

**ZMATH 1995d.00531**

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**Studying different methods of technology integration for teaching problem solving with systems of equations and inequalities and linear programming.**

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Zwei Gruppen von Studierenden in unterschiedlichen Fächern wurden mit Hilfe einer Software zur Algebra unterrichtet. Dabei wurde in der einen Gruppe der Computer ausschließlich als Demonstrationsgerät verwendet, in der anderen Gruppe kamen direkte Übungen der Studierenden hinzu. In beiden Gruppen zeigte sich, daß der Computereinsatz die Realisierung neuer Unterrichtsideen ermöglicht. Allerdings wurden bei einem Nachtest keine Leistungsunterschiede zwischen den Gruppen beobachtet. Auch die Einstellung zeigte keine signifikanten Unterschiede zwischen den beiden Gruppen.

A computer algebra system (CAS) was integrated into instruction for two large classes of mathematics for business and the social sciences. Approximately 70 students were in each class, and the instructional module was one month in length. In the INT (interactive) class, the CAS was used both for in-class demonstration and for hands-on work by students. In the NINT (noninteractive) class the CAS was used for demonstration purposes only. The system's algebraic, matrix, and graphing capabilities provided novel ideas for teaching conceptual understanding. Comparisons of student achievement and attitude were made between the classes. Conclusions based on data analysis and the special characteristics of the study are discussed. (orig.)

*Classification:* Q45