Visually Cued Instruction for Students with Autism

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As I was browsing various articles to read, I focused on finding articles with topics that related to the type of developmental disabilities that students may have in my general math education classes and the types of instruction that would benefit these students. During my five years of teaching high school math classes, I have had many students diagnosed with ADD/ADHD and a few with autism. During my first year of teaching, I had an autistic student in my Algebra I class, and I did not know much about this disorder or how to best work with and instruct this student. Over time, I have gained more insight into autism, and I would like to continue increasing my knowledge on this disorder. This is why I chose “Visually Cued Instruction for Children with Autism and Pervasive Developmental Disorders” as the article for my review.

This article reviewed various instructional strategies that take into consideration the cognitive processes and the social and communication differences in children with autism. According to Quill (1995), nonlinguistic instructional strategies work best with students with autism. She rationalizes that visually cued instruction is an effective way of enhancing children’s “organizational skills, general skill development, academic learning, communication, socialization, and self-control” (p. 10). Children with autism and pervasive developmental disorder (PDD) are shown to have different developmental patterns than other children. In education, it is assumed that children follow the same developmental path although at different speeds. But children with autism or PDD do not follow these general developmental paths. They may be more able in nonverbal and nonsocial problem solving situations, but they have difficulties in social-communication interactions. Their developmental weaknesses include their difficulty to integrate and be flexible with information. They struggle with thinking abstractly, in
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social situations, and communicating information. It has been shown that children with autism have strengths that include, concrete cognitive processes, rote memory, and visual-spatial relationship comprehension. They have a keen skill in memorizing information, and their visual-spatial processing skills are far better than their auditory-temporal processing (Quill, 1995, p. 11). According to Notbohm (2006) in *Ten Things Your Student with Autism Wishes You Knew*, “Many of your students with autism will be visual/spatial learners- they think in pictures, rather than words” (p. 29). Quill (1995) goes on to explain why visually cued instruction is effective with students with autism. She states that, “The interaction of cognition and language in autism and PDD appears to be reflected, in part, in the relative ease or difficulty with which the children process and use various symbol systems” (p. 12). Written languages that use symbols sequentially coded and transient are more of a challenge for autistic children to encode, since they “require a rapid, analytical mode of processing” (Quill, 1995, p. 12). But graphic, print and more spatially coded symbols are non-transient and are easier for these children to encode. Since these students are usually visual/spatial learners and work best with larger chunks of print or graphics, it is important that teachers understand this when planning lessons for students with autism in their classroom.

Students with autism are most likely to process information, utilizing their one learning intelligence that works best for them. This is usually visual or tactile for autistic students (Notbohm, 2006, p. 26). Quill summarizes a few instructional practices/tools that may enhance the learning of students with autism in her article. These include visually cued instruction, organizational aids, general skill development aids, social development aids and behavior management aids. Understanding how students with special needs learn best and knowing a variety of instructional practices that foster their growth is important in special education. It is
Visually cued instruction is important that teachers understand what the students with special needs in their classroom require in order to learn best.

I was most interested in reading about the visually cued instruction, since this is something I could easily incorporate into my daily lessons for my students who have autism or PDD. According to Quill, picture and pictographs are more concrete representations, while print is a more abstract representation of the language system. Although you could generalize that children with autism automatically work best with pictures and symbols, I have learned that it is important to understand each autistic student individually and decide how he/she works best. Quill explained that, “we must set aside assumptions about symbol complexity when selecting instructional supports, and expose each child to the full range of symbol options to determine under what conditions he or she is most successful” (p. 14). This means that when I am giving a definition or explaining a concept in my math class, I must put an effort to show words, numbers and graphs/pictures to explain the concept. This will help me understand which works the best as an instructional tool, and it will enhance the learning of students with special needs. I agree that students with autism are more visual/spatial learners. The autistic students I have had in my class worked well with numbers/symbols and graphic representations. It was important that I provided theses students with written directions and explanations, since they did not always learn best with auditory instruction.

Each student in class has a learning style that fits them best, so it is important to find out what this learning style is and work to implement this into daily lessons. Children with autism or PDD benefit best with more visually cued instruction, so in order to help enhance their learning, teachers should implement pictures, pictographs and/or graphic representations as instructional strategies. These visual cues can foster growth in these children’s organization, skill acquisition,
Visually cued instruction (Quill, 1995, p. 17). This article reviewed the why and how these types of instructional practices can help the learning development of children with autism or PDD.
References
