

ZMATH 2016c.00515

Munroe, Kayan Lloyd

Assessment of a problem posing task in a Jamaican grade four mathematics classroom.

J. Math. Educ. Teach. Coll. 7, No. 1, 51-58 (2016).

Summary: This paper analyzes how a teacher of mathematics used problem posing in the assessment of the cognitive development of 26 students at the grade-four level. The students, ages 8 to 10 years, were from a rural elementary school in western Jamaica. Using a picture as a prompt, students were asked to generate three arithmetic problems and to offer their solution to one of these problems. The teacher used both formative and summative assessments to evaluate students' levels of cognition in mathematics. Formative assessment revealed that some students' mathematical ability were higher than their reading ability. Summative assessment showed that more advanced students generated more complex questions. The teacher was able to use the information gathered from the problem posing activity to create better lesson plans for the class.

Classification: D62 D52 D42

Keywords: primary education; arithmetic; educational diagnosis; analysis of learning outcomes; achievement measurement; formative assessment; summative assessment; student activities; problem posing; open-ended problems; teaching methods; research; experience reports; lesson planning