

實體物融入教學對國小學童數學學習成就、學習動機及教學滿意度影響之研究

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摘要

The study aimed to discuss the influence of real-object instruction on elementary students' learning achievement, learning motive and their satisfaction with the instruction in math. The purposes of the study were as follows: (I) to discuss the influence of real-object instruction on students' learning achievement in math, (II) to explore the influence of real-object instruction on students' learning motive in math, and (III) to understand students' satisfaction with real-object instruction. The subjects of the study were two first-grade classes of an elementary school in Taichung. Twenty-eight students, taking the real-object instruction, were in the experiment group, while twenty-seven ones in the control group had traditional instruction. Both groups had an eight-week experimental teaching. Self-made math achievement tests, learning motive scale and questionnaire on students' satisfaction with the instruction were the tools for the study. Collected data were analyzed with a 12.0 version of Chinese package software of SPSS, and hypotheses were examined with descriptive statistics, t test, Analysis of Covariance (ANCOVA). The results were as follows: (I) students had better learning achievement in math after the implementation of real-object instruction, (II) students' learning motive for real-object instruction was superior to that of traditional instruction, and (III) students with real-object instruction were more satisfied than students with traditional instruction.

The study displayed that real-object instruction had positive influence on first graders' learning motive and achievement. From the analysis of their satisfaction with the instruction, it showed that students were more satisfied with the curricular design, teaching skill and class participation in terms of the application of real-object instruction. Based on the results, the study also proposed concrete suggestions to math teaching in elementary schools, to parents, schools,

and teachers and even for future researches.

關鍵字：real-object instruction, learning achievement, learning motive; satisfaction with instruction.