



## Working Memory Load Influence on Control of Attention among Malaysian Undergraduates

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### ABSTRACT

The study investigates how working memory affects students' control of attention. A quasi-experimental research is conducted individually on 52 undergraduates of a public university in Malaysia, enrolled in various full-time undergraduate programmes, using Sternberg memory task and Task-switching tests. The reaction time is taken in milliseconds (ms) to differentiate the results for both tasks. The analysis revealed that when memory load was increased, reaction time also escalated. In the task-switching test, when one task was given at any one time, the reaction time was swift; however, when two or more tasks were integrated into one task, the reaction time would subsequently decelerated. Although the study also revealed that there is no significant difference between genders in terms of handling memory load and task-switching. However, a significant relationship was observed in performances between memory load and task-switching. It is also evidenced in the study that when memory load increases, it compounds the reaction time for task-switching. Results from the study inform course instructors to be aware of cognitive load when chunking information and assigning tasks to students, as their decisions on content quantity bore an effect on what would be remembered when students learn.

**Keywords:** cognitive abilities, memory load, task-switching, Sternberg memory task, working memory

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