Abstract
This is the presentation of the paper entitled “Developing Computational Thinking via the Visual Programming Tool: Lego Education WeDo” in the TEEM 2016 International Conference held in Salamanca (Spain) in November 2-4, 2016.

This study seeks to extend the existing research on the use of visual programming tools to work and develop computational thinking. We show the primary education students’ perceptions of the use of the software Lego Education WeDo in the subject of natural sciences to promote the computational thinking. We tried to test the following hypotheses: Students will learn to build and program 3D models with Lego Education WeDo (H1), students will think creatively to solve the problems (H2), Lego Education WeDo will help pupils to know the relationship between cause and effect (H3), and the tasks developed will allow pupils to reflect about the possibilities they have and to find the correct answer (H4). Based on the result analysis there were evidences of the effectiveness of the project to increase the participants’ awareness of the computational thinking. The research also concluded that according to learners’ perception, the way in which activities were designed provided them possibilities to learn to build models in 3D and program them. Moreover, the findings of the study also demonstrated that the success of the project also depended on the teacher’s role as a guide in the teaching-learning process.

The presented paper may be cited as:


Link to the presentation
http://es.slideshare.net/grialusal/developing-computational-thinking-via-the-visual-programming-tool-lego-education-we-do

Keywords
Computational thinking; introductory programming; collaborative learning; visual programming tool; natural sciences
Referencias


