Exploring the van Hiele Levels of Prospective Mathematics Teachers

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This research project aimed to assess the influence of an inquiry-oriented, technology-based, proof-intensive geometry course on the van Hiele levels of prospective mathematics teachers. Data was collected in an upper division geometry course taught from an inquiry-oriented perspective. The course relied on technology (*The Geometer's Sketchpad*) to help students make and prove conjectures. Data was collected from classes in consecutive years, the first with twenty-one participants and the second with twenty-four participants. Most participants were prospective secondary mathematics teachers. Data collection included a pre- and a posttest of participants' van Hiele levels. Data analysis suggests similar results for both sets of participants in that the course had greater influence on the van Hiele levels of female participants. Results also suggest that the van Hiele test instrument used for this study operated well with university students.

Geometry, van Hiele levels, teacher preparation, secondary