

TIM - a two-year model test on the pocket calculator use from class 7 and 9

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This poster provides an overview of the concept and the results of a two-year model test on the use of graphic calculators in maths lessons from class 7 and CAS-calculators from class 9 at grammar schools in Rhineland-Palatinate (Germany).

The goal of this long term study with 13 teachers was to study the conditions for successful learning with the calculator and various potential effects of the calculator use on the students' concept of mathematics, their perception of the lessons and development of competencies. Basically the competency development of the students was focused, not to gain insight in specific effects of the used technology. A learning platform (Moodle) under www.proLehre.de put at their disposal contained the material developed like tasks, teaching plans, proposed solutions and technical advice.

The instruments as part of the evaluation concept for the project are: student performance tests at the beginning and the end of each school year, three student and two teacher surveys as well as lesson reports to be kept by teachers in the first project year and partly standardized lessons reports to be kept by students in the second project year.

In the evaluation of the result it was relevant to analyse the acceptance of calculators and the test results with and without calculators, also according to sex and to the previous maths attainment of students.

The results of the study suggest graphic calculators already from class 7 and show the importance of respective teaching concepts for their effective use.

References:

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