

MEMOTERM User guide

Introduction

MEMOTERM: birds of a feather flock together is a free memory game where you have to match a photograph and a drawing made by a child portraying the same scientist word. MEMOTERM is a pedagogical game application belonging to the *Playing to define the Sciences* project (<http://deficiencia.iula.upf.edu/>), which aims to improve the academic lexicon in primary schools.

This user guide is an explanation of how the user will be able to use the game, showing the different scenarios that are available for the user to go through and the possible decisions that can be made.

To access the game: <http://deficiencia.iula.upf.edu/MEMOTERM/>

Credits

David Llop developed MEMOTERM as part of his Final Work in Telematic Engineering at Universitat Pompeu Fabra. David Llop's GFW, *Playing with the words of science online: birds of a feather flock together* –tutored by Rosa Estopà and Vaneza Daza, advised by Miquel Cornudella and evaluated by Jonathan Chacón– received the top grade.

The project *Playing to define the Sciences* is hosted at the Institut Universitari de Lingüística Aplicada (<http://www.iula.upf.edu/>), of the Universitat Pompeu Fabra in Barcelona.



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1. Preparing the game

When the application is launched, the first scenario that the user finds is an initial layout with the background of the game, and three buttons.



Figure 6.1: Initial Layout.

The user must push one of the three buttons to choose the game mode that is willing to play. The three options are “Play Time Attack or freely” (“Jugar a contrarellotge o lliure”), “Play versus a friend” (Jugar amb un amic”) and “Play versus the computer” (“Jugar contra l’ordinador”)

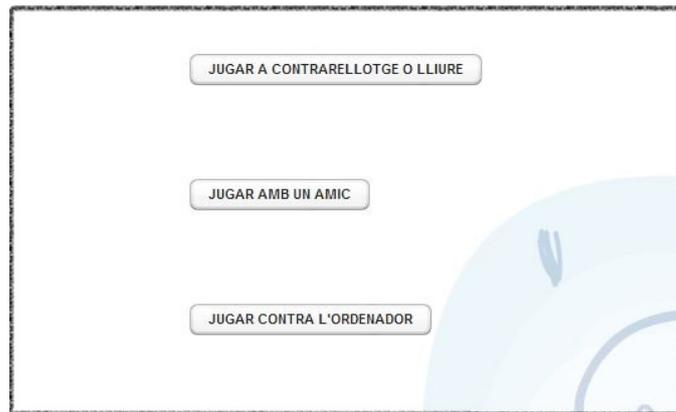


Figure 6.2: Initial Layout zoom in

Once any of the three buttons is pressed, the next scenario is shown.



Figure 6.3: Couple choosing layout.

In here, the user can choose the number of couples to play with, from two couples to ten. The number of couples chosen indicates how many cards will be on the board, so two couples will put four cards on the board and ten couples will put twenty cards on the board.

A button to go back to the previous scenario for choosing the game mode is available (the button “Torna al lloc anterior”), and the game mode previously chosen is indicated on the top center part of the interface.



Figure 6.4: Couple choosing layout zoom in.

With the game mode and the number of couples chosen, the user gets into the specific playing scenario.

2. General in-game features

For all the in-game scenarios, the “Torna al lloc anterior” button is available for the user to go back to the previous scenario. Also a “replay” button is available that when pressed, the timer is set to zero, and new cards are set on the board. The game mode that is currently played is indicated during all the game in the label on the top central part of the layout.

The cards behavior is always the same. The user can press and see two consecutive cards. If they form a couple, both cards keep shown but disabled. In case they are different, both cards are turned around when another card is pressed. When playing with two players, getting a couple right is rewarded with a point and a chance to press two more cards.

3. Playing Time Attack or freely

For this example, the scenario is a game with three couples.



Figure 6.5: Time Attack with three couples.

In this game mode, the user can freely play without no pressure elements as competition or time. To play freely, no requirement is needed, the user can start pressing cards and finding the couples. Once all the couples are found or the user is ready to change, can press the “Juga un altre cop” button to play again or the “Torna al lloc anterior” button to change game characteristics.



Figure 6.6: Time Attack with three couples zoom in.

To play in Time Attack mode, a button “Start the time” (“Comença el temps”) is available. Pressing this button starts a time counter and the user must start trying to discover all the couples. Once discovered, the user must press the “Fi!” button and a notification will show up in the middle of the screen showing the time that has passed.



Figure 6.7: Time Attack finished.

To be able to press any button, the notification must be pressed to hide it.

4. Playing versus a friend

For this example, the scenario is a game with six pairs.

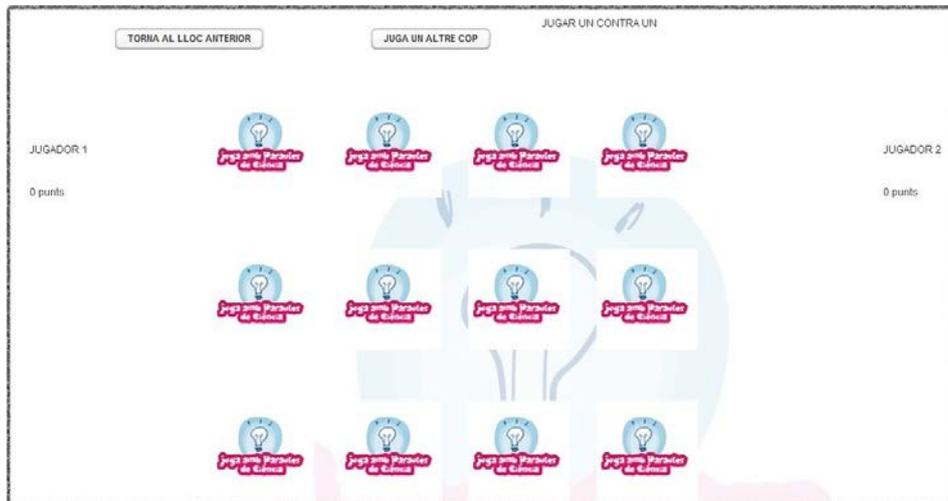


Figure 6.8: Versus a friend with six couples.

In the “Versus a friend” game mode, there is a label and a score for two players (“Jugador 1” and “Jugador 2”). When playing, the label indicates whose turn is by showing the text “ET TOCA” next to the player.

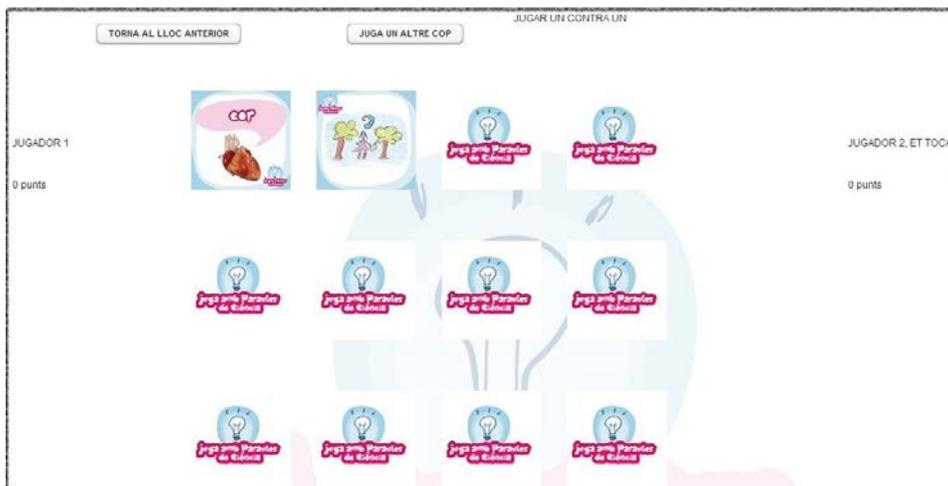


Figure 6.9: Player 2 turn.

When all the couples are found, the player with the biggest score is the winner and a notification appears to declare the winner.



Figure 6.10: Player 1 wins.

In case the same score is achieved by both players, the notification declares a draw.



Figure 6.11: Draw.

To be able to press any button, the notification must be pressed to hide it.

5. Playing versus the computer

For this example, the scenario is a game with ten couples.

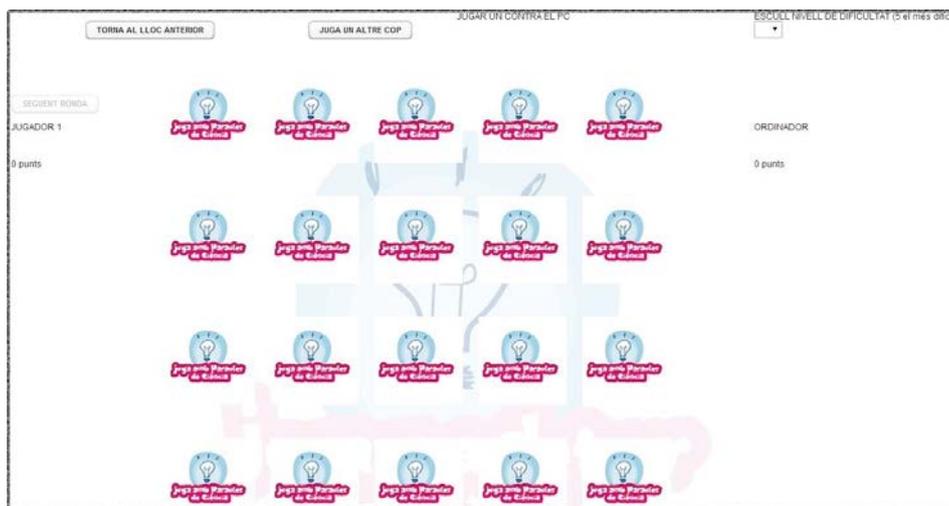


Figure 6.12: Versus the computer with ten couples.

When playing against the computer, a difficulty box “Escull nivell de dificultat (5 el més difícil)” is available, where the user must choose the difficulty of the game, that will be translated to how well does the computer play. This box is disabled when the user starts playing.



Figure 6.13: Versus computer middle game.

To play in this mode, the user must press two cards. When these are pressed and they're not a couple, all the cards become disabled and a button "Següent ronda" is enabled. This prevents the user to press illegal elements and guides the user.

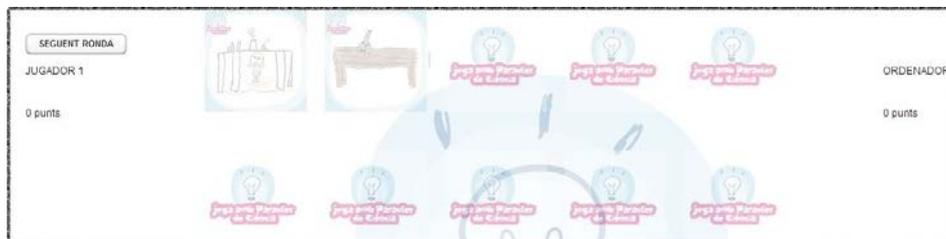


Figure 6.14: Versus computer. End of user's turn.

Pushing the "Següent ronda" button allows the computer to play his turn. The high difficulty makes the computer play as a human that remembers all the cards that sees and the computer plays with the same rules as a user, so it is normal that the computer sometimes discovers several couples in a row while playing in high difficulty, making the challenge even harder.



Figure 6.15: Versus computer end.