

Working memory capacity and strategy use in single and dual-tasks

Collin, V., Patchay, S., & Thompson, T.

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Research Objectives: A preliminary study (Collin, Patchay & Thompson, 2009) showed that strategy training could improve memory performance in single-tasks, but not in dual-tasks. Here the influence of working memory capacity (WMC) on the impact of strategy use on memory performance in single and dual-tasks is examined. In line with previous findings, it is hypothesised that participants with higher WMC will benefit from strategy use and perform better in both single and dual tasking.

Design/Method: Participants completed a memory task and a secondary auditory discrimination task independently and together in a dual-task. They were divided into high and low WMC groups and received training in memory strategies (imagery/association). The number of words recalled on a word list and reaction time on the auditory discrimination task were measured pre- and post-strategy training.

Results/Conclusion: In general, performance was better post strategy training. Interestingly, on average the low span group performed better (not all significantly different) on both tasks in single and dual tasking post strategy training. It is suggested that regardless of capacity, strategies impact on performance and could even compensate for reduced WMC.