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Encouraging the Innovative Use of Geometer ' s Sketchpad through Lesson Study

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Author(s)

Chew Cheng Meng, Lim Chap Sam

ABSTRACT

The purpose of this study was to encourage the innovative use of Geometer ' s Sketchpad (GSP) in the teaching and learning of mathematics among secondary school teachers in Malaysia through Lesson Study (LS). Three LS groups were set up in three secondary schools. Qualitative data were collected through written lesson plans, video-taped teaching and individual interviews with the participants. Findings of the study show positive changes in the participants ' knowledge and skills of using GSP to teach the topics of " Lines and Planes in Three Dimensions, " " Loci in Two Dimensions " and " Plans and Elevations. " These are evidenced in their mathematics lesson plans, GSP sketches, worksheets and videotaped teaching observations. Analysis of their interview transcripts also reveals positive acceptance and encouraging feedback about LS that promotes peer support and collaboration. Thus, the participants have more confidence in using GSP innovatively to teach mathematics at the secondary school level after the LS collaboration.

KEYWORDS

Lesson Study, Geometer ' s Sketchpad, Mathematics Teaching and Learning, Secondary School

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