

**ZMATH 2004b.00153**

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**On programming and spreadsheet calculations.**

Spreadsheets Educ. 1, No. 1, 44-51 (2003).

'Experiment', 'discovery' and 'self-teaching' are basic components of active learning. Despite the fact that learners are investigating notions and relationships known long before, their own discovery of something new and unknown for them results in their fascination with an irreplaceable educational value. Spreadsheets are one of many environments that can successfully be used for building stages for similar experimentation. Activities described in this paper show how spreadsheet-based calculations can lead students to a deeper comprehension of algorithms, their execution and notation in a programming language. Their goal is to identify a relationship between a notation of an algorithm and the series of figures produced by its execution. During their investigations, students exploit the adaptability of spreadsheets - each change of an input value evokes the complete recalculation of the entire sheet. The instant recalculations allow the students to observe many 'runs' of the studied algorithm, to formulate hypotheses and to verify them much faster than any other methods of traditional programming.

*Classification:* P55 R75 Q65

*Keywords:* constructive learning; simulation of program tracing