

Conditions to promote the development of argumentation competence in the mathematics classroom [Condiciones para promover el desarrollo de la competencia de argumentación en el aula de matemáticas]

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The focus of this study is the orchestration of the argumentation competence in the mathematics classroom. The research group Mathematical Competence (COMMAT) has been conducting researches in teacher training for the development of mathematical competences, including argumentation. In this research we present, through case studies in the mathematics classroom, teachers perceptions of argumentation in the mathematics classroom; the existence of argumentation in the classes observed; the structure of the argument; the teacher's role in promoting development of argumentation; and finally, the conditions to promote argumentation in the mathematics classroom, a point which is the focus of this paper. In conclusion, there are three relevant conditions, three communication strategies to promote argumentation, open mathematical tasks, and a class plan for argumentation orchestration.

Argumentation

Communication strategies

Mathematical competences

Toulmin model