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Teaching Mathematics and Computer Science

Game Theory for Managers and Mechanical Manager Students

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Abstract. In this article we describe the second part of a case study, in which 48 Mechanical Management students were involved. The participants of the case study were MSc level students at Szent István University, Gödöllő.

In the case study we looked for methods by which we can support the most important components of competence motivation and the development of mathematical and other key competences during the mathematics lessons and individual learning.

Another goal of our research was to get reliable information about students learning methods and their awareness of self-efficiency, furthermore their achievement in the subject of Engineering and Economic Mathematics.

Detailed assistance was provided for the students in the e-learning portal. Knowledge tests, questionnaire and personal interviews with the students were also used.

During the semester four topics have been discussed: linear programming, graph theory, game theory and differential equations. In this article I will describe the lesson preparations, the help for examinations and the students' achievement on game theory.

Key words and phrases: lesson preparation for Engineering and Economic Mathematics on game theory, matrix game, bimatrix game, prisoner's dilemma.

ZDM Subject Classification: D45, K95, U35.

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