European Journal of Cognitive Psychology ›

Volume 20, 2008 - Issue 2

Original Articles

The relationship between visuospatial sketchpad capacity and children's mathematical skills

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Pages 272-289 | Received 01 Oct 2006, Published online: 07 Feb 2008

Cite this article https://doi.org/10.1080/09541440701612702

Abstract

This study examined the association between visuospatial sketchpad (VSSP) capacity and children's mathematics attainment. The aim of the study was to explore age-related differences in the relationship between the visual and spatial memory subcomponents of the VSSP (Logie, 1995) and a range of mathematical skills. Fifty-one 7- to 8-year-old and fifty-six 9- to 10-year-old primary schoolchildren participated in the study. The Visual Patterns Test and the Block Recall task were employed as VSSP measures. The results revealed a differential pattern of associations between children's visual and spatial working memory abilities and their mathematical skills. In younger children, the Block Recall task predicted mathematics performance, whereas, in the

older children, the Visual Patterns Test was a significant predictor of mathematics performance.

Previous article View issue table of contents Next article

Acknowledgements

This work was supported by a postgraduate studentship awarded to the first author from the Department of Psychology, University of Durham. The authors would like to thank the children, parents, and staff of Green Lane Primary School, without whom this research would not have been possible.