Geophysical Research Abstracts
Vol. 20, EGU2018-3810, 2018
EGU General Assembly 2018

Inspiring pupils in STEM through Inquiry Learning Spaces (ILSs): The “Scientists in Arctic Pole” ILS example

Marialena Christodoulidou

Primary School “DIMOTIKO SCHOLEIO LEMESOU 20 - AGIOU PANTELEIMONA”, Thespion STR, 3110, Limassol, CYPRUS (epa65.marialena@gmail.com)

Stimulating students’ interest in science is a major headache for most science teachers since 21st century students are expected to develop science literacy skills. Teachers always search for ways to modernize their teaching skills and bring them up to speed with students’ needs and interests. Thus, by supporting the use of online educational tools i.e. online science and math labs, game-based applications, e-tools that facilitate the teaching and learning process, science teachers promote student-centered teaching approaches which make teaching more effective. In addition, it is well documented that Inquiry Based Science Education (IBSE) approach facilitates the teachers in addressing underachievement in basics skills of math, science and literacy as well as improving effectively students’ problem solving skills.

An Inquiry Learning Space (ILS) is a virtual learning space, where a teacher can collect online labs and apps selected from the Go-Lab Project (Global Online Science Labs for Inquiry Learning at School) which is a European collaborative project co-funded by the European Commission (http://www.go-lab-project.eu/).

By registering on the authoring platform Graasp (http://graasp.eu/), a teacher receives the possibility to create his own Inquiry Learning Spaces (ILSs). He/she can customize the ILS according to his/her students’ needs adding educational resources, instructions, and exercises for them. Each student can login to the ILS and conduct personalized experimentation being guided through the five consecutive steps of an inquiry learning process: Orientation, Conceptualization, Investigation, Conclusion and Discussion.

The “Scientists in Arctic Pole” ILS example is an ILS created during the “Next-Lab” summer school 2017 in Marathon Greece by five teachers from different European countries, me from Cyprus, a teacher from Italy, a teacher from Rumania and two teachers from Poland. The “Scientists in Arctic Pole” ILS is connected with EDU-ARCTIC project (https://edu-arctic.eu/). The scenario is the "6 Thinking Hats": it means adopting different modes of thinking, characterized by six colored hats (http://www.golabz.eu/ils/scenario-six-thinking-hats).

“Scientists in Arctic Pole” ILS (http://graasp.eu/spaces/59634932d7ae4969b0af0033) wants to promote STEM education and encourage interest in science, technology, engineering, biology and mathematics education among students. Actually, students investigate the Arctic Pole zone and the problems that occur there, nowadays, in order to:

- To learn about the Arctic Pole.
- To become aware of the climate change at the Arctic Pole and its consequences.
- To find ways to prevent further climate change in the future.