

2014

Autism and Computer Assisted Learning

Shea Silver

University of Nevada, Las Vegas

Doris L. Watson

University of Nevada, Las Vegas, doris.watson@unlv.edu

Follow this and additional works at: http://digitalscholarship.unlv.edu/mcnair_posters

 Part of the [Special Education and Teaching Commons](#)

Repository Citation

Silver, S., Watson, D. L. (2014). Autism and Computer Assisted Learning.

Available at: http://digitalscholarship.unlv.edu/mcnair_posters/60

This Poster is brought to you for free and open access by the McNair Scholars Institute at Digital Scholarship@UNLV. It has been accepted for inclusion in McNair Poster Presentations by an authorized administrator of Digital Scholarship@UNLV. For more information, please contact digitalscholarship@unlv.edu.

Purpose

This literature review examined how computer assisted instruction can assist classroom teachers in improving the literacy rates of children with autism.

Abstract

Autism is a learning and social disorder that has seen increased diagnosis within school-age populations. As educators grapple with overwhelmed and understaffed classrooms, finding ways to address the educational needs of this particular population can be very challenging. However, technology may serve to create alternative “virtual” world opportunities and thus, begin to expand learning possibilities for these students.



Findings

- Understanding the basic functions of ASD allows the use of technology to expand the horizons of students that would otherwise be marginalized.
- The potential use of Google glasses to create 3d worlds in which the student navigates safely could help teach this population how to stay safe in a variety of environments.
- Computer programs, games, and other interactive teaching tools could be unified to provide comprehensive learning environments to help the student navigate the lessons independently.

Recommendations

- Provide unified computer programs
- Create an inviting learning space
- Capitalize on the unique way this population learns
- Use Google glass to create virtual worlds in which the student interacts to learn
- Use virtual reality or virtual platforms to teach life or job skills
- Additional research is needed in the area of students with autism and use of technology



References

Armstrong T. K., H. T. (2012). Exploring Computer and Storybook Interventions for Children with High Functioning Autism. *International Journal of Special Education*, 88-97.

Association, A. P. (2013). *Diagnostic and Statistical Manual for Mental Disorders Edition 5*. In A. P. Association, *Diagnostic and Statistical Manual for Mental Disorders Edition 5* (p. Autism Fact Sheet). Arlington Virginia. Retrieved from *Diagnostic and Statistical Manual of Mental Disorders Edition 5 Fact Sheet*: <http://www.dsm5.org/Documents/Autism%20Spectrum%20Disorder%20Fact%20Sheet.pdf>

Coleman-Martin M., H. W. (2005). Using Computer Assisted Instruction and the Nonverbal Reading Approach to Teach Word Identification. *Focus on Autism and Other Developmental Disabailities*, 80-90.

Mineo, B. A. (2009). Engagement with electronic screen media among students with Autism Spectrum Disorders. *Journal of Autism and Developmental Disorders*, 172-187.

Parsons S., C. S. (2011). State of the Art of Virtual Reality Technologies for Children on the Autism Spectrum. *European Journal of Special Needs Education*, 355-366.

Travers J., H. K. (2011, September). Emergent Literacy Skills of Preschool Students with Autism: A Comparison of Teacher-led and Computer Assisted Instruction. *Education and Training In Autism and Developmental Disabilities*, pp. 326- 338.

Wallace, S. S. (2010). Sense of presence and atypical social judgments in immersive reality: Responses of adolescents with Autistic Spectrum Disorders. *Autism* 14, 199-213.

Whitcomb S., B. J. (2011). Effects of a Computer Based Early Reading Program (Headsprout) on Word List and Text Reading Skills in a Student with Autism. *Journal of Developmental & Physical Disabilities*, 491 - 499.