Logical fallacies as a tool for empowering students' thinking and reasoning in math classes

Valentina Gogovska

Faculty of Natural Sciences and Mathematics, Ss. Cyril and Methodius Univesity, Skopje, R. Macedonia valentinagogovska@gmail.com

Development of thinking and in particular the development of mental qualities – width, depth, independence, logic, mobility, concreteness, criticism, speed, creativity, target orientation, generalization, insight, etc. is one of the most important and consistent goals and objectives of the math teaching.

Simultaneously, the degree to which this aim is fulfilled determines the level and effectiveness of the teaching process for the overall development of the students' personality. An important psychological and pedagogical condition for the development of quality of thinking is students' reflexive understanding of thinking as a process and their own mental capabilities.

This work attempts to promote the use of logical fallacies during every day mathematics classes, especially during classes for exercises trough a few examples. Well-chosen examples can improve and empowered the process of doing mathematics, and can stimulate the process of creative thinking and motivate students' individual development in their current learning and leads to the formation of intellectual reflection.