INTRODUCTION

"*Help Grinch to grow his heart*" is an educational and prosocial robotics game developed within the "Robotics versus Bullying" project, co-financed by the Erasmus + Program of the European Commission, Sub-program "Support for Policy Re-form", Action "Forward-looking cooperation projects "(612872-EPP-1-2019-1-IT-EPPKA3-PI-FORWARD). The partnership of the RoBy project is made up of 11 organizations from 9 European countries: public organizations, associations, research centers, universities, industries.

The Robotics versus Bullying (RoBy) Project promotes a holistic approach to learning through the use of robots, and peer cooperation as a tool to prevent bullying and promote social inclusion. This goal is achieved using robotics and digital tools. In addition, thanks to non-formal teaching and game-based activities, students aged 6 to 12 will improve their digital skills and modify their approaches to STEAM.

The educational robotics activities proposed by the RoBy project focus on the prevention of the bullying phenomenon. The robot is suggested as a tool to be used in groups, in order to improve social and communication skills in a creative, engaging, and non-judgmental environment. Working together, in a peer-collaboration, favors the development of a social environment in which bullying actions hardly find space, since the entire group of peers learn an attitude of care and protection towards all its members. The use of simple educational robots also proved useful in facilitating the inclusion of children with cognitive or behavioral difficulties and special educational needs in general.

For more information on the project and on the socio-psycho-pedagogical references on which RoBy's educational model is based, you can visit the website www.roboticsvsbullying.net

THE GAME - psycho-pedagogical references

Education is another sector where robots are proving to be of valuable assistance. Conventional classrooms can become stagnant, often to the detriment of students' learning experiences. That's why telepresence robots can offer promising solutions for educators globally to empower engaged learning experiences and catalyze effective learning techniques inside and outside the classroom. Bullying can be seen in many situations at school and in group contexts and it is often difficult for an educator to get the people involved to bring out their experiences, or to find a way to deal with the subject using a language appropriate to the age of their students. The RoBy project partners developed the bullying prevention game as a tool for teachers to use in the classroom in order to develop pupils' awareness of what bullying is and, experiencing its dynamics firsthand, engage the students in a series of behaviors as an antidote to these social dynamics.

Identify the main objectives of the game in terms of what the children can learn individually and in relationship with each other. What attitudes they can develop. Describe the role of the teacher, from a pedagogical point of view, during the game.

Students will:
 recognizes and names the qualities of good friends.
-Describes the actions that are characteristic of friendship (in the school, in the neighborhood).
Correctly pronounces different alphabet voices in different positions of words
-Tells all the pairs of numbers whose total is 10 and that connects it to adding.
-Uses the characters + , – and = in mathematical statements that refer to adding or substracting.

During the game, all students are being observed and motivated by the teacher. If a student needs any help, the teacher encourages and helps him with the difficulty he faces during the game and solving the tasks.

GAME DESCRIPTION

Introduce the game with a general description: age of the players, general aim of the game, etc.)
Playing with numbers up to 10 with Roby
21 student, 6 year/old age
Recognizing numbers up to 10, adding and subtracting up to 10 and comparing numbers up to 10.

General aim of the game is students to repeat the gained knowledge about the numbers up to 10.

Description of the robot
Describe the robot that can be used for this game.
MIND Designer is an innovative intelligent robot that introduces students to simple coding and design. It guides students through the process of learning mathematics, arithmetic and geometry. MIND Designer robot is programmable with the arrows above its head in a simple and intuitive way.

Game content
List all the parts required for the game
2 Roby Mind robot,
2 board with 3 different color fields on the surface
3 different color card with different tasks
3 different color card with heart for points

Description of the board
Describe the game board and the different boxes.

There are 3 different fields on the surface

Green fields- Grinch – questions for recognizing good deeds

Red fields-Cindy Lu-questions for recognizing the location of voices in words

White fields – Max questions with mathematical tasks

Description of a game session
PREPARATION
Describe how the class is prepared for the game. How to define the division into groups, tips to allow the game to run smoothly from the start. How to prepare the platform material.
Students are devided into 2 groups. The division into groups is made with odd and even numbers. Students who represent an even number are in the first group and students representing an odd number are in the second group.
Two boards are put on the floor. 2 Roby Mind robot are set on the START field on the board. Next to the board are cards with tasks and cards with hearts for points. Each group of students is in front of their board.

START
Describe how the game starts, what is distributed at the beginning of the game. How the exchange sequence takes place in cases where there is more than one player …
Every student must choose field with one character who is around Roby and take Roby to that character. Then they take card with question and answer it. If their answer is correct , they get 1 card with 1 heart for 1 point. If their answer is wrong , the other group can answer it and get extra heart point.

The Core of the Game
Describe the process and objective of the game.
Define any challenges and/or advantages that can be received by playing the game.
 Every player of the groups choose different characters, answering the tasks and trying to make it to the end. Winner of the game is the group which has collected more points.
CONCLUSION
What happens at the end of the game session?
For example:
At the end of the game, the groups calculating the points, choosing the winner of the game and celebrating the victory. Then they tell each other the mistakes they made during the game and how they would solve the task.

Variants

Once the game has been described in detail, it is possible to offer variations on the main version or simplifications to make the game more accessible to younger children or those with difficulties.

Keywords of this didactic proposal:

For example: STORYTELLING, CREATIVE PROBLEM SOLVING, PROSOCIAL VALUES, BULLYING, RoBy

Creative problem solving, actions of good friendship, adding, substracting, comparing, words, positions of the vocal alphabet in the word, ...