



TITLE: Walking and saying hello!

LEARNING SCENARIO

<i>School: Mangualde School Group</i>		<i>Duration (minutes): 120</i>
<i>Teacher:</i>	Cristina Ligeiro Manuel Figueiredo, Paula Loureiro, Renato Castro	<i>Students age: 14</i>

Essential Question:

How to program NAO to walk and say “hello”?

Topics:

- Programming robots
- Computational thinking
- Blocks programming language

Aims:

Remember the main Choregraphe concepts to start the proposed tasks
 Create a sequence of movements (walking)
 First dialogue (saying hello and/or reacting and responding to a greeting)

Outcomes:

Programming for:

- voice recognition
- use the “wait” block
- walk (with different parameters)
- greeting

Work forms:

- Individual work
- Work in pairs

Methods:

- Coding
- Interactive exercise /simulation on the computer
- Discussion

ARTICULATION

Course of action (duration, minutes)



INTRODUCTION

Students must create a short script that represents the expected action of NAO themselves. Afterwards, the students will start programming together in Choregraphe, according to the previously made plan.

Every now and then the program is loaded on the robot, checking if the it runs.

In case of failures, students must cyclically solve problems in order to create their own knowledge.

Students will continue to use computational thinking to improve in program development and code knowledge.

MAIN PART

Topics for discussion

- Computational Thinking
- The Choregraphe application
- Second Code

Scenarios for discussion

- Students must develop, by themselves, and improve a second code block.
- NAO must gesture, turn with the command "come" and talk. Students must also know to stop the presentation.

CONCLUSION

In the second session we can see that it is already much easier for students to program the NAO. There is great motivation and collaborative work is an asset in the development of the project.

Methods

interactive exercise /simulation on the computer

Work forms

*individual work
work in pairs*

Material

- Computers
- Student guide no. 2 (attached to this document)
<https://edufor.sharepoint.com/:w/s/Erasmus554/ET7WgyvUrVpJii1SGZXNgDABHdXV8cd-anP2ov2bTvP4XQ?e=BGcGcC>
- Choregraphe. Exe
- NAO robot

Literature



- Computational Thinking ; <https://youtu.be/kVfGUdiaUvY>
- NAO Software 1.14.5 documentation; http://doc.aldebaran.com/1-14/software/choregraphe/starting_discovery.html

PERSONAL OBSERVATIONS, COMMENTS AND NOTES

Once students are used to work with Scratch, they find it easier to start programming NAO with Choregraphe.