



International Education in Greece

VIEWS FROM THE INSTITUTIONS



ACS Athens : Sustaining Excellence in Improving Learning

Incubator of Students' Creative Ideas (ISCI) at ACS Athens

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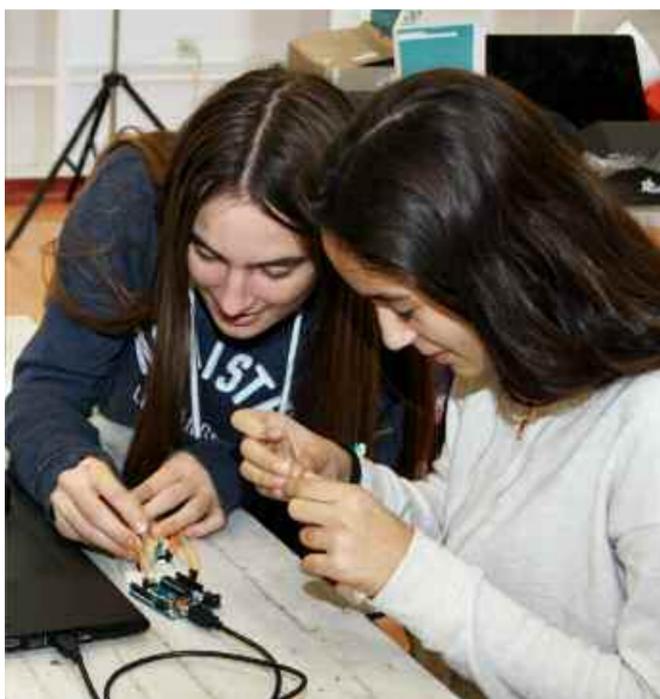
Today, more than ever, academic institutions need to identify ways to inspire their students to acquire skills and competencies that are essential for becoming critical thinkers and decision-makers. Therefore, there is a need for a new trajectory in the teaching and learning at the K-12 environment. This trajectory needs innovation, creativity and freedom from the fear of failing. Students must be the driving force for such learning and Educators the guiding energy.

One of the most significant obstacles K-12 Educators are facing is that students have difficulty identifying the real-world application of the concepts they are learning, or how these concepts and applications are relevant to their interests and studies. "When am I ever going to use this?" or "Who cares? In the real world, I can Google anything I need." Versions of this sentiment have echoed through the walls of classrooms for years. This is simply because students so often do not appreciate or become excited by something they do not see as relevant and meaningful in their potential careers and daily lives. Thus, the way an academic institution designs its curriculum and teaching methodology is what makes the difference in students' learning and ultimately in their lives.

In order to provide students with a comprehensive learning experience, a new educational paradigm was developed, the Global Morfosis Paradigm (gMp), which has been part of the ACS Athens educational paradigm for over a decade. Global Morfosis Paradigm (gMp) is an authentic, unbounded, and exciting educational paradigm - preparing students for a complex and unpredictable future. During its decade-long implementation, the gMp philosophy has been evaluated and modified many times to meet diverse student needs worldwide (www.g-morfosis.gr).

One of the most visible manifestations of the gMp is the Incubator of Students' Creative Ideas (ISCI), which is a student-centered, student-led, student-run, project-based learning initiative, using the design thinking process to promote, support and guide students' creative ideas in all disciplines. More specifically, the ISCI designs, facilitates, organizes and supports innovative student projects. Students take control of their own learning by having the opportunity to select what they want to learn, how they want to learn it, and ultimately decide in what way they wish to apply the knowledge they have acquired in order to produce something meaningful for themselves and their community. The ISCI is housed in the ACS Athens Learning Commons where students have access to a number of educators, including a librarian and a lead researcher, as well as state-of-the-art facilities that consist of a media studio, math studio and writing studio.

The ISCI was established in line with the ACS Athens vision "Empowering individuals to transform the world as architects of their own learning." The ISCI Council consists of seven students (Mehin Abbasova, Marilina Bitsikas, Asterios Dougalis, George Dougalis, Anastasia Nikolaidi, Elina Pipa and Pantelis Sfinias) who spent last summer designing, planning, organizing, researching and formulating the ISCI. They designed the facility to house such learning, they wrote a policy man-



ual to clarify its operations and finally they began planning to host events throughout the academic year and to visit other educational institutions. In addition, the ISCI Council makes itself available to guide and support students with their own projects in the incubator space.

In September 2017, the ISCI Council visited the "IdeaLab" of Hisar School in Istanbul, Turkey, where ideas were exchanged and learning through workshops took place. This collaborative experience resulted in the establishment of the ISCI Summit which was inaugurated at ACS Athens in December 2017.

During the two days of the Inaugural ISCI Summit, students engaged in student-led workshops on the Arduino Programming Language, Fu-

sion 360, Scratch, Python, Adobe, Ancient Greek Ethics, Fashion Design and Creative Writing. Four hundred ACS Athens Elementary, Middle School and Academy students attended the sessions.

Presently, the ISCI is hosting workshops which are being mentored by a parent volunteer, whose expertise is in programming, for students wishing to learn about building 3D Printers, making models using SCAD and Fusion360, using coding software such as Repetier, CURA and Slic3r, and learning Arduino.

In addition, ACS Athens students (ages 6-17) are engaged in projects that include creating simple telescopes, robots, computer games and fashion lines. There are students working on an 8-bit computer with

wiring and logic gates and others who are advancing their passion for biology by working on projects such as creating nurturing ecosystems and researching behaviors of cancer cells. Fifth graders are currently working on 3D models of cities, a video of the ancient Athens vs. ancient Sparta conflict (mostly based on the Peloponnesian Wars), comic books, children's books and tutorial presentations on how to play their favorite games.

The Learning Theory of Constructionism, developed by Seymour Papert, suggests that problem-based learning experiences allow students to make meaning of learning concepts that are reinforced through their own physical or virtual creations. Learners are challenged to solve a problem and as a result, develop/create /model/imagine their

own unique solution.[1] The Incubator of Students' Creative Ideas allows students to construct learning in ways that are meaningful.

Therefore, ISCI fosters learning collaborations for creative endeavors and establishes a culture for students' capacity for innovation. As John Dewey states, "[t]he self is not something ready-made, but something in continuous formation through choice of action;"[2] for this reason, we should "[g]ive the pupils something to do, not something to learn; and the doing is of such a nature as to demand thinking; learning naturally results."[3]

[1] Sylvia Libow Martinez, and Gary Stager, *Invent to Learn: Making, Tinkering, and Engineering in the Classroom*, (Torrance, CA: Constructing Modern Knowledge Press, 2013), 34.

[2] John Dewey, Quote, Goodreads, <https://www.goodreads.com/quote/s/90881-the-self-is-not-something-ready-made-but-something-in-continuous>, accessed March 13, 2018.

[3] John Dewey, "What Is Experiential Education?" *Experiential Tools: Resources for Teaching and Group Facilitation*, <https://experientialtools.com/pages/what-is-experiential-education>, accessed March 13, 2018.

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