



Engineering and Economic Mathematics for Engineering Management Students

KORNÉLIA ÉVA DÉKÁNY

Abstract. In this article we describe the first part of a case study, which was made with 48 Engineering Management students. The participants of the case study were MSc level students at the Szent István University, Gödöllő. 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-efficacy, 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. As an example we introduce one of the knowledge tests connected with the first half of the course about linear programming and graph theory. We detail its didactical background and show the results of the students.

Key words and phrases: Competence motivation, achievement control, graph theory, operations research, economics, teacher-student interaction.

ZDM Subject Classification: K35, M45, U35.

KORNÉLIA ÉVA DÉKÁNY
INSTITUTE OF MATHEMATICS AND INFORMATICS
FACULTY OF MECHANICAL ENGINEERING
SZENT ISTVÁN UNIVERSITY
PÉTER KÁROLY 1
2100 GÖDÖLLŐ
HUNGARY

E-mail: Dekany.Eva@gek.szie.hu

(Received October, 2016)