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Abstract

Focusing on the potential that dynamic geometry environments (DGE) and computer algebra systems (CAS) offer for mathematical inquiries, this paper presents a literature review of the use of DGE and CAS in relation to the mathematical thinking competency (MTC) of the Danish competency framework (KOM). This specific competency concerns modes of thinking when engaging in mathematical inquiry. The 17 studies included in the review were analysed from the perspective of MTC, resulting in the identification of three ways to use DGE and CAS as tools in activities related to the MTC.

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Mathilde Kjær Pedersen is currently pursuing her doctoral degree at the Danish School of Education, Aarhus University. Her research focusses on upper secondary mathematics in relation to the Danish KOM framework of mathematical competencies and the use of DGE and CAS for the teaching and learning of mathematics. The research interest concentrates on students' mathematical thinking and mathematical thinking competency.