Abstract
This thesis is focused on researching psychological aspects of studying mathematics during adolescence. Difficult period of adolescence contains numerous developmental tasks, including choices of educational path and professional career. Although the school represents the second most important social environment after the family, education itself is not always the priority interest of maturing individuals. However, it frequently plays an important role in decisions of students whether math is being part of the curriculum and whether it is expected to be used in the follow-up professional life.
The current and future achievement of individuals in math is co-determined by many factors. The literature finds among the most important physiological predispositions, cognitive skills, motivation, socializing processes, and last but not least the roles of gender which are discussed in detail in the theoretical part. The empirical part of the thesis primarily represents analysis of the relationships between motivations, self-evaluation, roles of gender, and students' math achievements.
Analysis shows that achievements in math are related the most to intrinsic motivations of individuals so that the incidence of poor results in math is the highest among individuals with no motivation. The most influential factors related to motivation are the preference for math and beliefs that math skills can be valuably utilized in the ones practical life. Selfevaluation of students is not related only to their math achievements but is also related to evaluation of students by their parents and teachers. Girls perceive themselves as weaker mathematicians than boys. Boys expressing greater gender stereotypes have the highest achievements in math while this relationship is just the opposite among girls. I also find that the relationship between identical gender idols in math and math achievements are more discernible among girls.
Keywords: Mathematics, adolescence, education, motivation, stereotypes, self-evaluation, gender