

Comparing Two Interventions for Teaching Math to Pre-School Students with Autism

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Abstract : This study compared two interventions for teaching math to preschool-aged students with autism spectrum disorder (ASD). The first is considered the business as usual (BAU) intervention, which uses the Strategies for Teaching Based on Autism Research (STAR) curriculum and discrete trial teaching as the instructional methodology. The second is the Math is Not Difficult (Project MIND) activity-embedded, naturalistic intervention. These interventions were randomly assigned to four preschool students with ASD classrooms and implemented over three months for Project Mind. We used measurement gained during the same three months for the STAR intervention. In addition, we used A quasi-experimental, pre-test/post-test design to compare the effectiveness of these two interventions in building mathematical knowledge and skills. The pre-post measures include three standardized instruments: the Test of Early Math Ability-3, the Problem Solving and Calculation subtests of the Woodcock-Johnson Test of Achievement IV, and the Bracken Test of Basic Concepts-3 Receptive. The STAR curriculum-based assessment is administered to all Baudhuin students three times per year, and we used the results in this study. We anticipated that implementing these two approaches would improve the mathematical knowledge and skills of children with ASD. Still, it is crucial to see whether a behavioral or naturalistic teaching approach leads to more significant results.

Keywords : early learning, autism, math for pre-schoolers, special education, teaching strategies

Conference Title : ICEMSET 2023 : International Conference on Education in Mathematics, Science, Engineering and Technology

Conference Location : Bali, Indonesia

Conference Dates : January 09-10, 2023