

Abstract

This study aims to understand the influence of students' school achievement and learning manner on the commanding of the chapter "circle" among students of CAI class. Moreover, it investigates the difference between students of CAI class and the ones who have no experience of CAI class with regard to learning achievement and manner.

The instrument of this study is the pre-experimental method. It adopts the pretest-posttest equivalent groups design. The subjects of this study are 104 junior 3 students from two classes of a school in Macao. Students are divided into two classes randomly. One class is the experimental group and the other is the control group. The PG_Lab assisting teaching approach is adopted for the experimental group while the traditional teaching approach is for the control group. The experimental teaching lasts for three weeks, each student group is provided with four periods of Plane Geometry lesson per week. The length of time for each period is 40 minutes. To the experimental group, PG_Lab assisting teaching approach is adopted in five periods within the three weeks. For the remaining seven periods, both the traditional teaching instruction and computer assisting instruction are adopted. Before the experimental teaching, the two groups are required to take the pretest concerning the understanding of the chapter "circle" and also students' learning manner. After the experimental teaching, the two groups are provided with the posttest concerning the same subject matters. After processing and analyzing the data, four significant findings are reported:

1. Significant difference is reported among students with different academic achievement in the experimental group when the learning achievement concerning the chapter "circle" is investigated.
2. No significant difference is found among students with various learning manners in the experimental group when the learning achievement concerning the chapter "circle" is investigated.
3. With regard to the learning of "circle", significant difference was found among high-level and low-level students in both experimental group and control group while no significant difference is found among the students of middle level.
4. In reference to the learning of "circle", no significant difference is found among all students of the two target groups when learning manner is examined.