

STEM in Early Childhood and Care (Cyprus)

NATIONAL POLICIES



Most of the activities integrated into the analytical program of the pre-schools concern learning through gamification bearing in mind that game is the natural way of learning and development for children (4 - 6 years old). Concerning Technology (basic and more advanced IT skills, Educational Robotics, etc.) and Engineering there is no particular goal setting within the Analytical Program.

GOOD PRACTICES

1. STEM FREAK: is a Centre of Research and Innovation in Cognition and E2STEAM Learning sponsored by the European Union and other organizations.
2. STE(A)MIT – An inter-disciplinary STEM approach: this is a European project concerning an interdisciplinary approach to STEM education.
3. Robotex Pancyprian Robotics Competition: The objectives of the competition are the development of educational robotics, the introduction of robotic technology in the academic aspect, and the promotion of innovative learning ways in Cyprus' educational system.
4. Girls4STEM Cyprus: University of Nicosia organizes a STEM Summer School for girls aged 12-14 years as part of the European Research Program GEM (Empower Girls to Embrace their Digital and Entrepreneurial Potential).



CPD



Formal in-service training in Cyprus is offered mainly by the Pedagogical Institute. The seminars of the Pedagogical Institute which are offered to teachers of all levels, are mainly optional and are organized in training centers. Mandatory training programs are aimed at teachers who have been promoted to administrative positions.

GAPS & ROOM FOR IMPROVEMENTS

1. Lack of infrastructure in schools such as ICT equipment, robots, etc.
2. Lack of digital skills applies to teachers
3. Lack of in-classroom teacher support
4. Lack of the time-management to prepare interactive activities
5. Lack of sufficient knowledge and instructions



MAIN CHALLENGES

1. Providing high-quality training for educators will empower them and provide them with sufficient knowledge to start using technology more often in the classroom
2. Specialized ECEC educational Robotics and STEAM-related programmes that will provide material and experience through hands-on training
3. Additional support to the teachers in order to ensure accessibility for ECEC Robotics and STEM activities



MORE

To conclude, in Cyprus in the pre-schools that there are no explicit references neither for Robotics nor for S.T.E.A.M. education. There is a need to enhance the existing preschool curricula by providing more structured suggestions, offering guidance on the age-appropriate use of digital tools and new technologies, and promoting transparent and coherent monitoring of those mentioned above with a view to policy development and suitable funding.