IJARSCT



International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal

Volume 4, Issue 1, December 2024

Review of the Computerized Cognitive Retraining Program for Children with Learning Disabilities

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Abstract: This research explores the design and effectiveness of Computerized Cognitive Retraining Programs for children with learning disabilities such as dyslexia, dyscalculia, and dysgraphia. It aims to help children who have cognitive difficulties by giving them interactive, technology-based activities concentrating on critical abilities such as memory, concentration, and problem-solving skills. The program takes into account each child's progress and offers a customized learning experience that keeps students interested and avoids cognitive overload. CCRP motivates young learners and improves retention by using gamification, visual feedback, and immediate response mechanisms. Performance measures, such as task completion rates and memory recall, are used to gauge the program's efficacy, and educators and caregivers receive individualized progress reports. The program is also designed to be inclusive with an interface that can easily be accessed by kids regardless of their skills. It is highly adherent to ethical standards that guarantee protection of data and parental permission. Based on the findings, CCRP has immense potential in enhancing academic and cognitive performance among kids, giving learning-disabled children a scalable and affordable solution. Future research should focus on the long-term impact of such programs on academic performance and their refinement for extension to more people

Keywords: Computerized Cognitive Retraining Programs, Learning Disabilities, Memory, Attention, Problem-Solving, Educational Technology, Personalized Learning, Digital Interventions, Cognitive Development

DOI: 10.48175/IJARSCT-22655

