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Evaluation of Reflections of Digital Technology on Child Development

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Abstract: Leisure habits of children have considerably changed with the spread of digital technologies into the family homes (1). Even though the undesirable consequences of digital games that are in the scope of digital technology and nowadays commonly used by children are more concerned, the positive sides contributing to the development of social, emotional, cognitive and personal perceptions on children should not be overlooked. The fact that all these positive and negative effects may vary according to age groups in children is also an issue in many studies. Digital games are the most widely used area in digital technology between the ages of 2-14 years. It has been determined that while children around 6 years old play digital games on computer, children around 10 years old play digital games mostly on mobile phones. Studies have shown that young people who live in geographical areas where playing digital game is common play an average of 10000 hours of online gaming by the age of 21 (2). While digital games in generally have positive contribution about such as personal development of children, treatment and/or therapy of some specific illnesses (physiological stammering, social phobia etc.), learning and development of foreign languages, developing strategy and ability to make quick decision, providing hand-eye and mind coordination, development of motor skills in children, motivation and using as a leisure time tool and enhancing technological knowledge and skill, digital games' negative effects leading to digital games come into agenda are risks that they emerge at the social level. Usage times up to the degree of dependence on children can cause adverse effects such as obesity, physical and pathological disturbances. Furthermore, it causes disruption and retardation in language development, to develop postponement behaviour, difficulties in emotion control and personality disorders, sociopathy, to decrease in intra-family communication, difficulty in distinguishing the difference between virtual and reality, development of aggressive feelings, thoughts and behaviours due to its elements of violence, major health problems such as carpal tunnel syndrome and attention deficit, to



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disrupt language development of children and also causes children to become vulnerable to online threats. It affects adversely academic and personal achievement due to reducing studying, reading and participating in physical activities times as well (3, 4). The scientific studies that emphasize the positive and negative effects of digital games on children were evaluated from a holistic point of view in the study. In this study it is aimed to form solution proposals by evaluating the studies examining effects of digital games on physical, cognitive and psychosocial development of children with positive and negative aspects. In the statistics published by Turkish Statistical Institute in 2013, it was determined that among the reasons for the use of computers of children, digital games are considered to be a priority place and digital games are also preferred choice for mobile phone use (5). There are many studies addressing the harms of digital games and they generally refer to the negative side of digital games. However, there are also studies indicating that the results of digital games will be positive if quality of the digital game, time spent playing the digital game and appropriateness of playing the right game at the right age In addition, studies have shown that digital games contribute to the development of attention, concentration, correct decision making, problem solving, group work, creative thinking skills. Digital games helping children to develop basic mathematics, reading and language skills, are both more fun and more effective for children compared to traditional training methods about education issue. There are studies focusing on the fact that digital games contribute to the development of children's social skills in treatment and therapy of autism and there are studies focusing on the psychological aspects of games that have therapeutic effects on children. In the elimination of the lack of attention frequently encountered in children, positive effects were shown in the field of education, especially social life, thanks to digital games (6, 7). Digital games can also be thought of as an important educational and entertainment tool in acquiring skills such as planning, goal setting, strategy formulation and critical thinking. The existing disadvantages can be turned into advantages as long as the right time, the right ratio, the appropriate age and the specific purpose criteria are met in digital games.

Key words: Digital games, child development, digital technology