

### **Summary**

#### **The title of the study:**

The Effect of Activating Working Memory on Improving the Translation Process of University Students.

#### **The aim of the study :**

##### **The study aimed at :**

Exploring the effect of a computerized training program for activating working memory on improving both the written translation and oral consecutive interpreting process among students at the college of education , Fayoum university of English department.

#### **The hypotheses of the study :**

**In the light of the study aims and previous studies, the following hypotheses were tested:-**

١. There are statistically significant differences between means of scores of the experimental group and the control one in the post administration of working memory tasks and its components (the phonological loop component, the visual spatial component , the central executive component) in favor of the experimental group.
٢. There are statistically significant differences between means of scores of the experimental group and the control one in the post administration of the written translation test and its factors in favor of the experimental group.
٣. There are statistically significant differences between means of scores of the experimental group and the control one in the post administration of the oral consecutive interpreting test and its factors in favor of the experimental group.
٤. There are statistically significant differences between repeated measures (pre – post – follow up) in the administration of working memory tasks and its components (the phonological loop component, the visual spatial component , the central

## Summary

---

executive component) of the experimental group in favor of the post and follow up tests .

٥. There are statistically significant differences between repeated measures (pre – post – follow up) in the administration of the written translation test and its factors of the experimental group in favor of the post and follow up tests..
٦. There are statistically significant differences between repeated measures (pre – post – follow up) in the administration of the oral consecutive interpreting test and its factors of the experimental group in favor of the post and follow up tests.

## Procedures :-

### Participants :-

They were (٧١) Third year students from the English department at the college of Education , Fayoum university. They were enrolled in the academic year (٢٠١٣/٢٠١٤), their mean age was (٢٠,٠٣) mean and (٠,٤٥) standard deviation .

### Materials :-

**The researcher administered the following materials :-**

- ١- **The Working Memory Tasks** , prepared by the researcher, which include:
  - a- The Phonological Component Tasks
  - b- The Visual–Spatial Component Tasks
  - c- The Central Executive Component Tasks
- ٢- **Written Translation Tests** : prepared by the researcher which include:
  - a- The Written Translation Test, Form (A)
  - b- The Written Translation Test, Form (B)
  - c- The Written Translation Test, Form (C)
- ٣- **Oral Consecutive Interpreting Tests** : prepared by the researcher  
which include:

## **Summary**

---

- a- The Oral Consecutive Interpreting Test , Form (A)
- b- The Oral Consecutive Interpreting Test , Form (B)
- c- The Oral Consecutive Interpreting Test , Form (C)
- ξ- **Activating working memory program** : prepared by the researcher

which include:

- a- The Phonological Component Activating Tasks
- b- The Visual–Spatial Component Activating Tasks
- c- The Executive Control Component Activating Tasks

### **Statistical Techniques :-**

**The researcher employed the following techniques :-**

- ١. Explatory Factor Analysis
- ٢. Confirmatory Factor Analysis
- ٣. The "T" test
- ٤. Repeated Measures ANOVA

### **Study Results :-**

**The results of the study indicated that :-**

- ١. There are statistically significant differences between means of scores of the experimental group and the control one in the post administration of working memory tasks and its components in favor of the experimental group.
- ٢. There are statistically significant differences between means of scores of the experimental group and the control one in the post administration of the written translation test and its factors in favor of the experimental group.
- ٣. There are statistically significant differences between means of scores of the experimental group and the control one in the post administration of the oral interpreting test and its factors in favor of the experimental group
- ٤. There are statistically significant differences between repeated measures (pre – post – follow up) in the administration of

## Summary

---

working memory tasks and its components of the experimental group in favor of the post and follow up tests .

5. There are statistically significant differences between repeated measures (pre – post – follow up) in the administration of the written translation test and its factors of the experimental group in favor of the post and follow up tests..
6. There are statistically significant differences between repeated measures (pre – post – follow up) in the administration of the oral interpreting test and its factors of the experimental group in favor of the post and follow up tests.