



RoBy

FIND YOUR WAY

RoBY "ROBOTICS VERSUS BULLYING"

TEACHER'S MANUAL

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



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INTRODUCTION

“Find your way” 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

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. The main objective of the game, therefore, is to allow each pupil to understand what are the attitudes of predominance and exclusion that generate marginalization and suffering in classmates, while promoting emotional education and the ability to ask for help or to identify their strengths or weaknesses.

Through the playful activities of educational robotics, with its rules and dynamics of proximal learning space, cooperative learning, peer education, and inclusiveness, children can freely express their emotions in a "healthy" educational context and develop their own creativity by finding concrete collective and individual solutions to problems.

In the process of interaction, children often develop emotions which in most cases result in conflicts and prevarications.

The "Find your way" platform gives the possibility to recognize these emotions, see a possible action and find a solution to the difficulty that has arisen.

The game helps children develop prosocial values and recognize individual episodes of abuse by analyzing them from an emotional point of view to find solutions and avoiding repetitions of what happened. For the teacher, helping pupils to manage conflicts makes it possible to prevent the repetition of bad behaviors over time and the forming of bullying.

GAME DESCRIPTION

The game was created for children of an age group that can range from 3 to 9 years old, and it's based on a platform that the teacher can adapt to the content.

As a matter of fact, according to the age of the children and the experience acquired during the game, it is possible to ask for elaborations of different complexity by requesting more or less passages on the board-squares. The level of difficulty depends on the required programming of the robot's movements, and on the re-



quest, more or less explicit, to deepen the situation described in the game. We can therefore imagine game levels with increasing difficulty, some of which are suggested in this document.

The game is strategic and cooperative, it needs two robots in action at the same time, because bullying occurs as interaction and relationship. The two robots represent the TARGET and the AGGRESSOR and are each used by a small group of 3/4 of children. The game consists of two sessions in which the two groups experience both roles.

The goal of the game is to program the robots to make them reach the exits located at the corners of the board by passing through the squares that represent possible solutions to bullying situations.

The Super Doc robot

The game has been designed for the educational Clementoni talking robot “Sapientino SuperDOC” (it can also be used with the robots Sapientino DOC and MIND Designer). The choice of this tool is due to the fact that this product does not have a gender characterization and is well received both by males and females, especially for the age group between 4 and 8 (but also for older children at their first experiences with educational robotics). The colors are lively and cheerful, the colored lights, the music, and the friendly voice involve children and keep their attention focused on the activity. The SuperDOC robot is programmable with the arrows above its head in a simple and intuitive way.

Previous experiments have shown how this robot is very useful in facilitating the inclusion of pupils with special educational needs.

Game content

- ◇ Game board with grid
- ◇ Cards with stories based on the class or on group activities that show predominance acts that could over time lead to real bullying situations.
- ◇ Emotion cards with picture and text
- ◇ Action cards with picture and text



- ◊ Disguises: aggressor and target
- ◊ Scepter of power
- ◊ Paddles to put in the robot's hand: emotions and reactions
- ◊ Cardboard directional arrows for programming (those present in the Clementoni box can also be used for this game, they facilitate younger children to understand how to program the robot)

Description of the board

The board supplied with the game, shown on the next page in reduced size, is made up of 6 columns and 4 rows, each square has the size of 15 cm. x 15 cm. to respect the movement step of the Super Doc Clementoni robots.

The colors of the graphics visually help to recognize the type of square to reach: emotions outlined in yellow; reactions / actions outlined in red; solutions / exit from situations outlined in green; the scepter of power in blue offers the possibility of recognizing strengths.

The exits are reached when there is a solution that provides the passage from one of the figures or resources proposed.

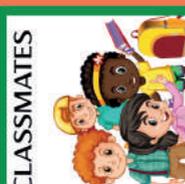
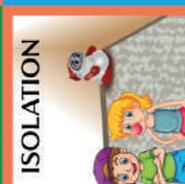
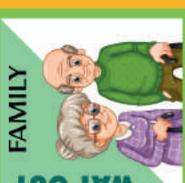
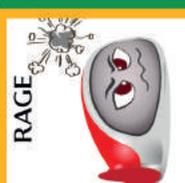
The colors of the traffic lights were deliberately used for the squares: green represents possible solutions: passing the squares of this color allows you to go towards the exits; red represents suspension, we stop on actions and reactions; and yellow warns of a situation that is changing due to an emotion.

The **emotions** are: rage, fright, shame, sadness, jealousy, envy.

The **actions/reactions** chosen are those typical in situations of panic: freezing, physical attack, isolation, verbal attack, and flight.

In a state of calm and/or normality experienced by the child, an event occurs that destabilizes them. The child freezes, exactly like animals do, and pretends to be dead in the hope that everything will subside. The verbal attack begins, the child gets nervous because they feel scared, it is one of the situations that children use most often when they are afraid of being attacked. Other reactions are fleeing away to pretend that nothing has happened, or isolating themselves, where, in addition to not being able to understand what happened, they feel misunderstood and isolate themselves.



<p>WAY OUT</p> <p>ADULTS</p> 	<p>ENVY</p> 	<p>SIBLINGS</p> 	<p>WAY OUT</p> <p>INNER STRENGTH</p> 
<p>FRIGHT</p> 	<p>SELF CONFIDENCE</p> 	<p>FLIGHT</p> 	<p>PLAYMATES</p> 
<p>PARENTS</p> 	<p>FREEZING</p> 	<p>VERBAL ATTACK</p> 	<p>JEALOUSY</p> 
<p>TEACHER</p> 	<p>PHYSICAL ATTACK</p> 	<p>POWER SCEPTER</p> 	<p>SHAME</p> 
<p>SADNESS</p> 	<p>CLASSMATES</p> 	<p>ISOLATION</p> 	<p>COACH</p> 
<p>WAY OUT</p> <p>FAMILY</p> 	<p>RAGE</p> 	<p>HERO</p> 	<p>WAY OUT</p> <p>FRIENDS</p> 

EMOZIONI

RAGE



SHAME



FRIGHT



SADNESS



ENVY



JELOUSY



ACTIONS/REACTIONS

PHYSICAL ATTACK
ANNOY



FLIGHT



VERBAL ATTACK
TEASING



ISOLATION

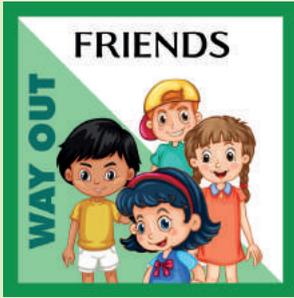


FREEZING



WAY OUT

SCHOOLMATES, NEIBOURS,
SPORTMATES



I'M PLAYING WITH MY
FRIENDS (AT RECESS)



I'M WALKING WITH MY
FRIENDS (WITH SCHOOLBAG OR
SPORTBAG)



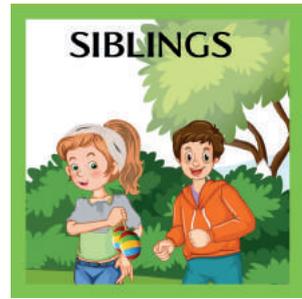
ADULTS OF MY FAMILY
(PARENTS, GRANDPARENTS,
UNCLES AND AUNTS, ...)



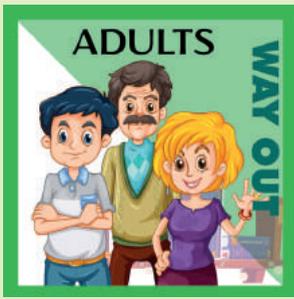
I TELL MY PARENTS, MY
NUNNY



I TELL MY SIBLINGS, MY COU-
SINS



REFERENCE ADULTS HAVE A
ROLE IN THE GROUP



I TELL THE TEACHER



I REPORT TO THE COACH OR
SCOUT LEADER

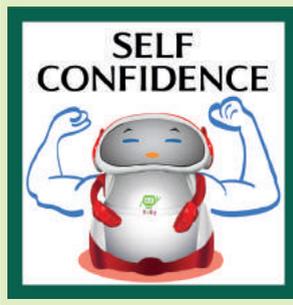


LE USCITE

INNER STRENGTH, SELF CONFIDENCE

PERSONAL RESOURCES (SELF-AWARENESS) I'M STRONG!

SUPERHERO, PROTECTOR



The **resource** squares are outlined in green: they allow children to observe that they have various possibilities for relationships, as well as personal qualities, which allow them to find a solution the most suitable for them.

Depending on the complexity of the game chosen by the teacher, they may ask the robots to reach immediately the exit, or to carry out one or more intermediate steps in the green squares. There are four shades of green to indicate different types. Three of relational interaction: friends (from school, from games, from training); family (parents, siblings / cousins, nanny); other reference adults (teacher, coach, ...). One contemplates the possibility of relying on one's inner resources: believing in oneself (self-confidence), feeling one's inner strength, relying on one's inner superhero.

The square bordered in blue is dedicated to the scepter of power: a small paper pallet is placed inside it, to be collected and placed in the robot's hand. It is a bonus which allows you to consider the possibilities and find the solution that allows you to reach the way out more quickly. The scepter square represents the ability to stop before reacting, it is a space where the children can stop, calm down and find the solution with greater clarity. If the children want to use it, they must reach it as the first square, immediately after positioning themselves on the square indicated by the story (emotion or action / reaction). In game sessions with greater difficulty,



in which two solutions must be found before going to the exit, the scepter allows you to skip a session as a bonus.

Children are instinctive, it's difficult for them to stop to find solutions. Arriving on the scepter square, they choose to observe the board well, watch it carefully, imagine different possibilities, and decide how to act. Teachers can seize an excellent opportunity, from an educational point of view, to explain the power of the scepter, allowing children to be more reflective from an early age.

Another possibility of using the scepter is the request for help.

Description of a game session

PREPARATION

Play groups made up of 3/4 children are created, depending on the size of the class. Groups can be created by the teachers according to criteria that they deem most suitable, or freely by the children themselves.

The play platform is used by two groups of children at a time.

The board is prepared according to the desired complexity: the board is shown here with the complete squares, but if you want to simplify it, you can cover the squares you don't want to use with white squares.

START

The groups that use the target robot and the aggressor robot are drawn by lot. In the following game session, the roles will be reversed.

Each group dresses their own robot: one as a target, one as an aggressor. (Material present in the Kit document)

To complete the context of the game, the cards are prepared: stories, emotions, and actions/reactions.

It is decided which of the two teams starts.

One of the suggested stories contained in the kit is drawn from the deck of stories. From this moment on, the two groups of players listen to the story and then they must identify with their character, paying particular attention to the actions of their role.

The story can be read by the teacher or by the children themselves.



It is not binding to stick to the stories, teachers can build new ones perhaps referring to events that occurred in the school, or have the children invent them. It is good to keep in mind that they must be simple suggestions to allow them to be carried out quickly.

Story example:

“It is a beautiful sunny spring day and Caterina, Giulia and Elena are meeting at the playground to play together. At four o’clock the friends and their mothers reach the park, and they start playing on the swing together. They decide to take turns: one gets on the swing and two push and then they switch. The three girls are having a great time when Carlo arrives. Caterina is sitting on the swing and Carlo grabs her and makes her fall. Caterina gets hurt and cries and Carlo goes away and goes home.”

At the bottom of the story card, the emotion and the starting reaction/action of the target and the aggressor are represented.

Carlo: AGGRESSOR = Action: physical fight

Caterina: TARGET = Emotion: fright

The relevant Emotion and Action squares are those from which the robots start, and on which they must be positioned before starting the game.

Having suffered from the action, the target has developed an emotion (Caterina fell from the swing and is now afraid, frightened, angry ...), while the aggressor who acted the action probably had a strong emotion that brought him to act like this (Carlo has acted the physical struggle because he was jealous, or angry, or envious).

The children place the target and aggressor robots in the emotion or reaction/action squares indicated at the bottom of the story.

Once the robots are placed in the starting square, the game begins.



The Core of the Game

The aim of the game is, starting from the story read, to choose how to make the robot behave, to help the aggressor and the target find a solution, so that it can reach one of the four exits at the corners in the shortest number of steps (the exits provided by: family, friends, known adults from the family, one's inner resources).

Each group decides, by mutual agreement, who to ask for help and which exit to reach. When the children have chosen one of the proposed resources (family, friends, known adults, their own resources) they define the path.

It is now time to evaluate how the story goes on, and this leads to moving on the squares of the board and looking for the best path to achieve it, until the way out is reached. Subsequently, the group chooses the child who sets the path on the robot, and how to program it (for example for the entire path or step by step).

In evaluating the best path, the group can choose to reach the Scepter of Power square and have a bonus that allows them to get help from someone who is not on the team, or to skip a step. Only the first to reach the square will be entitled to the bonus unless the teacher at the beginning of the game decides different ways of using the scepter.

The path of the story is never fixed, and the solution strategies adopted allow for a personalization of the plot and avoid stigmatization of the characters.

In the event that the game mode with pause in the intermediate squares has been chosen, the group decides how these passages affect the evolution of the story. If they had already prepared the whole story, they can still modify it or choose to continue it as already defined.

Caterina/target: decides to talk to Giulia and Elena, who reassure her and calm her. [square: game friends]. The day after, at school, she talks to Francesco and Elisabetta about what happened, and they advise her to talk to Carlo and ask him to stop bothering her [classmates square]

Carlo/aggressor: on his way home, Carlo meets his cousin Matteo who, seeing him angry, asks him what had happened. Matteo tells Carlo that he should apologize to Caterina [brothers/cousins square]. At home, Carlo is still



nervous and tells his mother what happened. The mother explains to him that when he is angry about something he should not blame the other children, but try to let off steam by playing football or running [parents/grandparents' square]

Turns are not established. The two groups share the space of the platform and can both move according to the modalities established by their members. This situation allows the children to find a shared solution between the two groups if the robot's paths intertwine or both robots end up in the same square. If this is the case, the stories join, and the groups create a single ending.

CONCLUSION

At the end of the session, the groups tell each other the stories and then reverse the roles, choosing a new starting situation by extracting it from the deck of cards.



Variants

The short story can be realized in the form of a textual story, creating comic stories with onomatopoeias.

If the teacher wishes to increase the complexity of the game, they could tell the children to ignore the emotions indicated in the story and express the emotion or action/reaction that the story arouses in them. Another possibility is to extract the emotion and the action/reaction from the decks available in the game.

The teacher can choose to have the children use the paddle of emotions and reactions, so that during the game the pupils can change them according to the evolution of the story. If a child fails to recognize what is happening, what the aggressor and/or the target are feeling, or if what is manifesting is an emotion or an action/reaction, the children may request the help of the teacher by reaching the Scepter of Power square. This allows children to deepen their knowledge and ways of expressing their moods.

Those who use AAC Augmentative Alternative Communication can create a story with symbols, in which case the story will be told verbally by the teacher.

Keywords of this didactic proposal:

STORYTELLING, CREATIVE PROBLEM SOLVING, PROSOCIAL VALUES, BULLYING, RoBy



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Partner

