A research extracted from the Ph.D. dissertation

The Effect of The Interaction between the Pattern of Delivering Skill in E-learning Environments and The Cognitive Style (Field Dependence versus Field Independence) on Developing Electronic Tests Production Skills of Educational Technology Students

By
Ahmed Mohammed Badr El-Deen Abu El-Ezz Mohammed
Assistant Lecturer at Educational Technology Department
Faculty of Specific Education, Fayoum University

Abstract

This research is one of the Aptitude Treatment Interaction researches, So this research aimed to treat the deficiency of electronic tests production skills of Educational Technology students by providing an e-learning environment and studying the effect of the interaction between the pattern of delivering skill (whole/partial) and the cognitive style (Field Dependence versus Field Independence).

The researcher prepared a list of electronic tests production skills and designed an achievement test to measure the cognitive aspect of electronic tests production skills and designed a skill card to measure the practical aspect of electronic tests production skills. Whereas the researcher used The Embedded Figures Test (collective form) to classify the students according to their cognitive style (Field Dependence versus Field Independence).

The research sample has been consisted of (56) fifty-six students from the third year students of the Department of Educational Technology at the Faculty of Specific Education in Fayoum University for the academic year 2015/2016. And it has been divided into four groups and every group has its own experimental treatment. After that the post applying for the measuring tools has been done.

The most important results the research reached are as follows:
- Using the partial delivering pattern is better than using the whole pattern in developing the practical aspect of electronic tests production skills. But there is no statistically difference between them in the cognitive style of these skills.
- The field independent students are more excellent than the field dependent students in the cognitive aspect of electronic tests production skills but there is no statistically difference between them in the practical aspect of skills.
- There are statistically differences among the experimental groups in the practical aspect of these skills due to the interaction between the delivering pattern and the cognitive style. Whereas there are no statistically differences among the experimental groups in the cognitive aspect of these skills due to the interaction between the delivering pattern and the cognitive style.

This Research recommends using the partial pattern in delivering the skills through the e-learning environments if most of the students are field dependents because the partial delivering pattern to skills is the best for them and it also recommends designing adapted e-learning environments which provide treatments according to the cognitive styles of learners and their abilities and aptitudes. It also recommends training the developers of electronic content and the educational technology specialists on designing and developing the skills with the partial pattern, whereas the most of e-learning environments deliver them with the whole pattern only.