstrates a command of conventions and assigned format.	<ul style="list-style-type: none"> Minimal errors/patterns of error in usage, sentence structure, punctuation, capitalization, spelling, and format Skillful use of sentence structure enhances meaning 	Minimal errors/patterns of error in usage, sentence structure, punctuation, capitalization, spelling, and format	Frequent errors/patterns of error in usage, sentence structure, punctuation, capitalization, spelling, and format	Severe errors/patterns of error in usage, sentence structure, punctuation, capitalization, spelling, and format interfere with understanding

0=no evidence/missing



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