

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



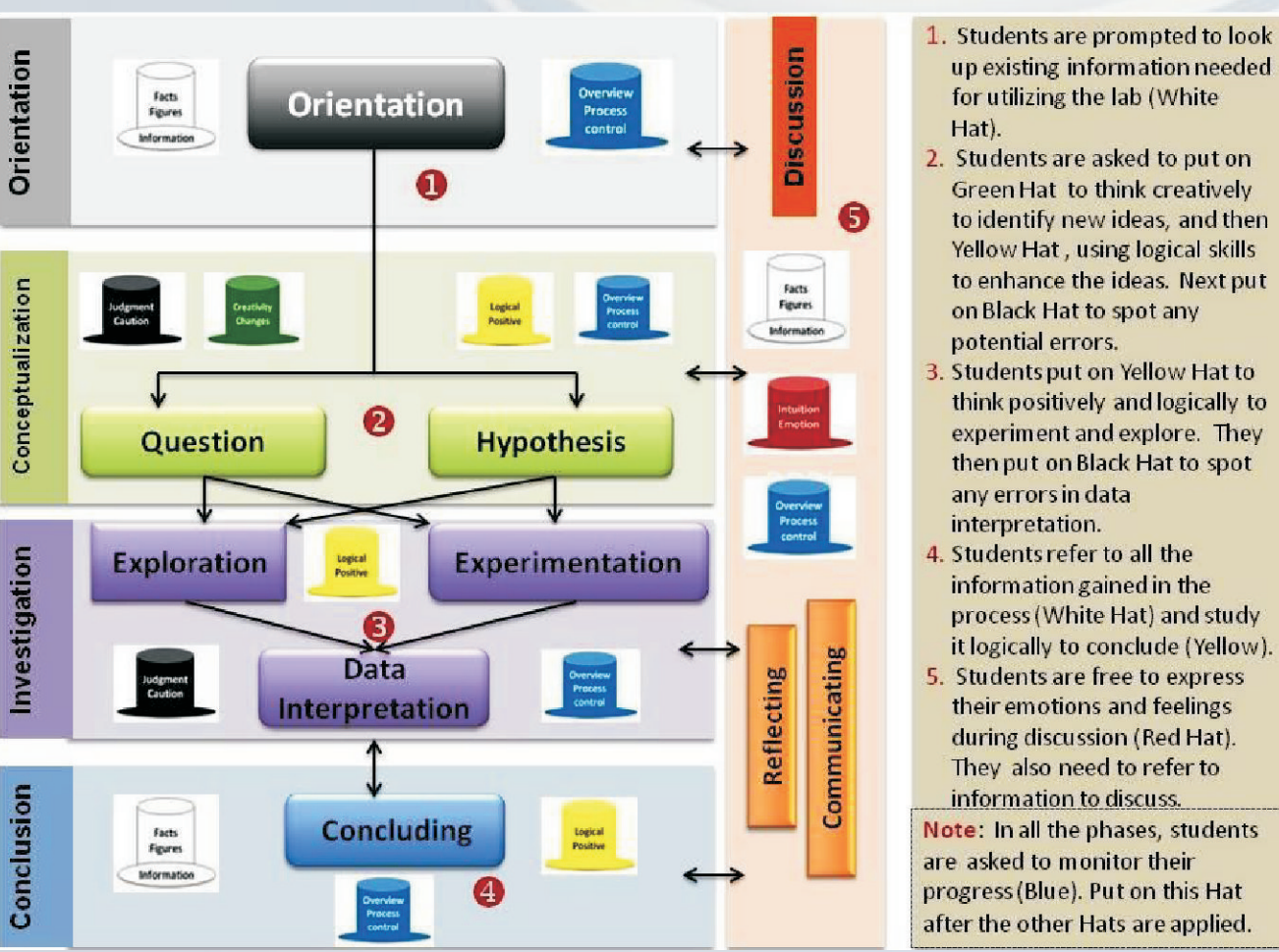
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INTRODUCTION

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 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>).

The “Scientists in Arctic Pole” ILS example

The “Scientists in Arctic Pole” ILS is an ILS created during the “Next Lab” summer school 2017 in Marathon Greece, by five teachers from 4 different European countries (Cyprus, Italy, Poland and Rumania).



“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.

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