

The Relationship between Life Event Stress, Depressive Thoughts, and Working Memory Capacity

Authors : Eid Abo Hamza, Ahmed Helal

Abstract : Purpose: The objective is to measure the capacity of the working memory, ie. the maximum number of elements that can be retrieved and processed, by measuring the basic functions of working memory (inhibition/transfer/update), and also to investigate its relationship to life stress and depressive thoughts. Methods: The study sample consisted of 50 students from Egypt. A cognitive task was designed to measure the working memory capacity based on the determinants found in previous research, which showed that cognitive tasks are the best measurements of the functions and capacity of working memory. Results: The results indicated that there were statistically significant differences in the level of life stress events (high/low) on the task of measuring the working memory capacity. The results also showed that there were no statistically significant differences between males and females or between academic major on the task of measuring the working memory capacity. Furthermore, the results reported that there was no statistically significant effect of the interaction of the level of life stress (high/low) and gender (male/female) on the task of measuring working memory capacity. Finally, the results showed that there were significant differences in the level of depressive thoughts (high/low) on the task of measuring working memory. Conclusions: The current research concludes that neither the interaction of stressful life events, gender, and academic major, nor the interaction of depressive thoughts, gender, and academic major, influence on working memory capacity.

Keywords : working memory, depression, stress, life event

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