

EFFECTS OF VIDEO GAME ON CHILDREN' SPATIAL PERFORMANCE

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The purpose of this study was to investigate the effects of video game on children's spatial performance. Participants, selected based on prior experience with video game, were 44 seven-year-old and 48 eleven-year old boys. In order to assess the spatial ability, 3 different measures were used: (1) finding 가's and 나's, a perceptual speed measure, (2) table settings, a mental rotation task, and (3) block design subtest in KEDI-WISK, a spatial visualization measure. All were timed tests. To test the differences between groups, t and F tests were used.

The results showed that, for spatial ability, no difference was found in perceptual speed test. Significant differences, however, were found in mental rotation task. For 7-year-olds, more-experienced boys performed the table setting tasks more successfully than less-experienced boys, and for 11-year-olds, more-experienced boys spent less time in performing the task. Similar results were found in spatial visualization task: 7-year-old-experienced boys achieved more successes than their counterparts whereas 11-year-old-experienced boys performed faster than their counterparts. These findings indicate that exposure to video game could cause differences in children's spatial performance ability and these differences might be qualitative for 7-year-old, whereas quantitative for 11-year-olds.

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