

The Corsi Block-Tapping Task in Children: Exploring Performance,  
Stimulus Variations, and Relations to Early Mathematical Ability

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## Abstract

Lately there has been growing interest in the role of visuospatial abilities in mathematical cognition. The data presented in this poster are from the Count Me In study, an ongoing longitudinal study of children's early math abilities. In total, 439 children, aged four to eight, were tested in 2005, 194 of which were tested in 2004 as well. Measures included numeracy, arithmetic, verbal short-term memory, and visuospatial memory tasks. In the present work, we focus our analysis on the Corsi block-tapping task, a measure of visuospatial short-term memory. The aim of the present analyses was to examine a) abilities underlying Corsi performance, b) how Corsi performance develops, c) the effect of stimulus variations in the Corsi task on performance, and d) abilities that correlate with Corsi performance. Corsi performance improved steadily over time. Stimulus array size and complexity did not significantly affect performance. There appears to be a domain-specific spatial component to performance on the Corsi that is distinct from verbal short-term memory. Performance on the Corsi was correlated to performance on numeracy measures, however this relationship was weaker for older than for younger children. Additionally, Corsi performance was significantly related to arithmetic performance.