



Computers and Calculators as Pedagogical Instruments: The Scaffolding Method Revisited

[Bernhard Kutzler](#)

bk-teachware, Softwarepark A-4232 Hagenberg

Open PDF-File: [g_kutzle.pdf](#) (111 KB)

Abstract:

We develop a two level framework for understanding, categorizing, and planning the use of technology in teaching and learning. At the first level we distinguish between the two basic uses of *automation* and *compensation*. At the second level we discuss the four applications as pedagogical tools for *trivialization*, *experimentation*, *visualization*, and *concentration*. Based on this framework we develop the *scaffolding method* as a pedagogically justified sequence of using and not using technology to achieve a given teaching goal. We demonstrate the method with two examples: Teaching the solving of linear equations and teaching the solving of systems of linear equations. Finally we discuss the implication of technology to assessment.
