

ZMATH 2016f.00240

Yau, King Woon; Mok, Ida Ah Chee

Insights from students' private work in their notebooks: how do students learn from the teacher's examples?

Educ. Stud. Math. 93, No. 3, 275-292 (2016).

Summary: Students' seatwork plays an important part in their learning in their lessons, and very often, students record their private work in the notebooks during seatwork. The students' private work in their notebooks reflects students' learning and thinking, representing explicit learning outcomes. The students' private work in their notebooks of 14 mathematics lessons of an eighth-grade Hong Kong classroom was analyzed. The mathematical tasks used in the lessons were categorized with the Trends in International Mathematics and Science Study (TIMSS) cognitive domains framework. The implementation of the tasks was recorded in cycles of teacher's examples (TEs) and students' exercises (SEs). By comparing the methods employed by the students and the teacher, the students' methods were found to be mainly imitation or partial imitation regardless of the cognitive domains of the students' exercises. The students' perspectives on the instructional practice expressed in the post-lesson interviews were used as a triangulation for the results. The results showed that the students appreciated the teacher's explanation and demonstration in the teacher's exposition. Finally, the authors argue that the high percentages of imitation of teacher's methods not only are due to the students' choice, but also are influenced by the Confucian heritage cultures.

Classification: C30 D30 D40

Keywords: students' private work; learning; cognitive domains; imitation

doi:10.1007/s10649-016-9702-y