

# Instructions-Script

## Welcome

[New Slide -2] You are about to participate in an experiment on decision making and you will be paid for your participation with cash vouchers, privately at the end of the session. The money you earn will depend on both your decisions, the decisions of others and chance.

The session will be conducted through your computer terminal, and all communication and interaction between you and the other participants in this session will take place through your screens. Do not talk to or attempt to communicate with other participants during the experiment.

**[New Slide -1] Please make sure to turn off phones and similar devices now.**

**Please close any applications you have open on your computers.**

The session will begin with a brief instructional period, during which you will be informed of the main features of the task, and you will be shown how to use your computers. Please raise your hand if you have any questions during this period and your question will be answered so that everyone can hear.

## [Start z-Tree]

In order to familiarize you with the computer screens, we will start the interface in a few minutes. We will reproduce on the projector, screens that are similar to the ones you will see on your computers. This instruction period will not count for money, just to familiarize you with the software. However, please DO NOT make any choices unless we instruct you to do so.

## The task

[New Slide 0] In every round of the experiment you will be a member of a group of three subjects, randomly matched together into a new group each round. Each group member will be assigned a color role: RED, BLUE or GREEN. The task of the group is to choose two points: Point A and Point B. The choice of the group will eventually be made by member GREEN, who does not know the values of the two points. However, members RED

and BLUE, who do know the value of Points A and B will be able to separately send recommendations on what GREEN should pick. When playing for Money you will be assigned either the RED, BLUE or GREEN color, but in this instruction period we will familiarize you with the screens that all different group members will see. If you have any questions while we explain how the interface works please raise your hand and ask your question so that everyone can hear. We start now with the first screen that member BLUE will see.

## Member Blue

[New Slide 1] The projected screen is the first screen you will see if you are member BLUE. The screen has three parts with three different headings: Point A, Point B and Payoffs.

[New Slide 2] We start with Point A. Point A is a number between 1 and 360. The numbers Point A can take are represented in the white circle, clockwise. As you can see there are some items in the circle, we will explain each of them now.

[New Slide 3] A computer will choose a random number between 1 and 360, with all numbers having equal probability of being chosen, as if the computer rolled a 360 sided die. We will call this number 'Computer Point A'. In the projected screen, as you can see below the circle, Computer Point A takes value 237. Since this number is randomly chosen, in your computer screens 'Computer Point A' will likely take on a different number. Please, locate the corresponding number for Computer Point A in your screen and write it down in the worksheet besides your desks.

[New Slide 4] The BLUE arrow points to the choice of Point A that would give member BLUE maximal payoffs. Since you are currently taking the role of Member BLUE, this point is labelled 'Your Best'. The second line below the circle shows that 'Your Best' is equal to 'Computer Point A' plus 45. In the case of the projected example, since 'Computer Point A' takes on value 237, 'Your Best' is be 282. Please locate the 'Your Best' value in your computer screens and write it down in the worksheet.

<PAUSE>

The best that can happen to you (when you are member BLUE) is that member GREEN chooses 'Your Best' as the choice of the group. Your payoffs, when you are member BLUE, will be lower the further away the choice of member GREEN is from 'Your Best'.

[New Slide 5] The red arrow points to the choice of Point A that would be best for member RED. As you can see from the third line below the circle RED's best choice for Point A equals Computer Point A minus 45. In the case of the projected example this amounts to, 237 ('Computer Point A'), minus 45, for a total of 192. Please write down RED's best from your screen on the worksheet.

<PAUSE>

[New Slide 6] The green dot represents the choice of Point A that would be best for member GREEN. Member GREEN's best will always be equal to 'Computer Point A' (237). As you can see from the last line below the circle, this is verified in the projected example. Please write down GREEN's best from your screen in the worksheet.

<PAUSE>

[New Slide 7] We move now to the information about Point B. The type of information that is presented to you is exactly the same information that we just explained for Point A.

[New Slide 8] Just as with 'Computer Point A', the computer will roll the 360 sided die again to pick another number between 1 and 360. We call this random number 'Computer Point B'. In the Projected example 'Computer Point B' takes value 339. Since this is a random number it will likely differ from the one that you see in your screens. Please write down Computer Point B in the worksheet.

<PAUSE>

[New Slide 9] In the case of Point B 'Your Best' results from adding 45 from 'Computer Point B'. In the projected example, 'Computer Point B' is 339 and so your best is 24. This value (24) results from adding 45 to 'Computer Point B'. Because numbers are presented as if they were on a clock or a compass, once the addition of two numbers is higher than 360 we start counting back from 1. 'Computer Point B' is 339. When we add 45 to 339 we pass 360 by 24. For that reason the display shows that 339 plus 45 equals 24. You should not worry about doing these computations. The interface will help do them for you. 'Your Best' is 24. Since 'Computer Point B' in your screens is likely different, 'Your Best' for Point B will likely differ as well. Please locate the 'Your Best' for Point B and write it down on the worksheet.

<PAUSE>

[New Slide 10] RED's Best involves also adding 45 to 'Computer Point B'. In other words, as you can see on your computer screens, 'Your Best' and

'RED's Best' coincide. Please write down RED's best in the worksheet.

<PAUSE>

When BLUE and RED's best points coincide on Point A or B you will see only one 'purple' arrow in the circle, indicating that RED's and BLUE's best overlap.

[New Slide 11] GREEN's Best is equal to 'Computer Point B'. Please write down on the worksheet what your screen shows GREEN's best point to be.

<PAUSE>

Members BLUE and RED will simultaneously submit recommendations to GREEN for Points A and B. In order to submit a recommendation for Point A you have to click on top of the left circle to select a number.

[New Slide 12] In the projected example I have clicked and selected 1 as my recommendation for Point A. Now please make your choice. Remember your choice will not count for money in this instruction period.

[New Slide 13] If you want to modify your choice you can either click in the circle or use the buttons with a plus and a minus sign. Each time you click on the plus button you add 1 to your selection. Each time you click on the minus button you subtract one from your current selected point.

[New Slide 14] Now make a choice for Point B in the same manner. Remember your choice will not count for money in this instruction period. In the projected example I will select 1 as my recommendation.

[New Slide 15] The last column gives you information on payoffs. It first reminds you of your current choices for recommendations. Please write down your current recommendations on the worksheet. If Member GREEN follows your recommendations, the next three lines show the payoffs you, the RED and the GREEN member will receive. Please write down these payoffs in the worksheet.

If want to change your current selections, simply click on top of the circles or use the plus-minus buttons. As you change your selections you can see how payoffs would change if GREEN were to follow your recommendation. You can change your selections as much as you like, but when you click on the 'Use Selection' button your choices will be final. The selection you decide to use will be submitted to member GREEN as your recommendation. Once you have submitted your recommendation you will have to wait while member GREEN makes the choice for the group.

Please click on the 'Use Selection' button now. Remember this instruction period will not count for money.

## Member RED

[New Slide 16] At the same time as BLUE is considering what to recommend to GREEN, member RED must also decide on what to recommend. In this instruction period to familiarize you with the interface, we will show you the screens that member RED will see. When the experiment starts if you are member BLUE you will not see RED's screens, and if you are member RED you will not see BLUE's screens. You will make your recommendations simultaneously and without knowing what the other has selected. Please click on the 'See Red's screens' Button now.

[New Slide 17] You can now see what member RED's screens look like. As you can see the screen has identical information to that just showed for BLUE. Please make selections on recommendations for Points A and B as if you were the RED member.

[New Slide 18] I will select to recommend 1 in both points. After you have made your recommendations, please click on the 'Use Selection' button.

## Member RED and Member BLUE: Waiting Screen

[New Slide 19] If you are member RED or Member BLUE you will have to wait while GREEN evaluates RED and BLUE's recommendations and makes a choice. While you wait you will be reminded of what you recommended and you will have access to the recommendation sent by the other member to GREEN. On your screens you can see information for each of the two points: Point A (left) and Point B (right).

[New Slide 20] Consider first Point A. On the top part you can see information related to Member BLUE. The blue arrow in the white circle shows BLUE's recommendation to GREEN for Point A. You can check that BLUE's recommendation for Point A coincides with what you wrote down on your worksheet.

The framed circle to the right reminds you about best points. You can see GREEN's best point A and BLUE's best point A. The gray circle in the box reminds you that the difference between GREEN's and BLUE's best for Point A is 45. You can check your worksheet to see that BLUE's best point A and GREEN's best point A coincide with what you wrote down.

[New Slide 21] On the bottom part you can see similar information related to Member RED's recommendation. The red arrow in the white circle shows RED's recommendation for Point A and the framed circle to the right shows

GREEN and RED's best points and reminds you that the difference between them is -45.

[New Slide 22] Now look at the information for Point B. As you can see it shows the same information for Member RED and Member BLUE corresponding now to Point B. Please click on the 'Move On' button now.

## Member Green

[New Slide 23] When you are playing for Money you will be either member RED, member BLUE or member GREEN. We just went over the screens that member RED and member BLUE will face until they have submitted their recommendations for Point A and Point B. Now we will show you the screens that you will face if you were member GREEN. Please click on 'See Green's Screen' button now.

[New Slide 24] If you are member GREEN you will have to wait while members RED and BLUE submit their recommendations. While you wait your screen will display the currently projected slide. Member GREEN DOES NOT KNOW what values the computer selected for 'Computer Point A' and 'Computer Point B'; Before making their recommendations members RED and BLUE will learn the computer point values. Member GREEN only has access to recommendations from members RED and BLUE, but will not know the exact values for 'Computer Point A' and 'Computer Point B'.

Member GREEN does know that the highest money payoff for them is to choose 'Computer Point A' and 'Computer Point B'. GREEN's problem is that they do not know these computer selected values, but will receive recommendations from RED and BLUE who do know these values. Member GREEN does know that RED and BLUE would find it best if they were to choose a different point.

The screen that GREEN will see while they wait for BLUE and RED to send their recommendations reminds GREEN about how far away RED and BLUE's best choices are from their own best points.

[New Slide 25] Consider first Point A. The top part of the screen reminds them that BLUE's best is Computer A plus 45, and their best is Computer A exactly.

[New Slide 26] The bottom part of the screen reminds them that RED's best is Computer A minus 45.

[New Slide 27] Now consider Point B. The top part of the screen reminds GREEN that BLUE's best is Computer B plus 45, and their best is Computer

B exactly. The bottom, reminds them that RED's best is Computer B plus 45.

Once members RED and BLUE have submitted their recommendations, if you are member GREEN you will then move on to observe the recommendations and make a choice for the group. Please click on 'Move On' now.

[New Slide 28] This is the screen where you will make the final choice for the group if you are member GREEN.

[New Slide 29] Consider Point A. Here you can see, on top, BLUE's recommendation and at the bottom you can see RED's recommendation.

[New Slide 30] Consider now Point B. Just as for Point A you can see BLUE's and RED's recommendations.

[New Slide 31] If you are member GREEN you will make a choice for Point A by clicking anywhere in the white circles with the recommendations for Point A. Just as an example I will choose 100. You can make any choice, it will not count for money. You can adjust your selection for Point A by clicking anywhere else in any of the two circles or by using the plus-minus buttons. As you can see after making a selection two framed circles appear. These circles remind you about the differences between GREEN's best and the recommenders' best points.

[New Slide 32] Consider the selected top part in the projected screen. GREEN does not know their best choice for Point A. But, **IF** Computer A was actually the one that GREEN chose (100 in the projected slide), then BLUE's best is that plus 45 (145).

[New Slide 33] Consider the selected bottom part in the projected screen. Again, GREEN does not know their best choice for Point A. But, if Computer A was the same as that chosen by GREEN (100 in the projected slide), then RED's best is that minus 45 (55).

[New Slide 34] Now consider Point B. Just as for Point A you can make a selection by clicking on top of any of the white circles. I will again choose 100.

[New Slide 35] You can see similar information for Point B as for Point A. As soon as you make a choice the framed circles show you what RED and BLUE's best points are if the choice selected was to be GREEN's best.

[New Slide 36] When you play for money, if you are member GREEN, you can change your selection for Points A and B as long as you haven't clicked on the 'Use this Choice' button. Since this is an instruction period that doesn't count for money, please click on the 'Use this Choice' button.

## Feedback

[New Slide 37] After GREEN makes a choice for the group all members of the group will receive feedback on their payoffs. Please click on the ‘See Blue’s feedback’ button to see the feedback that member BLUE will receive.

[New Slide 38] Consider the information regarding Point A. In the circle you will have information about your best (a Dot) and the choice made by Member GREEN (a Black Arrow). Below the circle the interface computes the difference between these two values. You will make less money the larger this difference is.

[New Slide 39] In case you want more information you can click on the ‘Show’ buttons so that the best points of other members and the recommendations are also shown in the circle. The information regarding Point B is exactly the same.

[New Slide 40] The last column summarizes the best points for all players.

[New Slide 41] The panel below displays the information about payoffs. You start the round with \$20, but you will have to pay a cost that is higher when your best point is far from GREEN’s choice. For example, in the projected slide member BLUE pays the maximum distance cost of \$15 and makes \$5 in this round. In your screens you likely observe a different figure for BLUE’s final payment. Please write down that figure in the worksheet.

<PAUSE>

[New Slide 42] You can review the information as much as you like, but when you click on the ‘Move on’ button the round will be over.

[New Slide 43] Now you’ll see the feedback that member GREEN receives. Please click on the ‘See Green’s feedback’ button.

[New Slide 40] As you can see the feedback involves the same information that BLUE and RED will receive. Here is where member GREEN will learn the true value of their best points. Please click on ‘Done’.

Before we start with the experiment we’ll give you a handout that summarizes the main points and will explain in detail how you will get paid.