Co-funded by the Erasmus+ Programme of the European Union

BotSTEM – Erasms+ KA2 Project

2017-1-ES01-KA201-038204

Good practice template

1. Title of the activity / practice	**Children programming each other as bluebots in primary school**
2. Origin of the activity	Eva is a grade 1-7 teacher and for the last 20 years she has been working with grade 1-3, in primary school. She came across the Bluebots half a year ago and has since been using them regularly, in combination with a variety of school subjects, including language, maths, biology and physics. She stresses the importance for a teacher to carefully think through the purpose of using the robots, to avoid aimless play that otherwise often take place. To introduce the concept of coding the bluebots to her young students, Eva let the children code each other first, in groups of three.
3. Age of the students	7-9 years old
4. Target group (type of the learners, size of the group)	
5. School subjects + topics concerned	Mathematics and Engineering (through sequential thinking in different directions) but also Science, in the form of observation skills. Social aspects such as collaboration and communication are also practiced.
6. Educational goals of the practice	Knowledge of sequential thinking and programming, through the children experiencing physically with their bodies.
7. Duration	
8. Place	Classroom / lab / outdoors / at home, etc.

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9. Short description of the activity	The children work in groups of three. One child is the robot (bluebot), one child is the programmer and one child is the evaluator. On the floor are papers with arrows, laid in a winding path. The programmer stands directly behind the robot at the starting point and tries to code the robot in a sequence corresponding to the path. For this, the programmer uses the robots back. If the robot for instance is supposed to walk two steps forward and turn right, the programmer presses two times in the robots neck (two steps forward) and one time on the right side of the robots back (turn right). If the robot is to back, the programmer presses at the lower back of the robot. The pressing points represent the four buttons on a bluebot: left, right, forward, backward. Observing the programming situation is the evaluator. After completed task, (s)he gives feedback to the other two. What went right and what went wrong, what should they have been doing instead? The children discuss and try the sequence again.
10. Evaluation	
11. Materials / Resources / technical requirements	Papers with arrows, to put on the floor for the "robot" to stand on.
12. Tips for educators / theoretical background (if applicable) or curriculum context	