

Appendix: Sample instructions

PRECISE COMMUNICATION

Instructions

General

Thank you for agreeing to participate in this experimental study on decision-making. The instructions are simple, and by following them carefully, you may earn a considerable amount of money. In this experiment, you will be given a Rs 50 “show up fee” for coming on time. You will also have the opportunity of making decisions and earning money based on your decisions and those of the other participants in this experiment. All transactions in today’s experiment will be in experimental francs. These experimental francs will be converted to Rupees at the end of the experiment at the rate of **10 experimental francs = Rs 1**. Notice that the more experimental francs you earn, the more Rupees you earn. All this money will be yours to keep, and your earnings will be paid to you in cash today at the end of this experiment.

Your earnings are your own business, and you do not have to discuss them with anyone. It is important that you do not talk and discuss your information with other participants in the room until the session is over. If you have a question while the experiment is going on, please raise your hand and one of us will come to your workstation to answer it.

Today’s experiment consists of three phases of 15 periods each. New instructions will be read after period 15 and again, after period 30. We will start by reading the instructions for Phase 1, and then you will have the opportunity to ask questions about the procedures described for this phase.

Instructions for Periods 1-15

Decisions and earnings

These instructions deal with the first (15) periods in this session. In each period, you will be *randomly* matched with another participant in this room (sometimes referred to as “your paired participant” in these instructions). Over the course of these 15 periods, you will not be paired with the same person more than once. The identity of the participant you are matched with in any specific period will not be revealed to you during or after this experiment. Every period, the decisions that you and your paired participant make will determine the amount earned by each of you.

In each of these 15 periods, you will use the computer to choose an amount between 40 and 200 francs that you wish to claim. That is, your claim can be any number like 40, 41, 42, ..., 199, 200.

Before you submit an actual claim, you will first have the opportunity to send a message to the participant you are paired with. See Figure 1 for an example screen. This message must be a

whole number greater than or equal to 40 francs and less than or equal to 200 francs. You may use this message to *indicate your intention regarding the actual claim that you will make in the stage described below*. You may also decide not to send any message, in which case simply click the OK button without entering any number in the message box.

The screenshot shows a web interface for a message screen. At the top left, it says "Period" and "1 out of 2". At the top right, it says "Remaining time (sec): 18". The main area contains the following text: "You may send a message to the other participant or send NO message", "If you do NOT wish to send a message to the other participant, please click the OK button", "If you wish to send a message, please enter the amount you wish to communicate in the box below and then click the OK button", and "Remember that the amount in your message must be a whole number between 40 and 200". Below this text is a label "Your message to the other participant" followed by a light blue rectangular input box. To the right of the input box is a red rectangular button labeled "OK".

Figure 1: Message Screen (Phase 1)

After you and the participant you are paired with have made your decisions regarding messages, you will learn the message sent to you by the other participant. If you observe **no message**, it means that your paired participant decided not to send a message.

You will then have to submit an actual claim. See Figure 2 for an example screen. Remember that your claim must be a whole number between 40 and 200 francs.

Note that you bear no obligation to claim the amount that you may have communicated in your message to the other participant. You may still claim any amount you want between

40 and 200, and, even if your actual claim differs from what you communicated, your earnings in this experiment will NOT be affected.

Period

1 out of 2

Remaining time (sec): 21

The other participant's message to you is 120

The level of the reward or penalty is 30 francs

Remember that your claim must be a whole number between 40 and 200

Please enter the amount you wish to claim

OK

Figure 2: Decision Screen with Message (Phase 1)

Your earnings for that period will be determined in the following way:

- (i) If the claims are equal, then you and your paired participant each receive the amount claimed.
- (ii) If the claims are not equal, then each of you receives **the lower of the two claims**, AND
- (iii) in addition, the person who makes the lower claim earns a reward of 30, and the person with the higher claim pays a penalty of 30.

Thus, unless the claims are equal, you will earn an amount equal to the lower of the two claims, plus a reward of 30 if you are the participant making the lower claim in your pair, or a penalty of 30 if you are the participant making the higher claim in your pair.

There is no penalty or reward if the two claims are equal, in which case you and your paired participant receive what you claimed.

Example: Suppose that your claim is a , and the claim of the participant you are paired with is b .

If $a = b$, you get a , and your paired participant gets b .

If $a > b$, you get b minus Rs 30, and your paired participant gets b plus 30.

If $a < b$, you get a plus Rs 30, and your paired participant gets a minus 30.

That is, suppose $a = 120$ and $b = 100$. Then you earn $100 - 30 = 40$ francs and your paired participant earns $100 + 30 = 130$ francs.

Box 1: How earnings are determined.

At the end of each period, your earnings are computed and displayed on the outcome screen as shown in Figure 3. Once the outcome screen is displayed you should record all of the information, your message (if any), the other participant's message (if any), your actual claim, the other participant's actual claim, the reward you obtained (if any), the penalty you had to pay (if any), and your earnings for the period. Then click on the button on the lower right corner of your screen to begin the next period. Recall that you will be randomly re-matched with a new participant every period.

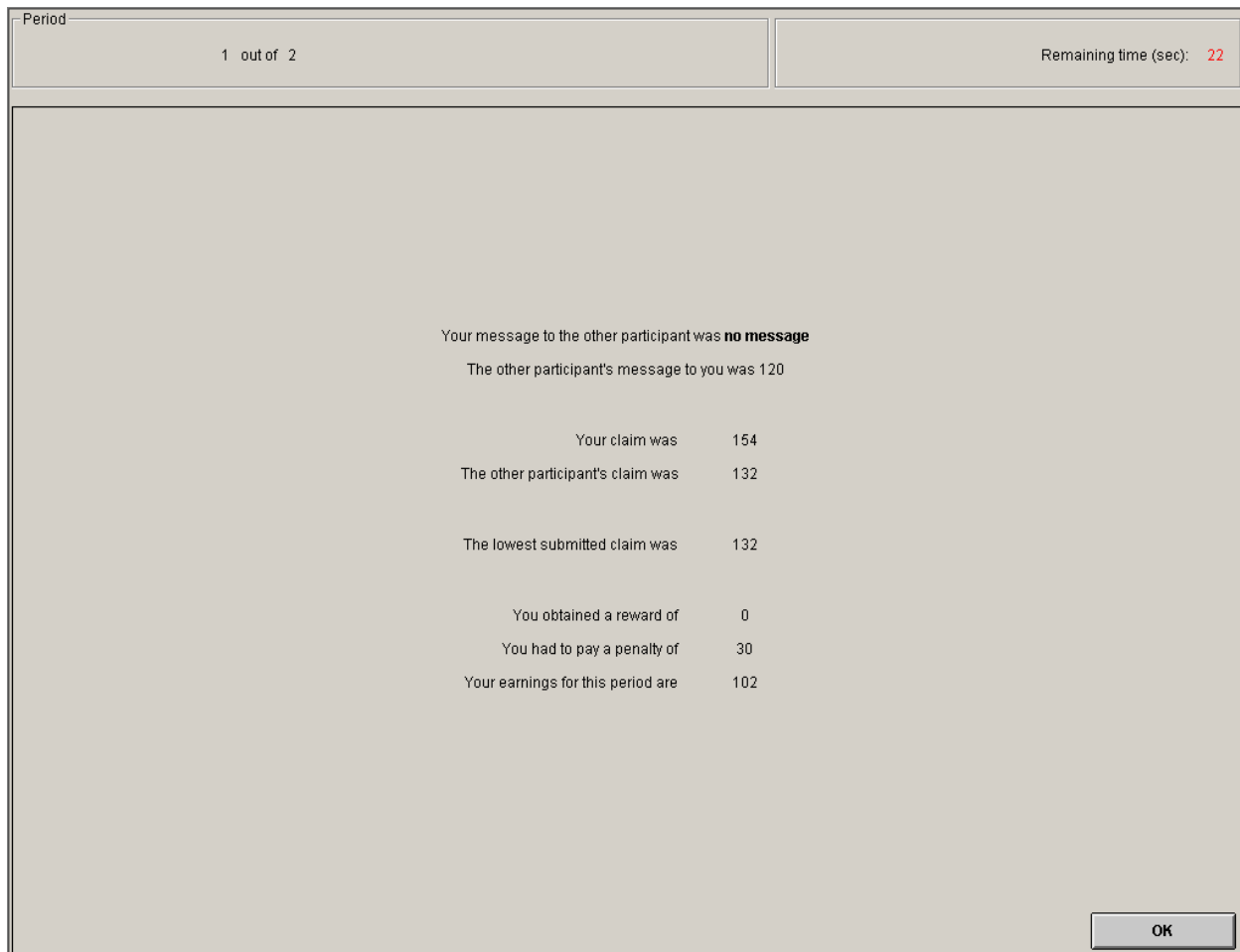


Figure 3: Outcome Screen with Messages (Phase 1)

Summary of Instructions for Periods 1-15

1. At the beginning of each of 15 periods, you are randomly paired with another participant in this room
2. You may send a message consisting of an amount between 40 and 200 to the other participant or decide not to send a message
3. After observing the other participant's message to you (if one was sent), you must submit a claim between 40 and 200
4. If your claim is lower than your paired participant's, your earnings for the round are equal to Your claim + 30.
5. If your claim is higher than your paired participant's, your earnings for the round are equal to The Other's claim - 30.
6. If the claims are equal, your earnings are equal to Your claim.
7. The messages mentioned above will have no consequence on your earnings.

At this time, do you have any questions about the instructions or procedures? If you have a question, please raise your hands and one of us will come to your seat to answer it.

Quiz on Instructions for Phase 1

Before we begin this phase, we would like to confirm that everyone understands the instructions. Please, answer the following questions and if you need further clarification, please raise your hand.

1. Which of the following is correct? **Circle a. or b.**
 - a. If I send a message of 125 to my paired participant, then, when I submit my actual claim, I have to submit a claim equal to 125.
 - b. If I send a message of 125 to my paired participant, then, when I submit my actual claim, I can still submit any claim between 40 and 200.
2. Which of the following is correct? **Circle a. or b.**
 - a. My earnings depend both on my message and my actual claim.
 - b. My earnings do not depend on my message, but do depend on my actual claim.

For all the questions below, suppose that in a given period, you have made a claim of **83**.

3. If the participant who is paired with you this period made a claim of **130**, then your earnings for the period are equal to
4. If the participant who is paired with you this period made a claim of **65**, then your earnings for the period are equal to
5. If the participant who is paired with you this period made a claim of **83**, then your earnings for the period are equal to

Instructions for periods 16-30 (Phase 2)

We will now begin the second phase of this experiment. These instructions deal with periods 16-30 of this experiment. You will again have the opportunity to make decisions and earn money based on your decisions and those of the other participants in this experiment.

We will start by reading the instructions for Phase 2, and then you will have the opportunity to ask questions about the procedures described.

Decisions and earnings

The phase also consists of 15 periods. In each period, you will be *randomly* matched with another participant in this room (sometimes referred to as “your paired participant” in these instructions). Over the course of these 15 periods you will not be paired with the same person more than once. The identity of the participant you are matched with in a nyspecific period will not be revealed to you during or after the course of this experiment. Every period, the decisions that you and your paired participant make will determine the amount earned by each of you.

The only difference between Phase 2 and Phase 1 is that in the following 15 periods, you will NOT have the opportunity to send a message to your paired participant before submitting your actual claim. Hence, your only decision consists of submitting your claim. Again this claim must be a whole number between 40 and 200 francs. See Figure 4 for an example screen.

Period

1 out of 1

Remaining time (sec): 0

Please make a decision!

The level of the reward or penalty is : 25 Rupees

Remember that your claim must be between 30 and 200

Please enter the amount you wish to claim

OK

Figure 4: Decision Screen (Phase 2)

Your claim and your paired participant's claim will determine the amount earned by each of you. Your earnings will be determined like in the previous phase of this experiment. See Box 1 in the instructions for Phase 1.

At the end of each period, your earnings are computed and displayed on the outcome screen as shown in Figure 5. Once the outcome screen is displayed you should record all of the information, your claim, the other participant's claim, the reward you obtained (if any), the penalty you had to pay (if any), and your earnings for the period. Then click on the button on the lower right corner of your screen to begin the next period. Recall that you will be randomly re-matched with a new participant every period.

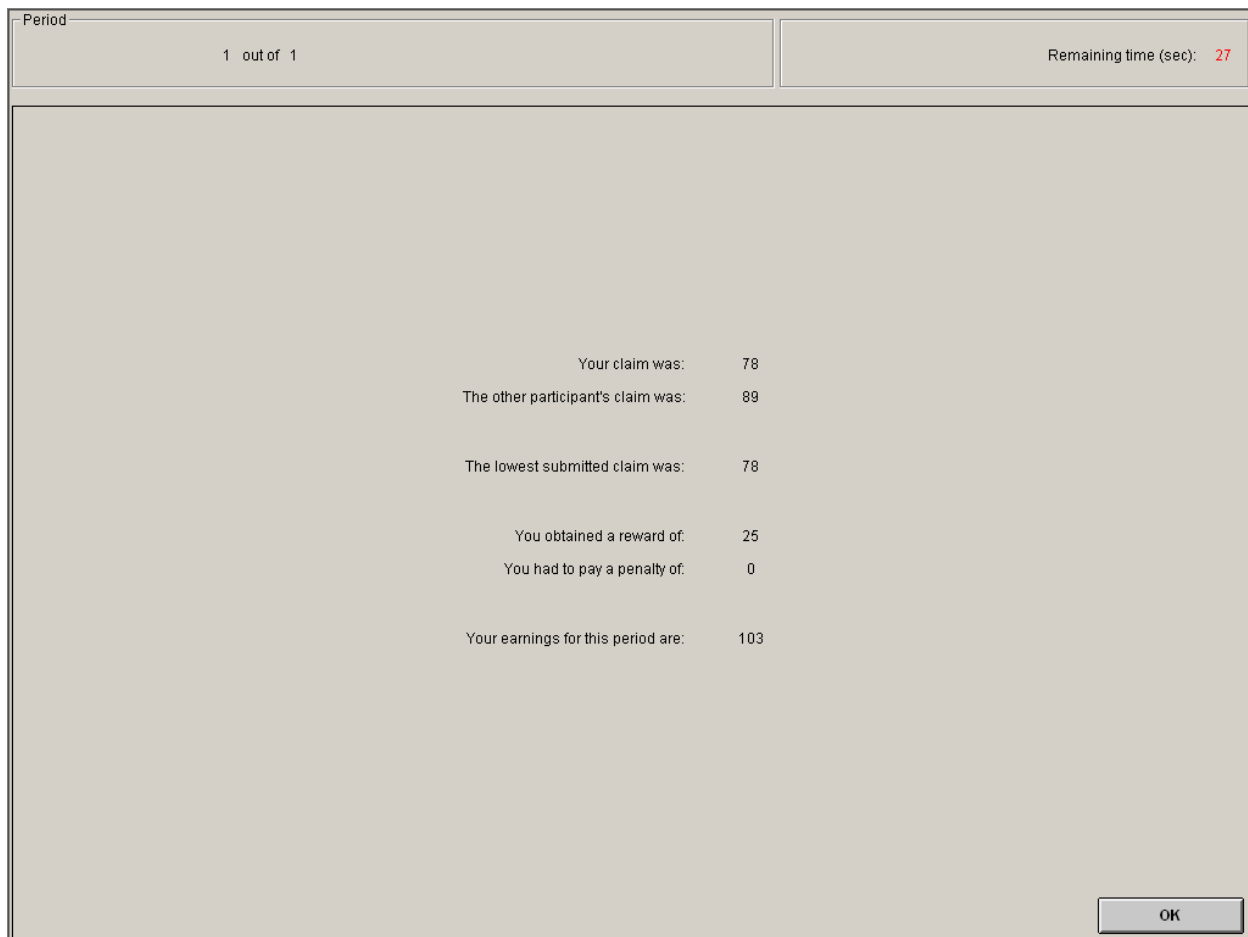


Figure 5: Outcome Screen (Phase 2)

Summary of Instructions for Periods 16-30

1. At the beginning of each of 15 periods, you are randomly paired with another participant in this room.
2. At the beginning of each period, you submit a claim between 40 and 200.
3. If your claim is lower than your paired participant's, your earnings for the round are equal to Your claim + 30.
4. If your claim is higher than your paired participant's, your earnings for the round are equal to The Other's claim - 30.
5. If the claims are equal, your earnings are equal to Your claim.

Instructions for periods 31-45 (Phase 3)

This phase is identical to Phase 1 (Periods 1-15). For the instructions, please refer to the instructions provided for Phase 1.

ILL-DEFINED COMMUNICATION

Instructions

General

Thank you for agreeing to participate in this experimental study on decision-making. The instructions are simple, and by following them carefully, you may earn a considerable amount of money. In this experiment, you will be given a Rs 50 “show up fee” for coming on time. You will also have the opportunity of making decisions and earning money based on your decisions and those of the other participants in this experiment. All transactions in today’s experiment will be in experimental francs. These experimental francs will be converted to Rupees at the end of the experiment at the rate of **10 experimental francs = Rs 1**. Notice that the more experimental francs you earn, the more Rupees you earn. All this money will be yours to keep, and your earnings will be paid to you in cash today at the end of this experiment.

Your earnings are your own business, and you do not have to discuss them with anyone. It is important that you do not talk and discuss your information with other participants in the room until the session is over. If you have a question while the experiment is going on, please raise your hand and one of us will come to your workstation to answer it.

Today’s experiment consists of three phases of 15 periods each. New instructions will be read after period 15 and again, after period 30. We will start by reading the instructions for Phase 1, and then you will have the opportunity to ask questions about the procedures described for this phase.

Instructions for Periods 1-15

Decisions and earnings

These instructions deal with the first (15) periods in this session. In each period, you will be *randomly* matched with another participant in this room (sometimes referred to as “your paired participant” in these instructions). Over the course of these 15 periods, you will not be paired with the same person more than once. The identity of the participant you are matched with in any specific period will not be revealed to you during or after this experiment. In every period, the decisions that you and your paired participant make will determine the amount earned by each of you.

In each of these 15 periods, you will use the computer to choose an amount between 40 and 200 francs that you wish to claim. That is, your claim can be any number like 40, 41, 42, ..., 199, 200.

Before you submit an actual claim, you will first have the opportunity to send a message to the participant you are paired with. You may either send no message or send a message to indicate that you wish to claim a high amount of francs in the stage described below. See Figure 1 for an example screen. If you send such a message, your paired participant will receive the

word **High** as a message. You may also decide not to send any message, in which case, you choose the option “No message”.

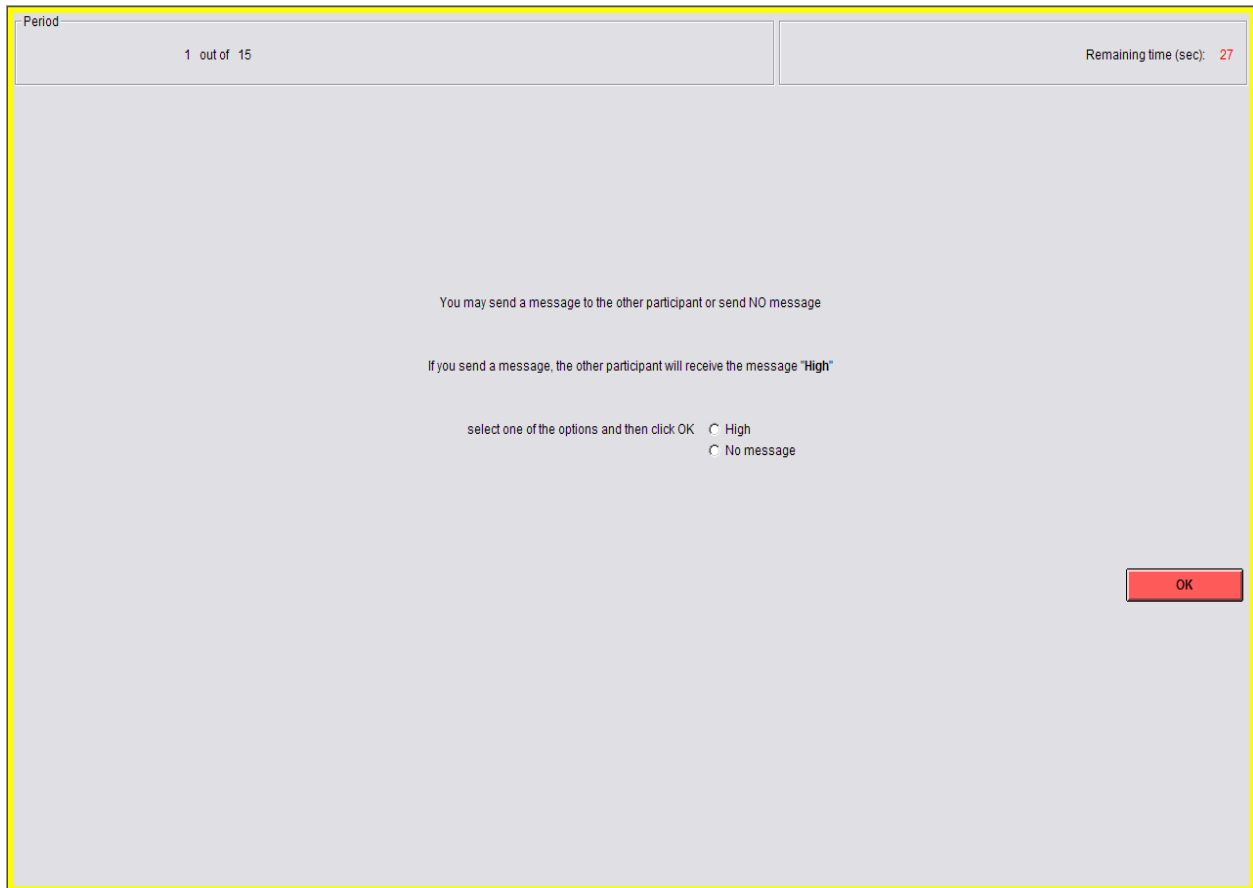


Figure 1: Message Screen (Phase 1)

After you and the participant you are paired with have made your decisions regarding messages, you will learn the message sent to you by the other participant. If you observe **no message**, it means that your partner decided not to send a message.

You will then have to submit a claim. See Figure 2 for an example screen. Remember that your claim must be a whole number between 40 and 200 francs.

Note that independent of whether you sent a message or not, you are free to claim any amount you want between 40 and 200. Also note that your message will NOT affect your earnings in this experiment, only your and your paired participant's actual claims do.

Period

1 out of 15

Remaining time (sec): 25

The other participant's message to you is **High**

The level of the reward or penalty is 30 francs

Remember that your claim must be between 40 and 200

Please enter the amount you wish to claim

OK

Figure 2: Decision Screen with Message (Phase 1)

Your earnings for that period will be determined in the following way:

- (i) If the claims are equal, then you and your paired participant each receive the amount claimed.
- (ii) If the claims are not equal, then each of you receives **the lower of the two claims**, AND
- (iii) in addition, the person who makes the lower claim earns a reward of 30, and the person with the higher claim pays a penalty of 30.

Thus, unless the claims are equal, you will earn an amount that equals the lower of the two claims, plus a reward of 30 if you are the participant making the lower claim in your pair, or a penalty of 30 if you are the participant making the higher claim in your pair.

There is no penalty or reward if the two claims are equal, in which case you and your paired participant receive what you claimed.

Example: Suppose that your claim is a , and the claim of the participant you are paired with is b .

If $a = b$, you get a , and your paired participant gets b .

If $a > b$, you get b minus 30, and your paired participant gets b plus 30.

If $a < b$, you get a plus 30, and your paired participant gets a minus 30.

That is, suppose $a = 120$ and $b = 100$. Then you earn $100 - 30 = 70$ francs and your paired participant earns $100 + 30 = 130$ francs.

Box 1: How earnings are determined.

At the end of each period, your earnings are computed and displayed on the outcome screen as shown in Figure 3. Once the outcome screen is displayed you should record all of the information, whether or not you sent a message, whether or not the other participant sent a message, your claim, the other participant's claim, the reward you obtained (if any), the penalty you had to pay (if any), and your earnings for the period. Then click on the button on the lower right corner of your screen to begin the next period. Recall that you will be randomly re-matched with a new participant every period.

The screenshot shows a window titled "Period" with a status bar at the top. The status bar on the left indicates "1 out of 15" and on the right "Remaining time (sec): 28". The main content area displays the following information:

- Your message to the other participant was: **no message**
- The other participant's message to you was: **High**
- Your claim was: 92
- The other participant's claim was: 124
- The lowest submitted claim was: 92
- You obtained a reward of: 30
- You had to pay a penalty of: 0
- Your earnings for this period are: 122

An "OK" button is located in the bottom right corner of the window.

Figure 3: Outcome Screen with Messages (Phase 1)

Summary of Instructions for Periods 1-15

8. At the beginning of each of 15 periods, you are randomly paired with another participant in this room
9. You may send no message or a message consisting of the word **High** to the other participant.
10. After observing the other participant's message to you (if one was sent), you will be asked to submit a claim between 40 and 200
11. If your claim is lower than your paired participant's, your earnings for the period are equal to $\text{Your claim} + 30$.
12. If your claim is higher than your paired participant's, your earnings for the period are equal to $\text{The Other's claim} - 30$.
13. If the claims are equal, your earnings are equal to Your claim .
14. The messages mentioned above will have no consequence on your earnings.

At this time, do you have any questions about the instructions or procedures? If you have a question, please raise your hand and one of us will come to your seat to answer it.

Quiz on Instructions for Phase 1

Before we begin this phase, we would like to confirm that everyone understands the instructions. Please, answer the following questions and if you need further clarification, please raise your hand.

1. Which of the following is correct? **Circle a. or b.**
 - a. There is a penalty for not sending a message to the other participant.
 - b. The way my earnings are determined does not depend on whether or not I send a message to the other participant.

For all the questions below, suppose that in a given period, you have submitted an actual claim of **83**.

2. If the participant who is paired with you this period made a claim of **130**, then your earnings for the period are equal to

3. If the participant who is paired with you this period made a claim of **65**, then your earnings for the period are equal to

4. If the participant who is paired with you this period made a claim of **83**, then your earnings for the period are equal to

Instructions for periods 16-30 (Phase 2)

We will now begin the second phase of this experiment. These instructions deal with periods 16-30 of this experiment. You will again have the opportunity to make decisions and earn money based on your decisions and those of the other participants in this experiment.

We will start by reading the instructions for Phase 2, and then you will have the opportunity to ask questions about the procedures described.

Decisions and earnings

The phase also consists of 15 periods. In each period, you will be *randomly* matched with another participant in this room (sometimes referred to as “your paired participant” in these instructions). Over the course of these 15 periods you will not be paired with the same person more than once. The identity of the participant you are matched with in any specific period will not be revealed to you during or after the course of this experiment. In every period, the decisions that you and your paired participant make will determine the amount earned by each of you.

The only difference between Phase 2 and Phase 1 is that in the following 15 periods, you will NOT have the opportunity to send a message to your paired participant before submitting your actual claim. Hence, your only decision consists of submitting your claim. Again this claim must be a whole number between 40 and 200 francs. See Figure 4 for an example screen.

Period

1 out of 15

Remaining time (sec): 16

The level of the reward or penalty is : 30 francs

Remember that your claim must be a whole number between 40 and 200

Please enter the amount you wish to claim

OK

Figure 4: Decision Screen (Phase 2)

Your claim and your paired participant's claim will determine the amount earned by each of you. Your earnings will be determined like in Phase 1 of this experiment. See Box 1 in the instructions for Phase 1.

At the end of each period, your earnings are computed and displayed on the outcome screen as shown in Figure 5. Once the outcome screen is displayed you should record all of the information, your claim, the other participant's claim, the reward you obtained (if any), the penalty you had to pay (if any), and your earnings for the period. Then click on the button on the lower right corner of your screen to begin the next period. Recall that you will be randomly re-matched with a new participant every period.

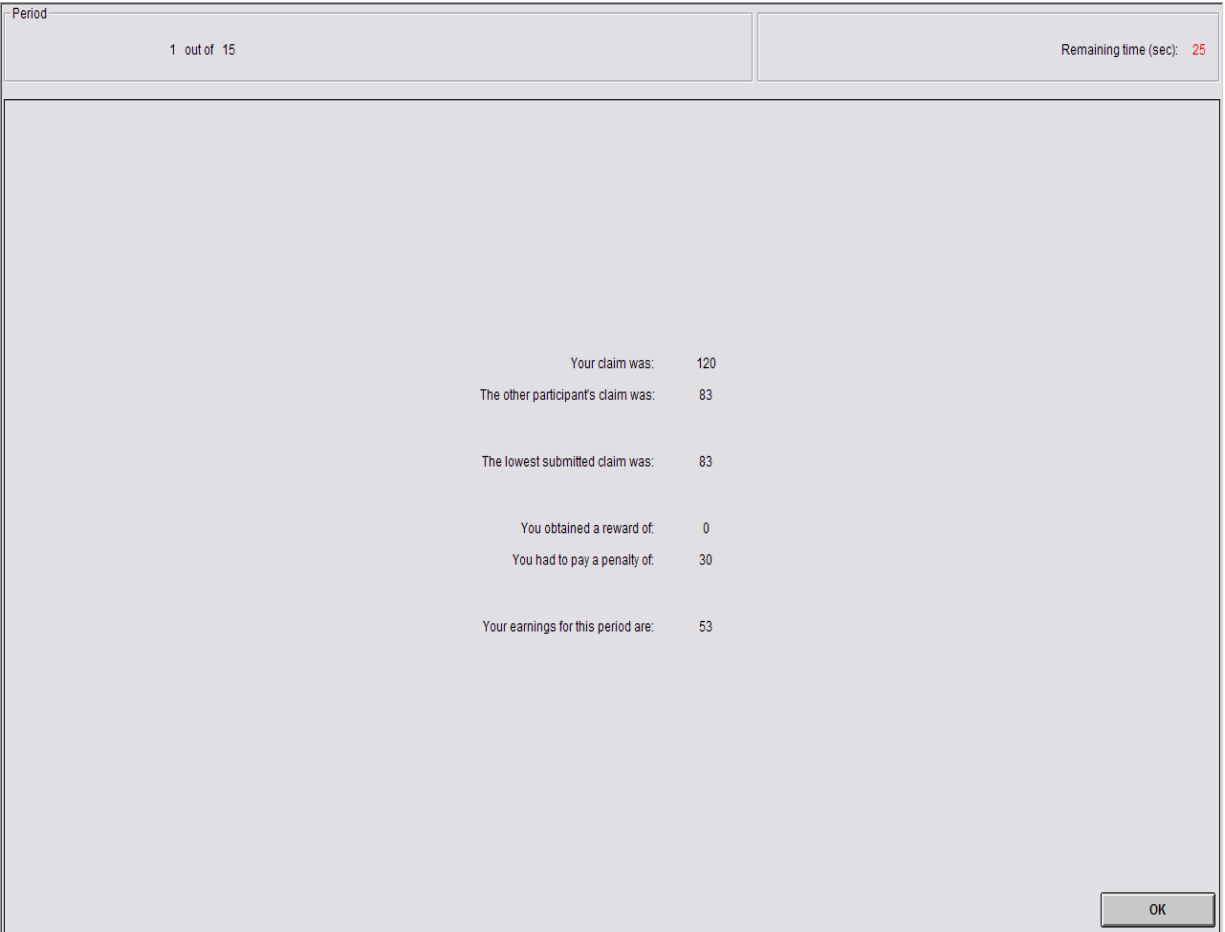


Figure 5: Outcome Screen (Phase 2)

Summary of Instructions for Periods 16-30

6. At the beginning of each of 15 periods, you are randomly paired with another participant in this room.
7. At the beginning of each period, you submit a claim between 40 and 200.
8. If your claim is lower than your paired participant's, your earnings for the period are equal to Your claim + 30.
9. If your claim is higher than your paired participant's, your earnings for the period are equal to The Other's claim - 30.
10. If the claims are equal, your earnings are equal to Your claim.

Instructions for periods 31-45 (Phase 3)

This phase is identical to Phase 1 (Periods 1-15). For the instructions, please refer to the instructions provided for Phase 1.