Chapter XIX
Impact of Computer and Video Games on the Development of Children

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ABSTRACT

This chapter analyses the impact of computer and video games on the development of children. First introductory part of this chapter informs its readers about the computer and video games followed by understanding the term development. The chapter details about how computer and video games affect the children and their behaviour. There is clear evidence from researches that shows the impact of computer and video games on the learning and development of children. On the positive side, they improve hand-eye coordination, logical skills, visual concentration, and so forth. They also provide an occasion for the child and parents to play together, which further helps in familial bonds and psychological development of children. Looking at the negative side, the computer and video games caused addictive, obsessive, and violent behaviour in children; taking away their time from other creative activities and sports, and so forth. In addition, some games desensitised children from other's sufferings and made them more violent. The chapter concludes with some suggestions and recommendations as to what extent we should let children use these games, how to deviate their inclination to play these games, and to motivate them for other games and outdoor activities.

INTRODUCTION

These days, it is common for a child's computer knowledge to exceed that of her/his parents. We live in a high- tech age that is becoming increasingly complex. To prepare the next generation, most schools begin computer instruction in kindergarten (Bradway and Hill, 2004). Video games are children's introduction to computers and the world of computer technology (Greenfield, 1994). Computer and video games were first developed in 1970s. As the technology and programming improved, these games became more accessible to individuals in their own homes and the industry experienced massive growth. Australians spent $ 452 million on computer and video games in 2001, an increase of 23.6 % on the 2000 figures. Microsoft Australia projected that the revenue gained by video game industry increases every year (Young Media Australia, 2004).

Computer and video games are designed primarily for recreation as opposed to those with specific educational aims. Berger (2002) characterised video games as a source of entertainment, having rules by which players are bound, often having a competitive aspect. These games are played on a variety of platforms including many different types of machines, systems or devices. Games can be played on a computer, either Mac or PC, home consoles used with TV sets like Sony Play station, Nintendo Game Cube and Microsoft Xbox, coin-operated arcade game machines, handheld game systems like the range of Nintendo Game Boys with other systems released by Sony (PSP) and Nokia (N-Gage), mobile phones and Palm Pilots (Personal Desktop Assistants). Petra Skoien and Donna Berthelsen (1996) investigated that these games are commonly played at home on computers and on video game systems such as Nintendo or Sega. Games can be bought or downloaded from the Internet.

There is evidence through various researches that computer and video games affect the development of children. Development is an orderly sequence of change that occurs over a period of time. All humans go through the same general patterns in development as they grow, and they develop certain behaviours at about the same time in their lives (Priddis and Palmer, 1998). Development occurs in different stages and everyone has to pass through each stage from conception until death. Development and learning in each stage is affected by the heredity and environment in which the child is being brought up. Siegler, Eisenberg and Deloache (2003) cite every aspect of development, from the most specific behaviour to the most general trait, reflects both people's biological endowment (their nature) and the experiences that they have had (their nurture). The contexts that shape development include the people with whom children interact directly such as family and friends, the institutions in which they participate like schools and religious organizations and societal attitudes such as those regarding race, ethnicity and social class. Individual differences even among siblings reflect differences in children's genes, in their treatment by other people, in their interpretations of their own experiences and in their choices of environment. The constant use of computer and video games has a significant effect in shaping the behaviour and development of children.

Since computer and video games have become so popular in the last few years, there has been great community concern about the effects of the content and prolonged play on children. In the United States, the average 2 to 17 year old child plays console and computer video games for seven hours per week (Gentile and Walsh, 2001). In 1999, 2.5% of entering college men reported playing video games over 20 hours per week (CIRP, 1999). Hence, it is imperative to know the effects of computer and video games on the development of children.

The literature indicates that the frequency of video game play peaks during middle childhood years that is from 5 to 12 years of age (Greenfield, 1994; Provenzo, 1991). Middle childhood