

ETI EXPERIENCE: Instructions - SCRIPT

This is a session in an experiment in the economics of decision making. During this session your payoffs will be reported in lab dollars. It is possible that you could lose money in this session. As a result everyone will be given an opening balance of 250 lab dollars. If at anytime your cumulative payoff (which includes this opening balance) falls below 0 lab dollars you will be excused from this part of the session. Despite this if you follow the instructions carefully you may earn a considerable amount of money. The Senate Research Committee at Lakehead University is funding this research.

Overview

Today's session will be conducted using the computer network located in our laboratory. The session will consist of 25 periods. We will begin after everyone has finished reading the instructions and completed 5 practice periods. Please refrain from talking during the session. Each period will proceed as follows.

| What the Computer does | What you do |
|--|---|
| Start period. | |
| | Choose a "decision number" and enter it in the appropriate box on your computer screen. |
| Collect decision numbers, Calculates individual payoffs, and returns results | |
| | Check your payoff and cumulative payoff |
| Start next period or end section | |

Now here are the details.

Part 1

You have been assigned to a group of four (yourself and three other) participants. This will be your group for the entire session. There will be 25 periods. In each period you (and the others in your group) will be asked to choose a number and to enter it into the computer. This is your **Decision Number**.

Your Total Payoff for each period is the sum of your Private Payoff and your Group Payoff:

$$\text{Total Payoff} = \text{Private Payoff} + \text{Group Payoff}$$

Your Private Payoff depends only on your own Decision Number. You have been randomly assigned to a player type. Half (2) of the people in your group must choose their Decision Number between 0 and 125. The other half of the people in your group must choose their Decision Number between 0 and 100. The payoffs are also different for both types of people so that the Private payoff to choosing 10 for people whose decision numbers can range between 0 and 125 is different than the payoff to choosing 10 for people whose decision number can range between 0 and 100.

Table 1 in your folder shows the Private Payoff for each of your possible Decision Numbers. For example if you were to choose 30 Table 1 shows your Private Payoff for choosing that Decision Number.

If your Decision Numbers must be less than 125 Table 1 shows you that your Private Payoff for choosing 30 would be 6.95 lab dollars.

If your Decision Numbers must be less than 100 Table 1 shows you that your Private Payoff for choosing 30 would be 15.20 lab dollars.

Notice that the higher your Decision Number the higher your Private Payoff.

Table 2 in your folder shows the Private Payoffs for each of the possible Decision Numbers for someone of the other type. For example Table 2 shows the Private Payoff to a participant of the other type who chose 30.

If the participant of the other type's Decision Numbers is always less than 100 then Table 2 shows that their Private Payoff for choosing 30 is 15.20 lab dollars.

Or, if the participant of the other type's Decision Numbers is always less than 125 Table 2 shows their Private Payoff for choosing 30 is 6.95 lab dollars.

Notice that the higher their Decision Number the higher their Private Payoff.

The Group Total is the sum of your decision number and the decision numbers of the three other people in your group. Since two of the people in your group must choose their decision numbers between 0 and 125 and two must choose between 0 and 100 the group total must be between 0 and 450.

The Group Payoff depends only on the Group Total and is the same for everyone in the group. Your instructions now describe the group payoff both in words and using a formula. Notice that If the Group Total is less than or equal to 150 then the Group Payoff will be positive or zero and if the Group Total is greater than 150, the Group Payoff is a negative value. The Group Payoff is then written as a function of the Group Total.

For example if the Group Total were 170 then the Group Payoff for every member of the group is calculated in your instructions. Similarly if the Group Total were 140 then the Group Payoff for every member of the group is calculated in the instructions. Notice that the higher the Group Total the lower the Group Payoff.

As a simple example, suppose that you chose 30, and the sum of the decisions of everyone else in your group was 100. The Group Total would be 130 (the sum of your decision number and the decision numbers of everyone else in your group), your Private Payoff would be 6.95 if your decision numbers must be less than 125 and 15.20 if your decision numbers must be less than 100, the Group Payoff would be given by the formula above and your Total Payoff would be the sum of your Private payoff and your Group Payoff.

Now suppose, that you had chosen 70 in the above example. The Group Total would be 170, your Private Payoff 18.95 if your decision numbers are always below 125 and 23.20 if your decision numbers are always below 100, the Group Payoff would be given by the formula above, and your Total Payoff would be the sum of your Private payoff and your Group Payoff. Notice that the higher your Decision Number the higher your Private Payoff. But, the higher your Decision Number the higher the Group Total and the lower the Group Payoff.

Your payment for this session will be the sum of your earnings in each of the 25 periods. Your earnings will be converted from lab dollars to Canadian at the rate of 1 lab dollar is equal to 3.4 cents Canadian. In the event that you do lose your opening balance you will be informed by the computer that you are Bankrupt and will not be able to participate in the rest of this part of the experiment. At this point the rest of the people in your group will be informed that there is now one less person whose decision number is being added into the group total.

Please answer the following question:

Use TABLE 1 to fill in the portion of the record sheet below assuming that you chose 65, the Group Total was 400 and the group payoff is 30% of the difference between 150 and the Group Total if the Group Total is above 150 and 30% of the difference between 150 and the Group Total if the Group Total is less than or equal to 150

| Period | Decision Number | Private Payoff | <u>Group Total</u> | <u>Group Payoff</u> | <u>Total Payoff</u> | <u>Cumulative Payoff</u> |
|--------|-----------------|----------------|--------------------|---------------------|---------------------|--------------------------|
|--------|-----------------|----------------|--------------------|---------------------|---------------------|--------------------------|

| | | | | | | |
|-----------------|----|----------------|-----|-----|------------------|------------------|
| <u>Practice</u> | 65 | 17.80 22.55 | 400 | -75 | -57.20 -52.45 | Not Important |
|-----------------|----|----------------|-----|-----|------------------|------------------|

Please raise your hand when you are done so that the monitor can check your answer.

Before we begin we will conduct five practice periods. These practice periods are intended to help you understand today's experiment. Any earnings you make during the practice periods will not be included in your payment at the end of the session. The practice periods will differ from the actual periods in that the Group Total will be your decision number plus a random number chosen by the computer. The Group Total in the practice periods will be your decision number plus a random number between 0 and 500. The computer chooses this random number so that each number between and including 0 and 500 has an equal chance of being selected.

Once the first practice period starts you will notice that the game window on the computer screen has four sections. The first section describes the Group Payoff function. This function is the same as described in the instructions above. The second section is labeled Payoff to a Player of Your type. Using this calculator you will be able to determine your payoff from different combinations of values for your Decision Number and the Group Total. Notice that you can change the Decision Number and the Group Total by typing numbers into the edit boxes or by using the arrow buttons located beside the edit boxes. Also notice that changing the Decision Number changes the Group Total. This is because the Group Total is the sum of your Decision Number, and the Decision Numbers of those in your group and as a result when your Decision Number increases so does the Group Total. The third section of the screen is where you type your Decision Number. Once you have chosen your Decision Number and typed it into the edit box click on the Ok button to complete this part of the period. The fourth section of the screen contains two tabs that allow you to switch between the main screen and the history screen. If you click on the tab labeled history you will be able to see the outcome of all of the previous period in which you have participated. Please feel free to raise your hand and ask any questions you may have.

To help you understand the Scratch Pad please pick any valid decision number and type it into the box beside Your Decision Number on the scratch pad. Now pick a bigger number and type it into the box beside Group Total. Notice that the Group Total will always be bigger than your Decision Number as it is the sum of the Decision Numbers of everyone in your group. Now use the arrow buttons beside the box where you typed Your Decision Number to increase or decrease Your Decision Number. Notice the effect of these changes on your Total Payoff. Please work through the practice periods and I will come around to see if you have any questions.

Once the practice periods have been completed we will begin the 25 periods for which you will be paid at the end of today's session.

[Once the software for the 25 periods is running I typically remind the students that the Group Total is the sum of their decision number and the decision numbers of everyone else in their group and I ask them if there are any questions before they begin. If not I ask them to make their first decision. After that I basically walk around and make sure that everyone at least thinks that they know what they are doing.]

TABLE 1: Private Payoff Schedule

| Choice | Private Payoff |
|--------|----------------|
| 0 | -6.25 |
| 1 | -5.75 |
| 2 | -5.26 |
| 3 | -4.77 |
| 4 | -4.28 |
| 5 | -3.80 |
| 6 | -3.32 |
| 7 | -2.85 |
| 8 | -2.38 |
| 9 | -1.91 |
| 10 | -1.45 |
| 11 | -0.99 |
| 12 | -0.54 |
| 13 | -0.09 |
| 14 | 0.36 |
| 15 | 0.80 |
| 16 | 1.24 |
| 17 | 1.67 |
| 18 | 2.10 |
| 19 | 2.53 |
| 20 | 2.95 |
| 21 | 3.37 |
| 22 | 3.78 |
| 23 | 4.19 |
| 24 | 4.60 |
| 25 | 5.00 |
| 26 | 5.40 |
| 27 | 5.79 |
| 28 | 6.18 |
| 29 | 6.57 |
| 30 | 6.95 |
| 31 | 7.33 |
| 32 | 7.70 |
| 33 | 8.07 |
| 34 | 8.44 |
| 35 | 8.80 |
| 36 | 9.16 |
| 37 | 9.51 |
| 38 | 9.86 |
| 39 | 10.21 |
| 40 | 10.55 |
| 41 | 10.89 |
| 42 | 11.22 |
| 43 | 11.55 |
| 44 | 11.88 |
| 45 | 12.20 |
| 46 | 12.52 |
| 47 | 12.83 |
| 48 | 13.14 |
| 49 | 13.45 |
| 50 | 13.75 |
| 51 | 14.05 |
| 52 | 14.34 |
| 53 | 14.63 |
| 54 | 14.92 |
| 55 | 15.20 |
| 56 | 15.48 |
| 57 | 15.75 |
| 58 | 16.02 |
| 59 | 16.29 |
| 60 | 16.55 |
| 61 | 16.81 |
| 62 | 17.06 |

| Choice | Private Payoff |
|--------|----------------|
| 63 | 17.31 |
| 64 | 17.56 |
| 65 | 17.80 |
| 66 | 18.04 |
| 67 | 18.27 |
| 68 | 18.50 |
| 69 | 18.73 |
| 70 | 18.95 |
| 71 | 19.17 |
| 72 | 19.38 |
| 73 | 19.59 |
| 74 | 19.80 |
| 75 | 20.00 |
| 76 | 20.20 |
| 77 | 20.39 |
| 78 | 20.58 |
| 79 | 20.77 |
| 80 | 20.95 |
| 81 | 21.13 |
| 82 | 21.30 |
| 83 | 21.47 |
| 84 | 21.64 |
| 85 | 21.80 |
| 86 | 21.96 |
| 87 | 22.11 |
| 88 | 22.26 |
| 89 | 22.41 |
| 90 | 22.55 |
| 91 | 22.69 |
| 92 | 22.82 |
| 93 | 22.95 |
| 94 | 23.08 |
| 95 | 23.20 |
| 96 | 23.32 |
| 97 | 23.43 |
| 98 | 23.54 |
| 99 | 23.65 |
| 100 | 23.75 |
| 101 | 23.85 |
| 102 | 23.94 |
| 103 | 24.03 |
| 104 | 24.12 |
| 105 | 24.20 |
| 106 | 24.28 |
| 107 | 24.35 |
| 108 | 24.42 |
| 109 | 24.49 |
| 110 | 24.55 |
| 111 | 24.61 |
| 112 | 24.66 |
| 113 | 24.71 |
| 114 | 24.76 |
| 115 | 24.80 |
| 116 | 24.84 |
| 117 | 24.87 |
| 118 | 24.90 |
| 119 | 24.93 |
| 120 | 24.95 |
| 121 | 24.97 |
| 122 | 24.98 |
| 123 | 24.99 |
| 124 | 25.00 |
| 125 | 25.00 |

TABLE 1: Private Payoff Schedule

| Choice | Private Payoff |
|--------|----------------|
| 0 | 5.00 |
| 1 | 5.40 |
| 2 | 5.79 |
| 3 | 6.18 |
| 4 | 6.57 |
| 5 | 6.95 |
| 6 | 7.33 |
| 7 | 7.70 |
| 8 | 8.07 |
| 9 | 8.44 |
| 10 | 8.80 |
| 11 | 9.16 |
| 12 | 9.51 |
| 13 | 9.86 |
| 14 | 10.21 |
| 15 | 10.55 |
| 16 | 10.89 |
| 17 | 11.22 |
| 18 | 11.55 |
| 19 | 11.88 |
| 20 | 12.20 |
| 21 | 12.52 |
| 22 | 12.83 |
| 23 | 13.14 |
| 24 | 13.45 |
| 25 | 13.75 |
| 26 | 14.05 |
| 27 | 14.34 |
| 28 | 14.63 |
| 29 | 14.92 |
| 30 | 15.20 |
| 31 | 15.48 |
| 32 | 15.75 |
| 33 | 16.02 |
| 34 | 16.29 |
| 35 | 16.55 |
| 36 | 16.81 |
| 37 | 17.06 |
| 38 | 17.31 |
| 39 | 17.56 |
| 40 | 17.80 |
| 41 | 18.04 |
| 42 | 18.27 |
| 43 | 18.50 |
| 44 | 18.73 |
| 45 | 18.95 |
| 46 | 19.17 |
| 47 | 19.38 |
| 48 | 19.59 |
| 49 | 19.80 |
| 50 | 20.00 |

| Choice | Private Payoff |
|--------|----------------|
| 51 | 20.20 |
| 52 | 20.39 |
| 53 | 20.58 |
| 54 | 20.77 |
| 55 | 20.95 |
| 56 | 21.13 |
| 57 | 21.30 |
| 58 | 21.47 |
| 59 | 21.64 |
| 60 | 21.80 |
| 61 | 21.96 |
| 62 | 22.11 |
| 63 | 22.26 |
| 64 | 22.41 |
| 65 | 22.55 |
| 66 | 22.69 |
| 67 | 22.82 |
| 68 | 22.95 |
| 69 | 23.08 |
| 70 | 23.20 |
| 71 | 23.32 |
| 72 | 23.43 |
| 73 | 23.54 |
| 74 | 23.65 |
| 75 | 23.75 |
| 76 | 23.85 |
| 77 | 23.94 |
| 78 | 24.03 |
| 79 | 24.12 |
| 80 | 24.20 |
| 81 | 24.28 |
| 82 | 24.35 |
| 83 | 24.42 |
| 84 | 24.49 |
| 85 | 24.55 |
| 86 | 24.61 |
| 87 | 24.66 |
| 88 | 24.71 |
| 89 | 24.76 |
| 90 | 24.80 |
| 91 | 24.84 |
| 92 | 24.87 |
| 93 | 24.90 |
| 94 | 24.93 |
| 95 | 24.95 |
| 96 | 24.97 |
| 97 | 24.98 |
| 98 | 24.99 |
| 99 | 25.00 |
| 100 | 25.00 |