※ 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 (25%) 每題 5 分

1. stereopsis
2. stress-relaxation
3. dyskinesia
4. sarcopenia
5. ergonomics

二、問答題 (55%)

1. 黃先生受傷前為 CNC 車床操作員，主要工作內容為站姿從事管件加工作業，常需搬運 20 公斤之重物，工作姿勢主要為站立，不幸於某日工作過程中發生意外，造成右手肘撕裂傷併肱二頭肌、肱橈肌、橈神經、正中神經、側肱表皮神經、肱動脈斷裂、右側脛骨開放性骨折等，經手術醫療及復健介入數月後，轉介至您所主持的工作強化與職業重建部門，試問您接案後將透過何策略或方法了解個案之現況，以利進一步之處置與未來復工之目標呢? (20%)

2. Mrs. Q 為一位 45 歲的作家，約一年多前逐漸出現無法平順地使用筷子、步態不穩且容易跌倒、無法平順穩定拿取物品等，經就醫後被診斷為小腦萎縮症(Spinocerebellar Atrophy)，經轉介至您的部門，若依 Person-Environment-Occupation (PEO) model 當成您做為其主要後續介入之依據，試問您會如何執行職能治療的處置呢? 另，若後續可讓您運用 PEO model 搭配**兩項**職能治療常用之理論基礎、參考架構或模型進行介入，請問您會引用哪兩種呢? 原因為何? (20%)

3. 請解釋何為 Complex regional pain syndrome (CRPS)? 那些人容易發生? 發生此疾病的致病機轉為何? 以及治療師如何就其所學處理此類患者? (15%)

三、研究文獻閱讀題 (20%)

Virtual Reality Rehabilitation With Functional Electrical Stimulation Improves Upper Extremity Function in Patients With Chronic Stroke

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Abstract

Objective: To compare virtual reality (VR) combined with functional electrical stimulation (FES) with cyclic FES for improving upper extremity function and health-related quality of life in patients with chronic stroke.

Design:　）

Setting: Stroke rehabilitation inpatient unit.

Participants: Participants (N=48) with hemiplegia secondary to a unilateral stroke for >3 months and with a hemiplegic wrist extensor Medical Research Council scale score ranging from 1 to 3.

Interventions: FES was applied to the wrist extensors and finger extensors. A VR-based wearable rehabilitation device was used combined with FES and virtual activity—based training for the intervention group. The control group received cyclic FES only. Both groups completed 20 sessions over a 4-week period.

Main Outcome Measures: Primary outcome measures were changes in Fugl-Meyer Assessment—Upper Extremity and Wolf Motor Function Test scores. Secondary outcome measures were changes in Box and Block Test, Jebsen-Taylor Hand Function Test, and Stroke Impact Scale scores. Assessments were performed at baseline (t0) and at 2 weeks (t1), 4 weeks (t4), and 8 weeks (t8). Between-group comparisons were evaluated using a repeated-measures analysis of variance.

Results: Forty-one participants were included in the analysis. Compared with FES alone, VR-FES produced a substantial increase in Fugl-Meyer Assessment—distal score ($P=.011$) and marginal improvement in Jebsen-Taylor Hand Function Test—gross score ($P=.057$). VR-FES produced greater, although nonsignificant, improvements in all other outcome measures, except in the Stroke Impact Scale—activities of daily living/instrumental activities of daily living score.

Conclusions: FES with VR-based rehabilitation may be more effective than cyclic FES in improving distal upper extremity gross motor performance poststroke.

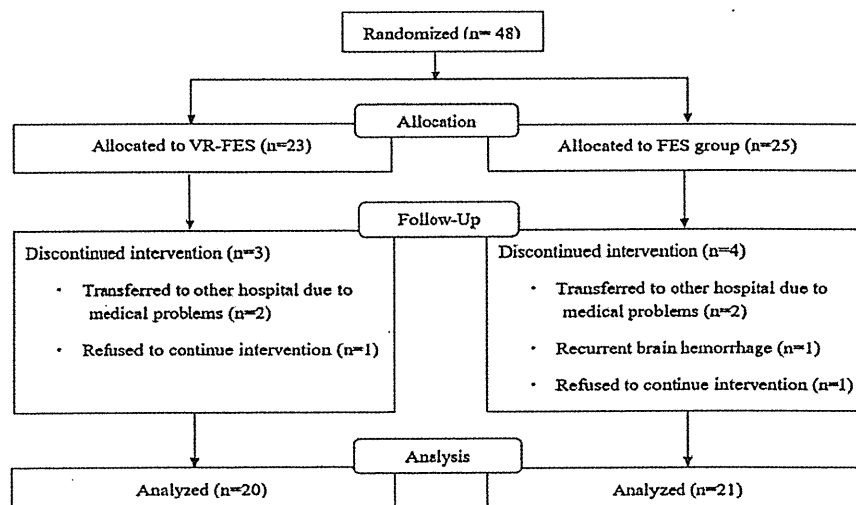Archives of Physical Medicine and Rehabilitation 2018;99:1447-53

Fig 1　Study flowchart.

1. 請依據上列文章摘要簡述此研究的內容為何? (10%)

2. 請就摘要內容及圖示推探此研究所使用的研究設計(study design)方法為何? 哪些統計方法在此研究中被使用呢? (5%)

3. 請問此研究之介入策略可能引用到哪些職能治療的理論基礎或參考架構? (5%)