
NEWSLETTER

Lecturing, Discussion, or Interaction: The Heterogenous Effects of Teaching Methods on Academic Achievements of Junior Secondary School Students

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CURRENTLY, the traditional teacher lecturing-dominated instruction remains the prevalent teaching method in Chinese basic education. In recent years, as a result of the deepening curriculum reform, teachers have increased the use of group discussion in classroom teaching. In this article, teaching methods were classified into three categories: teacher lecturing, group discussion, and teacher-student interaction. Based on the baseline survey and follow-up data of China Education Panel Survey (CEPS), the study used the difference-in-differences (DID) model and the PSM (propensity score matching) -DID model to examine the respective effects of the three teaching approaches on student academic achievements in Chinese, mathematics, and English.

The study utilized the baseline survey data of CEPS in the academic year of 2013- 2014 and the follow-up data in the academic year of 2014-2015. The student sample included 7,826 junior secondary school students who were randomly sampled from 438 classes of 112 junior secondary schools in 28 counties (districts) across the country. Obtained from the teacher database were the data of 246 Chinese teachers, 239 math teachers and 234 English teachers who have been teaching the sampled students since they were in grade seven. Mid-term examination results of the student are the dependent variable in this study. The core independent variable is the teaching method of the instructor - teacher lecturing, group discussion, and teacher-student interaction. The control variables include students' individual characteristics, family background, personal effort, and parental discipline; and teachers' gender, professional title, administrative position and teaching awards.

The research findings showed that increasing group discussion in Chinese and math classes is beneficial to student performance, but the opposite is true in the English class; and that teacher lecturing and teacher-student interaction also help improve student academic achievement in Chinese. Furthermore, the teaching method should be adjusted to the academic level of

various classes and students. Chinese language teachers should lecture more in classes of lower academic level, lecture less and increase teacher-student interaction in classes of medium level, and organize more group discussions in those of higher academic level; in Chinese teaching, group discussions are particularly beneficial to above-average students in high achieving classes. Math teachers should lecture less and reduce teacher-student interaction in classes of lower academic level, and increase group discussion in those of higher academic level; in math instruction, group discussion also benefits the high achieving students in classes of medium academic level. English teachers should lecture less, reduce group discussion, and increase teacher-student interaction in low achieving classes, restrict the amount of group discussion and teacher-student interaction in classes of medium academic level, and lecture more in those of higher academic level; teacher lecturing is particularly favorable to English performance of below-average students in high achieving classes.

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