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Mathematical creativity and giftedness: a commentary on and review of theory, new operational views, and ways forward.

ZDM, Int. J. Math. Educ. 45, No. 2, 215-225 (2013).

Summary: In this commentary we synthesize and critique three papers in this special issue of ZDM [*R. Leikin* and *M. Lev*, *ibid.* 45, No. 2, 183–197 (2013; ME 2013c.00187); *M. Kattou* et al., *ibid.* 45, No. 2, 167–181 (2013; ME 2013c.00188); *D. Pitta-Pantazi* et al., *ibid.* 45, No. 2, 199–213 (2013; ME 2013c.00217)]. In particular we address the theory that bridges the constructs of “mathematical creativity” and “mathematical giftedness” by reviewing the related literature. Finally, we discuss the need for a reliable metric to assess problem difficulty and problem sequencing in instruments that purport to measure mathematical creativity, as well as the need to situate mathematics education research within an existing canon of work in mainstream psychology.

Classification: D20 C40 C70 D40

Keywords: creativity; mathematical creativity; gestaltism; problem sequencing and metrics; psychology; qualitative psychometrics

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