Chapter 1

2D Animated Social Story for Assisting Social Skills Learning of Children with Autism Spectrum Disorder

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ABSTRACT

Asperger Syndrome is a developmental disorder under the umbrella term of Autism Spectrum Disorders, and it is a milder variant of autism. It is characterized by a significant difficulty in communication, prominently in social interaction and non-verbal communication. Since a decade ago, there have been a variety of tools for teaching and assisting children with AS in the acquisition of social skills, ranging from the simple picture exchange system to the high-end virtual reality system. This chapter discusses on the effectiveness of integrating Social Story, 2D animations and video instruction for teaching social skills to children diagnosed with Asperger Syndrome in an interactive manner. The prototype has been developed, implemented, and evaluated in an experimental way. This chapter will discuss on the evaluation process, results, findings, and areas for further exploration.

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INTRODUCTION

Asperger Syndrome (AS) is a type of Autism Spectrum Disorder (ASD) with symptoms of impairment in social communication, interaction and coordination skills.

Hagiwara and Myles (1999) were the first to conduct a study to use multimedia approach combining Social Stories, visual symbols and computer-based instruction. Social story is a strategy designed to teach autistic children social skills and behavior management skills by addressing specific social situations and how to cope with them. Since then, there are many studies and research to find the effectiveness of Social Story by combining it with other intervention mode; Roger and Myles (2001) who combined Social Story with Comic Strip Conversations, Thiemann and Goldstein (2001) combined Social Story with multi-component intervention which includes Social Stories, cue cards, role-play and video feedback. Schneider and Goldstein (2009) had compiled the studies of Social Story for Children with ASD from the year of 1995 to 2006. He concluded that the effectiveness of Social Story alone is hard to be measured as it is combined with other modes of interventions (Crozier & Tincani, 2005). Thus, it is inconclusive to denote that the positive behavior changes are resulted from the Social Story intervention itself or a combination of Social Story with other interventions (Schneider & Goldstein, 2009).

Despite the uncleanness of the effectiveness of Social Story itself, Schneider and Goldstein (2009) also reported that additional components such as visual schedules may be useful for optimizing the children’s performance rather than by using Social Story individually. Same result was reported by Mancil, Haydon, and Whitby (2009) who found that Social Stories in Power Point format produces slightly better outcome than the Social Stories in the paper format. Students also indicated that they liked the computer-assisted format (Mancil et al., 2009; Heimann, Nelson, Tjus, & Gillberg, 1995). The uses of computer based teaching aids have also been demonstrated to decrease inappropriate behaviors and improve vocabulary acquisition among children with ASD, as well as increase their social skills (Sansosti & Powell-Smith, 2008).

Based on the research and studies conducted which were briefly cited and discussed above, we concluded that social story is more effective when incorporated with some visual stimuli to enhance learning and understanding by providing an attractive and enjoyable learning environment. It is agreed that learning is most effectual when motivated. With that we propose the combination of social story, 2D animation and video instruction as an interactive pedagogical tool for ASD children. This chapter will present our attempts in assisting children with AS in social and communication skills building by using the proposed prototype. It is anticipated to be more effective in assisting them to attain social skills and real-life adaptive skills.
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