



University
of Exeter

Games instructions for the participant (NOVEL program study)

Open the link

[PhysioGames - Motor telerehabilitation for everyone using serious games](https://physiogames.co.uk/)
<https://physiogames.co.uk/>

Games suggested by the researcher

For **arm exercises**, choose from (Basketball, Flowers, and Maze Out games).

For **balance exercises**, choose from (Puzzle, and Flowers games).

ID code

For each game, you will have to put your ID code that will be given to you by the researcher.

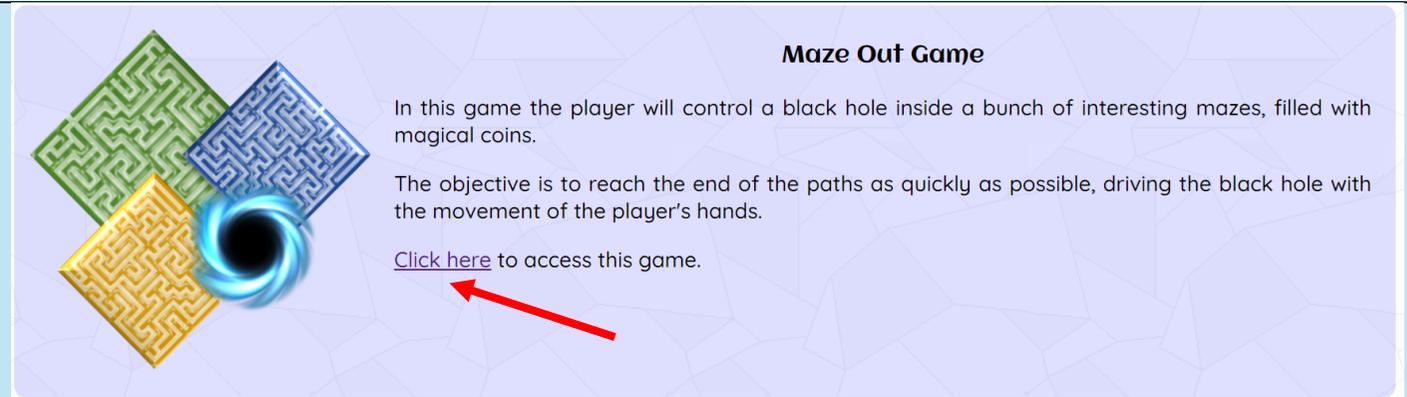
Arm Training



Maze Out game

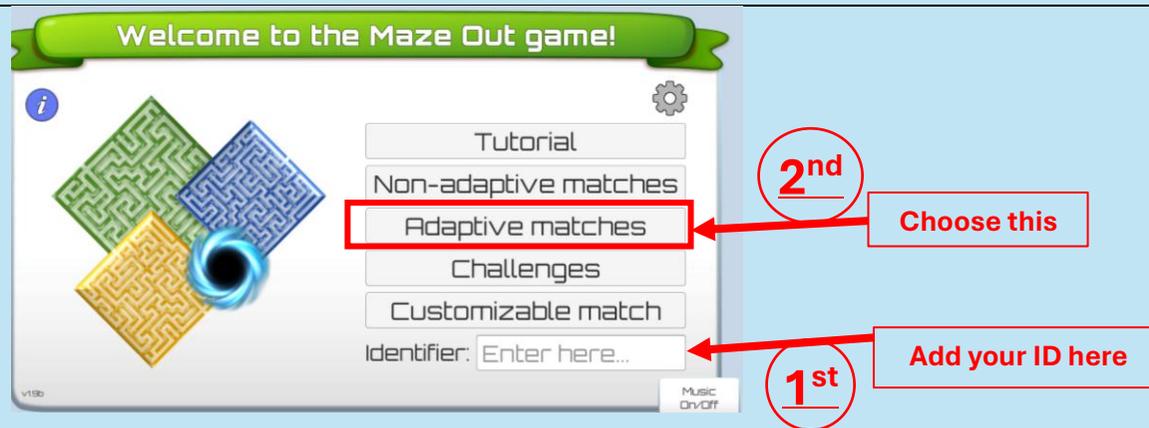
Step 1:

- Click on the Maze Out game link from the main website.



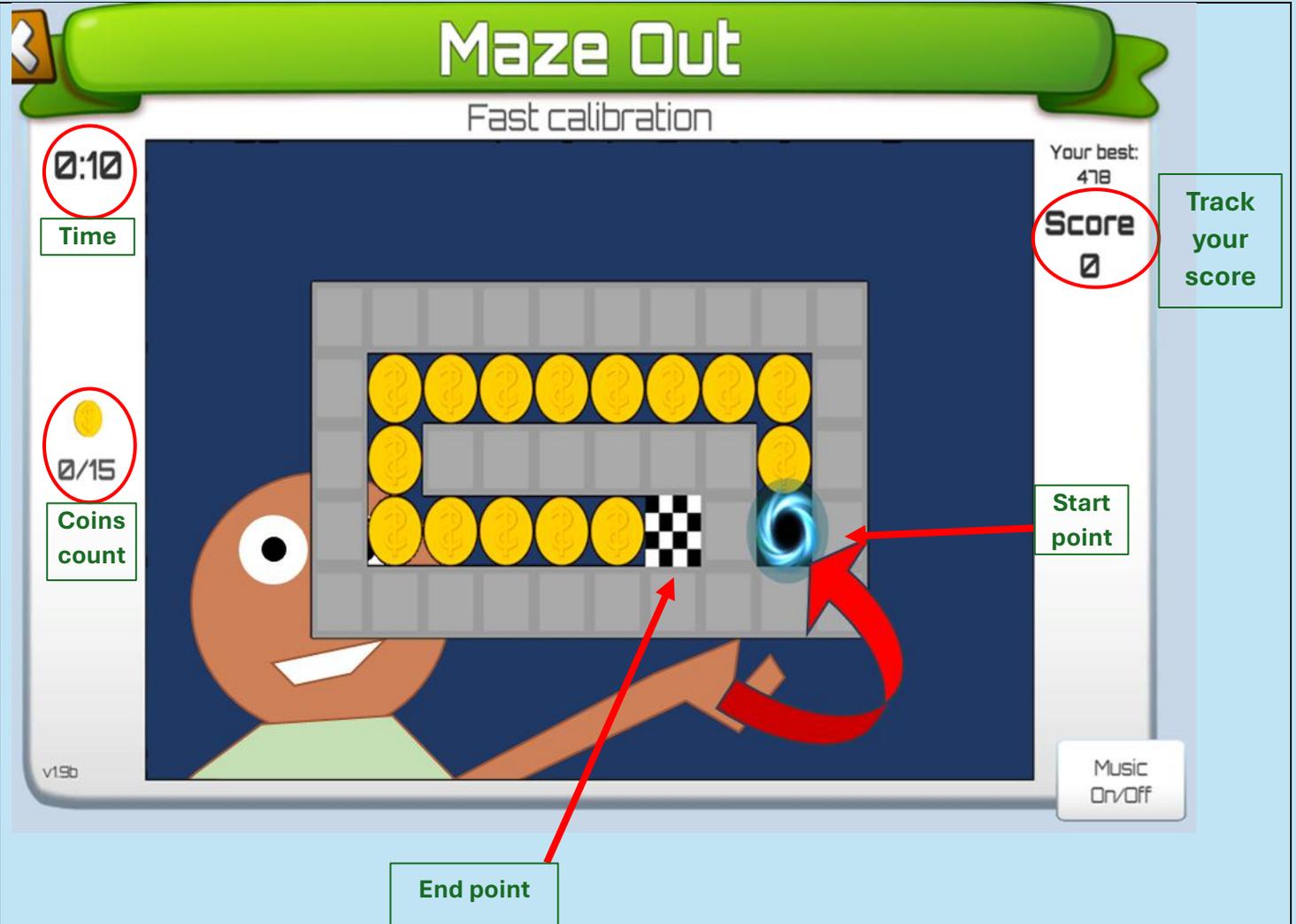
Step 2:

- Firstly, add your ID in the box at the end of the menu.
- Then, choose adaptive matches from the menu.
- You can turn the music on or off according to your preference from the box at the lower right side of the screen.



Step 3:

- You must drag the blue ball  by your affected arm and collect all the golden coins  following its pathway until the end point .
- You can track your score from the ride side of the screen, and number of collected coins from the left side of the screen.
- You will move from level to the next level automatically.



Basketball game

Step 1

Click on the Basketball game link from the main website.



Basketball Kid

In this game the player control a little kid who have the dream to be the best basketball player in the world.

Help our friend to win basketball matches against bigger opponents, throwing the ball in the correct moments when their adversaries aren't blocking the way.

[Click here](#) to access this game.

Step 2:

- Click start



Click here

Step 3:

- From the main menu, choose **challenges icon**.



- From challenges menu, choose **New challenges**.



- Choose **Right hand challenges**, or **Left hand challenges** according to your most affected side.
- For **Right hand challenges**, start with challenge 1 (low speed) then progress to challenge 2 (moderate speed), then 3 (high speed) after finishing all the levels in the challenge 1.
- For **Left hand challenges**, start with challenge 4 (low speed) then progress to challenge 5 (moderate speed), then 6 (high speed) after finishing all the levels in the challenge 1.

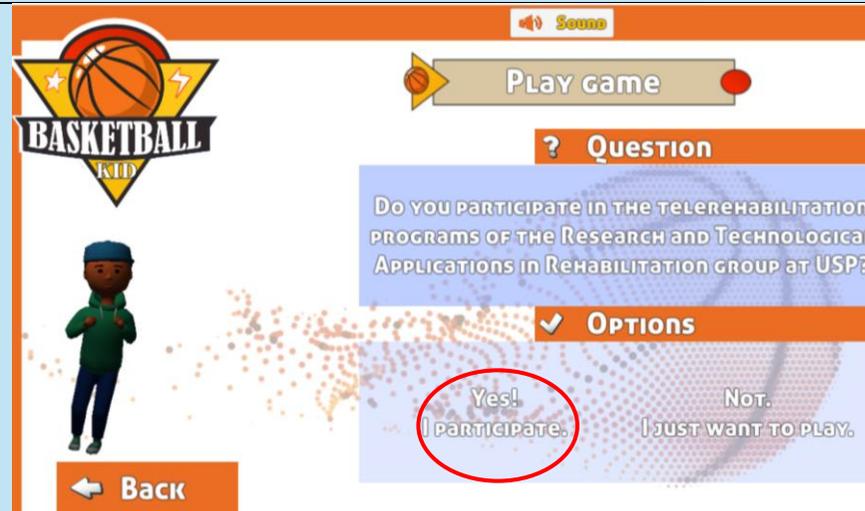


- In each challenge, there will be **10 levels**. You have to start from level 1 then progress to the next level, until you finish all the 10 levels.

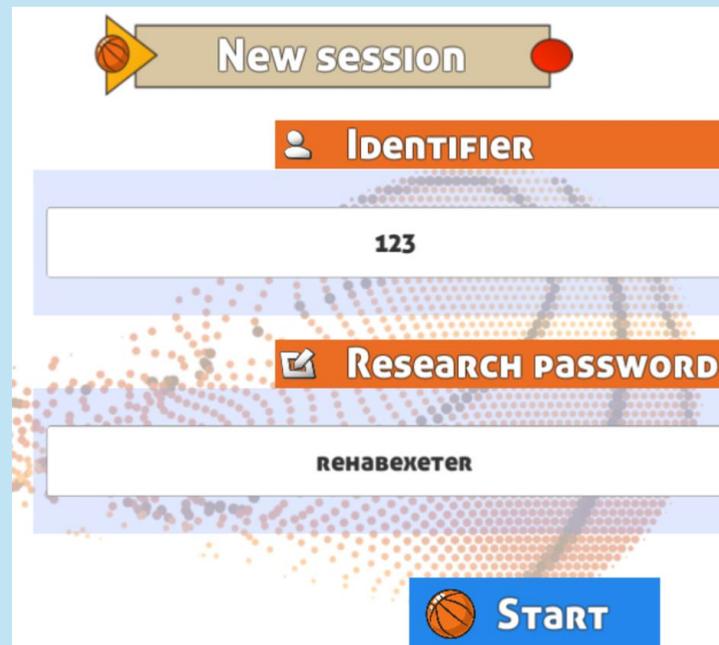


Step 4:

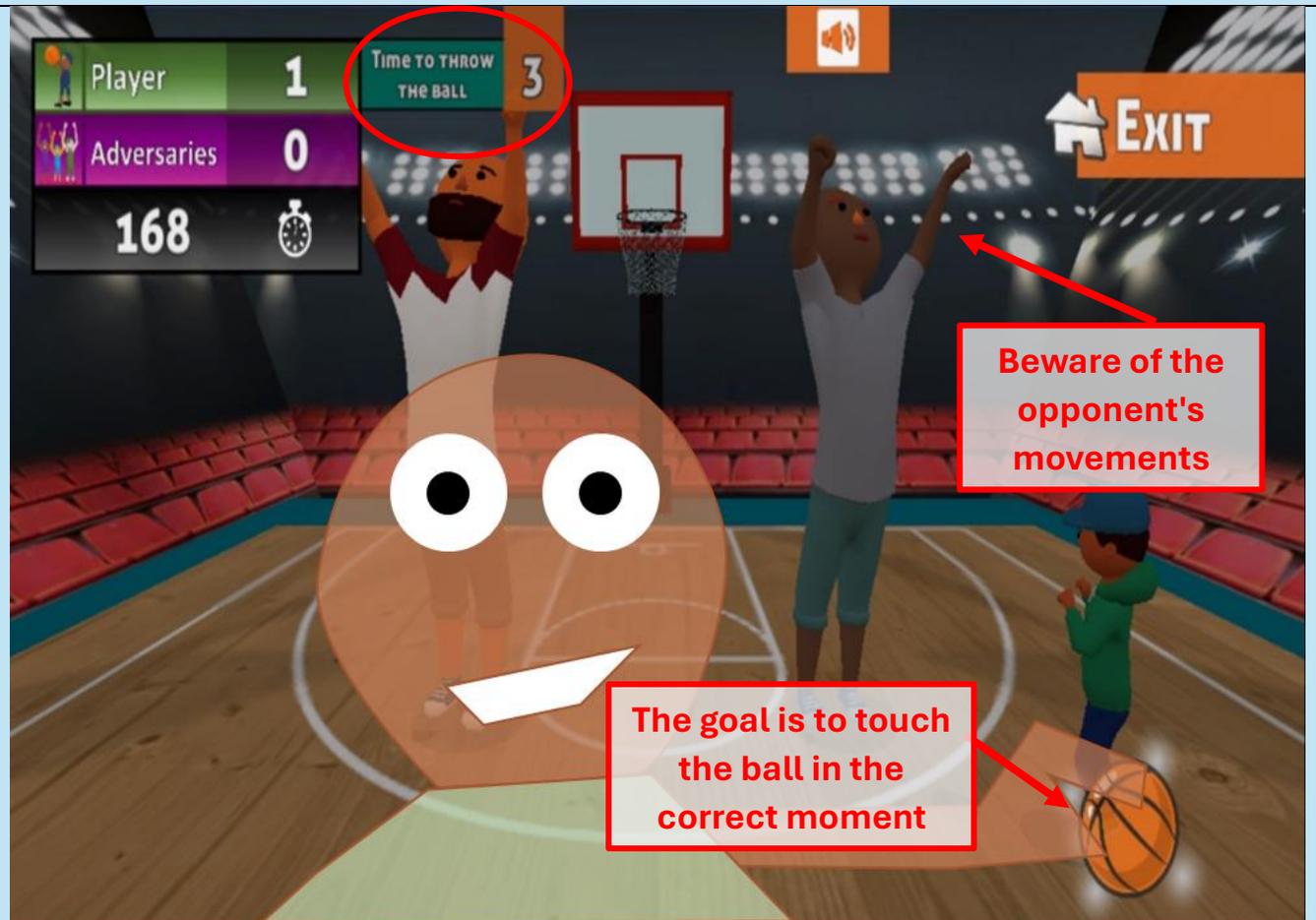
- After choosing the level that you want to play, this screen will appear.
- Choose **Yes, I participate**, so you can add your ID.



- Add your ID inside the “Identifier” field.
- Add the research password in the second field (**REHABEXETER**).
- Click Start.



- When you start the session, you will appear as an avatar. You have to move your affected arm and **reach the ball on the screen** against the opponents' avatar.
- You have to focus on the position of the **opponent's avatar arms** to avoid any miss hitting.
- You will have **8 seconds to throw the ball**. if you missed the time, you would lose a point.
- By moving from level to another level, the position of the ball will be higher on the screen.



Beware of the opponent's movements

The goal is to touch the ball in the correct moment

Note

If you don't prefer the basketball environment, you can play the same challenges in the **Flowers game** following the same steps.

Flowers game (for Arm training)

Step 1:

Click on the Flowers game link from the main website.



Pick the flowers, avoid the cacti

In this game the player will help a little bee to throw flowers in direction to a big magical cacti who are eager to block our little yellow friend in his adventure.

[Click here](#) to access this game.

Step 2:

Click start



Pick the flowers, avoid the cacti

CLICK TO START

Step 3:

- From the main menu, choose **challenges icon**.



- From challenges menu, choose **Special challenges**.



- Choose **Right hand challenges**, or **Left hand challenges**, according to your most affected side.



The image shows a menu titled "Challenges" with a green ribbon header. Below it is a yellow banner with a trophy icon and the text "Special Challenges". The menu lists three items: "Right arm challenge" with a yellow shield icon and a red arrow pointing to it, "Left arm challenge" with a blue shield icon and a red arrow pointing to it, and "Balance training" with a green shield icon.

Challenges

 **Special Challenges**

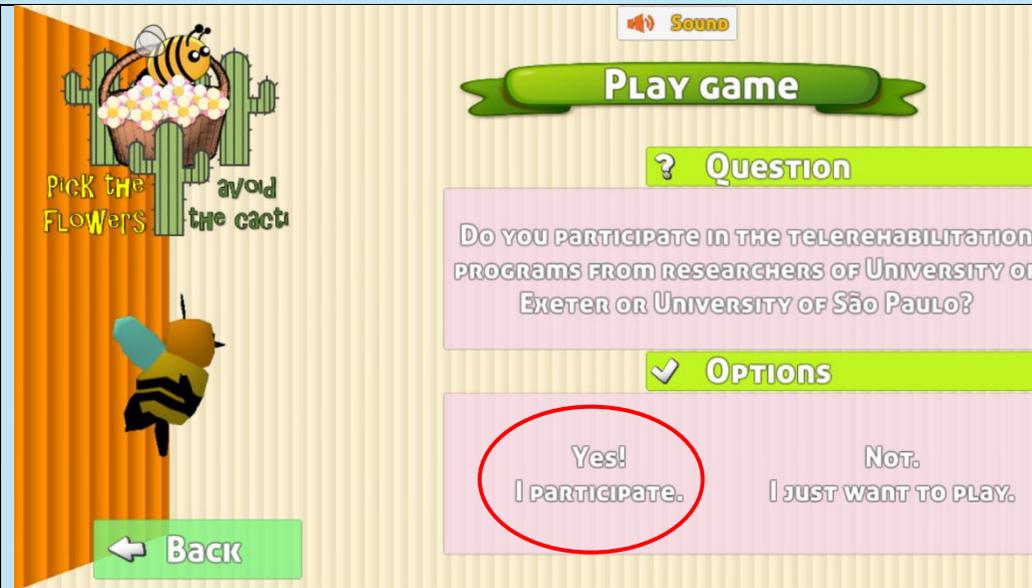
-  **RIGHT arm challenge** ←
-  **LEFT arm challenge** ←
-  **Balance training**

- In each challenge, there will be **10 levels**. You have to start from level 1 then progress to the next level, until you finish all the 10 levels.

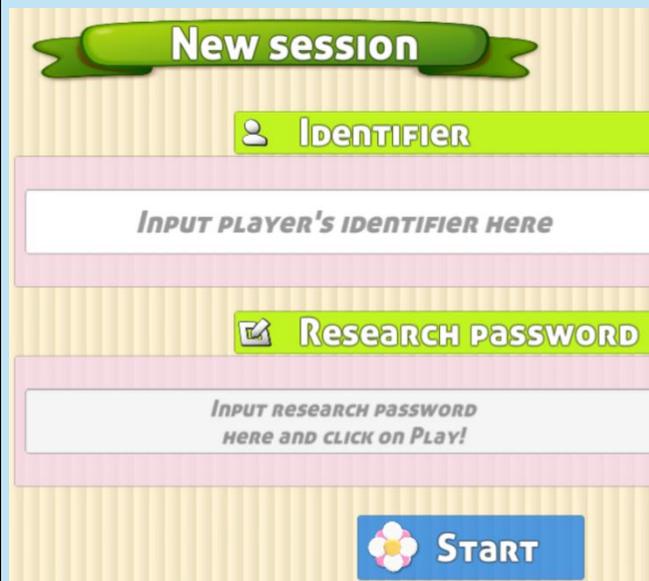
The screenshot shows a game interface with a yellow star in the center. A path of 10 numbered stages (01 to 10) is arranged around the star, connected by arrows. Stage 01 is at the top left, 02 is to its right, 03 is below 02, 04 is below 03, 05 is to the right of 04, 06 is to the right of 05, 07 is above 06, 08 is to the right of 07, 09 is above 08, and 10 is at the top right. A green banner at the top reads "RIGHT arm challenge". A "Sound" icon is in the top right. On the left, a bee is shown with a basket of flowers, and text says "Pick the FLOWERS" and "avoid the cacti". A pink box contains the text "CLICK on one of the numbered STAGES TO START!". A green "Back" button is at the bottom left.

Step 4:

- After choosing the level that you want to play, this screen will appear.
- Choose Yes, I participate, so you can add your ID.



- Add your ID inside the "Identifier" field.
- Add the research password in the second field (**REHABEXETER**).
- Click Start.



- When you start the session, you will appear as an avatar (as a bee character). You have to move your affected arm and **reach the flower on the screen and throw it in the flower basket on the tree.**
- You will have **time (8 sec, or 4 sec) to throw the flower.** if you missed the time, you would lose a point.
- By moving from level to another level, the position of the flowers will be higher on the screen², and the time to throw the flower will be reduced.



- Note

If you don't prefer the Flowers environment, you can play the same challenges in the **Basketball game** following the same steps.

Balance training

Flowers game

Step 1:

Click on the Flowers game link from the main website.



Pick the flowers, avoid the cacti

In this game the player will help a little bee to throw flowers in direction to a basket, avoiding magical cacti who are eager to block our little yellow friend in his adventure.

[Click here](#) to access this game.

Step 2:

Click start



Step 3:

- From the main menu, choose **challenges icon**.

- From challenges menu, choose **Special challenges**.



- Choose **Balance training**.

- In the balance training challenges, there will be **8 levels**. You have to start from level 1 then progress to the next level, until you finish all the 10 levels.

Challenges

 **SPECIAL CHALLENGES**

-  RIGHT ARM CHALLENGE
-  LEFT ARM CHALLENGE
-  **Balance TRAINING** 

 **PICK THE FLOWERS** **avoid the cacti**

 **Sound**

Balance TRAINING



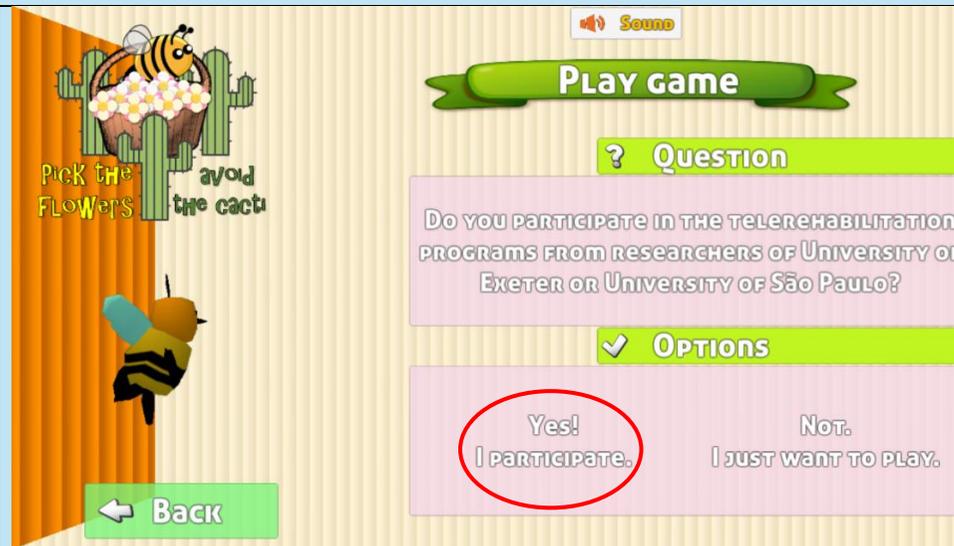
01 → **02** ↓ **03** → **04** → **05** → **06** ↑ **07** → **08**

CLICK ON ONE OF THE NUMBERED STAGES TO START!

 **Back**

Step 4:

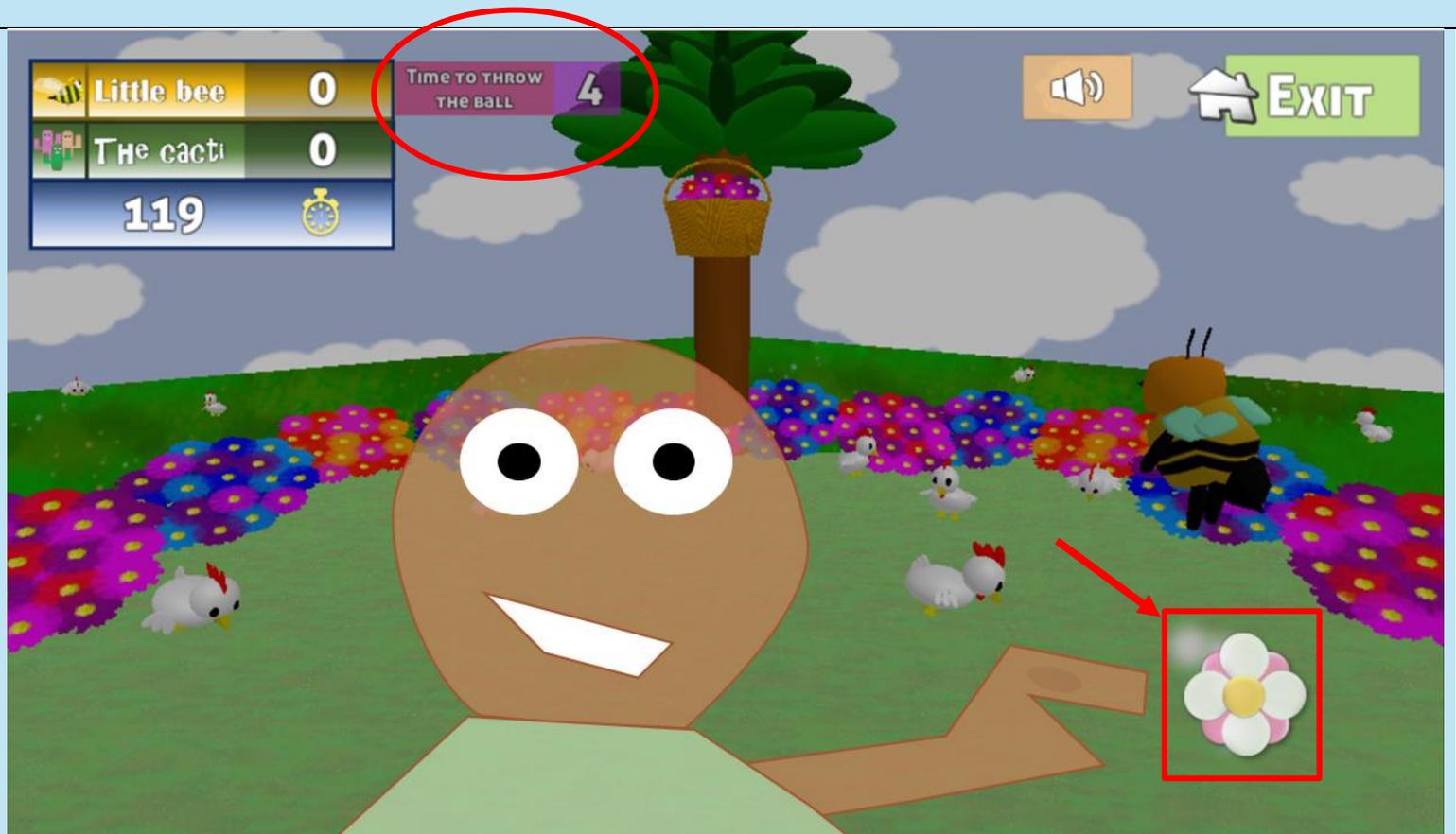
- After choosing the level that you want to play, this screen will appear.
- Choose Yes, I participate, so you can add your ID.
- Add your ID inside the “Identifier” field.
- Add the research password in the second field (**REHABEXETER**)
- Click Start.



- When you start the session, you will appear as an avatar (as a bee character).
- **You have to move both of your arms together and reach the flower on the screen to throw it in the flower basket on the tree.**
- From **level 1 to 4**, you have to collect specific points in a specific time.



- From **level 5 to 8**, you have to touch the flowers in a specific time **(8 sec, or 4 sec) to throw the flower**.
- If you missed the time, you would lose a point.
- By moving from level to another level, the position of the flowers will be higher on the screen.



- Note

If you don't prefer the Flowers environment, you can play the same balance challenge in the **Basketball game** following the same steps.

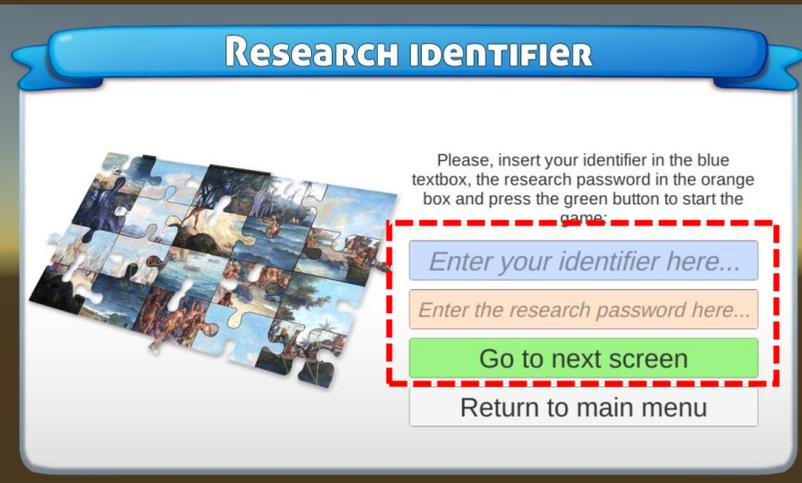
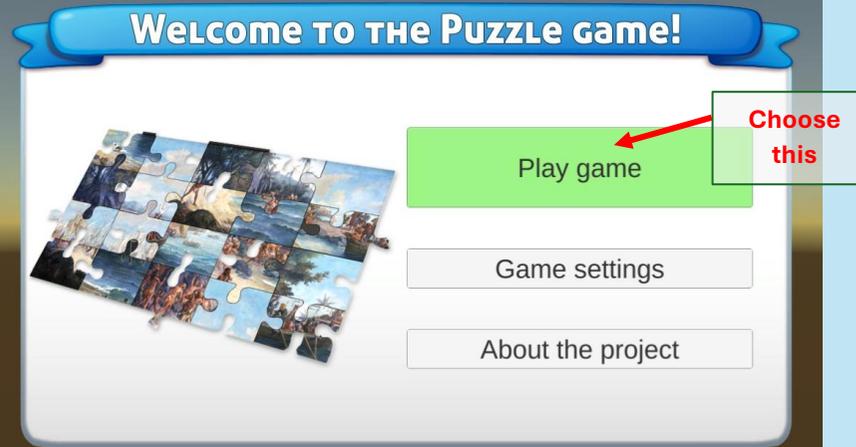
Puzzle game

Step 1

Click on the puzzle game link from the main website.

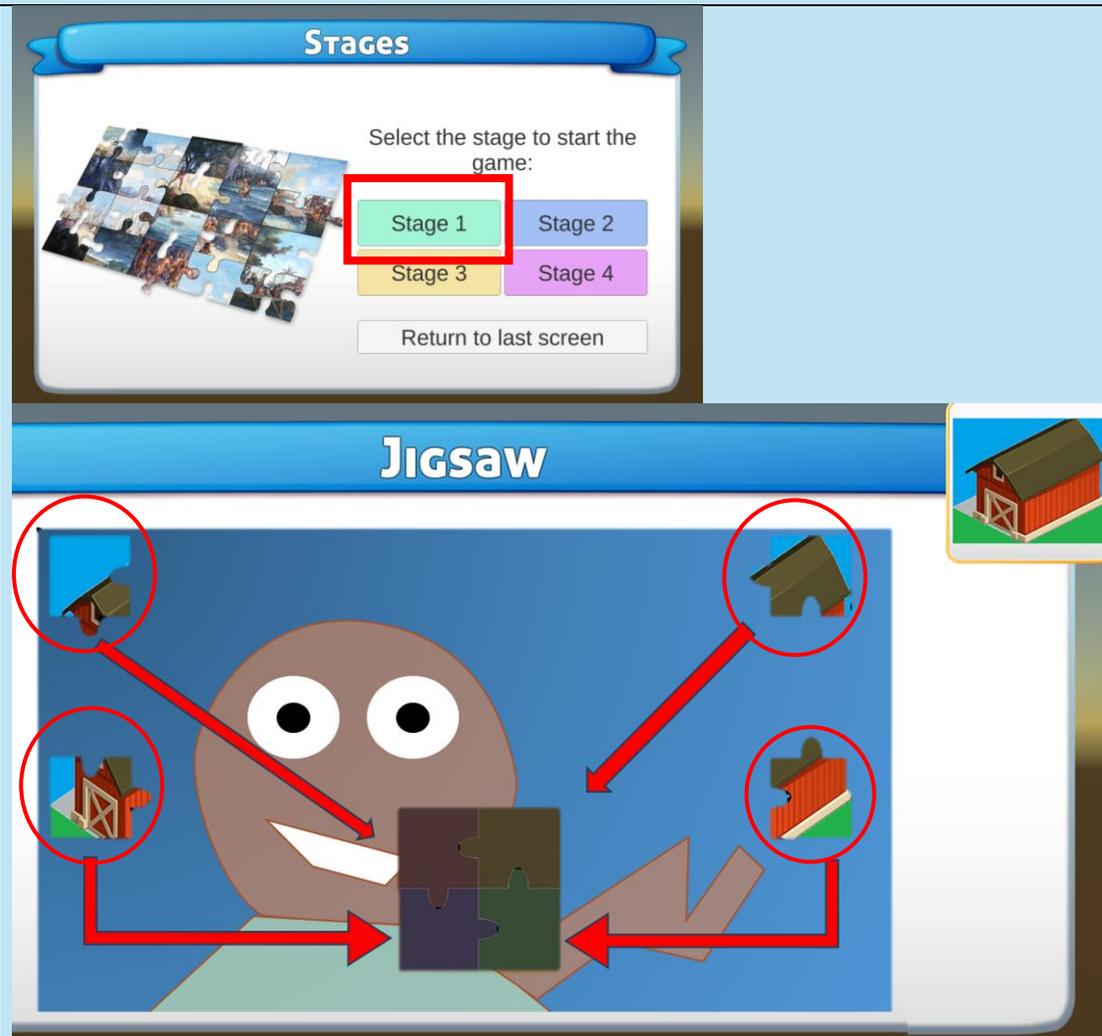
Step 2:

- In the first screen, click in the green **Start** button.
- Then, you will need to input your identifier in the **blue box** and the research password (**REHABEXETER**) in the **orange box**.
- Finally, click in the **green button** to proceed to the next screen.



Step 3:

- Select the first stage (button “Stage 1”) to start the game:
- Start moving the 4 pieces of the puzzle **with both of your arms** to the center of the screen to form the full picture.
- **You must start from the setting position, and then progress to the standing position based on your discussion with the researcher.**



- When you end the level 1, select the option “Next stage” to continue your progress in the game.



Quick tips to solve technical problems

<i>Problem</i>	<i>Solution</i>
Freezing of the screen while playing the game	<ul style="list-style-type: none">• Refresh the webpage• Check your internet connection.• Log out, then log in again.• Ensure that you put the given ID before playing the games.
If the camera cannot pick up your arm movements, or there is a slow response.	<ul style="list-style-type: none">• Refresh the webpage• Check your internet connection• Ensure that there is no very bright background behind you. You will need good lighting (not too bright, and not too dark).• Ensure that the laptop camera or the webcam is facing you, not inclined upward, or downward.

**If you have any technical problems, or any questions regarding the games,
please contact:**

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