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Lamb, Janeen; Booker, George

The impact of developing teacher conceptual knowledge on students' knowledge of division.

Johnsen Høines, Marit (ed.) et al., Proceedings of the 28th international conference of the International Group for the Psychology of Mathematics Education, PME 28, Bergen, Norway, July 14–18, 2004. Bergen: Bergen University College. Part III, 177-184 (2004).

Summary: This study investigated children's knowledge of division and its relationship to their teacher's conceptual understanding of division following Professional Development. A paper and pencil test was administered to 47 year 7 students and 2 teachers over 2 phases. Following the testing, six students and the teacher from each phase were interviewed. Results from this study indicate that most Phase 1 students rely on following a procedure with limited understanding. Their teacher displayed some conceptual understanding, however she too demonstrated a bias for procedural knowledge. This contrasts with Phase 2 teacher and students who demonstrated conceptual knowledge both in the test and the interviews.

Classification: F43 D73 A63

Keywords: division; concept formation; arithmetic; grade 7; misconceptions

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