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Title:Implementation of Integrated Mathematics Textbooks in Secondary School Classrooms

The study reports how 44 secondary school teachers implemented the first two courses of an integrated mathematics textbook series, Core-Plus. Textbook implementation was examined in relation to three components: (a) regular use of textbook; (b) use of a significant portion of the textbook; and (c) consistency with pedagogical orientation (Chval et al., 2009).

Although the majority of teachers used their textbooks frequently, on average they taught less than two-thirds of the textbook content during a school year. When teaching textbook content, teachers used supplemental or alternative materials in nearly 40% of lessons. Results indicate that teachers placed varying emphases on the four content strands. In year 1, the composition of the enacted and written curricula were similar, however teachers in year 2 placed more emphasis on algebra and functions at the expense of statistics and probability and discrete mathematics. Multiple data sources revealed that teachers were generally more faithful to the content contained within the textbook than with presentation of material. Few teachers spent the recommended number of instructional days on a given lesson, and most omitted key instructional components and particular types of homework assignments prescribed by Core-Plus authors.

Additional interview data were collected with regard to teaching assignments. Analyses revealed that the primary criterion for the assignment of teachers to integrated courses was ultimately an expression of their desire to do so.

Implications for research and practice are discussed and recommendations for future research are offered.