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Decimal fractions in school mathematics in Great Britain and North America, 1667-1887.

Bjarnadóttir, Kristín (ed.) et al., “Dig where you stand” 3. Proceedings of the third international conference on the history of mathematics education, Uppsala University, Sweden, September 25–28, 2013. Uppsala: Uppsala University, Department of Education (ISBN 978-91-506-2444-1). 169-186 (2015).

Summary: This chapter examines the extent to which decimal fractions were part of school arithmetic curricula in Great Britain and in North America during the period 1667–1887. We assume that whereas the curriculum intended by a textbook author can be identified by studying what that author wrote, a teacher’s implemented curriculum is more likely to be identified by studying what students wrote in cyphering books. Analyses of a large number of textbooks and cyphering books revealed that although most textbooks included sections on decimal fractions, before 1792 relatively few students in British or North American schools actually studied decimal fractions. In the nineteenth century, however, higher proportions of North American students than British students studied decimal fractions. The change in the relative emphasis on decimal fractions is explained in terms of the theoretical lens of “lag time”.

Classification: A30 F40 U20

Keywords: decimal fractions; school arithmetic; curriculum; textbooks; cyphering books