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Abstract

This article reports on guidelines developed based on an extensive research literature review investigating the potentials of dynamic geometry environments (DGEs) when the educational aim is to support students' development of mathematical reasoning competency. Four types of potentials were identified – feedback, dragging, measuring, and tracing – and used in three dimensions of guidelines: students' cognition, task design, and the role of the teacher. Using constructs from the *Instrumental approach*, the *Theory of semiotic mediation*, and the van Hiele model of levels, affordances and guidelines are elaborated upon and their potentials for reasoning competency are analyzed.

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