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Assessment Literacy Levels of Mathematics Teachers to Implement Classroom Assessment in Ghanaian High Schools

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Abstract: One key determinant of the quality of mathematics learning is the teacher's ability to assess students adequately and effectively and make assessment an integral part of the instructional practices. If the mathematics teacher lacks the required literacy to perform classroom assessment roles, the true trajectory of learning success and attainment of curriculum expectations might be indeterminate. It is therefore important that educators and policymakers understand and seek ways to improve the literacy level of mathematics teachers to implement classroom assessments that would meet curriculum demands. This study employed a descriptive survey design to explore perceived levels of assessment literacy of mathematics teachers to implement classroom assessment with the school based assessment framework in Ghana. A 25-item classroom assessment inventory on teachers' assessment scenarios was adopted, modified, and administered to a purposive sample of 48 mathematics teachers from eleven Senior High Schools. Seven other items were included to further collect data on their self-efficacy towards assessment literacy. Data were analyzed using descriptive and bivariate correlation statistics. The result shows that, on average, 48.6% of the mathematics teachers attained standard levels of assessment literacy. Specifically, 50.0% met standard one in choosing appropriate assessment methods, 68.3% reached standard two in developing appropriate assessment tasks, 36.6% reached standard three in administering, scoring, and interpreting assessment results, 58.3% reached standard four in making appropriate assessment decisions, 41.7% reached standard five in developing valid grading procedures, 45.8% reached standard six in communicating assessment results, and 36.2 % reached standard seven by identifying unethical, illegal and inappropriate use of assessment results. Participants rated their self-efficacy belief in performing assessments high, making the relationships between participants' assessment literacy scores and self-efficacy scores weak and statistically insignificant. The study recommends that institutions training mathematics teachers or providing professional developments should accentuate assessment literacy development to ensure standard assessment practices and quality instruction in mathematics education at senior high schools.

Keywords: assessment literacy, mathematics teacher, senior high schools, Ghana

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