

ZMATH 06675861

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Boundary objects within a replacement unit strategy for mathematics teacher development.

Kaur, Berinderjeet (ed.) et al., Professional development of mathematics teachers. An Asian perspective. Singapore: Springer (ISBN 978-981-10-2596-9/hbk; 978-981-10-2598-3/ebook). Mathematics Education – An Asian Perspective, 189-208 (2017).

Summary: We recognise that, for instructional innovations to take root in mathematics classrooms, curriculum redesign and teachers' professional development are two necessary and mutually-reinforcing processes: a redesigned curriculum needs to be seen as an improvement in order to facilitate teachers' buy-in – an ingredient for effective professional development; on the other hand, teachers' professional development content needs to be directed towards actual useable classroom implements through the enterprise of collaborative curriculum redesign. In this chapter, we examine the interaction between researchers and teachers in this collaborative enterprise through the metaphor of boundary crossing. In particular, we study a basic model of how “boundary objects” located within a “Replacement Unit” strategy interact to advance the goals of professional development.

Classification: B50 D49 D39

doi:10.1007/978-981-10-2598-3_14