

The SketchUp Spectrum Project: Using Google's SketchUp Software with Individuals with Autism Spectrum Disorders

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Quite by accident, developers of the SketchUp 3D modeling system found that a surprising number of individuals with Autism spectrum disorders (ASDs) were having wonderful success using their software. While SketchUp was already being used by professionals ranging from industry giants creating sky scrapers and football stadiums to elementary school students learning about shapes, an unexpectedly large number of parents with children with ASD were writing to tell the company about their child's marked interest in 3D modeling with SketchUp. The company wanted to know why a large number of individuals with ASDs showed a surprising interest and proclivity for their product and how they could help others with ASDs capitalize on this phenomenon.

With help from researchers at the Center for LifeLong Learning and Design, Project SketchUp Spectrum was created to explore the connections between the 3D modeling environment provided by SketchUp and the cognitive strengths that are demonstrated by many individuals with ASDs. Researchers and educators found that the software allowed some students to demonstrate their knowledge in alternative ways and also suggests potential vocational opportunities. Because SketchUp is a relatively easy to use program, it is a good place for individuals interested in graphics to begin to explore their talents. To help teachers, parents and others working with students with ASD, a training manual was developed that demonstrates how SketchUp can be used in a variety of creative ways. The manual provides several examples including sections on exploring emotions, visiting environments virtually, presenting classroom knowledge in 3D as an alternative to writing, as well as vocational and creative avenues. The manual and software will be freely distributed.

This project shows how an accidental discovery by a company that never intended to impact the lives of people with disabilities can have a profound effect when researchers and developers come together. This is a joint project between Google SketchUp, the Center for LifeLong Learning and Design at the University of Colorado, the Boulder Valley School District and the Autism Society for Boulder Valley.