

Original Article

Design and Validation of a Grading Scale for Measuring the Components of Learning Transfer of Learners with Autism Spectrum Disorder in Multimedia Learning Environments

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Introduction

Autism is a disorder that is affecting more and more people during the first three years of life. People with this disorder have difficulty retrieving information due to problems with working memory and, in scientific language, have difficulty transfer of learning. Today, computers and multimedia are widely used to educate these people, but what is neglected in the design of these environments is the lack of attention to the effective components in improving the transfer of learning in this group of learners.

Method

The aim of this study was to construct a descriptive graph grading scale to measure the learning transfer components of learners with autism spectrum disorder in the design of multimedia learning environments using a mixed research method(qualitative-quantitative-qualitative). In the first qualitative part, valid and relevant sources were studied to find effective components in improving learning transfer. In the quantitative section, the appropriate components and strategies of each component were provided to

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27 specialists in the field of educational technology at the doctoral level and doctoral students. After collecting the answers of the experts, a content validity index called CVI was used to analyze the answers.

Results

86 items or strategies were designed for the 12 extracted components and provided to 27 educational technology specialists at the doctoral level and doctoral students. The content validity index (CVI) was used to analyze the responses. The I-CVI index of the tool items, with the exception of 5 items rated at 0.78, had a score higher than 0.79 for the other items, as well as the value calculated for the S index. -CVI was 0.89, which is considered a good value.

Discussion

Based on these results, the grading scale produced in this study is a good instrument to measure the desirability of components effective in increasing learning transfer using educational multimedia environments and researchers recommends it to design or evaluation stages of learning Multimedia environments for people with autism spectrum disorder.

Keywords: educational multimedia, descriptive graphic rating scale, autism spectrum disorders, transfer of learning

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