

# Parents' View on Children's Digital Game Use

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**Abstract:** As digital game is becoming popular among people of all ages, there are concerns like exposure to violent and sexual expressions and excessive digital game use, especially of children. However, as are other media, digital game may have a positive effect if used properly. The current study aims to look at how parents think of children's digital game use and to propose a way to educate children and parents on the proper use of digital games. A survey was conducted on 112 parents (49 males). As a result, I found out that about 70% of parents played digital game with children. Although parents are concerned about depictions of violence, sexual expressions, and language in games, many parents respect children's opinions the most when they buy games and also when they decide on rules of the game use of children.

**Keywords:** Children, Digital games, Media use, Parents

## INTRODUCTION

Digital game is popular entertainment among all ages. According to the report of Computer Entertainment Supplier's Association (CESA), 41% of the general population in Japan was playing digital games in 2017 (CESA, 2018). For children and adolescences, 46% of boys with age 3~14, and 84% of boys with age 15~19 played digital games; 47% of girls with age 3~9, 74% of girls with age 10~14 and 63% of girls with age 15~19 played digital games (CESA, 2018).

Digital game is also used as an educational tool. For example, gamification, "the use of game design elements in non-game contexts" (Deterding, 2011), is considered effective in keeping learners motivated and making learning enjoyable. In their chapter on game-based learning, Tobias, Fletcher, and Wind (2014) show that players learn something from digital games based on existing empirical data.

Since digital games can influence players, they may have a negative or positive effect on players depending on what players play and how players play them. For example, different game contents may affect players differently. Based on the General Aggression Model (Anderson & Bushman, 2002), Anderson and colleagues have shown that violence depictions in digital games may increase aggression of players (Anderson et al., 2010). On the other hand, based on a similar model (Buckley & Anderson, 2006), Gentile et al. (2009) show that playing games featuring prosocial behavior, behavior intentionally benefitting others, promotes prosocial behavior of players after playing the games. Also, playing the same game cooperatively, compared to playing

competitively, results in exhibiting more cooperative behavior in the tasks after playing the game (Ewoldsen et al., 2012).

Regarding what players play, there is a rating system that can be referred to when buying games. In Japan, Computer Entertainment Rating Organization (CERO) is in charge of rating digital games. There are five age classification marks and nine content icons to describe the proper age group for a game and content of the game the rating is based on. However, only 18% of the general population is aware of CERO (CESA, 2018). It is important to look out for the contents of digital games because how players play digital games or what kind of digital games they play may affect themselves. Especially for children, the main focus of the current study, it is necessary for their parents to look out for them.

The purpose of this study is to look at how parents think of children's digital game use and their awareness of the proper use of digital games. This study further aims to propose a way to educate children and parents on the proper use of digital games.

## METHOD

A survey was conducted to look at parents' awareness of children's digital game use. The survey was conducted online in February 2018 using Google Form. Informed consent was obtained from each participant before the participation. Participants were informed that the data collected would be used only for research purposes, that their personal data would not be used to identify any individual and that they were free to withdraw at any point of participation.

The survey was conducted in Japanese, and it took about 5 minutes to complete.

In the survey, digital games are defined as games played on personal computers, home consoles like Sony PlayStation4, handheld game consoles like Nintendo 3DS, or smartphones, or arcade games. They are otherwise called video games or television games (*tebigemu* in Japanese).

Participants were asked about digital game use of their children and their own, how they think of their children’s game use, their awareness of CERO ratings, and how they deal with their children’s game use.

### Participants

Participants were all parents of elementary school children, and they were recruited through a crowdsourcing platform called Lancers (<http://www.lancers.jp>). Only the members whose identities were verified by Lancers could participate in the survey. Each participant was paid 40 Japanese yen (approx. 0.40 American dollars) for incentives. There were 112 participants (Male = 49, Female = 63), with a mean age of 38.50 (SD=5.61), ranging from 23 to 58.

### RESULTS

Out of 112 participants, 103 (92%) responded that they possess at least one game console in their homes. 101 (90%) responded that their children played digital games and 76 (68%) responded that the participants themselves played digital games. 69 (62%) responded that they played digital games with their children, and 15 (13%) responded that they did not play with their children, but other adult members of their families played with their children. How much participants and children play digital games per day is described in Figure 1. The responses of parents whose children play digital games ( $N=101$ ) were used for the analysis. Among the 101 participants whose children play digital games, 73 participants responded that they also played digital games.

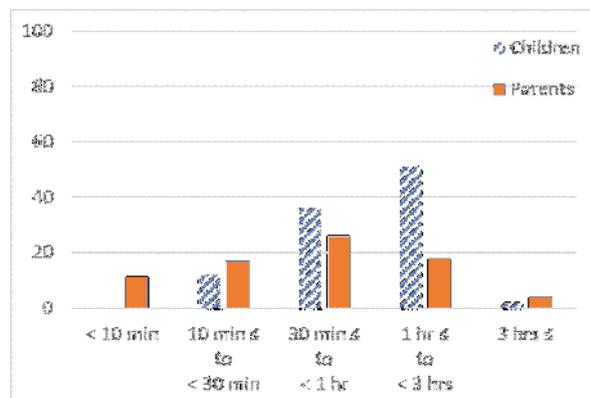


Figure 1. Daily game play time of children and parents.

When asked how much they were interested in digital games their children were playing, the most parents responded that they were somewhat interested (Figure 2). However, the response did not vary between the parents who played digital games and those who did not, and the parents who played digital games with their children and those who did not ( $p=.69$  and  $p=.58$ ).

The participants who responded “I sometimes get interested” and “I am always interested” were asked which aspects of digital games they were interested in. The most participants were interested in depictions of violence in digital games followed by sexual expressions (Figure 3).

When participants buy digital games for their children to play, children’s opinion affects their decision the most (Figure 4).

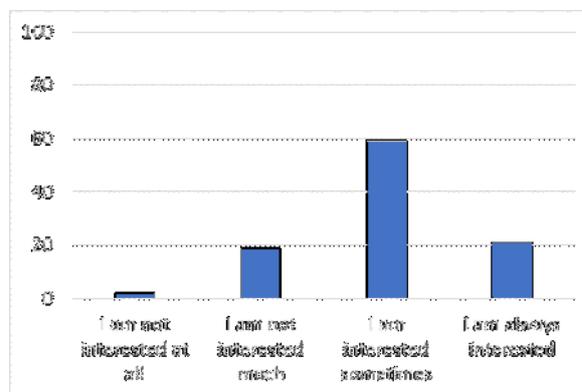


Figure 2. Parents’ interest in games children play.

About participants’ awareness of CERO ratings and content icons, half of the participants did not know what CERO ratings were and more than three-third of them did not know what content icons were (Figure 5). Participants who played digital games (37 out of 73; 51%) were more aware of CERO ratings than participants who did not play digital games (5 out of 28; 18%) but not content icons ( $p=0.01$  and  $.35$  respectively, Fisher’s Exact test).

When asked how much they were worried about their children’s game use, less than half of participants (41%) responded that they worried about their children’s game use (Figure 6). How much they were worried about their children’s game use did not differ between those who played digital games themselves and those who did not nor different ages of participants. For those who said that they were worried about their children’s game use, the most participants seemed to worry about how much time children play (Table 1). Some of the responses were: “game play time gets long despite my warning”, “I am worried that game play time is much longer than study time”, and “I try to restrict children’s play time, but sometimes they cannot keep the rule”. Some participants were worried that children get too engrossed in the game and neglect other things like

studying and plays in the real world. Other participants were worried about children's eyesight going bad. There were participants who worried about their children becoming too dependent on games. There were also comments on their understanding of

digital game as a media of communication with friends, and thus the difficulty of not being able to forbid children to play games completely but being worried at the same time.

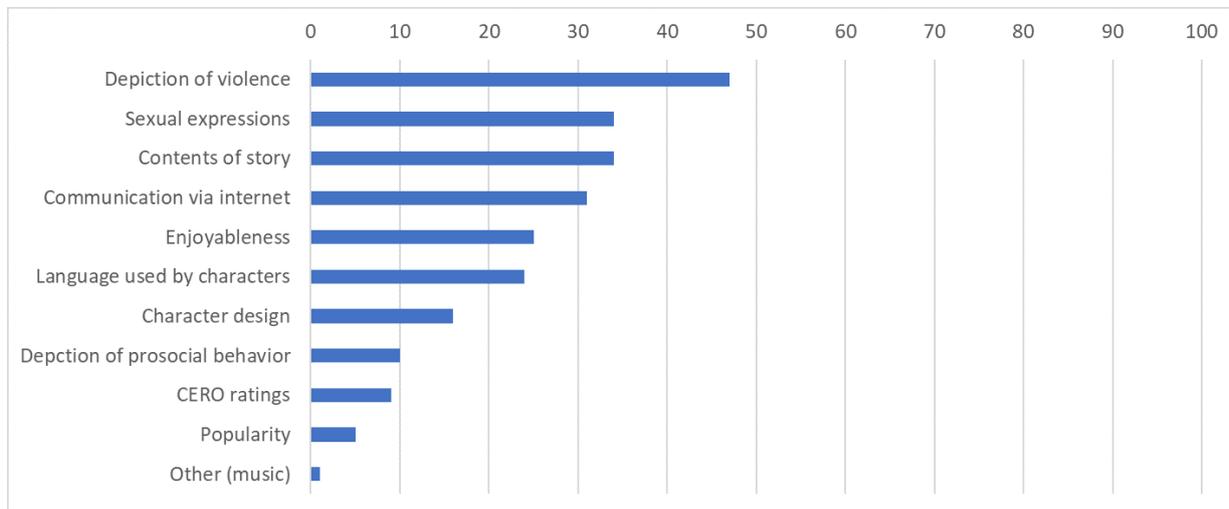


Figure 3. Aspects of games parents are interested in.

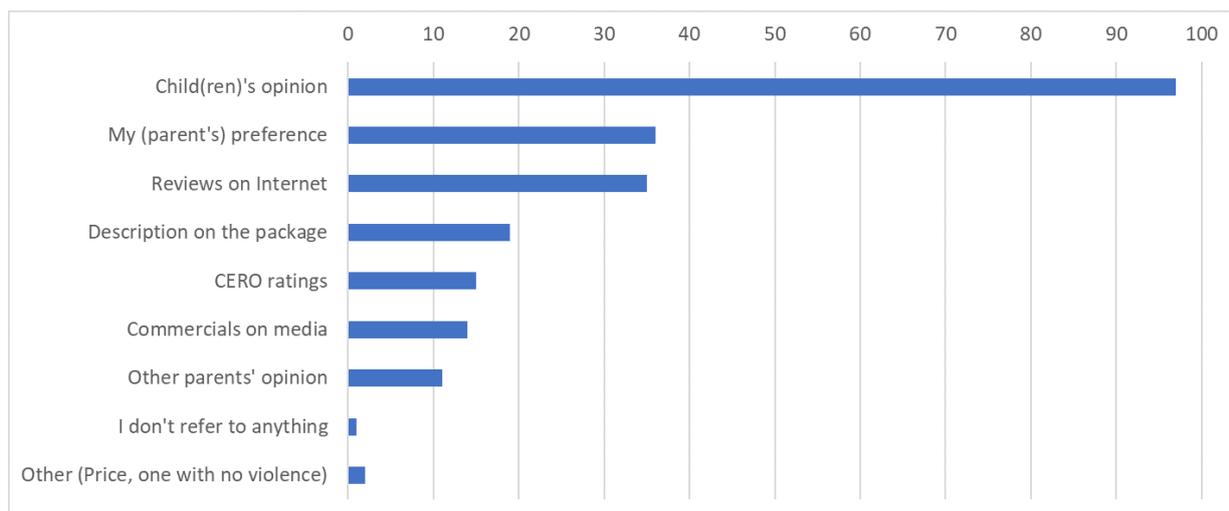


Figure 4. Factors influencing parents' decision when buying games.

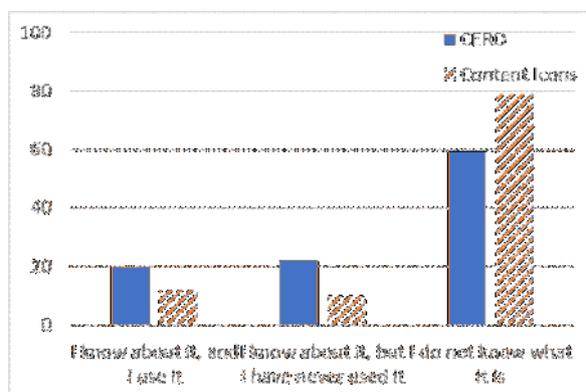


Figure 5. Parents' awareness of CERO ratings and content icons.

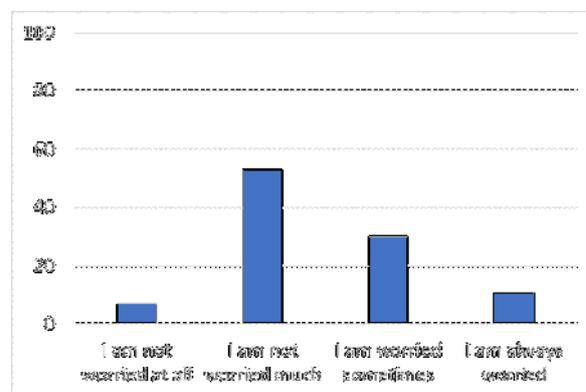


Figure 6. Parents' concern about children's game use.

Table 1. Word frequency of parents' responses on their concern about children's game use (>1).

Word	Frequency
game	20
time	11
to play	6
study	5
care	4
long time	4
engrossment	4
eyesight	3
neglect	2
rule	2
bad	2
bad influence	2
dependence	2
mediate	2
reality	2
now	2
can keep (promise)	2
finish	2
homework	2
concern	2
restriction	2
growth	2
other	2
boy	2
long	2
worry	2
to be into	2
eye	2
friend	2
play	2
good	2

For coming up with how to deal with children's game use, articles on Internet the most (48%) were the most referred source of information, followed by opinions of their children (44%) and other parents (44%). Nineteen-percent of participants responded that they did not refer to anything (Figure 7).

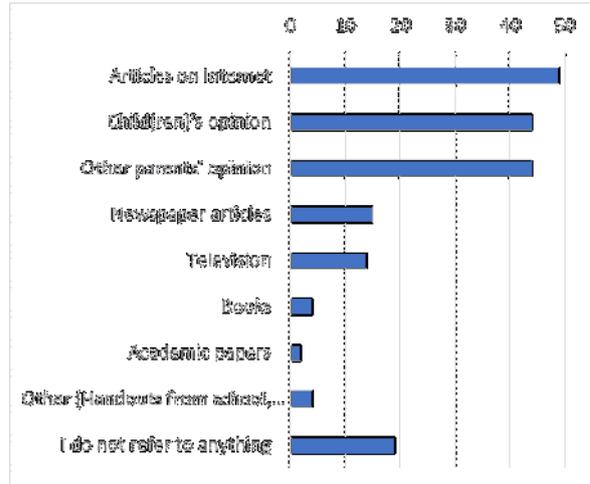


Figure 7. Source of information for dealing with game use.

## DISCUSSION

In the current study, it became clear that while parents paid attentions to the content of digital games their children played, the majority of parents was not worried about children's game use. The reason for this may be that parents are already taking proper actions to take control of children's game use. They may have consensus with their children on their game use. For example, it is shown that children's opinions were respected when buying games or dealing with their game use.

In addition, many parents now are the generations who may have played games themselves when they were young or at least familiar with digital games. The mean age of the participants was 38.5 which is the middle of what is called "Famicom generation" in Japan. However, the age was not related to how much parents were worried about their children's game use.

For the awareness of CERO ratings, although only half of the parents were aware of CERO ratings, it is high compared to that of the general population. According to the survey conducted by CESA, only 18% of the general population was aware of CERO ratings. It may seem that parents are committed to what their children are playing. However, parents who did not play digital games themselves were aware of CERO ratings as little as the general population.

For dealing with children's game use, articles on the Internet were referred to the most. For example, there are website-based online communities for mothers that have articles on how to set rules for children's game play and dangers of game dependency. However, some articles promote negative impression on digital games with no evidence. Also, because parents are mostly concerned about how much children play rather than what and how they play, many sources of information focus on how to set the rules on play time.

It would be a problem if children neglected other things like studying and became dependent on playing games. However, digital game itself is not necessarily a bad influence on children. Not all digital games have negative effects on players and some digital games with proper contents may have positive effects on players. Furthermore, different contexts of certain contents such as violence or prosocial behavior in games may have different effects on players. For example, rewarded violence in game may promote aggressive behavior of players (Shibuya, Sakamoto, Ihori, & Yukawa, 2008). Different types of prosocial behavior may affect player's prosocial tendencies differently (Lim & Sasaki, 2017).

To establish rules for proper use of digital games, it is important to acknowledge both the positive and negative effects of digital games for both parents and children. Also, to help parents' and children's decisions on choosing games with proper contents, it is important to inform them about CERO ratings and content icons, especially for parents who do not play digital games. For educating parents and children on the proper use of digital games, using the Internet seems the most effective. As other parents' opinion is referred to as often as children's opinion, social networking services like Instagram could be used as a source of information and for exchanging of opinions.

## CONCLUSION

The current study showed that about 70% of parents played digital game with children. Many parents respect children's opinions when they buy games and also when they decide on rules of children's game use. Although parents are paying attention to depictions of violence, sexual expressions, and language in games, the majority of parents are not aware of CERO ratings and content icons which contain information on violence, sexual expressions, and language in games.

Although many researches are conducted on game effects and game ratings, there seems a gap between the academic research and practice. However, as digital games are getting more popular every year, and as children not only play games but also are starting to make games with programming education coming to school, it is critical that parents watch for children's game use by not only limiting the time of game play but also by paying attention to what they play and how they play.

For the further studies, it is important to see how each factor in game play affects children and also how the results can be put into practice.

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