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Lesh, Richard; Cramer, Kathleen; Doerr, Helen M.; Post, Thomas; Zawojewski, Judith S.
Model development sequences.

Lesh, Richard et al., Beyond constructivism. Erlbaum, Mahwah, NJ (ISBN 0-8058-3822-8). 35-58 (2003).

This chapter describes instructional modules that are based on a models and modeling perspective, and that were designed to meet goals that are unusual compared with those driving the development of most commercially produced materials for instruction or assessment. First, the modules were designed to provide rich research sites for investigating the interacting development of students and teachers. Therefore, they are modularized so that components can be easily deleted, extended, modified, or re-sequenced to suit the needs of researchers (or teachers) representing a variety of theoretical perspectives, purposes, and student populations. Second, to make it possible to observe processes that influence the development of students' and teachers' ways of thinking, the modules were designed to be thought revealing (Lesh, Hoover, Hole, Kelly & Post, 2000) and to be efficient for producing maximum results using minimum investments of time and other resources. Consequently, from the perspective of teachers, they have the unusual characteristic of seeming to be small-but-easy-to-extend rather than being large-and-difficult-to-reduce. Third, they were designed to emphasize important understandings and abilities that are needed for success beyond schools in a technology-based age of information.

Classification: D40