Understanding primary school teachers' perspectives of teaching and learning in geometry: shapes and spaces

ABSTRACT

Geometry is one of the basic skills to be mastered in Malaysian Mathematics education. However, there is not much information or study on elementary geometry attainment in Malaysia. Therefore, this study aims to review teachers' perspectives on teaching and learning of the geometry topic 'Shapes and Spaces' at primary level. Ten questions such as How are the students' performance in learning 'Shapes and Spaces'?; How do you teach rectangle and square? were asked and the responses were used to analyze teachers' teaching and learning experiences. This study utilized a qualitative method known as 'phenomenology' and the sample consists of four Malaysian public school teachers. The data were collected by conducting face-to-face semi structured interviews. Findings of this phenomenological study showed that teachers faced difficulties in teaching the skills and knowledge in 'Shapes and Spaces'. Primary mathematics syllabus had evolved to Standard Curriculum for Primary School (KSSR) based on the Malaysia Education Blueprint but teachers seemed unfamiliar with the syllabus especially on the topic of 'Shapes and Spaces'. van Hiele's theory had been cited by researchers worldwide in the learning of geometry but the teachers did not seem to have any idea about the theory. Therefore, refresher course on the geometry theory for Malaysian educators becomes important in order to increase the geometry attainment especially at primary level.

Keyword: Geometry; Phenomenology; Teacher perspectives