

A Study on the Effectiveness of “Mind Map Based-Learning Counseling Course” on Increasing the Academic Achievements of Junior High Students

Abstract

The purpose of this study is to help junior high students improve their academic achievements by elevating their learning capabilities through the usage of a simple but effective learning tool--Mind Map. In order for a person to learn effectively, he or she has to be equipped with healthy learning psychology as well as the mastery of sound learning methods. This study focuses on the discussion of the latter.

Subjects of this study are students in Grades 7 to 9. These junior high students are the group most often found suffering from consistent achievement loss after their transition from elementary school to junior high school. In Macao, statistics provided by the DSEJ of Macau show that the retention rate of junior high students in 1998 was 13%. Educators often share the same viewpoint that junior high students are the ones they find most difficult to teach. One of the reasons accounting for this is that the students are usually at their adolescence when they are undergoing through great biological changes while their psychological counterparts may not be able to adjust synchronically to them. In addition, intermediate education is, in many ways, tremendously different from primary education. Firstly, the constituent parts of the curricula of intermediate education are often much more various than those of the elementary level, and the components of the curricula are usually more specialized according to the characteristics of the knowledge system of individual subject. Secondly, junior high students are mostly at the developmental stage where their cognitive functioning starts to change from intuitive or concrete thinking to abstract logical thinking.

The experiment in this study was conducted in two junior high schools. Students in Grades 7 to 9 were invited to join a mind map based-learning counseling course known as “Mind Map Training Course.” In both schools, the participants were randomly divided into the experimental group and the controlled group, each with

a total of 15 students. The former received the course. The effectiveness of the course was evaluated by comparing the final averages of the academic achievements acquired by the participants. Moreover, correlation between the participants' frequency of applying mind map to the learning of different subjects during the training period and their final average increase was also explored so as to verify the effect of mind map in practical learning.

The mind map training course dealt with 5 essential skills which were related to selecting key words, making associations, taking notes, reading and writing. Every skill was evaluated by means of home assignments to verify the degree of mastery acquired by the participants. Findings of the study revealed that the final averages of the academic achievements of the experimental groups were remarkably better than those of the controlled groups. In one of the schools, participants who had better mastery of the essential skills related to selecting key words, associations, taking notes and reading obtained higher final averages than their colleagues. Similarly, better final averages were observed in those with better skills in key words, associations and taking notes in the other school. In addition, the more frequent the participants applied mind map to the learning of other subjects, the greater the improvement in their final results was recorded. Finally, gender difference had not significant influence on the final average results of the participants in both groups before or after the course. The findings indicated that the mastery and usage of a learning tool helped junior high students, both boys or girls, increase their academic achievements.

With the evidence obtained in this research, the author suggests that this mind map based-counseling course should be promoted as an everyday learning tool among junior high students so as to raise their learning efficiency while relieving their learning stress. Thus, the high retention rate of junior high students can be reduced.