

New Platforms for Self-Learning

Current examples form the foundation's portfolio

The foundation's roadmap for middle schools set a goal enabling more students to study mathematics and the sciences at a level of excellence. For this purpose, the foundation's paper states that teaching and learning must play a stronger role in middle schools, assisting students to deepen their knowledge, build their skills and start to specialize in preparation for high school. Such an educational process requires a very strong bond between teachers and students, relying on their shared endeavor and high motivations.

With the eruption of the COVID-19 crisis, this bond was put to the test. When teaching and learning became home-based, the individual responsibility, the organizational skills, the determination and perseverance – all became highly important factors. There is now more space and need for independent self-learning among students, as well as for group and peer learning. Therefore, in order to help students adapt to this new reality, the foundation has recently started to encourage the development of adequate learning platforms.

Examples

1. **Online campus for self-learning.** *Appleseeds Academy* is now creating a digital campus that would comprise hundreds of online courses, aiming to reach 30,000 secondary school students. A grant from the Trump Foundation is targeting 10,000 of these participants to be middle school excellence class students, who will study mathematical content, with a focus on high levels of applied mathematical thinking. The program is a collaborative effort with Yad Hanadiv (Rothschild Foundation) and in coordination with the government.
2. **Space youth organization.** *SpaceLL*, which organized the launch of the "Beresheet" spaceship to the Moon in 2019, is examining the option of establishing a youth organization. The purpose is to engage middle school students in mathematical skills in the context of a mission in space. Within the next two years, they plan to launch another spaceship that will circle the Moon and collect a variety of data. There is a possibility that both the launch and the youth organization will be carried out in collaboration with colleagues from the United Arab Emirates.
3. **Summer camps.** During the summer, two online camps were opened with the participation of about 3,000 students. The camps attracted graduates of the ninth grade high ability groups in mathematics and offered them preparation courses towards the five-unit mathematics track in high school. One camp was administered by the Federation of Local Authorities in Israel together with the Technion and high-tech companies, and the second camp was organized by the Center for Educational Technology.
4. **Mathematics championships.** The foundation is currently examining the option of initiating competitions for middle school students, which aim to integrate advanced applied mathematics. The proposals reviewed include "online escape rooms", "boot camps", "group competitions", and "summit events". The programs will include thousands of students who will engage in mathematical riddles during this school year and the following summer vacation.