CHAPTER 8

Helping Parents Understand the Positives and Negatives of Video Game Use

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Key Summary Points

1. Much of the interest from parents on video games has focused on the positive and negative behaviors, knowledge, and skills that kids learn from video games.

2. The research has often focused on negative behaviors (e.g., do video games cause people to become violent?) or positive outcomes (e.g., can people learn content more efficiently or effectively with video games?).

3. Perhaps the best advice for parents is to get involved in their children's gaming. Involvement here does not mean simply purchasing or being unwilling to purchase a game but actual engagement with gameplay or conversations about the game.

Key Terms

Parents
Learning
Teaching
Violence
Engagement

Introduction

Parents often wonder about the impact of video games on their children. They might broadly consider whether games are good or bad, or they might do a more in-depth search to find how to best engage with their child around the topic of video games. Parents often turn to the Internet for answers and find two seemingly irreconcilable responses. The first set of results provides links filled, in graphic detail, with the connections between unwanted behaviors (such as violence or aggression) and playing video games. For example, one website begins a conversation about video games by referencing two high-

profile school shootings (Wilkins, 2013). The other typical result provides the polar opposite—websites that beg parents to pay closer attention to the potential learning benefits of video games. For example, one website cites research that kids who play video games are happier and more successful as adults (Trunk, 2013). There are three major problems with this dichotomy.

Problem One: Going to Extremes

First, parents who have children that play video games might feel a tension between what they feel their children want to do (and what is popular in their kid's culture), and what they are being told by non-gaming advocates. They are told that playing video games will lead to aggression, violence, and obesity. If these sources are to be believed, the end result of playing games will be a child that harms herself and potentially hurts others. Parents do not want to intentionally harm their child, yet certain headlines about video games make it seem like letting them play video games will do just that. Therefore, many parents may overreact by needlessly limiting video game use.

On the other hand, some parents buy so heavily into the notion that video games can be potentially useful, that they ignore the findings about how and when such games can be used for learning and when they should not be used. In the worst case scenarios, they use games as babysitting tools, or fail to get involved in any substantial way in their child's gaming experience (including game choices) because they have read that games can be good for a child's cognitive development (Olson, 2010).

The truth is that neither of the two results is 100% accurate. Not all games or gameplay experiences lead to unwanted behaviors and not all games are useful for cognitive, spiritual, emotional, or physical well-being. Research has provided evidence that under some conditions, gameplay can lead to unwanted behaviors. Often these conditions include unsupervised play of games that exceed the age and content rating of the player (Anderson & Warburton, 2012). Research has also suggested that playing video games can lead to cognitive growth (Annetta, Minogue, Holmes, & Cheng, 2009) and healthy physical behaviors (Lyons, Tate, Komoski, Carr, & Ward, 2012), particularly when done in moderation and with the oversight of a parent or mentor.

Problem Two: Parent Polarization

A second problem with the dichotomy is that it polarizes the parent. In this debate, the parent becomes the external gatekeeper deciding whether a child plays video games, what video game to play, for how long, or with whom, for example. This is problematic because it positions the parent as a non-gamer, and not as a participant in playing the game with the child, or talking to the child about the game. Given the resurgence of platforms and games that are more family-oriented (e.g. *Nintendo Wii*), and given the fact that we now have generations of gamers who are now becoming parents, it is more likely that parents will play with their children. Most pundits, educators, and researchers who provide advice on games, actually suggest that engagement and involvement is a key part of success for parents with video games (e.g. Melnick, 2011). Parents who play with their children are likely to have better outcomes (e.g. behavioral or cognitive). As such, a dichotomy that polarizes the parent is not only counterintuitive but it is also counterproductive.

Problem Three: Product vs. Process

A third problem with this dichotomy of video games being good or evil is that it places too much value or emphasis on the game itself. There is value in how a game is played; for instance, parental co-gaming can change potentially positive or negative outcomes (Ferguson, Olson, Kutner, & Warner, 2010). There is also value in what a software developer or game company does to support parental involvement. For instance, *Lego* has a website dedicated to parents (Lego, 2013). Understanding that video gameplay is a process rather than simply a product can change how we view the relationship between parents, children, software companies, and the games they produce.

Key Frameworks

There are two key perspectives that inform a conversation about parents and gaming. The first relates to the question of "no significant difference" (Russell, 1999). The basic idea behind no significant difference is that if you take a topic, like video games, you will eventually find enough studies that show both the effectiveness and ineffectiveness of the topic. In other words, regardless of whether the topic is violence in video games or cognitive growth through games, if you compared all the studies, you would find overall no significant difference. This can often leave parents, educators, and researchers unsure of the impact of video games.

Game researchers are working to resolve this problem by making sure that more specific research questions are being asked (Ferdig, 2011). Instead of asking a question like, "do video games make children aggressive?," we should ask "under what conditions do video games make children more aggressive?" The first question leads parents to lump all video games together and to assume that they are detrimental to children's wellbeing (Melnick, 2011). Asking the second question leads researchers and parents to understand that there may be certain conditions that impact behavior, and to explore these potential conditions. In one study, researchers found that the nature of play made a difference; girls who played video games with their parents behaved better and had better mental health outcomes than girls who did not (Coyne, Padilla-Walker, Stockdale, & Day, 2011). In sum, a major consideration in parents understanding the impact of gaming is to enhance the specificity of the questions being asked and the conditions that led to positive or negative results.

The second perspective deals with one potential positive aspect of video games: learning. Drawing from the first framework, under certain conditions, video games can help people teach and/or learn. An important question is to ask under what conditions this can happen. Video games can help young learners when parents are involved. Parental involvement is also tied to the design of the game. Gee (2003) developed 36 principles that good games incorporate, and which could be used to design games that encourage learning, to create school learning environments, or by parents in home environment to interact with children around a game. All of the principles are relevant; here are few example principles that might directly relate to this conversation:

1. **"Psychosocial Moratorium Principle:** Learners can take risks in a space where real-world consequences are lowered" (p. 67). Parents should look for games that challenge children while encouraging them to explore new ideas and concepts.
2. **"Identity Principle:** Learning involves taking on and playing with identities in such a way that the learner has real choices (in developing the virtual identity) and ample opportunity to meditate on the relationship between new identities and old ones. There is a tripartite play of identities as learners relate, and reflect on, their multiple real-world identities, a virtual identity, and a projective identity" (p. 67). Parents should look for games that allow children to self-explore and to try out new roles, likes, and abilities.
3. **"Self-Knowledge Principle:** The virtual world is constructed in such a way that learners learn not only about the domain but about themselves and their current and potential capacities" (p. 67). Similar to the identity principle, but parents should also be willing to engage in conversations with how these games are helping children learn about themselves.
4. **"Cultural Models about the World Principle:** Learning is set up in such a way that learners come to think consciously and reflectively about some of their cultural models regarding the world, without denigration of their identities, abilities, or social affiliations, and juxtapose them to new models that may conflict with or otherwise relate to them in various ways" (p. 166). This does not always happen automatically. Parents should be willing to engage children in how what they are learning affirms or contradicts their world and culture.
5. **"Affinity Group Principle:** Learners constitute an 'affinity group,' that is, a group that is bonded primarily through shared endeavors, goals and practices and not shared race, gender, nation, ethnicity, or culture" (p. 212). Learners may not recognize they are being enculturated into a group or perspective of the world through rules and environments within gameplay. Parents should find ways to engage children in conversations about game environments, characters, and goals.

Case Study One: Children's Motivations Research

Cheryl Olson (2010) wrote a paper for the *Review of General Psychology* titled, "Children's Motivations for Video Gameplay in the Context of Normal Development." In the paper, she described a research study where she surveyed 1,254 middle school children to determine their motivation for gameplay. She found three overarching concepts that motivated children to play games: 1) social motivations; 2) emotional motivations; and 3) intellectual and expressive motivations.

Social motivations included the use of games as a focus for interacting with others. This included the enjoyment of competition. However, it also was as simple as having something to discuss with others. Playing games together or talking about games gave children opportunities for leadership, making friends, and teaching each other.

Emotions played an important role in children's motivations to play video games. In some cases, gameplay gave children a chance to regulate emotions, such as purging negative feelings. In other cases students experienced a sense of flow when playing games (Csikszentmihalyi, 1997). Flow here refers to being enjoyably absorbed by the gameplay.

Intellectual and expressive motivations involved expanding and challenges children's knowledge and perceptions. Children played for the mastery of a game (e.g., to beat it) or to experiment with different identities; they could change race, gender, or attitude (e.g., some wanted to be a bad guy) in a non-permanent and safe way. In doing so, they could be creative in their interactions while discovering, exploring, and learning about new worlds.

Olson ended the article with an important conversation about violence and motivation for playing violent games. She writes:

> Our research suggests that game consoles and computers in children's bedrooms increase the odds that they will spend more time with electronic games in general and games with violent content in particular (Olson et al., 2008). Routinely keeping game systems in common areas of the home allows parents to set sensible limits on play time, and to monitor for negative effects such as increased anger, irritability, or aggression. In our survey of seventh and eighth graders, 54.8% reported that they never played electronic games with a parent, and another 23.9% rarely did so. These data were collected in late 2004, so it is likely (with the advent of more family-friendly game systems such as the Nintendo Wii) that more parents and children play together today, as suggested by industry surveys (Ito et al., 2008). Asking your child to teach you to play a video game—reversing the usual parent– child role—may be good for parent–child relationships (Villani, Olson, & Jellinek, 2005). It also implies respect for the child's interests and skill in a culture that often dismisses video games as a waste of time.
> (Olson, 2010, p. 186).

Olson (2011) wrote an article aimed at parents for Parents.com called, "8 Reasons Video Games Can Improve Your Child." She uses her survey data as well as other research to suggest that video games:

1. Teach problem-solving skills and creativity
2. Inspire interest in history and culture
3. Help kids make friends
4. Encourage exercise
5. Let kids share the joy of competition
6. Give kids a chance to lead
7. Provide an opportunity to teach
8. Bring parents and kids together

Key Findings

In a chapter titled "The Impact of Violent Video Games: An Overview," Drs. Craig Anderson and Wayne Warburton wrote about both the potential positive and negative impact of video games (Anderson & Warburton, 2012). They suggested pain management, coordination, spatial cognition, pro-social behavior, education, and exercise were potential positive outcomes of games. Potential negative outcomes included addiction, attention deficits, school performance, and increased aggression. They summarize:

> Using the food metaphor can be helpful for parents and professionals when it comes to advising children on how to use media in a beneficial way. Through school education many children are interested in healthy eating and this can be extended to maintaining a healthy media diet. For example, children could be told that, as with food, there are media that are good to consume regularly (in moderation), media that are for infrequent consumption and media that children should avoid. Helping a child to self-regulate what they watch and hear in the media can be very important to a child's development in this media saturated world.
> (Anderson & Warburton, 2012, p. 77-78).

It is also worth noting that much of the research on video games has focused on use. Parents and educators who are considering video games pay attention to game consumption, rather than creation. Parents want to know the impact or potential outcomes of their children playing commercial or education games; however, there are important findings related to student game development. Research has suggested that having kids develop games through tools such as *Scratch* (2006), *Greenfoot* (2006), and *Alice* (1999), provides access to programming skills and content acquisition. In one study, Papastergiou (2009) found that game development was "both more effective in promoting students' knowledge of computer memory concepts and more motivational than the non-gaming approach" (p. 1).

Finally, findings suggest positive outcomes when parents are involved in their child's game play (Anderson & Warburton, 2012; Melnick, 2011; Schott & van Vught, 2013). Positive outcomes here refer to growth of cognitive or affective abilities, skill improvement, and improved behaviors (e.g., communication). Engagement and involvement could include actually playing the game with the child. However, it also includes having parents educated about the games their child is playing. It involves limiting the amount of time played each day (e.g., supporting moderation) and keeping consoles in public areas. It may include suggesting or promoting pro-social and educational video games in addition to other titles. Finally, it includes having conversations with the child. These conversations are not just about the dangers of game play, but include sharing a genuine interest in listening to the game play details from a child (e.g., how their character is fairing in an virtual world).

Case Study Two: Research on *Grand Theft Auto IV*

Schott & van Vught (2013) wrote an article titled, "Replacing Preconceived Accounts of Digital Games with Experience of Play: When Parents Went Native in *GTA IV*." The authors made the argument that perhaps many of the societal problems and/or perceptions of gameplay were due in large part to the fact that parents had not ever or rarely played those games. Given this argument, the authors set out to have parents actually engage in gameplay.

> It was postulated that should a user/nonuser distinction emerge, it should carry forward implications for the way in which games are publicly understood, managed, and regulated. The current research thus sought to address the potential shortcomings of the prior research by examining what might be gained from engaging participants more directly in an analysis of the impact and appropriateness of game text by activating and experiencing the text directly through play. Play required participants to act as agents, responding to the conditions of the game environment.
> (Schott & van Vught, 2013, p. 2-3).

Thirteen female and seven male participants engaged in the research study. Given the relative unfamiliarity with video games (regardless of their initial self-description), participants were given an opportunity to explore the rules, objects, and interactivity of the game through a sandbox environment with pre-determined goals and outcomes. Once those objectives were met, parents were asked to complete the "Ivan the Not So Terrible" mission in *Grand Theft Auto IV*. The *Grand Theft Auto* video game series is a set of games engaging the player in a fictional world. The player takes on the role of a criminal who moves up in the criminal underworld by completing various missions, such as stealing cars, transporting stolen goods, killing people, and avoiding police detection for one's crimes.

The researchers found that most of the participants knew of the game because of the negative headlines and the controversy surrounding it. They also reported that all of the participants found the game to be much more enjoyable than they had first expected. Many struggled with the realism of the game (e.g., wondering if and why they should stop at a red light). In the end, many of the participants found a new appreciation for a game they were prepared to dismiss out-of-hand.

The experience of playing *Grand Theft Auto IV* did not confirm or reinforce participants' negative expectations of the game as being a highly violent, sexually explicit, and verbally abusive experience. Instead, playing it

> prompted a radical positive reevaluation of the text and what constitutes an R18-classified game for all participants (gamers and nongamers). Experience prompted parents to acknowledge the sophistication of the game as a potential reason for its R18 classification, as the participants discovered how one needs to be able to comprehend the irony, satire, and intertextual references employed by the designer…Despite the disconnects, frictions, and clashes that are especially apparent in the existing concerns regarding games, parents remain well placed to better support their young players in developing forms of "critical" digital literacy, that is, "cultivat[ing] the habit of uncovering and critiquing both [players'] own constructed and contingent experiences and resulting worldviews, particularly those that influence society's relation[s] with technology"
> (Duffelmeyer & Muffoletto, 2001 quoted in Schott & van Vught, 2013, p. 9-10).

This type of research (parent participation) is important for at least two reasons. First, it provides parents with a deeper understanding of the literacy practices of their children. Second, it promotes parents' understanding of the importance of getting involved in the gaming practices of their children.

Assessment Considerations

Assessment considerations should focus on three aspects. First, researchers should ensure that they are asking the right kinds of questions. Asking which medium works better will often result in no significant differences or will produce findings that have no real world value over time. Researchers should focus instead on understanding the conditions by which certain games impact various factors. Conditions here refer to variables like the audience, the game type, the length of gameplay, the age, and the parental involvement.

The second factor that needs to be addressed is the survey method. Research using both quantitative and qualitative methodologies is useful in broadening the field. However, there has been a tendency to focus on using surveys of perceptions, rather than actual studies on the use of games. Researchers ask how parents or students feel about a certain topic; for instance, a recent survey found that 77% of parents blame video games for exposing children to violence (Commonsense Media, 2013b). Although

these surveys are potentially useful in exposing questions that deserve further exploration, they are not the end product of needed research in this field. More in-depth studies need to be conducted that explore cognitive and social-emotional outcomes of video gameplay and use.

The final factor is the audience involved in the research. Researchers have traditionally examined children's use of video games. Any interactions with parents have typically been to include demographics or to include surveys about their perceptions of video games (or the outcomes of the earlier research). Work has been emerging that has portrayed video game use from a family systems approach where parents are involved with the gameplay. This type of work will yield new understanding into how developers might build interactions between and within family structures (e.g. Stevens, Satwicz, & McCarthy, 2008; Bryant & Bryant, 2006).

Future Needs

Much of the research on video games and children has focused on the questions that parents want answered. They want to understand the good (can my children learn from video games?) and the bad (will my children learn negative behaviors from playing games?). There has also been some work done on parents' perceptions of video games and gameplay (e.g., De Vet, Simons & Wesselman, 2012). However, more research is needed that examines parents' interactions with children during gameplay. This is critical for at least two reasons. First, newer video game systems like the *Nintendo Wii* have been aimed at a multi-generational audience. It is not uncommon for grandparents to play games with their grandchildren. Second, there is a generation of gameplayers that are now grown up and having children of their own. Many of these children watch their parents play and are often invited to play with them (e.g., Melnick, 2011). Further research that attempts to answer the original questions about learning might be better understood by examining the nuances of family gameplay. Such research could draw on past and current studies on non-electronic games (e.g., Kritzer & Pagliaro, 2013). Schott & van Vught (2013) provides an exemplary model of this in their parent participation of *Grand Theft Auto IV* (2008).

Case Study Three: The Entertainment Software Rating Board (ESRB)

The Entertainment Software Rating Board or ESRB was established in 1994 as a non-profit entity by the Entertainment Software Association (ESA). Its self-defined mission is to empower consumers and parents in making informed media purchasing and use decisions. The ESRB is responsible for assigning age and content ratings to video games and other media. The most recent iteration of their rating system includes an overall rating category, content descriptors, and a designation for interactive elements (see: http://www.esrb.org/ratings/ratings_guide.jsp).

The following are the overall rating categories:

1. EC: Early Childhood
2. E: Everyone
3. E10+: Everyone ages 10 and up
4. T (Teens): Ages 13 and up
5. M (Mature): Ages 17 and up
6. A (Adults Only): Ages 18 and up with intense violence, graphic sexual content, or gambling with real currency
7. RP: Rating Pending

The games also have content descriptors that may contain one or more of the following (some preceded by the word *mild*): Alcohol Reference, Animated Blood, Blood, Blood and Gore, Cartoon Violence, Comic Mischief, Crude Humor, Drug Reference, Fantasy Violence, Intense Violence, Language, Lyrics, Mature Humor, Nudity, Partial Nudity, Real Gambling, Sexual Content, Sexual Themes, Sexual Violence, Simulated Gambling, Strong Language, Strong Lyrics, Strong Sexual Content, Suggestive Themes, Tobacco Reference, Use of Alcohol, Use of Drugs, Use of Tobacco, Violence, Violent References. Finally, parents can use the ratings to explore the interactive elements of a game, such as how much information is shared (e.g. personal or location), how much users interact (e.g., downloads or communication), and how those interactions are rated.

The ESRB is dedicated to further supporting parents by providing a collection of resources on their website. These resources include a video game search mechanism, a collection of websites geared toward family-friendly games or family-based reviews, mobile tools, information on parental controls, resources for online safety, a family discussion guide, and a section on tips for parents. In addition to checking their website and checking reviews, the ESRB encourages parents to get involved in their children's gaming. They ask parents to monitor situations where the ESRB cannot rate gameplay, such as online gaming environments or games where players install mods to the game.

The advice for parents to continue to monitor their child's use has been reiterated by existing research. For instance, Haninger & Thompson (2004) evaluated games rated "T" by the ESRB. They attempted to determine whether the rating systems were accurate in their portrayal of the actual gameplay. The authors reported that: "a significant amount of content in T-rated video games that might surprise adolescent players and their parents given the presence of this content in games without ESRB content descriptors. Physicians and parents should be aware that popular T-rated video games may be a source of exposure to a wide range of unexpected content" (Haniger & Thompson, 2004, p. 856). This content could include communication with other players that might not be appropriate for the teen age group. In sum, the ESRB is a great initial resource for parents, but it should be one of many factors in parents' decision-making processes for whether a game is appropriate for one's child.

Best Practices

There are a number of best practices for parents, and all of them revolve around the concept of engagement. Engagement here means getting involved in the video game practices of your child. This can involve actual gameplay, but it also means understanding which game your child is playing and talking to them about their gameplay. Listed below are best practices as suggested by authors and/or organizations (Kuchera, 2010; ESRB; 2013; Commonsense Media, 2013a; Olson, 2010).

1. **Game with your child.** This could literally mean playing a game with your child. However, it also involves being aware of the games that your child is playing. And, it includes talking with your child. These conversations should focus on maintaining safety while gaming and the importance of sharing things in the game or gameplay that make the child uncomfortable (e.g. language or bullying). To build a good relationship to support this communication, gaming with your child means being willing to listen to what adventures they completed or what level they are on.
2. **Set limits.** There are potential positive gains obtained by gaming. As with everything in life, gaming should be done in moderation. Parents need to set limits and to help the child set limits. This can be more easily achieved if gaming equipment is in a public space. Parents should also be on the lookout for negative behaviors during or after gameplay.
3. **Go beyond just checking game ratings.** Many of today's games include interactions with other players. In these situations, it is nearly impossible for the ESRB to give a proper game rating. Parents should begin with the box to make sure the game and game content is appropriate for a child's age and intellectual and social maturity. However, they should continue to monitor their child's play to ensure safety for their child.

Resources

Articles

Focus on the Family (2013). Parents' Guide to Video Games. http://www.focusonthefamily.com/parenting/protecting_your_family/parents-guide-to-video-games.aspx

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Websites

8 Reasons Video Games Can Improve Your Child (http://www.parents.com/kids/development/benefits-of-video-games)

Commonsense Media gaming tips (http://www.commonsensemedia.org/advice-for-parents/gaming-tips)

Entertainment Software Rating Board (http://www.esrb.org)

ESRB helpful tips for parents (http://www.esrb.org/about/parents_tips.jsp)

Raising a Healthy Gamer: Seven tips for parents (http://arstechnica.com/gaming/2010/12/parenting-and-video-games/)

Programming Tools

Alice (http://www.alice.org/)
Greenfoot (http://www.greenfoot.org/)
Scratch (http://scratch.mit.edu)

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