

國立成功大學  
110學年度碩士班招生考試試題

編 號： 317

系 所： 職能治療學系

科 目： 臨床生理職能治療學

日 期： 0203

節 次： 第 3 節

備 註： 不可使用計算機

※ 考生請注意：本試題不可使用計算機。請於答案卷(卡)作答，於本試題紙上作答者，不予計分。

一、解釋名詞，每題 5 分 (25%)

1. scapulohumeral rhythm
2. topographical orientation
3. bradykinesia
4. backward chaining
5. self-organization

二、一位年輕男性因施打疫苗引發急性周邊神經炎「格林巴利症候群」(Guillain-Barre Syndrome, GBS)，請說明此疾病的主要症狀，以及在各階段的評估與治療重點。(15%)

三、為社區亞健康長者設計含認知與體能成分的雙重任務訓練，請設計兩個訓練活動，並列出每個活動欲訓練的認知元素（如：定向感）與體能元素（如：肌力）。(20%)

四、請說明動作控制理論中 hierarchical model 與 heterarchical model 的意涵及兩者對治療模式/手法的影響。(20%)

五、請閱讀下列文章摘要並回答問題：

Jo JM, Kim Y-H, Ko M-H, Ohn SH, Joen B, Lee KH: Enhancing the working memory of stroke patients using tDCS. Am J Phys Med Rehabil 2009;88:404-409.

**Objectives:**

We investigated whether anodal transcranial direct current stimulation over the left dorsolateral prefrontal cortex affected the working memory performance of patients after a stroke.

**Design:**

Ten patients (mean age 47.7 yrs) with cognitive deficits after a first-ever stroke participated in this single-blind, crossover, and sham-controlled experiment. Each patient was randomly assigned to undergo two transcranial direct current stimulation sessions: anodal dorsolateral prefrontal cortex and sham stimulation within 48 hrs of a washout period. All participants performed a two-back working memory task before and after the administration of the transcranial direct current stimulation. Accuracy (correction rate), recognition accuracy (correction rate-commission error rate), and response time were measured during each experiment.

**Results:**

Repeated-measures analysis of variance indicated a significant interaction effect of transcranial direct current stimulation type and time on the recognition accuracy. Post hoc analyses revealed a significant difference between prestimulation and poststimulation in the anodal stimulation group but not in the sham stimulation group. Regarding the accuracy, the paired *t* test indicated significant improvement only after anodal transcranial direct current stimulation without a significant interaction effect between the two transcranial direct current stimulation types. The response time was not significantly different in the anodal and sham stimulation groups.

**Conclusion:**

Our results demonstrated that anodal transcranial direct current stimulation over the left dorsolateral prefrontal cortex was associated with enhanced working memory performance as indexed by the recognition accuracy in patients after a stroke.

1. 此研究的目的為何？ (5%)
2. 此研究主要的自變項 (independent variable) 、依變項 (dependent variable)為何？ (10%)
3. 此研究的主要結果及其臨床/理論意涵為何？ (5%)