2019

Number	responsible solver	project duration	goals
VEGA 1/0663/19	prof. Dr. Péter Tóth, PhD.	1/2019 - 12/2021	Analysis of science and mathematics education in secondary schools and innovation of teaching methodology Today's common economic and social problems are also related to the fact, that the underdeveloped scientific competencies of students are a major handicap in economic development. Scientific competencies means knowledge, skills, ability and attitudes, so we can interpret natural phenomena, furthermore we can understand and consciously use the technical tools in our environment. Mathematical competencies forms an inseparable basis of scientific competencies, therefore our research covers this field as well. As knowledge is constantly changing in these areas, it is essential to develop the skills and needs of lifelong learning of secondary school students. They will be able to navigate in the world of delusions, pseudoscientific knowledge and adverts by having professionally established knowledge. For this reason, the conscious use of ICT tools in the education of science and mathematics is very important. Taking into account the above, the main objectives of our research in terms of education regarding science subjects and mathematics in secondary schools, are the following: - Discover the main attributes of natural scientific and mathematical thinking, understanding and problem solving. - To examine the relationship among scientific and mathematical thinking and attitudes, socio-economic status of students, their career path and learning styles. - To identify the factors influencing the students' relations to science and maths subjects. - In the framework of pedagogical research explore the teaching strategies used during the education of these subjects. - To explore the teachers' view on the learning difficulties of

			these subjects. - To investigate how ICT tools can contribute to the education of these subjects. - To formulate recommendations for the methodological renewal of these subject.
VEGA 1/0117/19	prof. Dr. András Németh, DSc.	1/2019 - 12/2021	The aim of the project is a research into the identity of actual teachers, teacher trainees, and students - within their complex social context, in relation with their socio-economical evironment, formation of steretotypes, as part of the network of social relations, and paralel identifiation of specific elements of national minority school/education process. The project is based on an original research. We intend to apply the method of micro-historical research as an innovative method, which we will carry out through methods of oral history and some other so called „projective methods“, such as concept mapping and word association.We will also use the questionnaire method in order to identify and measure the detailes (items) of the professional, personal and national identity of the respondents.We have also included into our project a preparation and realization of a separate panel at an international scientific conference which would include an exhibition of school artefacts,related to our project.