

# What cognitive factors predict attention and reading performance?



## Glossary of terms

- **Working memory:** The ability to hold information 'on-line' while processing the same or other information.
- **Attention difficulties:** Refers to behaviors that include a lack of concentration, distractibility and impulsivity.
- **Response inhibition:** The ability to exert effortful control in order to inhibit a dominant response.

## Summary

Children experiencing attention difficulties display problems across a range of mental tasks, especially tasks that require working memory and response inhibition. Recent evidence suggests that these same cognitive processes are also closely related to reading ability. The objective of the study was to explore whether these factors (working memory, response inhibition) predicted attention difficulties or reading capabilities among a large group of children with and without significant attention problems. It was found that attention and reading ability were related to two different factors: reading was closely associated with verbal working memory whereas attention difficulties was closely associated with visuospatial working memory. The first practical implication of the present results is that they inform assessment of different aspects of working memory. The second is that attention problems and reading are quite separate from each other. Therefore, it is likely that very different sorts of intervention are needed in each case to remediate and support the particular cognitive deficits in working memory. For children experiencing both primary reading and primary attention problems, both difficulties will have to be supported to ensure educational success.

## Implications for families and practitioners

Reading difficulties and attention problems are associated with different cognitive patterns of strengths and weaknesses. Educational and clinical interventions need to

recognize distinct cognitive profiles in children with attention problems and children with reading problems, to be sure that the appropriate areas of concern are addressed.

## Reference

[Savage, R., Cornish, K., Manly, T., Hollis, C. \(2006\). Cognitive processes in children's reading and attention: the role of working memory, divided attention, and response inhibition. British Journal of psychology, 97\(Pt 3\),365-85](#)