USING VIRTUAL MANIPULATIVES AND EXPLICIT INSTRUCTION TO TEACH MATHEMATICAL CONCEPTS TO STUDENTS WITH AUTISM SPECTRUM DISORDERS

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Background:In theory, both virtual manipulatives and explicit instruction are viable options to support students with disabilities as they learn mathematics. The purpose of this study is to investigate the effect of virtual manipulatives and explicit instruction on mathematical concepts (more, longer, larger) by three elementary school students with audism students with autism.

Method:This study used a single-case multiple probe across behaviors design to measure the acquisition and generalization of concepts.

Results: A functional relation was found between the intervention package of explicit instruction and virtual manipulative and independent identification of mathematical concepts. Data indicate the intervention was effective and treatment effects were maintained across concepts. Variable generalization patterns were observed across concepts.

Conclusions: The package of explicit instruction and virtual manipulative is an effective instructional strategy for teaching mathematical concepts to learners with autism.