Summary of the Study

Introduction :

Cognitive structure is one of the most important fundamentals upon which Knowledge representation outcome (e.g. process of Cognitive learning processes based on meaning, Knowledge representation process, Information outcome and problem solving process

Cognitive structure represents the Cognitive store of the individual through which various types of cognitive strategies are derived and considered as Cognitive mental executive functions .those strategies considered plans or general ways used by individuals in the Cognitive mental activities : for example , recognition , thinking , retrieval , and problem solving .

Cognitive structure represents the content of individual's experiences, it including association, organization, discrimination, and coordination in all different situations and mental activities that individual practices for example , recognition , thinking, retrieval Information processing.

The outcome of Cognitive structure is related to the nature of its formation and the style of its organization, it also consists of fixed reliable organized thoughts to some extent in learner's awareness .it is also formed in a certain moment when the present Knowledge is clearly and organized for the learner.

The Importance of The study:

1- Providing the Arabic library with a scale for the Cognitive structure in The content of science for third preparatory students in addition to Verbal Encoding and visual encoding tasks in the subject of science which benefits Teachers in evaluation the Cognitive structure and determining the encoding Strategies for students.

2- Exploring the Cognitive structure for individuals which may change the learning Curriculums and their learning methods in order to improve the performance of Individuals of a low Cognitive structure.

3- Profit from the results of this study in the education research area.

4- Reject from the non-effective encoding strategies and development to effective Encoding strategies for third preparatory students, which improve the efficiency and Capacity memory.

Purposes of The study:

1- Exploring from effective training programme for regulation some dimension of Cognitive structure and its effect of this on encoding strategies for third preparatory students.

2- Exploring and Knowing abut f the non effective encoding strategies and effective Encoding strategies for third preparatory students.

Problem of The study:

We can form the primary question of this study as follows:

What Effective training programme for regulation some dimension of Cognitive structure and its effect of this on encoding strategies for third preparatory students in science?

From this question many issue are derived:

1- Are there statistically significant differences between the average of scores of the Experimental group and the control group on the scale dimensions of Cognitive Structure and the total score used in the study?

2- Are there statistically significant differences between the experimental group And the control group in encoding strategies upon verbal encoding Task used in the study?

3- Are there statistically significant differences between the experimental group And the control group in encoding strategies upon visual Encoding task used in The study?

4- Are there statistically significant differences between of the experimental group And the control group in the performance of the verbal encoding task used in The study and it is measured by the accuracy of response.

5- Are there statistically significant differences between of the experimental group And the control group in the performance of visual encoding task used in the Study and it is measured by the accuracy of response.

Hypotheses of the study:

1- There are statistically significant differences between the averages of scores   of the experimental group and the control group on the scale dimensions of Cognitive Structure and the total score used in the study.

2- There are statistically significant differences between the experimental group
and the control group in encoding strategies upon verbal encoding Task used in the study.

3- There are statistically significant differences between the experimental group
and the control group in encoding strategies upon visual encoding Task used in the study.

4- There are statistically significant differences between of the experimental
Group and the control group in the performance of the verbal encoding task used in the study and it is measured by the accuracy of response.

5 - There are statistically significant differences between of the experimental Group and the control group in the performance of visual Encoding task used in The study and it is measured by the accuracy of response.
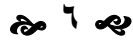
Sample of study:-

Sample of study consisted of (62 student's third preparatory students' reffered From Mahlat kahf prep school in summoned, grabby governorate, divided into the experimental group and the control group (31) students comprising each group.

Instruments of study:-

1-training programme.

2- Scale dimensions of Cognitive structure (Association, Organization and Discrimination) for third preparatory students in science .

3- Verbal encoding task used in the study for third preparatory Students in science.

4-Visual encoding task used in the study for third preparatory Students in science.

The statistical Methods:

1- (T) test for identifying the difference between groups.

2-(Chi- square) test for identifying the difference between frequencies

3- (Z) test for identifying the difference between ratios.

Results of study:-

1- There were statistically significant differences between the average of scores of the experimental group and the control group on the scale dimensions of Cognitive structure and the total score used in the study.

2- There were statistically significant differences between the experimental group and the control group in encoding strategies upon verbal encoding task used in the study.

3-There were statistically significant differences between the experimental group and the control group in encoding strategies upon visual encoding task used in the study.

4- There were statistically significant differences between of the experimental

Group and the control group in the performance of the verbal encoding task used in the study and it is measured by the accuracy of response.

5- There were statistically significant differences between of the experimental Group and the control group in the performance of visual encoding task used in the study and it is measured by the accuracy of response.