

# INTEGRATING THE AUTISTIC CHILD INTO MAINSTREAM EDUCATION DESIGN AND POLICY COMING TOGETHER TO MEET I.D.E.A LEGISLATION

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## Abstract

According to autismspeaks.org, a child is diagnosed with Autism every 20 minutes. This is an epidemic reaching its way into every community, race, ethnicity, and economic stratus in America. Yet, if you talk to an educator, school board, or school designer, little or no knowledge about how these children perceive space and how spatial design determines behavior is professed or included in programmatic requirements or school design attributes. While integrated learning opportunities has been mandated by the federal Individuals with Disabilities Education Act, or IDEA, legislation which requires all children be educated in regular classes as much as is appropriate for the child, few schools have integrated classrooms. The goal of this research is to share our first hand experience with children of special needs, identify the learning environments missing from our educational repertoire while documenting exemplary ones.

Every architect intuitively knows that proper environments are critical to learning. There is, however, emerging scientific evidence pinpointing the connections between our brains and the environments we inhabit. John Seizel, in his ground-breaking book "Inquiry by Design", reports that physical environments play a critical role in the development of memory, spatial processing, and in contextual learning. When children suffer sensory impairment, as in Autism Spectrum Disorder (ASD), their capacity to learn and their rate of cerebral cell growth is correspondingly reduced. Inadequate learning conditions naturally compound the effects of the disorder, slow development and increase the sense of isolation from their peers these children come to feel.

It is currently thought by medical researchers such as Greenspan/Wieder that children suffering from ASD can substantially improve their sensory processing abilities, learn robustly and develop permanent connectedness to their peers by receiving the proper therapeutic interaction within environments tuned to their specific sensory needs. According to Greenspan/Wieder, school environments are critical in the treatment process and need to be designed to encourage imaginative play, gross motor activities, visual-spatial processing, and sensory modulation in ways that are tailored for children with the disorder.

Our method of research will include both first-hand interview and site visits to well-established integrated learning environments and schools which cater to children of special needs. We will focus on a method of educating children of varying levels of capacity known as Universal Design for Learning, and the Floor Time method by Greenspan/Wieder, a relationship based approach to working with ASD children focusing on two-way communication techniques. Together, Floor Time and Universal Design for Learning create an educational environment that is flexible and integrative with a focus on social-emotional development between children with and without special needs. In our opinion, an integrated classroom with spatial and curriculum designs based upon these ideas meets the intent of the IDEA legislation yet unrealized in almost every mainstream school setting.

After completing site visits and interviews, we will establish a check list that can be used by public and private school systems integrating ASD students with their typically developing peers. We will present our check list to architects who specialize in school design, Floor Time trained therapists, and universal design and mainstream educators to obtain feedback and direction. In instances where an architectural illustration, such as floor plan or perspective, would augment the school designer's and administrator's understanding of a check list item or of the spatial make-up of an integrated classroom, we will either design the space or obtain photographs of existing exemplary spaces. We are requesting \$10,000 in grant funds to support discovery (site visits) and testing (review by experts) to verify our hypothesis.