Appendix A- Instructions

This appendix is a compilation of the instructions are presented to the subjects. Comments, in italics, have been inserted to point out the differences between the treatments. The first part was common to all sessions

Instructions

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. This research is being funded by the Senate Research Committee at Lakehead University.

Overview

Today's session will be conducted using the computer network located in our laboratory. The session will consist of 2 parts which will each last 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.

<u>Part 1</u>

Full information, homogeneous payoff functions.

You have been assigned to a group of six (yourself and five other) participants. This will be your group for the entire session. Everyone in your group has the same instructions. This part will consist of 25 periods. In each period you (and the others in your group) will be asked to choose a number between 0 and 100 and to enter it into the computer. This is your **Decision Number**.

Full information, heterogeneous payoff functions and Partial Information.

You have been assigned to a group of six (yourself and five other) participants. This will be your group for the entire session. This part will consist of 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**.

No information.

You have been assigned to a group of participants. This will be your group for the entire session. This part will consist of 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**.

All Treatments

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

Total Payoff = Private Payoff + Group Payoff

Full information, homogeneous payoff function.

Your Private Payoff depends only on your own Decision Number. Table 1 in your folder shows the Private Payoff for each possible Decision Number. For example if your Decision Number were 60 Table 1 shows that your Private Payoff would be 21.80 lab dollars. Or if you had chosen 30 your Private Payoff would be 15.20 lab dollars. Notice that the higher your Decision Number the higher your Private Payoff.

Full information, heterogeneous payoff function.

Your Private Payoff depends only on your own Decision Number. You have been randomly assigned to a player type. Half (3) 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 75. 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 75.

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 75 Table 1 shows you that your Private Payoff for choosing 30 would be 20.95 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 are always less than 75 then Table 2 shows that their Private Payoff for choosing 30 is 20.95 lab dollars.

Or, if the participant of the other type's Decision Numbers are 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.

Partial Information

Your Private Payoff depends only on your own Decision Number. 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 that your Private Payoff for choosing that Decision Number is 6.95 lab dollars.

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

You do not know the Private Payoff of the other people in your group.

All Treatments.

The Group Payoff depends only on the Group Total and is the same for everyone in the group. If the Group Total is less than or equal to 150 then the Group Payoff will be a positive value equal to 30% of the difference between 150 and the Group Total. If the Group Total is greater than 150, the Group Payoff is a negative value equal to 30% of the difference between 150 and the Group Total. The Group Payoff can be written as the following function of the Group Total:

$$\text{Group Payoff} = \begin{cases} 0.3*(150 - \text{Group Total}) & \text{if Group Total} > 150 \\ 0.3*(150 - \text{Group Total}) & \text{if Group Total} \leq 150 \end{cases}$$

For example if the Group Total were 170 then the Group Payoff for every member of the group would be 0.3*(150 - 170) = -6.00 lab dollars. Similarly if the Group Total were 140 then the Group Payoff for every member of the group would be 0.3*(150-140) = 3.00 lab dollars. Notice that the higher the Group Total the lower the Group Payoff.

Full information, homogeneous payoff functions.

As a simple example, suppose that you chose 30, and everyone else in your group chose 20. 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 15.20, the Group Payoff would be 6.00, and your Total Payoff would be 21.20 lab dollars.

Now suppose, that you had chosen 70 in the above example. The Group Total would be 170, your Private Payoff 23.20, the Group Payoff would be -6.00, and your Total Payoff would be 17.20 lab dollars. 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.

Full information, heterogeneous payoff functions.

As a simple example, suppose that you chose 30, and everyone else in your group chose 20. 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 20.95 if your decision numbers must be less than 75, the Group Payoff would be 6.00, and your Total Payoff would be 12.95 if your decision numbers are always less than 125, and 26.95 lab dollars if your decision numbers are always less than 75.

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 24.95 if your decision numbers are always below 75, the Group Payoff would be -6.00, and your Total Payoff would be 12.95 or 18.95 lab dollars depending on what type you are. 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.

Partial Information.

As a simple example, suppose that you chose 30, and everyone else in your group chose 20. 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, the Group Payoff would be 6.00, and your Total Payoff would be 12.95 lab dollars.

Now suppose, that you had chosen 70 in the above example. The Group Total would be 170, your Private Payoff 18.94, the Group Payoff would be -6.00, and your Total Payoff would be 12.95 lab dollars. 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.

No Information.

As a simple example, suppose that you chose 30, and that the sum of the decision numbers 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 20.95, the Group Payoff would be 6.00, and your Total Payoff would be 26.95 lab dollars.

Now suppose, that you had chosen 70 in the above example. The Group Total would be 170, your Private Payoff 24.95, the Group Payoff would be -6.00, and your Total Payoff would be 18.95 lab dollars. 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.

Full and partial information.

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 2 1/2 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.

No information.

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 2 1/2 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.

All treatments.

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	Group Total	Group Payoff	Total Payoff	Cumulative Payoff
Practice						

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. This random number is chosen by the computer 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 labelled Scratch Pad. Using the Scratch Pad, 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, the Decision Numbers of those in your group and the random number 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 which allow you to switch between the main screen and the history screen. If you click on the tab labelled 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.

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.