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Progressive mathematization of long division strategies in Dutch primary schools.

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Students' strategies for solving long division problems under a realistic mathematics approach (RME) at Dutch primary schools were categorized in two ways: (a) according to the level of how students created multiples of the divisor (chunking) to be subtracted from the dividend; and (b) according to their use, or nonuse, of schematic notation. These categories could be quantified on two dimensions: use of schematization and use of number relations. Just after the introduction of long division problems, students' strategies varied from no-chunking to high-level chunking. Five months later, this variation of strategies was reduced to mainly high-level chunking using a scheme. However, strategy development depended on students' prerequisite knowledge and the type of textbook used. The results from this study contribute to the efficacy of RME for the advancement of strategies and achievement in the domain of division.

Classification: F32 D42 D62