

Abstract

Although a number of studies have found that teacher-student interaction plays a significant role in student learning, the influx of technology has changed the learning environment from teacher-centered to student-centered. It seems that students can learn everything through online teaching materials by themselves. Is the role of teachers still important in student learning? The purpose of the current study is to investigate the effect of teachers' interpersonal behavior on the student achievement. Do specific teachers' behavior contribute to better academic performance of students? The focus of this study is on the subject of Mathematics for Form Four students as studies on this core subject are seldom in Hong Kong.

Questionnaire on Teacher Interaction (QTI) was used to gather data on students' perceptions of teachers' interpersonal behavior and was defined as eight types of behavior. The results of the present study showed positive correlations between *strict* and *leading* teachers' interpersonal behavior, and the students' examination scores in mathematics. On the other hand, this study also found that the more *freedom* given to students and more *uncertain* the teachers were, the lower students' examination scores. Based on a stepwise regression analysis, *dissatisfied* was the sole predictor of student achievement (with more dissatisfied teacher behavior leading to higher student achievement). In addition, it is believed that the teachers' interpersonal behavior will alter the attitudes of students toward learning. The current study investigated the correlation between the eight types of teachers' interpersonal behavior and the intrinsic value of mathematics. Results showed that *helpful* and *understanding* teachers would foster higher intrinsic value of mathematics of students, whereas *dissatisfied* teachers would lower the intrinsic value of mathematics. At last, results indicated that the intrinsic value of mathematics was positively correlated to the student achievement in mathematics.