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**The equivalence and ordering of fractions in part-whole and quotient situations.**

Chick, H. L. (ed.) et al., Proceedings of the 29th annual conference of the International Group for the Psychology of Mathematics Education, PME 29, Melbourne, Australia, July 10–15, 2005. Vol 1-4. Melbourne: University of Melbourne, Dep. of Science and Mathematics Education. Part III, 281-288 (2005).

Summary: This paper describes children's understanding of equivalence, ordering of fractions, and naming of fractions in part-whole and quotient situations. The study involves eighty first-grade children, aged 6 and 7 years from Braga, Portugal. Three questions were addressed: (1) How do children understand the equivalence of fractions in part-whole and quotient situations? (2) How do they master the ordering of fractions in these situations? (3) How do children learn to represent fractions with numbers in these situations? A quantitative analysis showed that the situations in which the concept of fractions is used affected children's understanding; their performance in quotient situations was better than their performance in problems presented in part-whole situations. The strategies used also differed across these two situations.

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