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# EUROPEAN TEACHERS ACADEMY

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<b>Course title:</b>	<b>Creative education by Lego robots</b>
<b>Course description:</b>	<p>The course "Creative education by Lego Robots" will allow participants to acquire the necessary knowledge and skills to use the Lego Education sets in their daily work with children and young people at all levels of education. Through empirical methods the participants will develop creativity and improve the creative processes necessary for every teacher's daily work.</p> <p>The course is divided into 3 main thematic blocks:</p> <ul style="list-style-type: none"><li>• Getting to know the Lego Education sets as a work tool;</li><li>• Getting to know the methods of using this tool in passing on knowledge and teaching new skills;</li><li>• Acquiring practical skills in conducting and preparing classes when using this tool.</li></ul> <p>Participants will have one Lego set per two people. During the first part of the course, the participants will get to know the elements of the sets such as motors, controllers, motion and tilt sensors, types of Lego bricks, their application and the way they work.</p> <p>Step by step, they will learn how to install programs dedicated to the Lego sets they use and then how to use those programs. Lego Education robots are programmed in a graphical interface. Participants will learn how to program individual electromechanical elements of the set, they will be presented all functions and application possibilities on real robots, which they will build themselves. Our main method is empirical, i.e. learning by experience. Participants will learn how to build particular mechanisms on their own sets and will immediately have an opportunity to test them in practice. All the mechanisms that we will test have their practical application in modern automation and robotics, which will be discussed on real life examples. In this part of the training, participants will also learn about the possibilities and inspirations offered by Lego's Education sets. All that will be discussed in detail and offered to the trainees in the form of a robotics workshop similar to those which we conduct on a daily basis in kindergartens and schools.</p> <p>The next part of the course will provide information about the opportunities offered by Lego Education sets in acquiring skills in various fields and improving hard and soft skills. In opposition to the first part of the course which revolves around the technical issues and solutions proposed by Lego, in the second part we will present participants with our own teaching methods in various fields such as: physics, biology, ecology, history and many others using our tool. The Instructors will discuss</p>

	<p>several previously implemented scenarios. Then the participants will learn how to introduce other forms of creative activities and how to mix them together in order to prepare their own creative courses in all the above mentioned fields. At the beginning, the participants will have the opportunity to take part in workshops, that will stimulate their own creativity and then they will get the chance to conduct their own workshop based on the scenario they have chosen. In addition to gaining practical knowledge, the workshop also gives the opportunity to acquire both hard and soft skills. The participants will learn the whole spectrum of tasks that can be offered to their own students in order to improve their competences and skills such as: logical thinking, problem-solving, creativity, systematics, small motor skills, dexterity, movement coordination, precision, emotional intelligence, perceptiveness, attentiveness, independence and many more. The combination of learning with different activities and skills makes learning more effective and enjoyable. At the end of this part, the substantive and didactic basis of the proposed method will be widely discussed and discussed with participants. A basic scheme of the workshop scenario will also be jointly created, which the participants will be able to modify for their own needs in the future.</p> <p>The last part of the training is the practical part. The participants in pairs will have the task of preparing their own scenario, according to the scheme that was created at the end of the previous stage. Having at their disposal the whole spectrum of known mechanisms, ready-made robots, proposals of topics and tasks will create their own, unique scenario. After their preparation, a base of scenarios will be created, which will be given to the participants as one of the materials to use in further work. During the creation of the scenarios, the trainers will provide advice and help resulting from many years of experience. However, the emphasis will be placed on creativity and individual approach to action. All previous exercises in which participants took part were aimed at launching creative processes which are necessary in the pedagogue's everyday work. After creating the scenarios, the students will have the opportunity to carry out and test their ideas on the students of the Polish-English school with which the trainers have established cooperation. After the lessons, there will be a wide discussion of each guidance with the trainers. Advice and guidance will be given on how to communicate with students in order to strengthen their self-esteem, stimulate their imagination, encourage them to act and take their own initiatives. All this is in line with the idea of education through action, which is respected by all training prepared by Education.</p>
<p><b>Competences acquired by participants:</b></p>	<ul style="list-style-type: none"> <li>• ability to be proficient in the use of lego educations sets;</li> <li>• ability to navigate the program dedicated to lego educations sets on tablets and computers;</li> <li>• the concrete use of legacy education kits for learning in many fields;</li> <li>• conducting lessons using lego education sets;</li> <li>• stimulating creative processes in the preparation of lesson plans</li> <li>• ability to support the student in the natural learning process of education through action.</li> </ul>
<p><b>Target groups:</b></p>	<p>teachers in kindergartens, primary schools, secondary schools.</p>
<p><b>Daily programme:</b></p>	<p>Daily programme: Day 1 - introduction to the topic, group building, getting to know each other, introductory information. Day 2 - getting acquainted with the sets, the program, discussing its elements, learning programming, getting to know the possibilities of the system, learning the mechanisms and ready-made robots, analysis of solutions proposed by Lego. Day 3 - discussion of several original proposals for conducting classes in such subjects as: biology, ecology, physics, history, mathematics, participation in a sample workshop with the use of other activities, conducting the workshop on your own. Day 4 - exercises stimulating creativity, proposals of tasks and exercises developing soft and hard competences, discussion of their substantive and didactic basis, joint creation of a lesson plan based on the empirical method, creating own lesson plans. Day 5 - conducting the lesson</p>

	according to the scenario created by yourself. Day 6 - wide appointment of conducted workshops, summary of training. Day 7 - evaluation and dissemination of results, closing.
Will participants receive a ready set of teaching materials / <b>course methodology</b> for future implementation in their school?	Yes <ul style="list-style-type: none"> <li>• lego educations tutorial;</li> <li>• sample workshop scenarios;</li> <li>• workshop scenarios prepared during the course;</li> <li>• a list of sample topics with ready-made solutions in their implementation;</li> <li>• list of tasks/activities with their function and purpose.</li> </ul>
<b>Dates:</b>	The current dates of our courses can be found on our website.
<b>Location:</b>	Krakow, Poland
<b>Social programme:</b>	The social programme activities are included within your course fees!



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