

Chapter 18

Use of Virtual Worlds for Development of Social Interaction Skills of Children With Special Needs

Amir Manzoor

 <https://orcid.org/0000-0002-3094-768X>

Bahria University, Pakistan

ABSTRACT

At a growing rate, educators are realizing academic potential of virtual world and starting to use them to support the development of social skills and learning of children with special needs (CSN). A virtual world could be integrated into different learning contexts to provide a safe, friendly, and supportive multiuser learning environment for CSN. The objective of this chapter is to explore how educators can leverage shared interests of CSN in virtual world to facilitate their social interaction and how educator and technology support can be used to guide this learning process of CSN.

INTRODUCTION

Children with special needs (CSN) are children who have a disability or a combination of disabilities that makes learning or other activities difficult. Special-needs children include those who have mental retardation, speech and language impairment, physical disability, learning disabilities, and emotional disabilities (The Jamaica Association for the Deaf, 2020). CSN exhibit some special traits. Some of these traits include difficulties in social and lack of interest (Zelazo et al., 2008). For these children, interacting with other people is a great challenge (Lyall et al., 2017). As a result, these children find it difficult to get accepted by others and improve their academic performance (Reichow & Volkmar, 2010; Mu, 2019). For the purpose of this chapter, the term CSN refers to the children on autism spectrum disorder (ASD). The autism spectrum disorder refers to a broad range of conditions characterized by challenges with social skills, repetitive behaviors, speech and nonverbal communication.

DOI: 10.4018/978-1-7998-7638-0.ch018

The specific cognitive profile of CSN is very important to identify and address specific social developmental needs of CSN (Lanou et al., 2012). Over the years, the growing proportion of CSN has resulted in development of many theories and intervention approaches for CSN. The current research on CSN is focused on sociological and cultural issues of CSN (Mu, 2019). These researchers believe that CSN should be treated as a type of human being that is different rather than a problematic human being that needs to be fixed (Virnes et al., 2015). Besides therapeutic and environmental interventions, researchers have recently started to adopt a strength-based approach to support CSN (Voutilainen et al., 2011; Gunn & Delafield, 2016; Steiner & Gengoux, 2018).

The early intervention approaches for CSN avoided the limited interests of CSN (Lewis & Bodfish, 1998). O'Neil (2008) argues that there exists a close relationship between intense interests and strengths of CSN. According to O'Neil, children would engage once they are interested. Learning only happens when children are engaged (Sugata, 2010; MU, 2019). To enhance essential social skills of children, it is essential to incorporate the children's interests in their education programs (Campbell & Tincani, 2011; Dunst et al., 2012; Jordan & Caldwell-Harris, 2012). Recently, researchers have started to focus on interest-based interventions for CSN.

To facilitate the above-described transition, we need new technology-integrated pedagogical models (Passerino & Santarosa, 2008). Researchers argue that while ordinary people can use technology to make things easier for them, people with disabilities can use technology to make things possible for them (Oberle et al., 1993). The technology can help support social interactions (Aresti-Bartolome, & Garcia-Zapirain, 2014). If used appropriately, technology can help discover hidden talent or special interests of a child with special needs. However, educators must work closely with technology specialists to reap maximum benefits from use of technology.

According to Eversole, Collins, Karmarkar, Colton, et al. (2016), use of digital devices and playing video games are the most favorite activities of CSN. These children spend twice as much time on playing video games than typically developed children (Mazurek & Engelhardt, 2013). Researchers argue that video game playing by CSN is a waste of time because these games only encourage the violent, anti-social behavior (Pew Research 2008). In contrast, some researchers argue that video games can be helpful to encourage individuals to learn and think cognitively, socially, and morally (Norton-Meier, 2005). Computer games use simulation techniques frequently. A number of researchers found that computer games were helpful for students, including CSN, to increase their motivation/social engagement and enhance their learning (Habgood et al., 2005; Rezaian et al., 2007; Ke, 2008; Ke and Abras's, 2013; MU, 2019). Therefore, educators should perform a deep exploration into role of computer games for supporting teaching pedagogies and student learning.

For educators aiming to develop social interaction skills of CSN, virtual worlds offer a wonderful opportunity. In order enhance the social interaction skills of CSN, researchers have experimented with many virtual worlds. These researchers hoped that CSN can use the social interaction skills learnt in virtual worlds in the real world. However, in very limited cases use of digital resources for CSN has proved effective (Mazurek et al., 2015). Minecraft is a very good example of a virtual world that provides CSN ample opportunities of learning and socializing. In social science, a social relation or social interaction is any relationship between two or more individuals. There are many ways we can measure social interaction. We can use the individual's performance in basic and advanced conversation skills. We can also use the individual's level of social engagement or the degree of social relationship development (MacCormack, 2016).

26 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:
www.igi-global.com/chapter/use-of-virtual-worlds-for-development-of-social-interaction-skills-of-children-with-special-needs/273036

Related Content

Information and Communication Technology (ICT) Adoption in Higher Education

Samuel NiiBoi Attuquayefio (2022). *International Journal of Virtual and Personal Learning Environments* (pp. 1-21).

www.irma-international.org/article/information-communication-technology-ict-adoption/295309

A Case Study of Using Online Communities and Virtual Environment in Massively Multiplayer Role Playing Games (MMORPGs) as a Learning and Teaching Tool for Second Language Learners

Isara Kongmee, Rebecca Strachan, Alison Pickard and Catherine Montgomery (2012). *International Journal of Virtual and Personal Learning Environments* (pp. 1-15).

www.irma-international.org/article/case-study-using-online-communities/74837

Towards Learning 'Self' and Emotional Knowledge in Social and Cultural Human-Agent Interactions

Wan Ching Ho, Kerstin Dautenhahn, Meiyi Lim, Sibylle Enz, Carsten Zoll and Scott Watson (2012). *Virtual Learning Environments: Concepts, Methodologies, Tools and Applications* (pp. 1426-1445).

www.irma-international.org/chapter/towards-learning-self-emotional-knowledge/63201

A Comparative Study on the Professional Identity of Current and Prospective Teachers: Iranian English Language Teachers' Perspectives

Dara Tafazoli and Sajad Sadeghi (2018). *International Journal of Virtual and Personal Learning Environments* (pp. 24-45).

www.irma-international.org/article/a-comparative-study-on-the-professional-identity-of-current-and-prospective-teachers/211129

At the Intersection of Learning: The Role of the Academic Library in 3D Environments

Nita J. Matzen, Louisa Ochoa and Geraldine Purpur (2012). *Virtual Learning Environments: Concepts, Methodologies, Tools and Applications* (pp. 1481-1492).

www.irma-international.org/chapter/intersection-learning-role-academic-library/63204