

## Instructions

This is an experiment in decision making. Funds have been provided to run this experiment. If you follow instructions and make good decisions you may earn a substantial amount of money, that will be paid to you in CASH VOUCHERS at the end of the experiment. What you earn depends partly on your decisions and partly on the decisions of others.

The entire session will take place through computer terminals, and all interactions between you will be done through the computers. Please, do not talk or communicate in any way during the session. Please, turn off your phones now.

You will be randomly divided in groups of **6** persons, and will make a sequence of **10** decisions as a part of that group. After 10 periods, all groups will be disband and the phase will end. This will be the end of the experiment.

## Task Description

Each period, you and every member of your group will choose an integer: **1, 2, 3, 4, 5, 6 or 7**. Your choice and the smallest number chosen in your group (**including yours**) will determine your payoff in that period. Table 1 presents your payoffs in all possible scenarios. For example, if you choose number 5 and the smallest number chosen in your group is 4 you will get 78 Cents (\$.78).

		Smallest Number Chosen						
		7	6	5	4	3	2	1
Your Choice	7	1.30	1.10	0.90	0.70	0.50	0.30	0.10
	6	—	1.14	0.94	0.74	0.54	0.34	0.14
	5	—	—	0.98	0.78	0.58	0.38	0.18
	4	—	—	—	0.82	0.62	0.42	0.22
	3	—	—	—	—	0.66	0.46	0.26
	2	—	—	—	—	—	0.50	0.30
	1	—	—	—	—	—	—	0.34

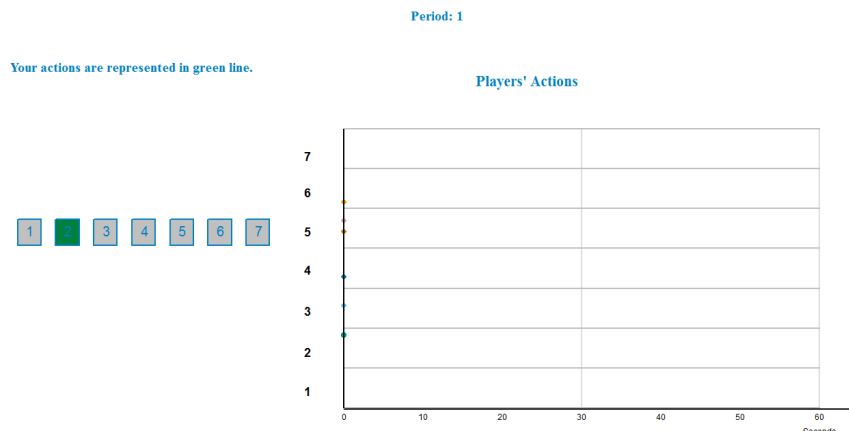
**Table 1** – Payoff from different actions

Once you and all the members of your group have chosen a number, a 1-minute countdown will begin.

## 1-minute Countdown

### 1. Graph Description

Before the 1-minute countdown, you and every member of your group have chosen a number: **1, 2, 3, 4, 5, 6 or 7**. Once every member of your group has made their initial choice, the 1-minute countdown begins.



**Figure 1** – Screen-shot of one possible scenario, as soon as the 1-minute countdown begins.

When the 1-minute countdown begins your screen will appear as in Figure 1. In Figure 1, we have placed time in seconds on the horizontal axes and the number chosen by each of your group members on the vertical axes.

The initially picked numbers chosen by you and your cohort are placed along the vertical line above the zero second mark. You will see the number posted of every participant in your group. For instance, in Figure 1, we see that 2 players have chosen number 5, 1 player has chosen 2, 1 player has chosen 3, 1 player has chosen 4 and 1 player has chosen 6. Your choice is always represented in the graph with the color green, and those of others by other colors. As you can see the player has CHOSEN NUMBER 2.

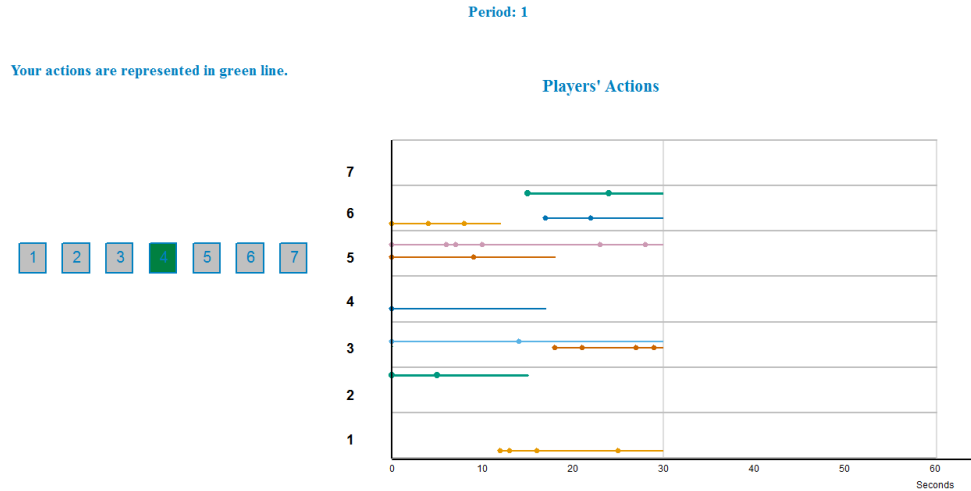
As time continues, during the 1 minute, you will be able to change your chosen number at any time by placing your cursor on your desired number to the left of the screen. When you choose a number, it will light up as the number 2 now is.

### 2. Revision Opportunities

However, the fact that you have changed your choice DOES NOT imply that the number on the graph will change. The number on the graph will only change if a **revision opportunity** is awarded to you. A revision opportunity is awarded at random times.

Every second a revision opportunity will be awarded to the group with 80% chance. When a revision opportunity is awarded to the group, it will be given to one of the 6 group members, with equal probability of  $\frac{1}{6}$ . So the chance of any other member of your group having a revision opportunity and being able to change the posted number and send the message is exactly equal to yours:  $p = .8 \times \frac{1}{6} \approx 13\%$ .

If you had changed the number chosen, and received a revision opportunity, your number on the graph will change (the GREEN line will shift). If a revision opportunity is awarded to you, but you had not previously changed your chosen number, the number on the graph will **not** change. Let's call the number which appears on the graph your NUMBER POSTED on the graph.



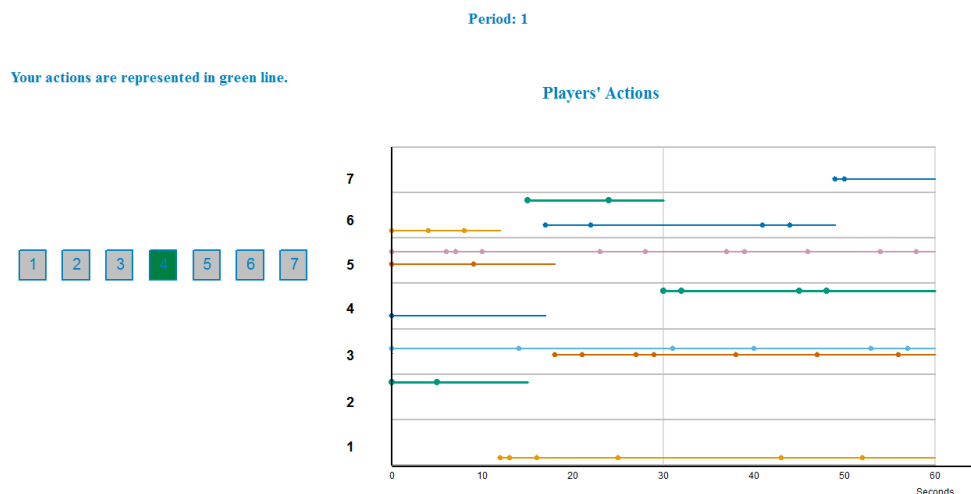
**Figure 2** – Screen-shot of one possible scenario, after 30 seconds have passed

When 30 seconds have passed your screen will appear as in Figure 2. You can see how many times any member of your group changed the number posted (*the line changes*) as well as whether a revision opportunity was awarded (*a dot on the line*). For instance, player PURPLE has not changed the number posted (which is 5) despite having received 5 revision opportunities (5 dot's on light purple line). On the other hand, player BROWN initially chose number 5, but after about 20 seconds the posted number became 3. Player GREEN has changed the number posted once. Let's take a closer look at player GREEN's actions:

- GREEN initially chose to post 2.
- Then, around 4th second, a revision opportunity arrived, but the number posted by player GREEN did not change.
- At 15th second, a revision opportunity arrived and the number posted changed to 6. Note that this was only possible because he had changed the number chosen prior to the arrival of revision opportunity.
- At 25th second, revision opportunity arrived, but the number posted didn't change.

Finally, note that player GREEN has chosen the number 4 (it is lit up in green), but given that no revision opportunity has arrived, the NUMBER POSTED on the graph is still 6.

When 1-minute has passed your screen will appear as in Figure 3. You can see the number posted of every participant in your group. *Only the numbers posted at the end of the countdown matter for your payoff.* The numbers posted before do not matter at all for your payoff. For instance, GREEN's payoff depends only on his **last** number posted, and on THE SMALLEST NUMBER POSTED by his group members **at the end of the countdown**.



**Figure 3** – Screen-shot of one possible scenario, after 60 seconds have passed

### 3. Final Payoffs

Your **final payoff** will be the sum of payoffs from all 10 periods plus the show up fee.

*The following probability facts and calculations may be useful:*

1. Each player is expected to receive  $.8 \times \frac{1}{6} \times 60 = 8$  **revision** opportunities during the 1-minute countdown.
2. The chance of a player receiving **no revision** opportunity during the 1-minute countdown is approximately  $(1 - .8 \times \frac{1}{6})^{60} \approx 0.000$ , which is **approximately 0**.
3. For any **10 second interval**, the chance of receiving at least one revision opportunity is of **approximately 75%**.
4. For any **20 second interval**, the chance of receiving at least one revision opportunity is of **approximately 95%**.