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The contemporary importance of triangulation in a post-positivist world: examples from the learner's perspective study.

Bikner-Ahsbabs, Angelika (ed.) et al., Approaches to qualitative research in mathematics education. Examples of methodology and methods. Dordrecht: Springer (ISBN 978-94-017-9180-9/hbk; 978-94-017-9181-6/ebook). Advances in Mathematics Education, 403-425 (2015).

Summary: Triangulation has become a reference construct when issues of methodological rigour are discussed. In this chapter, we argue that conceptions of triangulation must be broadened if it is to be relevant to a community increasingly committed to interpretivist and critical methodologies. We suggest that the metaphoric entailments of triangulation can usefully inform contemporary research efforts and the development of new methodologies, particularly those required by cross-cultural comparative research. Our argument is illustrated by examples taken from the Learner's Perspective Study (LPS). This study examined the patterns of participation in competently-taught eighth grade mathematics classrooms in 18 countries in an integrated and comprehensive fashion, using different theoretical frameworks to address a variety of significant research questions. The complementary accounts generated by the application of the different theories are at the heart of the methodological shift that has required the progressive reconception of triangulation, where the ultimate goal is not a unique finding (proposition or relationship) warranted by a process of cross-validation leading to the convergence of multiple data points on a single truth, but rather the multi-faceted portrayal of a complex social situation (e.g. dyadic collaboration or teacher-led discussion). Acts of cross-cultural comparison are poorly served by the use of triangulation as a mechanism of convergence and benefit from the triangulation of accounts interpreted as complementary. In the case of the LPS, these complementarities are enacted at the level of the participants' social, organisational and cultural affiliations and at the level of the researcher's theoretical affiliations. The paradigmatic shift in the nature and utility of triangulation is captured precisely in this movement from convergence to complementarity.

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