

ZMATH 2016f.00726

Vienonen, Pekka

Electronic assessment in high school mathematics by multiple-choice questions – an interim report.

Eronen, Lasse (ed.) et al., Mathematics and education. Learning, technology, assessment. Festschrift in honour of Lenni Haapasalo. Münster: WTM-Verlag (ISBN 978-3-95987-005-4/pbk). Festschriften der Mathematikdidaktik 3, 143-153 (2016).

Summary: Technology offers new ideas and approaches to arrange evaluation tests in schools. Traditionally, the questions in exams have been more or less similar to the exercises in text books. However, typical exercises in textbooks are designed for learning of mathematics, not for measuring mathematical skills. However, the assessment tasks should differ from those that are designed for learning. As electronic test environments offer an opportunity to automate the assessment process, our study focuses on self-scoring electronic exams with multiple-choice questions for evaluating students' mathematical skills. An electronic exam with self-scoring multiple-choice questions was administered to 100 students in four Finnish upper-secondary schools. Their results were also graded by their teachers. The correlations between teachers' evaluations and automatically rated e-test results were calculated and discussed. The construction procedure for the test items is not presented in this article but will be released at the next opportunity.

Classification: D60 U50

Keywords: electronic assessment; multiple-choice questions