Effects of Augmented Reality Technology on Lexical Cognitive Intervention in Children with Autism

By Chen, L., Zhao, J., Wang, G., & Zhang, K.

AUTISM is a neurodevelopmental disorder which originated in early childhood. The core symptoms are social communication and social interaction disorders, repetitive stereotyped behaviors, interests, and activity patterns. A study published in China Educational Technology explored the effect of augmented reality (AR) on improving the lexical cognitive of autistic children. In this study, 28 children aging 3-10 years old who were diagnosed with autism are recruited and screened. They were randomly divided into the experimental group and the control group, and then they received certain experimental intervention after the pretests.

In the intervention process, the word learning of the experimental group students can be carried out on the software of augmented reality technology on Android Tablet, and interaction with the virtual entity can be realized by clicking to trigger the animation and sound of the virtual entity, swiveling the screen to rotate the virtual entity, moving the position and other operations. The students in the control group were presented 2D pictures directly. They can touch the pictures on the screen, trigger the sound, and match the card with the screen image.

The results of the post-test and pre-test show that the intervention of the two groups has achieved significant effects. In terms of vocabulary identification and naming, students in the experimental group performed better and they showed a higher interest in teaching tools.