

## The Application of Sensory Integration Techniques in Science Teaching Students with Autism

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**Abstract :** The Sensory Integration Method is aimed primarily at children with learning disabilities. It can also be used as a complementary method in treatment of children with cerebral palsy, autistic, mentally handicapped, blind and deaf. Autism is holistic development disorder that manifests itself in the specific functioning of a child. The most characteristic are: disorders in communication, difficulties in social relations, rigid patterns of behavior and impairment in sensory processing. In addition to these disorders may occur abnormal intellectual development, attention deficit disorders, perceptual disorders and others. This study was focused on the application sensory integration techniques in science education of autistic students. The lack of proper sensory integration causes problems with complicated processes such as motor coordination, movement planning, visual or auditory perception, speech, writing, reading or counting. Good functioning and cooperation of proprioceptive, tactile and vestibular sense affect the child's mastery of skills that require coordination of both sides of the body and synchronization of the cerebral hemispheres. These include, for example, all sports activities, precise manual skills such writing, as well as, reading and counting skills. All this takes place in stages. Achieving skills from the first stage determines the development of fitness from the next level. Any deficit in the scope of the first three stages can affect the development of new skills. This ultimately reflects on the achievements at school and in further professional and personal life. After careful analysis symptoms from the emotional and social spheres appear to be secondary to deficits of sensory integration. During our research, the students gained knowledge and skills in the classroom of experience by learning biology, chemistry and physics with application sensory integration techniques. Sensory integration therapy aims to teach the child an adequate response to stimuli coming to him from both the outside world and the body. Thanks to properly selected exercises, a child can improve perception and interpretation skills, motor skills, coordination of movements, attention and concentration or self-awareness, as well as social and emotional functioning.

**Keywords :** autism spectrum disorder, science education, sensory integration, special educational needs

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