Chapter 3
Online Gaming Environments as a Potential Conduit to Support Friendships for Individuals With Autism Spectrum Disorder

Jenn Gallup

iD https://orcid.org/0000-0001-5057-6452
Idaho State University, USA

Celal Perihan
Idaho State University, USA

ABSTRACT

The purpose of this chapter is to elucidate the potential of online mediums such as multiplayer online role playing games (MORPGs), augmented virtual realities (AVR), and other virtual immersive mediums that hold the potential to build social connections and develop friendships for individuals with autism and related disabilities. Further, this chapter will examine current evidenced-based practices to support social skills and then relate the interventions used in the context of the virtual environments to support the development of friendships that could support transition to postsecondary situations.

INTRODUCTION

While the cost of providing social services to adults with an Autism Spectrum Disorder (ASD) approaches $200 billion annually, opportunities for young adults with ASD to acquire the soft-skills necessary to manage postsecondary education, employment, and independent living remain inadequate. Only 32% of individuals with ASD have a comorbid intellectual disability (CDC, 2016); however, all individuals with ASD experience challenges with social and soft-skills, such as the ability to communicate, work on teams, and engage with larger group of peers. These challenges impede postsecondary education, employment, and independent living (APA, 2013; Shattuck et al., 2014). Individuals with ASD have

grim outcomes when compared to other disability categories and their typically developing peers. For example those with ASD hold the lowest wage of all disability categories, have the lowest independent living rate >3%, and 70% drop-out of college before completion (Shattuck, 2013). This is a critical global problem that could be addressed through better interventions, potentially considering multiplayer online gaming environments for individuals with ASD at the transition age.

BACKGROUND

An increasing number of individuals are being diagnosed with ASD now affecting approximately 1% of the global population (CDC, 2014). Autism has considerable variety and is characterized by the following: (a) persistent deficits in social communication and social interaction across multiple contexts, (b) inability to understand nonverbal communicative behaviors used for social interaction, (c) difficulty developing, maintaining, and understanding relationships, and (d) restricted, repetitive patterns of behavior, interests, or activities (CDC, 2014). Symptoms associated with an ASD are persistent and affect those individuals across their lifespan (APA, 2013).

Interventions Used for Social Skills Development to Support Friendships

The necessary supports for social skill development in students with ASD can be met by providing the appropriate evidence based practices (EBPs), as noted by many researchers (Parson, 2006). Researchers, clinicians, parents, and teachers all seek out supports for a person with ASD to help them learn social-skills which may support greater social interaction, peer acceptance, and ultimately friendship (Parson, 2006). To support social skills several researchers have evaluated instructional strategies for the development of social skills in students with ASD. Some of the most promising include peer-mediated instruction and intervention, social stories, social skills training groups, and Video-Based Modeling (VBM). One meta-analysis of research on social skill development in students with ASD, ages 2-17, by Wang and Spillane (2009) included 38 studies on social skill interventions published between 1997 and 2008. The study found mixed results among the instructional strategies. Moreover, the meta-analysis found that only social stories, peer-mediated instruction, and video modeling satisfied the criteria for EBPs based on the framework established by Horner et al. (2005). Wang and Spillane (2009) concluded video modeling was the most effective social skill intervention because of its high percentage of non-overlapping data (PND) and mean score of 84.25%. However, each of the EBP used have been in very controlled situations that require human interaction and often not in the naturalistic setting. Additionally, the EBP currently used require students to engage in the intervention at a time that is selected for them and given possible scenarios developed specific to the student that often do not generalize to other settings.

The benefits of using a virtual environments as a consideration for a new intervention medium or in conjunction with current EBP would allow users to postulate different scenarios, explore different social situations, and engage in multiple conversations requiring the repeated use of soft-skills without the continuous requirement of human support. These situations in the online game can be explored repeatedly with or without the presence of other human interaction both with and without the feedback of a human and computer mediated feedback. Computer mediated feedback is delivered through an agent and automatized while human feedback is often part of the natural interactions within a guild but can be scripted if the gaming environment is found to be a medium that would require additional support with

20 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/online-gaming-environments-as-a-potential-conduit-to-support-friendships-for-individuals-with-autism-spectrum-disorder/265801

Related Content