

Instructions for X-Lab Experiment

Introduction

This is an experiment in decision making. Research foundations have provided the funds for conducting this project. Your payoffs will depend partly on your decisions and the decisions of other players and partly on chance. Please pay careful attention to the instructions as a considerable amount of money is at stake.

During this experiment, you must refrain from talking with any other participants. In order to keep your decisions private, please do not reveal your choices to any other participant during or after the experiment.

You will never be asked to reveal your identity during the course of this experiment, and neither the experimenters nor the other participants will be able to link you to any of your decisions. Your participation in this experiment and any information about your payoffs will be kept strictly confidential. Your payment receipt and the participant form are the only places where your name and student ID number are recorded.

The entire experiment should be completed in under two hours.

At the end of the experiment, you will be paid privately. You will receive a five dollar participation fee for showing up on time and completing the experiment. You may earn additional money during the experiment. Details of how you will make decisions and receive payments will be provided below.

In this experiment, we will speak in terms of experimental currency tokens instead of dollars. Your payoffs in the experiment (excluding the participation fee) will be calculated in terms of tokens and then converted into dollars after the experiment is over. The conversion rate between tokens and dollars is: 1 dollar = 2.5 tokens.

Overview of the Experiment

This experiment consists of twelve identical rounds. In each round, you will be matched with an anonymous partner. You will never learn the identity of any of your partners, and you will be assigned a new partner at the beginning of each round.

Each round consists of two phases. In the first phase, one player from each anonymous pair will be given the opportunity to earn currency tokens by answering a question from the Graduate Record Exam (GRE). We will call this player the *responder*. The value (in tokens) of a correct answer to the GRE question varies from round to round. At the beginning of each round, a value for correct answers is randomly selected and announced. Possible values are 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, 140, 150, 160, 170, and 180 tokens. Responders who answer their GRE question incorrectly will receive ten tokens.

In the second phase, each player – both those who responded to GRE questions and those who did not – is asked to divide the tokens earned by the responder between the two of them. The value of the responders tokens to the other player varies from round to round. For instance, each of the responders tokens will be

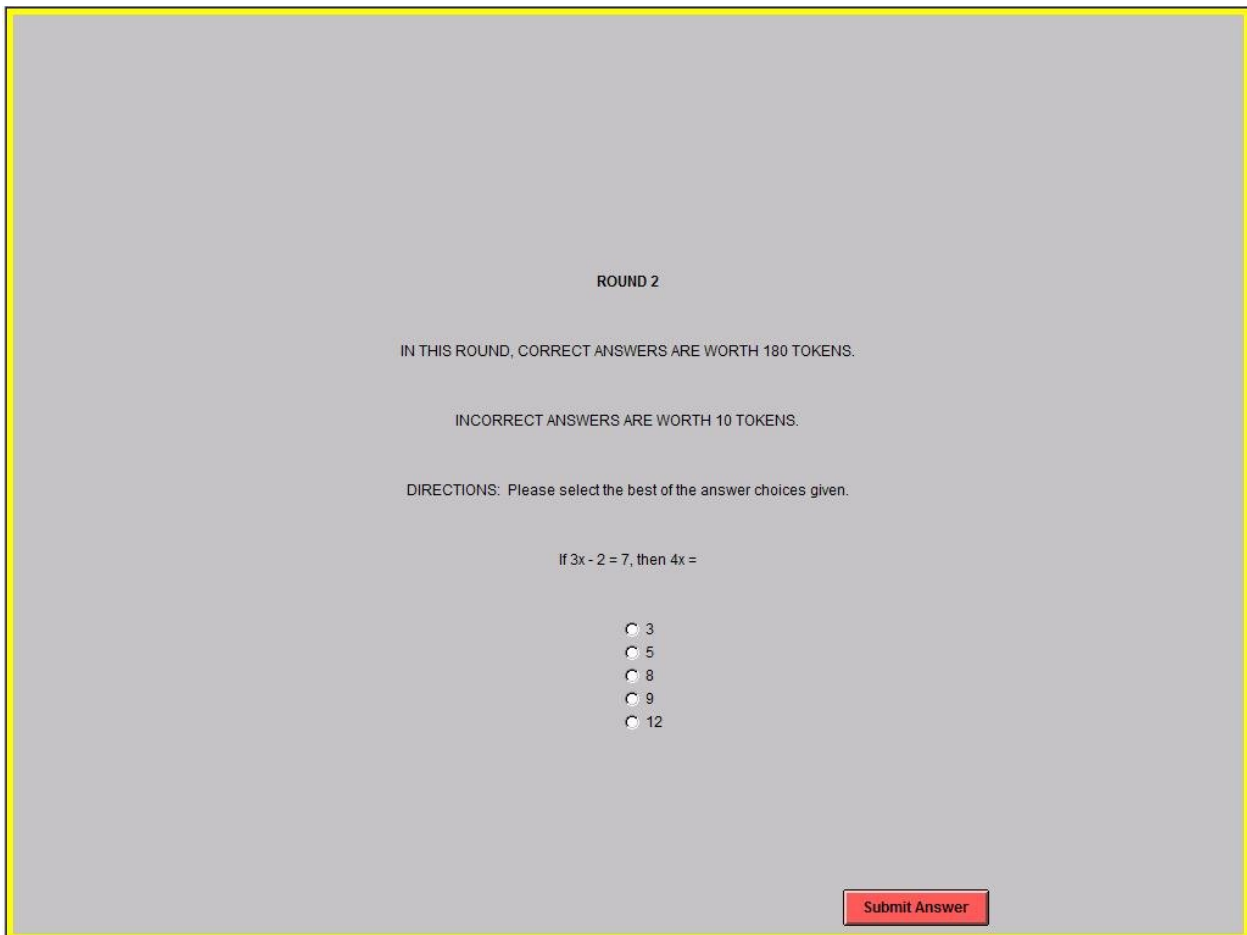
worth two tokens to the other player in some rounds, but in other rounds, each of the responders tokens will only be worth $\frac{1}{2}$ of a token to the other player.

After the twelve rounds of play are completed, one round will be randomly selected. For each pair that played together during the chosen round, one player will be randomly selected and the allocation that the chosen player made in the chosen round will be converted into dollars and paid out. This is the only way that you will earn money in this experiment.

Structure of the Experiment

Each of you is seated in front of a laptop computer. When the experiment begins, you will be randomly matched with a partner for the first round. One member of each two-person group will be randomly selected to be the responder for that round. The responder will be asked to answer a GRE question in order to earn tokens. The other member of each group will see a gray screen that asks them to wait for the experiment to continue.

The responder of each group will see a screen similar to the example below:

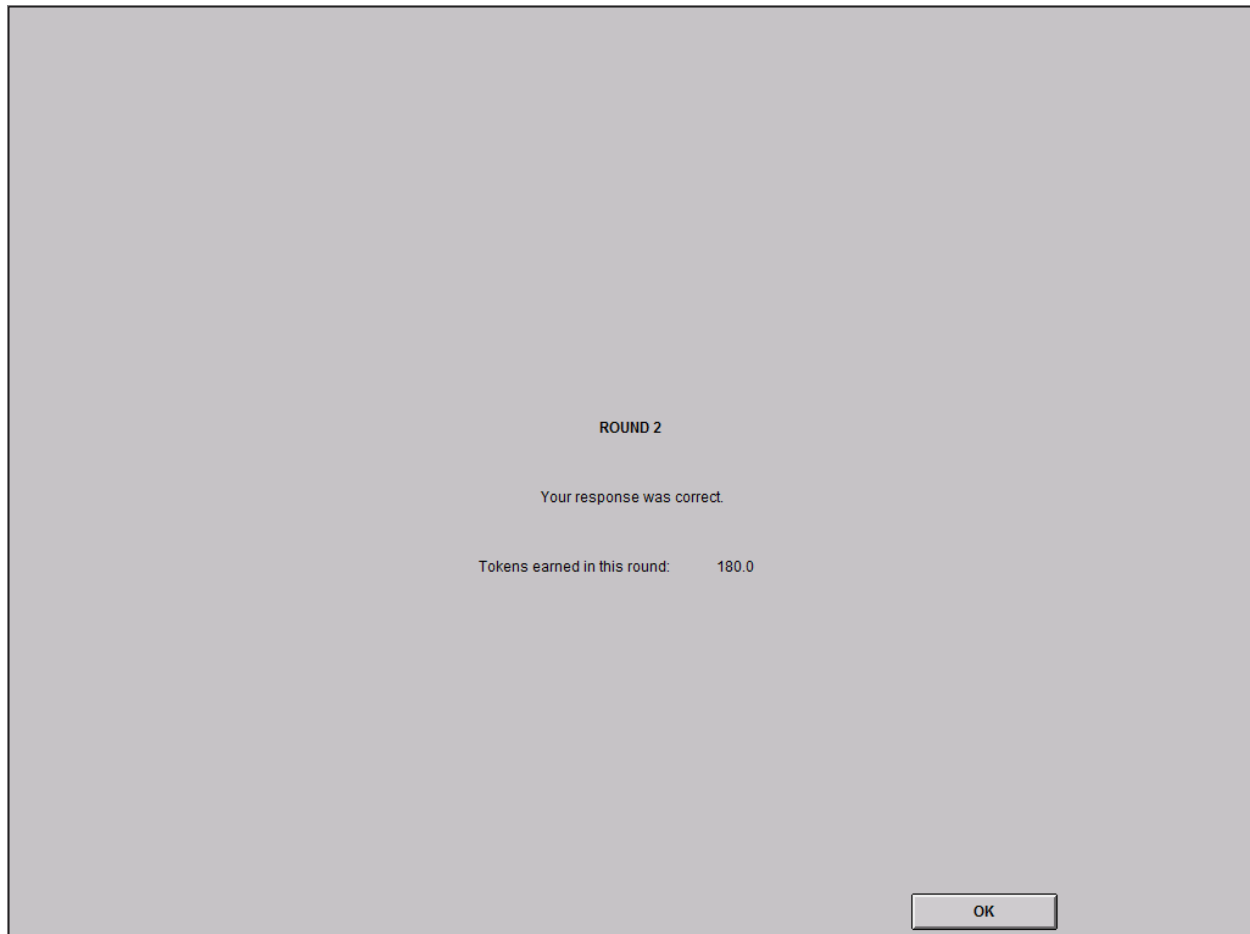


The screen indicates the randomly chosen point value (in tokens) of correct answers for the round and also reminds you that incorrect answers are worth ten tokens. Next, the screen displays any question-

specific directions for the GRE question. In this case, you are simply asked to choose the correct answer from the list. Finally, the GRE question is displayed.

In this phase, you are asked to choose indicate your answer by clicking on the circle next to the response that you believe is correct. The circle will fill in after you click on it. Then, submit your response by clicking the “Submit Answer” button.

After you submit your response, a screen will appear indicating whether your answer was correct. An example is provided below:



Throughout this phase of the experiment, those group members who were not chosen to be the responder in the current round are asked to sit quietly. They will continue to see a message asking them to wait for the experiment to continue.

In the next phase of each round, both members of each pair are asked to divide the tokens earned by the responder between the two of them. So, if the responder (as we shall call that member of the partnership) has answered incorrectly, each member of the group would then make a decision about to split the responder’s ten tokens between the two of them. However, each token earned by the responder does not always translate into one token for the other player. Instead, the value of each of the responder’s tokens to the other partner changes from round to round.

Consider the following example:

ROUND 2


Your Earnings in This Period: 180

IN THIS ROUND, EVERY TOKEN YOU PASS TO YOUR PARTNER IS WORTH 1/3 OF A TOKEN TO HIM OR HER.

Please divide your earnings between yourself and your partner. Enter your allocation in the spaces provided below. Note that you must allocate an amount between 0 and 180 to yourself. In addition, the amount that you allocate to your partner must fall between 0 and 1/3 of the remainder (because each token in your endowment buys your partner 1/3 of one token).

Number of tokens allocated to self:

Number of tokens allocated to partner:



This is the next screen that you will see if you are playing the role of responder in Round 2. It indicates that you earned 180 tokens earlier in the round by choosing the correct answer to the GRE question. Next, the screen tells you that in this round each of your tokens is worth only 1/3 of a token to your partner. It then asks you (the responder) to divide your tokens between yourself and your partner. You do this by entering token amounts in the boxes.

Because your tokens are only worth 1/3 of a token to your partner, you cannot simply divide 180 between the two entry boxes. As the message on the screen indicates, you must choose an amount, x , to allocate to yourself. Then, you must indicate how many tokens you would like to award to your partner. The number of tokens that you award to your partner cannot be larger than $(180 - x)/3$. Why? If you award yourself x tokens, then you have only $180 - x$ tokens left to spend on your partner. Each of the tokens that you spend on your partner is only worth 1/3 of a token to her, so you can award your partner a maximum of $(180 - x)/3$ tokens.

Consider some examples of a hypothetical responder dividing tokens between herself and her partner:

- If the responder wished to award her partner all of the tokens, she would enter a “0” in the box beside the words “Number of tokens allocated to self.” This would leave a maximum of $(180 - 0) / 3 = 60$ tokens that she could award to her partner, so she would enter “60” in the box beside the words “Number of tokens allocated to partner.” Then, she would click the “Submit Allocation” button to finalize her decision.

- If the responder wished to keep all of her tokens, she would enter “180” in the box beside the words “Number of tokens allocated to self” and “0” in the box beside the words “Number of tokens allocated to partner.” Then, she would submit her allocation by clicking the button.
- If the responder wished to keep 120 tokens for herself, she would enter “120” in the first box. That would leave a maximum of $(180 - 120)/3 = 20$ tokens that she could allocate to her partner. If she wished to award all of these tokens to her partner, she would enter “20” in the relevant box and submit the allocation.

If you would like to use a calculator to help you make your token allocation decision, click the button with the small calculator on it. The button is located in the lower right corner of the decision screen. This will call up a calculator tool.

While the responder is making her allocation decision, the other partner is also asked how she would like to divide the responder’s tokens between the two members of the group. An example of the screen that you will encounter when you are not the responder is provided below:

ROUND 2


Your Partner's Earnings in This Period: 180

IN THIS ROUND, EVERY TOKEN YOU TAKE FROM YOUR PARTNER IS WORTH 1/3 OF A TOKEN TO YOU.

Please divide your partner's earnings between yourself and your partner. Enter your allocation in the spaces provided below. Note that you must allocate an amount between 0 and 180 to your partner. In addition, the number of tokens that you allocate to yourself must fall between 0 and 1/3 of the remainder (because each token in your partner's endowment buys you 1/3 of one token).

Number of tokens allocated to self:

Number of tokens allocated to partner:



First, it informs you that you partner earned 180 tokens in the round. Then, the screen indicates that every token you take from your partner is worth only 1/3 of a token to you. Finally, it asks you to divide your partner’s tokens between the two of you and enter your preferred allocation in the boxes provided.

It is important to note that you can only award yourself $(180 - x)/3$ tokens, where x is the number of tokens allocated to your responding partner. So, if you wanted to award yourself all of the tokens, you would enter “60” in the box beside the words “Number of tokens allocated to self” and “0” in the box beside the words “Number of tokens allocated to partner.” If you wanted to give yourself 30 tokens, that would mean using up 90 tokens from your partner’s token account, leaving a maximum of 90 that you could award your responding partner.

After entering your preferred allocation in the boxes provided, click the “Submit Allocation” button to finalize your decision. When all the participants have submitted their allocation decisions, the round concludes and the next round begins with new partners.

Earning Money in the Experiment

At the end of the experiment, one round will be randomly selected. For each pair that played together during the chosen round, one player will be randomly selected and the allocation that the chosen player made in the chosen round will be converted into dollars and paid out. This is the only way that you will earn money in this experiment.

If there are no questions, we are ready to begin the experiment.