Instructions [Treatment D50, D50-HP]

Welcome to this economic experiment. From now on you are not allowed to communicate in any other way than specified in the instructions. Please obey to this rule because otherwise we have to exclude you from the experiment and all earnings you have made will be lost. Please also do not ask questions aloud. If you have a question, raise your hand. A member of the experimenter team will come to you and answer your question in private.

In this experiment you can earn money with the decisions you make. How much you earn depends on your own decisions, the decisions of other participants as well as random events. We will not speak of CHF during the experiment, but rather of experimental points. All your earnings will first be calculated in points. At the end of the experiment the total amount of points you earned will be converted to CHF at the following rate:

\[
100 \text{ points} = 0.3 \text{ CHF}
\]

In addition, you will receive a show up fee of 10 CHF.

The experiment consists of two parts that are independent of one another. For each part you will receive specific instructions. These instructions will explain how you make decisions and how your decisions and the decisions of other participants influence your earnings. Therefore, it is important that you read the instructions carefully.

The General Setting

We will now describe the general setting you will face during the experiment. At the beginning of the experiment the participants will be divided into buyers and sellers. Half of the participants will be buyers and the other half will be sellers. When you are a buyer (respectively, a seller) you will stay a buyer (respectively, a seller) throughout the experiment. A decision situation (explained below) will be repeated for 10 periods. In each period a buyer and a seller are randomly matched. In other words, the participants are divided into pairs and each pair consists of one buyer and one seller. You will not get to know the identity of the buyer or seller you are paired with, neither during nor after the experiment. The participant who is paired with you will also not get to know your identity. In each period new pairs will be formed randomly.

The Decision Situation

The decision situation will be the same for all ten periods. We will now describe one such period. After the buyer and the seller have been matched, they face the following situation. The seller can be of two different types: type A or type B. A seller of type A can only produce a high quality good at cost 2500. A seller of type B can only produce a low quality good at cost 0. The buyer’s valuation for the high quality good is 3500. The buyer’s valuation for the
low quality good is 1750.

The seller knows whether she is of type A or type B and therefore also knows how much the good is worth to the buyer. However, the buyer does not know the seller’s type and hence, the buyer does neither know whether his valuation for the good is 3500 or 1750 nor whether the cost of the seller to produce the good is 2500 or 0. The type of the seller will be determined randomly according to the following probabilities: the probability that the seller is of type A (high cost / high quality good) is 0.4 (40%) [0.8 (80%) in D50-HP] and the probability that the seller is of type B (low cost / low quality good) is 0.6 (60%) [0.2 (20%) in D50-HP].

To acquire the good, the buyer makes offers to the seller. The offers must be between 0 and 4000 and can be as exact as to the first decimal place. If you enter an offer that is not allowed, the computer will tell you and you will have to change your offer. Upon seeing the buyer’s offer, the seller can accept or reject the offer. If the seller accepts the offer, she produces the good and sells it to the buyer at the agreed price. The buyer does not make further offers and the trading pair has to wait until all other pairs have finished their trading process and buyers and sellers are rematched to form new pairs in the next period.

If the seller rejects the offer, the buyer can make a new offer to the seller which can again be accepted or rejected. There can be at most 50 stages, i.e. a buyer can make at most 50 offers to a seller. Likewise, a seller can reject up to 50 offers. If all 50 offers are rejected, the good is not produced (and not traded) and both parties earn 0.

In which stage trade takes place does matter. The buyer and the seller both discount the future at the discount rate \( d=0.8 \). This means that a profit (or loss) realized in stage \( n \) is discounted according to the given discount rate. For instance, if the buyer makes a profit of \( x \) experimental points in stage 1, he earns \( x \) experimental points since there is no discounting. If the buyer makes a profit of \( x \) experimental points in stage 3, he earns \( x*0.8*0.8=x*0.8^2 \) experimental points. Generally, if an offer is accepted in stage \( n \), the payoffs are determined as follows.

\[
\text{The buyer’s payoff} = (\text{Valuation of the Good} - \text{Accepted Offer}) \cdot d^{n-1} \\
\text{The seller’s payoff} = (\text{Accepted Offer} - \text{Production Cost}) \cdot d^{n-1}
\]

For convenience the valuations and costs are summarized below:

| Buyer’s valuation for the high quality good | = 3500 |
| Buyer’s valuation for the low quality good | = 1750 |
| Seller’s cost of producing the high quality good | = 2500 |
Seller’s cost of producing the low quality good = 0

Once all pairs have traded the good at some price or all offers have been rejected, the computer randomly matches buyers and sellers anew and the next period starts. The experiment ends after period 10.

Control Questions

Please answer the following control questions. These questions use arbitrary numbers. They will help you to gain an understanding of the calculation of your earnings. Once you have answered all questions raise your hand. The experimenter will then check the answers. Note that your answers here do not affect your earnings.

1. You are a buyer. You offer 0 in stage 1 and the seller accepts the offer immediately. The seller is of type A. What will your earnings be in experimental points?
   
   __________
   
   You are a buyer. You offer 0 in stage 1 and the seller accepts the offer immediately. The seller is of type B. What will your earnings be in experimental points?
   
   __________
   
   You are a seller of type A. You are offered 0 in stage 1 and you accept the offer immediately. What will your earnings be in experimental points?
   
   __________
   
   You are a seller of type B. You are offered 0 in stage 1 and you accept the offer immediately. What will your earnings be in experimental points?
   
   __________

2. You are a buyer. You offer 2000 in stage 1 and the seller accepts the offer immediately. The seller is of type A. What will your earnings be in experimental points?
   
   __________
   
   You are a buyer. You offer 2000 in stage 1 and the seller accepts the offer immediately. The seller is of type B. What will your earnings be in experimental points?
   
   __________
   
   You are a seller of type A. You are offered 2000 in stage 1 and you accept the offer immediately. What will your earnings be in experimental points?
   
   __________
   
   You are a seller of type B. You are offered 2000 in stage 1 and you accept the offer immediately. What will
your earnings be in experimental points?

____

3. You are a buyer who has offered 3000 in stage 6 and the offer was accepted (the previous offers were rejected). It turns out that the seller is of type A. Hence, your valuation for the good is 3500. This leads to an undiscounted profit of \(3500 - 3000 = 500\). What are your effective (discounted) earnings in experimental points in this period?

____

What are your discounted earnings in experimental points if the seller turned out to be of type B?

____

4. You are a buyer. Your offers in stages 1 and 2 were rejected. In stage 3 you offer 1000 and the seller accepts the offer. The seller is of type A. What will your earnings be in experimental points?

____

You are a buyer. Your offers in stages 1 and 2 were rejected. In stage 3 you offer 1000 and the seller accepts the offer. The seller is of type B. What will your earnings be in experimental points?

____

You are a seller of type A. You rejected the offers in stages 1 and 2. In stage 3 you are offered 1000 and you accept the offer. What will your earnings be in experimental points?

____

You are a seller of type B. You rejected the offers in stages 1 and 2. In stage 3 you are offered 1000 and you accept the offer. What will your earnings be in experimental points?

____

**Screenshots**

This final part of the instructions shows and explains the screens you will face during the experiment. The first two screens show the information you will see at the beginning of each period. In particular, the seller learns whether she is of type A or B. As you can see, the buyer does not obtain this information about the seller.
Screen 1

This is period 1. Recall that you are a buyer.

Your valuation for the good depends on the seller’s type. The probability that the seller is of type A is 0.40 and the probability that the seller is of type B is 0.60.

Thus, with probability 0.40 your valuation for the good is 3500.0 and with probability 0.60 your valuation is 1750.0.

Screen 2

This is period 1. Recall that you are a seller.

The probability for you to be a seller of type A was 0.40 and the probability for you to be a seller of type B was 0.60. The computer has assigned to you a type according to this probability.

You are a seller of type B. Thus, your cost of providing the good is 0.0 and the buyer’s valuation for the good is 1750.0.

Recall that the valuation of the buyer depends on the quality of the good and that your type is private information to you.
Screen 3 presents the buyer’s screen in which he can make his offer. In the left panel the buyer can make his offer.

In this particular case, the buyer makes the offer for period 1 stage 2. By clicking on the submit button he confirms the offer and cannot change it anymore. In the right panel the buyer can see the rejected offers. The middle panel shows some important information: the buyer’s valuation for the high and low quality good, the seller’s costs for producing the goods (for both types of sellers), and the current discounting, i.e., the number by which the undiscounted payoffs have to be multiplied to obtain the discounted payoffs. In this case this number is 0.8, since the trading pair is in the second stage.
Screen 4 shows the decision screen for the seller. It is similar to the buyer’s screen except that instead of making an offer, the seller can accept or reject the offer made by the buyer. When the buyer and the seller reach an agreement the payoffs for this period will be displayed and the next period starts as soon as all participants are ready.
Instructions [Treatment ND50]

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\[ 100 \text{ points} = 0.3 \text{ CHF} \]

In addition, you will receive a show up fee of 10 CHF.

The experiment consists of two parts that are independent of one another. For each part you will receive specific instructions. These instructions will explain how you make decisions and how your decisions and the decisions of other participants influence your earnings. Therefore, it is important that you read the instructions carefully.

The General Setting

We will now describe the general setting you will face during the experiment. At the beginning of the experiment the participants will be divided into buyers and sellers. Half of the participants will be buyers and the other half will be sellers. When you are a buyer (respectively, a seller) you will stay a buyer (respectively, a seller) throughout the experiment. A decision situation (explained below) will be repeated for 10 periods. In each period a buyer and a seller are randomly matched. In other words, the participants are divided into pairs and each pair consists of one buyer and one seller. You will not get to know the identity of the buyer or seller you are paired with, neither during nor after the experiment. The participant who is paired with you will also not get to know your identity. In each period new pairs will be formed randomly.

The Decision Situation

The decision situation will be the same for all ten periods. We will now describe one such period. After the buyer and the seller have been matched, they face the following situation. The seller can be of two different types: type A or type B. A seller of type A can only produce a high quality good at cost 2500. A seller of type B can only produce a low quality good at cost 0. The buyer’s valuation for the high quality good is 3500. The buyer’s valuation for the
low quality good is 1750.

The seller knows whether she is of type A or type B and therefore also knows how much the good is worth to the buyer. However, the buyer does not know the seller’s type and hence, the buyer does neither know whether his valuation for the good is 3500 or 1750 nor whether the cost of the seller to produce the good is 2500 or 0. The type of the seller will be determined randomly according to the following probabilities: the probability that the seller is of type A (high cost / high quality good) is 0.4 (40%) and the probability that the seller is of type B (low cost / low quality good) is 0.6 (60%).

To acquire the good, the buyer makes offers to the seller. The offers must be between 0 and 4000 and can be as exact as to the first decimal place. If you enter an offer that is not allowed, the computer will tell you and you will have to change your offer. Upon seeing the buyer’s offer, the seller can accept or reject the offer. If the seller accepts the offer, she produces the good and sells it to the buyer at the agreed price. The buyer does not make further offers and the trading pair has to wait until all other pairs have finished their trading process and buyers and sellers are rematched to form new pairs in the next period.

If the seller rejects the offer, the buyer can make a new offer to the seller which can again be accepted or rejected. There can be at most 50 stages, i.e. a buyer can make at most 50 offers to a seller. Likewise, a seller can reject up to 50 offers. If all 50 offers are rejected, the good is not produced (and not traded) and both parties earn 0.

If an offer is accepted, the payoffs are determined as follows.

\[
\text{The buyer’s payoff} = \text{Valuation of the Good - Accepted Offer} \\
\text{The seller’s payoff} = \text{Accepted Offer – Production Cost}
\]

For convenience the valuations and costs are summarized below:

- Buyer’s valuation for the high quality good = 3500
- Buyer’s valuation for the low quality good = 1750
- Seller’s cost of producing the high quality good = 2500
- Seller’s cost of producing the low quality good = 0

Once all pairs have traded the good at some price or all offers have been rejected, the computer randomly matches buyers and sellers anew and the next period starts. The experiment ends after period 10.
Instructions [Treatment D50, D50-HP]

Welcome to this economic experiment. From now on you are not allowed to communicate in any other way than specified in the instructions. Please obey to this rule because otherwise we have to exclude you from the experiment and all earnings you have made will be lost. Please also do not ask questions aloud. If you have a question, raise your hand. A member of the experimenter team will come to you and answer your question in private.

In this experiment you can earn money with the decisions you make. How much you earn depends on your own decisions, the decisions of other participants as well as random events. We will not speak of CHF during the experiment, but rather of experimental points. All your earnings will first be calculated in points. At the end of the experiment the total amount of points you earned will be converted to CHF at the following rate:

$$100\text{ points} = 0.3\text{ CHF}$$

In addition, you will receive a show up fee of 10 CHF.

The experiment consists of two [three, in some sessions] parts that are independent of one another. For each part you will receive specific instructions. These instructions will explain how you make decisions and how your decisions and the decisions of other participants influence your earnings. Therefore, it is important that you read the instructions carefully.

The General Setting

We will now describe the general setting you will face during the experiment. At the beginning of the experiment the participants will be divided into buyers and sellers. Half of the participants will be buyers and the other half will be sellers. When you are a buyer (respectively, a seller) you will stay a buyer (respectively, a seller) throughout the experiment. A decision situation (explained below) will be repeated for 10 periods. In each period a buyer and a seller are randomly matched. In other words, the participants are divided into pairs and each pair consists of one buyer and one seller. You will not get to know the identity of the buyer or seller you are paired with, neither during nor after the experiment. The participant who is paired with you will also not get to know your identity. In each period new pairs will be formed randomly.

The Decision Situation

The decision situation will be the same for all ten periods. We will now describe one such period. After the buyer and the seller have been matched, they face the following situation. The seller can be of two different types: type A
or type B. A seller of type A can only produce a high quality good at cost 2500. A seller of type B can only produce a low quality good at cost 0. The buyer’s valuation for the high quality good is 3500. The buyer’s valuation for the low quality good is 1750.

The seller knows whether she is of type A or type B and therefore also knows how much the good is worth to the buyer. However, the buyer does not know the seller’s type and hence, the buyer does neither know whether his valuation for the good is 3500 or 1750 nor whether the cost of the seller to produce the good is 2500 or 0. The type of the seller will be determined randomly according to the following probabilities: the probability that the seller is of type A (high cost / high quality good) is 0.4 (40%) [0.8 (80%) in D1-HP] and the probability that the seller is of type B (low cost / low quality good) is 0.6 (60%) [0.2 (20%) in D1-HP].

To acquire the good, the buyer makes an offer to the seller. The offer must be between 0 and 4000 and can be as exact as to the first decimal place. If you enter an offer that is not allowed, the computer will tell you and you will have to change your offer. Upon seeing the buyer’s offer, the seller can accept or reject the offer.

- If the seller accepts the offer, she produces the good and sells it to the buyer at the agreed price.
- If the seller rejects the offer, the good is not produced (and not traded) and both parties earn 0.

After the buyer’s offer has been accepted or rejected, the trading pair has to wait until all other pairs have finished their trading process and buyers and sellers are rematched to form new pairs in the next period.

If an offer is accepted, the payoffs are determined as follows.

The buyer’s payoff = Valuation of the Good - Accepted Offer
The seller’s payoff = Accepted Offer – Production Cost

For convenience the valuations and costs are summarized below:

Buyer’s valuation for the high quality good = 3500
Buyer’s valuation for the low quality good = 1750
Seller’s cost of producing the high quality good = 2500
Seller’s cost of producing the low quality good = 0

Once all pairs have traded the good at some price or the offer has been rejected, the computer randomly matches buyers and sellers anew and the next period starts. The experiment ends after period 10.
Instructions [Treatment D50-CI]

Welcome to this economic experiment. From now on you are not allowed to communicate in any other way than specified in the instructions. Please obey to this rule because otherwise we have to exclude you from the experiment and all earnings you have made will be lost. Please also do not ask questions aloud. If you have a question, raise your hand. A member of the experimenter team will come to you and answer your question in private.

In this experiment you can earn money with the decisions you make. How much you earn depends on your own decisions, the decisions of other participants as well as random events. We will not speak of CHF during the experiment, but rather of experimental points. All your earnings will first be calculated in points. At the end of the experiment the total amount of points you earned will be converted to CHF at the following rate:

\[
100 \text{ points} = 0.3 \text{ CHF}
\]

In addition, you will receive a show up fee of 10 CHF.

The General Setting

We will now describe the general setting you will face during the experiment. At the beginning of the experiment the participants will be divided into buyers and sellers. Half of the participants will be buyers and the other half will be sellers. When you are a buyer (respectively, a seller) you will stay a buyer (respectively, a seller) throughout the experiment. A decision situation (explained below) will be repeated for 10 periods. In each period a buyer and a seller are randomly matched. In other words, the participants are divided into pairs and each pair consists of one buyer and one seller. You will not get to know the identity of the buyer or seller you are paired with, neither during nor after the experiment. The participant who is paired with you will also not get to know your identity. In each period new pairs will be formed randomly.

The Decision Situation

The decision situation will be the same for all ten periods. We will now describe one such period. After the buyer and the seller have been matched, they face the following situation. The seller can be of two different types: type A or type B. A seller of type A can only produce a high quality good at cost 2500. A seller of type B can only produce a low quality good at cost 0. The buyer’s valuation for the high quality good is 3500. The buyer’s valuation for the low quality good is 1750.

Both the seller and the buyer know whether the seller is of type A or type B and therefore know the seller’s
production cost as well as how much the good is worth to the buyer. The type of the seller will be determined randomly according to the following probabilities: the probability that the seller is of type A (high cost / high quality good) is 0.4 (40%) and the probability that the seller is of type B (low cost / low quality good) is 0.6 (60%).

To acquire the good, the buyer makes offers to the seller. The offers must be between 0 and 4000 and can be as exact as to the first decimal place. If you enter an offer that is not allowed, the computer will tell you and you will have to change your offer. Upon seeing the buyer’s offer, the seller can accept or reject the offer. If the seller accepts the offer, she produces the good and sells it to the buyer at the agreed price. The buyer does not make further offers and the trading pair has to wait until all other pairs have finished their trading process and buyers and sellers are rematched to form new pairs in the next period.

If the seller rejects the offer, the buyer can make a new offer to the seller which can again be accepted or rejected. There can be at most 50 stages, i.e. a buyer can make at most 50 offers to a seller. Likewise, a seller can reject up to 50 offers. If all 50 offers are rejected, the good is not produced (and not traded) and both parties earn 0.

In which stage trade takes place does matter. The buyer and the seller both discount the future at the discount rate $d=0.8$. This means that a profit (or loss) realized in stage $n$ is discounted according to the given discount rate. For instance, if the buyer makes a profit of $x$ experimental points in stage 1, he earns $x$ experimental points since there is no discounting. If the buyer makes a profit of $x$ experimental points in stage 3, he earns $x \times 0.8 \times 0.8 = x \times 0.8^2$ experimental points. Generally, if an offer is accepted in stage $n$, the payoffs are determined as follows.

\[
\text{The buyer’s payoff} = (\text{Valuation of the Good} - \text{Accepted Offer}) \times d^{n-1}
\]
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\text{The seller’s payoff} = (\text{Accepted Offer} - \text{Production Cost}) \times d^{n-1}
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For convenience the valuations and costs are summarized below:

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Seller’s cost of producing the high quality good = 2500
Seller’s cost of producing the low quality good = 0

Once all pairs have traded the good at some price or all offers have been rejected, the computer randomly matches buyers and sellers anew and the next period starts. The experiment ends after period 10.
Instructions Lottery Task

In this part of the experiment, you will have the choice to participate in a lottery in which you can win or lose money. Any profits or losses will be added to your earnings from the previous part of the experiment and paid to you in cash at the end of the experiment.

On the next screen, you will see six different lotteries. For each lottery, you may choose to accept the lottery or decline the lottery. After you have made a selection for each of the lotteries, one of the lotteries will be randomly selected by the computer. If you have decided to accept the selected lottery, the computer will determine whether you win or lose the lottery. The probability that you win the lottery is 50% for all 6 lotteries. If you chose to decline the selected lottery, nothing happens and your income will remain the same.

Lotteries

<table>
<thead>
<tr>
<th>Lottery</th>
<th>Decline or Accept</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. a 50% chance of winning 6 CHF and a 50% chance of losing 2 CHF.</td>
<td></td>
</tr>
<tr>
<td>2. a 50% chance of winning 6 CHF and a 50% chance of losing 3 CHF.</td>
<td></td>
</tr>
<tr>
<td>3. a 50% chance of winning 6 CHF and a 50% chance of losing 4 CHF.</td>
<td></td>
</tr>
<tr>
<td>4. a 50% chance of winning 6 CHF and a 50% chance of losing 5 CHF.</td>
<td></td>
</tr>
<tr>
<td>5. a 50% chance of winning 6 CHF and a 50% chance of losing 6 CHF.</td>
<td></td>
</tr>
<tr>
<td>6. a 50% chance of winning 6 CHF and a 50% chance of losing 7 CHF.</td>
<td></td>
</tr>
</tbody>
</table>
Instructions Fairness Task

In this part of the experiment, you will be randomly matched with one other participant in the room.

Both you and the participant you are matched with will then be asked to make two choices. First, you and the other participant will choose how to split 40 experimental points between the two of you. This will be the role of the proposer. Second, you and the other participant will also specify a minimal acceptable amount between 0 and 40. This will be the role of the responder.

One participant in a pair (either you or the other participant) will then be chosen to be the proposer. For this participant the choice he or she made as a proposer will be relevant. The other participant in the pair is chosen to be the responder. For this participant the choice he or she made as a responder will be relevant. Which participant in a pair will be in the role of the proposer or the responder is randomly determined, after both participants have made their choices for both roles.

If the share of the 40 experimental points the proposer chose to allocate to the responder is larger than (or equal to) the minimal acceptable amount specified by the responder, the 40 points are distributed according to the proposer's decision. However, if the amount the proposer offers to the responder does not cover the responder's minimal acceptable amount, both players in a pair earn 0.

Please use the fields below to tell us what is the offer you will make to the responder and the amount you propose to keep for yourself if allocated the role of the proposer. Recall that the total amount to be distributed between the responder and you is 40.

Your decision as proposer
Your share: Other's share:

Please use the field below to tell us what is the minimum offer you are willing to accept if allocated the role of the responder. Recall that the proposer will propose how to distribute the 40 points between himself / herself and you.

Your minimal acceptable amount as responder:

The exchange rate in this part of the experiment is 1:5, that is each point earned is worth 0.2 CHF.