**ZMATH 2016c.00619**

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**Four (algorithms) in one (bag): an integrative framework of knowledge for teaching the standard algorithms of the basic arithmetic operations.**

Res. Math. Educ. 18, No. 1, 43-60 (2016).

Summary: In this article we present an integrative framework of knowledge for teaching the standard algorithms of the four basic arithmetic operations. The framework is based on a mathematical analysis of the algorithms, a connectionist perspective on teaching mathematics and an analogy with previous frameworks of knowledge for teaching arithmetic operations with rational numbers. In order to evaluate the potential applicability of the framework to task design, it was used for the design of mathematical learning tasks for teachers. The article includes examples of the tasks, their theoretical analysis, and empirical evidence of the sensitivity of the tasks to variations in teachers' knowledge of the subject. This evidence is based on a study of 46 primary school teachers. The article concludes with remarks on the applicability of the framework to research and practice, highlighting its potential to encourage teaching the four algorithms with an emphasis on conceptual understanding.

*Classification:* F32 D39
*Keywords:* standard algorithms of the four basic arithmetic operations; mathematical knowledge for teaching; task design
doi:10.1080/14794802.2016.1141313