

The Effect of *Geometers' Sketchpad* on the Performance in Geometry of Malaysian Students' Achievement and van Hiele Geometric Thinking

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ABSTRACT

This study was designed to investigate the effect of using Geometers' Sketchpad on performance in geometry achievement and the level of van Hiele geometric thought among Form Two students in one of the secondary schools in Kuala Lumpur. The van Hiele Geometry Test was administered to determine their level of geometric thought according to van Hiele theory. This Quasi-experimental research was carried out in one of the secondary schools in Kuala Lumpur. A total of 65 Form Two students from the school were chosen for this research. The treatment group (N=32) underwent the lessons using the Geometers' Sketchpad for ten weeks. At the same time the control group (N=33) was taught by the traditional approach. The questionnaire and checklist were administered to explore the students' response to wards to the use of Geometer's Sketchpad on learning of geometry. A descriptive analysis showed that most of the students agreed that the Geometer's Sketchpad is a useful tool for learning geometry. The findings of this study about the effects of Geometer's Sketchpad and van Hiele model will be useful to mathematics teachers, educators and those who are involved in the teaching of mathematics, particularly geometry in the planning of teaching activities for the classroom.

Keywords: Geometers' sketchpad, geometry achievement, van Hiele theory, level of geometric thinking, geometry, learning van Hiele geometric test