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Computer-Presented Video Prompting For Comparing Number Line And Touch Math For Teaching Addition Facts To A Student With Dyslexia

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Abstract

Children enter school with a certain knowledge base of numbers and some find it harder to perform numeric operations than others. However, with intense instruction most students could make noticeable progress. One approach is known as a multi-sensory approach which includes number line and Touch Math approach. The purpose of this study was to compare the effectiveness of Touch Math and number lines for teaching single-digit addition problems to determine if there are functional differences between the two strategies for a student with dyslexia. The dependent variable was the percentage of single digit addition math problems answered correctly. The two independent variables were the use of a number line and the use of Touch Math strategies presented by computer-presented video prompting. An alternating- treatments design was used to examine the differential effects of the number line and Touch Math on the acquisition performance. The criterion for acquisition was performing the problems 100% correctly for three consecutive sessions. As a result the alternating treatments design indicated that the student preferred touch points to number lines for acquiring single-digit addition skills. These findings support previous studies that demonstrated that Touch Math is a viable method for teaching singledigit addition to students with various disabilities. For educators, developing appropriate instructional strategies for students with dyslexia is important when considering current needs and postsecondary transition to adulthood. The Touch Math strategy permits teachers to match instruction to the developmental levels of students. Moreover, it is concluded that the Touch Math strategy was relatively easy to implement and noted that it could be easily used in classrooms. Fading procedures and generalization phase shows positive results as well. Future research is needed to verify the results of this study and to investigate a larger sample of students with dyslexia.

Keywords: Video prompting, number lines, Touch Math, addition facts, dyslexia

*This study was chosen for "Good Examples in Education".