Introduction of Geoinformatics as a New High School Subject

Tomislav Golubić[1], Sanja Benaković[2]
tomislav.golubic@gmail.com, sanja.benakovic399@gmail.com
[1]Prirodoslovna škola Vladimira Preloga, ul. Grada Vukovara 269B, 10000 Zagreb, Croatia
[2]X. gimnazija, Klaićeva 7, 10000 Zagreb, Croatia

Abstract

The need for experts in STEM (Science, Technology, Engineering & Mathematics) has been rapidly increasing in recent years. Moreover, the ability to innovate and digital skills became important competences required by modern employers. Bearing that in mind, teachers from the Vladimir Prelog Natural Science School from Zagreb, Croatia created 15 new optional subjects within the Science+ Project. Students are going to be able to enrol those subjects in the school year 2017/2018. The aim of this presentation is to explain the process of introducing and designing the optional high school subject Geoinformatics. We started from the fact that interdisciplinary approach and a combination of geographical knowledge and IT skills are not sufficiently used in students' education. The new school subject Geoinformatics is a novelty in the Croatian school system. It is based on three elements: developing theme maps, developing digital technology skills and cartographic presentation of content and changes in the area with the help of ArcGIS software. Using this program, students can display various changes in space via unique self-made maps. Usage of the new IT tools develops students' digital and cartographic skills, encourages logical thinking and development of spatial perception. Students develop knowledge and skills applicable in various environments, which hopefully make them more competitive in the labour market.

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