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Designing learning experiences for effective instruction in secondary mathematics.

Toh, Pee Choon (ed.) et al., Learning experiences to promote mathematics learning. Yearbook 2014, Association of Mathematics Educators. Hackensack, NJ: World Scientific; (ISBN 978-981-4612-90-6/hbk; 978-981-4612-93-7/ebook). 41-66 (2014).

Summary: In the recent review of the Singapore secondary mathematics curriculum, *learning experience* has been incorporated as one of the main emphases besides the revision in the mathematical content. Learning experiences are explicitly stated in the mathematics syllabus documents to influence the ways teachers teach and students learn in order to achieve the curriculum objective. This chapter discusses (1) the principles of selecting appropriate learning experiences and their characteristics; and (2) how these learning experiences can be organized for effective instruction in the secondary school mathematics classrooms. The model of *R. W. Tyler* [Basic principles of curriculum and instruction. Chicago, IL: University of Chicago Press (1946)] will be the framework for discussion in this chapter. The discussion will use illustrations from the Singapore lower secondary mathematics classrooms.

Classification: D30 D40

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