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ABSTRACTS

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Contents

Implementation of Contemporary Methods in Teaching Descriptive Geometry at the Faculty of Civil Engineering and Architecture of Niš

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Since the foundation of the Faculty of Civil Engineering of Niš in 1965, the teaching of Descriptive Geometry has been performed in a classical way. Representation of three dimensional space on a two-dimensional medium, blackboard or paper was manual, both in lecturing and in exercise classes. The lectures provide fundamental knowledge, while the exercises provide step-by-step task solving, with additional clarifications. The curriculum remained the same in all those years. In order to facilitate work with the students and better grasp the curriculum, the teaching process was modernized:

- In 2009/10 the templates for the lectures were introduced, where the basic layout of the task was already drawn, to be completed by the students.
- In 2012 step-by-step graphic designs were made in Corel DRAW software, and all 13 presentations were placed on the Faculty website.
- In 2013, a free android application for step-by-step graphic designs was made, which could have been used by the students in the classes using their mobile phones.
- In the 2014/15 school year, a half of the total number of enrolled students attended the classical exercises, and the other half used the contemporary method of computer generated step-by-step graphic designs which were projected on a canvas screen.

This paper analyzes the impact of modernization of teaching on the students' success rate in passing the exams in the last 10 years at the study program of civil engineering. An analysis of the student passing the exam in the first four examination periods was performed and expressed in percents.
The results of the analysis conducted in the paper have indicated that the modernization of the teaching process contributed to the increase of the successfulness at the exams. The best results were exhibited by the students in the 2014/2015, which had at their disposal all the contemporary resources introduced to the teaching process.

Key words: descriptive geometry, classical method, contemporary method, step-by-step graphic design, android application

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