

Instructions

Welcome, and thank you for participating! Please turn off your phone and do not communicate with other participants. If you have any questions, please message us in the chat and we will respond as soon as possible. Please pay careful attention to the instructions as money is at stake.

During the experiment you will earn *points*, and at the end of the experiment all your earnings will be converted to AUD dollars. You are guaranteed a show up fee of \$5 if you complete the session, but you can earn more depending on your decisions.

Basic Idea

In this experiment you will be assigned a role and then matched anonymously and randomly with another participant for many periods of a game. Your choice, along with the choice of the participant you are matched with, will determine your payoff --- how many points you earn that period. When a new game begins, you will be rematched with another random participant.

After the last game, your points are added over all games, converted to AUD and paid to you in cash. The rate of exchange is 100 points = \$1.89.

Payoff

You select your **action** each period by clicking one of the radio buttons, A, B, or C. Figure 1 below shows that the player chose action B in period 9 of a 20 period game.

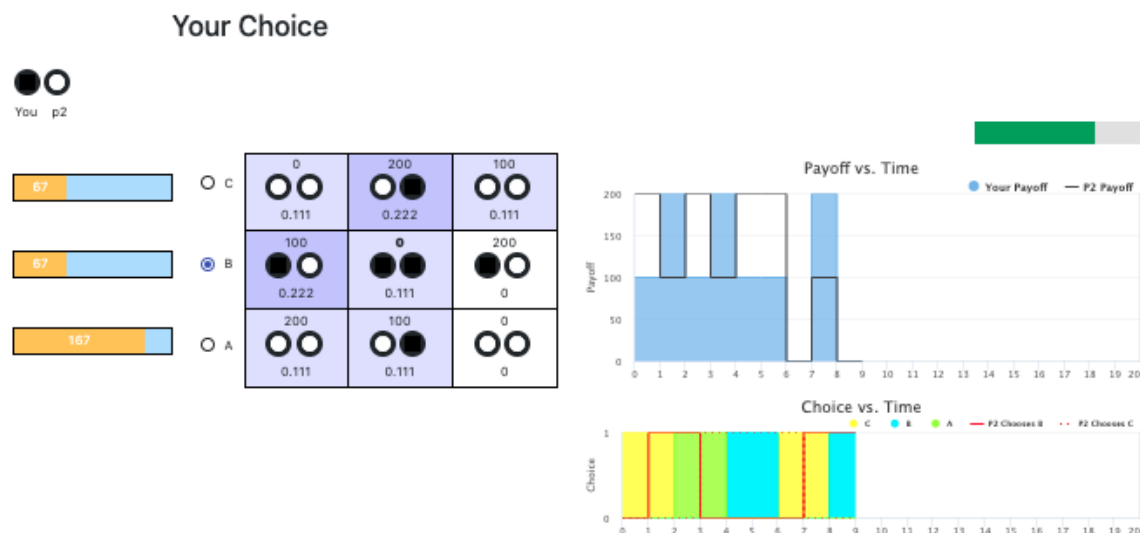


Figure 1: Three action user interface

Your payoff each period depends only on your action (A, B or C) and that of your counterparty (the participant you are matched with). In Figure 1, the payoff this period is 0 (the center cell). To the right of the radio buttons, you will see a matrix (nine cells) which describes your possible payoffs in this game.

The two dots in the cells tell you the current choices of the two players (you and p2). The first dot is your action; the second dot represents the other player. In Figure 1, you can see from the legend in the top left corner of the screen that your current role is *p1*, given that *p2* is the second dot. Current choices are indicated by filled dots in the matrix cell. For example, you have selected choice B, as indicated by the filled first (fully black) dots in the middle row, while p2 has selected the middle column (b), indicated by the second filled (fully black) dots in the middle of the matrix. This means that jointly, you are playing the middle cell (where your payoff is 0). The points that you earn are always those for the cell in which all two dots are filled.

The shaded area across the matrix cells represents how often you and the other player have selected these choices in the past. The darker the area, the more frequently this cell has been played so far. The exact frequency is shown as the number below the circles in each cell.

To the left of the radio buttons you will see **horizontal bars**. The bar next to the current choice (B in Figure 1) shows the average payoff earned so far for choosing this action in this game. The bars next to an alternative actions (A and C in Figure 1) shows the *counterfactual* payoffs for each of those actions --- the average payoff you would have earned during the same time if you had always chosen that alternative action instead of your current action (assuming that your counterparty's actions would not change). For example, in Figure 1 the player earned 67 on average in the 3 (of 9) periods so far in which she chose action B. If she had chosen A instead of B in those 3 periods then, given the counterparty choices, she would have earned 167 points. If she had chosen C instead of B in those 3 periods then, given the counterparty choices, she would have earned 67 points.

If the player switches to choice A, then the bar for A will display the average payoff so far for action A, while the bars for B and C will show the counterfactual average payoff if all her A choices so far were switched to either B, or C, respectively.

Each game will last for 50 periods, and your payoff to action choices may change across games.

Payoff over time

To the right of the radio buttons you will see a graph of your payoff from the beginning of the period until now. Your payoff is shaded in blue, and the other player's payoff is represented by a black (p2) line.

The green bar above the chart shows the time remaining until the next period of play; when the bar is fully green, you will move on to the next period.

Choices over time

Below the payoff over time chart, you will see the history of your choices over time, which are shown as multicolored bars, where each color represents a choice. The color legend is below the chart title.

Your counterparty's choice appears as either a solid (b) or a dotted (c) red line (p2), where "1" indicates that this strategy is currently being played. When both solid and dotted lines are at 0, then the other player is choosing "a".

Session Earnings

In total you will play a set of 10 games, where the first two games are for practice only and will last for 20 periods each, and the last eight games are real, with each consisting of 50 periods. Payoffs may be different for different games.

Your earnings in each game will be averaged over all 50 periods. For example, if you receive 400 points for each of the 50 periods in the game, then your payoff to that game is 400 points. If you received 200 points in 25 periods and 100 points in the other 25 periods, then your payoff is 150 points for the game.

Your final earnings for the session will be your show up fee (\$5.00) plus the sum of points earned across all eight real games, converted into AUD dollars. The two practice games do not count towards your payoff.