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Analysis of studies of the effects of computer-assisted instruction on the mathematics performance of students with learning disabilities.

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Summary: The purpose of this study was to conduct a meta-study of computer-assisted instruction (CAI) studies in mathematics for students with learning disabilities (LD) focusing on examining the effects of CAI on the mathematics performance of students with LD. This study examined a total of 11 mathematics CAI studies, which met the study selection criterion, for students with LD at the elementary and secondary levels and analyzed them in terms of their comparability and effect sizes. Overall, this study found that those CAI studies did not show conclusive effectiveness with relatively large effect sizes. The methodological problems in the CAI studies limit an accurate validation of the CAI's effectiveness. Implications for future mathematics CAI studies were discussed.

Classification: C76 U56

Keywords: learning disabilities; computer-assisted instruction; effect size; teaching methods; elementary secondary education; instructional effectiveness; educational research

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