

Teaching Methods and Learners' Concept Formation, Development and Integration in Geometry: Assessing the Relationship

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ABSTRACT This paper sought to determine the dominant concepts and approaches used by learners in dealing with selected geometry problems and establish the significance of using mind webs on the overall performance of learners. A descriptive research design, which utilised a mixed-methods approach, was adopted to elicit data from 74 high school learners. Permission to conduct the study was rendered by school principals and mathematics heads of the participating schools. Inferential statistics and content analysis were used to analyse data. The study established the learners' widespread poor geometric concept formation, development and integration. Non-geometric and mathematically incorrect approaches were dominantly used to arrive at answers. The findings also showed that learners who presented their thinking processes on paper averagely performed better. The paper recommends ways to improve classroom practices arguing that an omission or poor development of one learning stage will heinously affect the proper development of all the succeeding stages.