IMPROVING MATHEMATICS WRITTEN TESTS: IMPACT OF RESEARCH ON STUDENT TEACHERS' CONCEPTIONS

Rosa Antónia Ferreira
Illinois State University, USA

Typical written tests are well known for neither adequately picturing students' thinking nor facilitating teachers' learning about students' misconceptions and difficulties. However, tests do have educational value and should be improved, not rejected. Although the Portuguese reform recommendations for school mathematics have stressed the use of different assessment instruments, recent studies have shown that teachers still resist reforming ideas and rely heavily on traditional written tests for assessing and evaluating their students, scarcely or not systematically using other forms of classrooms assessment.

This study investigates how a number of Portuguese student teachers, enrolled in a teacher education program offered by a public university, in a large urban community in northern Portugal, conceptualize classroom assessment focusing on how usual written tests can be improved to meet the goals of authentic assessment. More specifically, this study aims at having participants recognize the value of usual and alternative written tests and reflect on research-based ways of improving the tasks typically found in traditional tests.

Following the theoretical perspectives that underpin the reform movement, various instruments were used: a survey, interviews, and document analyses. Preliminary survey results suggest that although acknowledging and reporting some use of alternative forms of assessment, the participants tend to conceptualize (typical) written tests as weighing significantly in their students' assessment, and to confound assessment with evaluation. Written tests are seen as comfortable ways of quantitatively and rigorously knowing if students have acquired the intended knowledge and what difficulties they have; they are also seen as a source of information about student teachers' own teaching effectiveness. The participants will be asked to read, discuss, and reflect upon research-based texts addressing how typical written tests can be improved, and to use those readings to analyze their own tests.