

The master thesis on Materials to Support the Teaching of Computer Science at High Schools focuses on the analysis of teaching materials for the educational content of Computer Science in terms of their educational aspects. The thesis is based on the hypothesis that teaching supported by didactic materials has a positive impact on the effectiveness of teaching. The main output of the thesis is the design of an original teaching material, including methodologies, which has been tested in practice at a secondary school.

At the beginning, the thesis focuses on the theoretical description of school Computer Science in the current educational system relating to the content of Computer Science as a scientific field. The author also presents an overview of didactic resources, aids and their specifics for secondary schools. Considering the extensiveness of Computer Science, the thesis defines Mathematics in Computer Science as the topic which is analysed with regard to the availability of teaching materials. The analysis of the selected teaching materials includes an analysis of the didactic demand of their texts.

Following the presented theoretical findings, the thesis contains a proposal of an original didactic material including methodology. The proposed educational material takes the form of a Moodle e-learning course and it is being piloted as a didactic experiment in the 2nd year of a secondary school in the field of study called Information Technology 18-20-M/01. The results of the piloting are determined through a structured interview with the students in order to reveal whether the proposed material is suitable for practical integration into the curriculum.