HOW CAN YOUNG CHILDREN BE TAUGHT TO SOLVE ADDITIVE PROBLEMS WITH BAR GRAPHS?

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In this research we try to analyze if the use of bar graphs combined with manipulative materials can help six to seven year-old children solve additive problems. Two methodologies were compared to teach the use of bar graphs: combining words problems with manipulative blocks or not. The sample was made of 57 children, which were distributed in three groups: Group 1 solved the problems with the help of bar graphs and manipulative blocks; Group 2 solved the problems only with bar graphs, and the Control Group was given only numerical additions and subtractions to solve. After the intervention, we observed a better performance in Groups 1 and 2 as compared with the Control Group. However, in a delayed post-test, only Group 1 showed a significant improvement in comparison to the Control Group. Results, thus, showed that combining the use of bar graphs and manipulative blocks can be an effective way of teaching additive problems.