

Your ID in this session:_____

First Name & Last Initial:_____

Instructions

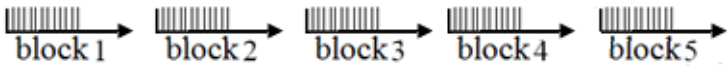
This is an experiment in decision-making. You will earn money based on the decisions you and others make in the experiment, and you will be paid in cash at the end of the experiment. Different participants may earn different amounts.

Overview of the experiment

You are one of 24 participants. Each person will be randomly assigned a color—either green, red, or blue—so there are 8 participants of each color. Your color is set **for the entire experiment**.



The experiment is divided into **five blocks**. Each block is a separate section comprising **many periods**. In each period you interact with another **anonymous** participant called your “**match**.”



Depending on the block, your match may be fixed, or may vary from period to period.

- Some blocks have **fixed pairs**: here, your match has your same color & is the same person in each period.
- Other blocks have **mixed groups** with 4 people of each color (12 in all): here, your match and her color may vary from period to period because your group is split into random pairs in each period.

By design **your match in a block cannot be your match in a future block**. The only exception is block 5, which is when you will have a chance to choose between fixed pairs and mixed groups.

How do you earn money in a period?

In each period you will be in a pair. In each pair, one person is a *producer* and the other a *consumer*. The *producer* must choose either outcome **Y** or **Z**.

Earnings in the pair depend on this choice. They also depend on whether you are in a fixed pair or mixed group. This is explained in the following table.

	<i>Producer</i>	<i>Consumer</i>
If Y is the outcome:	6 points	3 points

	<i>Producer</i>	<i>Consumer</i>
If Z is the outcome:	0 points	13 points + 3 extra points if you are in a mixed group

Points will be converted into dollars at the end of the session in a manner that we explain later.

What happens in each period?

Each **period** has the following timeline:

1. You meet your match, and you may be informed about her color.
2. You may be called to make a choice.
3. You observe the outcome.

Now, we discuss each of these steps.

1. Your role and your match

In each period, there is an equal number of *producers* and *consumers*. Your initial role is random and then it alternates from period to period:

consumer, producer, consumer, producer, ...or producer, consumer, producer, consumer, ...

You and your match have always different roles.

- If there are **fixed pairs**, then in each period you switch role, but your match never changes and has your same color.
- If there are **mixed groups**, then in each period you switch role, and your match and her color may also change. You will see the color of your match only if you are a *producer*.

Your match can be anyone in your group with a role different than yours. So, in a group of 12 there is one chance out of six that your match is the same in two consecutive periods, but neither you nor your match will know if this happens because **no-one can be identified**: everyone remains anonymous.

2. Your choices

Your choices depend on your role.

- As a *consumer*, you have no choice to make.
- As a *producer*, you must select one of two options (see figure below):
 - Y
 - Z

Your ID: 2
Your color: RED
Block: 3
Period: 4

YOUR ID & COLOR

This period you are a **PRODUCER**
Your match is random
(you are in a mixed group of 12)

The color of your match is BLUE

EARNINGS TABLE

POSSIBLE OUTCOMES	EARNINGS
Y	You get 6 points Other gets 3 points
Z	You get 0 points Other gets 16 points

YOUR CHOICES

Please make a choice:
☐ Y
☐ Z

Submit

Results of previous periods in this block

Period	Your role	Color of match	Outcome	Your earnings	Same outcome in all pairs?
3	CONSUMER	unknown	Z	16	no
2	PRODUCER	GREEN	Z	0	no
1	CONSUMER	unknown	Z	16	no

PAST OUTCOMES IN THE BLOCK

To make your choice, select the option you prefer and click “Submit.” Your choice is always **private**: no one can see it before the outcome is realized.

Before making a choice, you can review results of previous periods **of the block** by scrolling down the table at the bottom of the screen. Each line refers to a **past** period.

You can see: your role, the color of your match (possibly), the outcome Y or Z in your pair, and your payoff for the period. If you are in a mixed group, the last column reports whether the outcome was the same **in all pairs** of your group.

3. Outcome of choices

At the end of each period, after everyone has made a choice, you will see the outcome and your payoff for the period (see figure below). You can write these results on your record sheet, if you wish. Results from previous periods will be visible at the bottom of the screen.

Your ID: 2 Your color: **RED** Block: 3 Period: 18

OUTCOME IN YOUR PAIR

RESULTS OF PERIOD 18

This period you were a **PRODUCER**
Your match was of color **GREEN**

The outcome was: Z
Your earnings are: 0 points

POSSIBLE OUTCOMES	EARNINGS
Y	You get 6 points Other gets 3 points
Z	You get 0 points Other gets 16 points

Random draw is: **64**
This block will continue

CONTINUATION OR END OF THE BLOCK

Results of previous periods in this block

Period	Your role	Color of match	Outcome	Your earnings	Same outcome in all pairs?
7	CONSUMER	unknown	Y	3	no
6	PRODUCER	GREEN	Y	6	no
5	CONSUMER	unknown	Y	3	no
4	PRODUCER	BLUE	Z	0	no
3	CONSUMER	unknown	Z	16	no
2	PRODUCER	GREEN	Z	0	no
1	CONSUMER	unknown	Z	16	no

Ending of a block

Each block has many periods but their number is **uncertain** because it is **random**.

Each block will have at least 18 periods. From period 18 on, at the end of each period the computer selects a number between 1 and 100. Each number is equally likely to be selected:

- If the number selected is less than or equal to 75, then the block will continue for everyone.
- If the number selected is 76 or more, then the block will end for everyone.

So: starting in period 18, the block has always a chance to continue. To see whether the block continues or ends look at the results screen; you will see the random number selected by the computer.

The number of past periods does not influence the chance that a block will end because the number selected is independent of the numbers selected in past periods. The chance that a block will end, say, after period 27, is 25%, which is exactly the same as the chance that the block will end after period 18.

Hence:

- **We never know for sure which period will be the last in a block;**
- **Some blocks may end up being longer and others shorter.**

As soon as a block ends, new groups are formed and a new block starts.

Will there be fixed pairs or mixed groups?

In blocks 1 and 2 there will be fixed pairs. In blocks 3 and 4 there will be mixed groups with 4 participants of each color (12 in all). In blocks 1-4 you cannot meet someone in more than one block.

Before block 5 starts, you will have a chance to choose between fixed pairs and mixed groups. How this is done will be explained at the end of block 4; additional instructions will appear on your screen.

Payments

When the session ends, **one** of the blocks completed will be randomly selected. The points you have earned in that block will be converted into dollars: **1 point is worth 18 cents** (\$0.18). To choose the block we randomly select a number between 1 and 5 at <https://www.random.org>. The number selected will identify the block. Each block is equally likely to be selected.

Final reminders

- The session is divided into **5 separate blocks**.
- Each block has 18 periods for sure plus an uncertain number of additional periods. After each additional period there is **always** a 75% chance of one more period, and a 25% chance of ending.
- In some blocks your match is fixed and has your same color (fixed pairs). In others, your match and her color likely vary from period to period (mixed groups).
- In block 5 you will have a chance to choose between fixed pairs and mixed groups.
- You cannot interact with anyone for more than one block except, possibly, block 5.
- Your payoff in a period depends on the choices in your pair, and if you are in a fixed pair or a mixed group.

Before we start the experiment, you will be asked to answer ten questions designed to verify your understanding of the instructions. You will receive \$0.25 for each question you answer correctly. If you have a question at any time, then please raise your hand and someone will come to answer it.

Your ID in this session: _____

First Name & Last Initial: _____

Instructions – Unequal Treatment

This is an experiment in decision-making. You will earn money based on the decisions you and others make in the experiment, and you will be paid in cash at the end of the experiment. Different participants may earn different amounts.

Overview of the experiment

You are one of 24 participants. Each person will be randomly assigned a color—either green, red, or blue—so there are 8 participants of each color. Your color is set **for the entire experiment**.



The experiment is divided into **five blocks**. Each block is a separate section comprising **many periods**. In each period you interact with another **anonymous** participant called your “**match**.”



Depending on the block, your match may be fixed, or may vary from period to period.

- Some blocks have **fixed pairs**: here, your match has your same color & is the same person in each period.
- Other blocks have **mixed groups** with 4 people of each color (12 in all): here, your match and her color may vary from period to period because your group is split into random pairs in each period.

By design **your match in a block cannot be your match in a future block**. The only exception is block 5, which is when you will have a chance to choose between fixed pairs and mixed groups.

How do you earn money in a period?

In each period you will be in a pair. In each pair, one person is a *producer* and the other a *consumer*. The *producer* must choose either outcome **Y** or **Z**.

Earnings in the pair depend on this choice. They also depend on your color and on whether you are in a fixed pair or mixed group. This is explained in the following table.

	<i>Producer</i>	<i>Consumer</i>
If Y is the outcome:	6 points	3 points

	<i>Producer</i>	<i>Consumer</i>
If Z is the outcome:	0 points	11 points -- if you are green 13 points -- if you are red 15 points -- if you are blue + 3 extra points if you are in a mixed group

Points will be converted into dollars at the end of the session in a manner that we explain later.

What happens in each period?

Each **period** has the following timeline:

1. You meet your match, and you may be informed about her color.
2. You may be called to make a choice.
3. You observe the outcome.

Now, we discuss each of these steps.

1. Your role and your match

In each period, there is an equal number of *producers* and *consumers*. Your initial role is random and then it alternates from period to period:

consumer, producer, consumer, producer, ...or producer, consumer, producer, consumer, ...

You and your match have always different roles.

- If there are **fixed pairs**, then in each period you switch role, but your match never changes and has your same color.
- If there are **mixed groups**, then in each period you switch role, and your match and her color may also change. You will see the color of your match only if you are a *producer*.

Your match can be anyone in your group with a role different than yours. So, in a group of 12 there is one chance out of six that your match is the same in two consecutive periods, but neither you nor your match will know if this happens because **no-one can be identified**: everyone remains anonymous.

2. Your choices

Your choices depend on your role.

- As a *consumer*, you have no choice to make.
- As a *producer*, you must select one of two options (see figure below):
 - Y
 - Z

Your ID: 2 Your color: **RED** Block: 3 Period: 4

**YOUR ID
& COLOR**

This period you are a **PRODUCER**

Your match is random
(you are in a mixed group of 12)

The color of your match is **BLUE**

**EARNINGS
TABLE**

POSSIBLE OUTCOMES	EARNINGS
Y	You get 6 points Other gets 3 points
Z	You get 0 points Other gets 18 points

**YOUR
CHOICES**

Please make a choice:

☐ Y
☐ Z

Results of previous periods in this block

Period	Your role	Color of match	Outcome	Your earnings	Same outcome in all pairs?
3	CONSUMER	unknown	Z	16	no
2	PRODUCER	GREEN	Z	0	no
1	CONSUMER	unknown	Z	16	no

PAST OUTCOMES IN THE BLOCK

To make your choice, select the option you prefer and click “Submit.” Your choice is always **private**: no one can see it before the outcome is realized.

Before making a choice, you can review results of previous periods **of the block** by scrolling down the table at the bottom of the screen. Each line refers to a **past** period.

You can see: your role, the color of your match (possibly), the outcome Y or Z in your pair, and your payoff for the period. If you are in a mixed group, the last column reports whether the outcome was the same **in all pairs** of your group.

3. Outcome of choices

At the end of each period, after everyone has made a choice, you will see the outcome and your payoff for the period (see figure below). You can write these results on your record sheet, if you wish. Results from previous periods will be visible at the bottom of the screen.

Your ID: 2 Your color: **RED** Block: 3 Period: 18

OUTCOME IN YOUR PAIR

RESULTS OF PERIOD 18
 This period you were a **PRODUCER**
 Your match was of color **GREEN**

The outcome was: Z
 Your earnings are: 0 points

POSSIBLE OUTCOMES	EARNINGS
Y	You get 6 points Other gets 3 points
Z	You get 0 points Other gets 14 points

Random draw is: **64**
This block will continue

CONTINUATION OR END OF THE BLOCK

Results of previous periods in this block

Period	Your role	Color of match	Outcome	Your earnings	Same outcome in all pairs?
7	CONSUMER	unknown	Y	3	no
6	PRODUCER	GREEN	Y	6	no
5	CONSUMER	unknown	Y	3	no
4	PRODUCER	BLUE	Z	0	no
3	CONSUMER	unknown	Z	16	no
2	PRODUCER	GREEN	Z	0	no
1	CONSUMER	unknown	Z	16	no

Ending of a block

Each block has many periods but their number is **uncertain** because it is **random**.

Each block will have at least 18 periods. From period 18 on, at the end of each period the computer selects a number between 1 and 100. Each number is equally likely to be selected:

- If the number selected is less than or equal to 75, then the block will continue for everyone.
- If the number selected is 76 or more, then the block will end for everyone.

So: starting in period 18, the block has always a chance to continue. To see whether the block continues or ends look at the results screen; you will see the random number selected by the computer.

The number of past periods does not influence the chance that a block will end because the number selected is independent of the numbers selected in past periods. The chance that a block will end, say, after period 27, is 25%, which is exactly the same as the chance that the block will end after period 18.

Hence:

- **We never know for sure which period will be the last in a block;**
- **Some blocks may end up being longer and others shorter.**

As soon as a block ends, new groups are formed and a new block starts.

Will there be fixed pairs or mixed groups?

In blocks 1 and 2 there will be fixed pairs. In blocks 3 and 4 there will be mixed groups with 4 participants of each color (12 in all). In blocks 1-4 you cannot meet someone in more than one block.

Before block 5 starts, you will have a chance to choose between fixed pairs and mixed groups. How this is done will be explained at the end of block 4; additional instructions will appear on your screen.

Payments

When the session ends, **one** of the blocks completed will be randomly selected. The points you have earned in that block will be converted into dollars: **1 point is worth 18 cents** (\$0.18). To choose the block we randomly select a number between 1 and 5 at <https://www.random.org>. The number selected will identify the block. Each block is equally likely to be selected.

Final reminders

- The session is divided into **5 separate blocks**.
- Each block has 18 periods for sure plus an uncertain number of additional periods. After each additional period there is **always** a 75% chance of one more period, and a 25% chance of ending.
- In some blocks your match is fixed and has your same color (fixed pairs). In others, your match and her color likely vary from period to period (mixed groups).
- In block 5 you will have a chance to choose between fixed pairs and mixed groups.
- You cannot interact with anyone for more than one block except, possibly, block 5.
- Your payoff in a period depends on your color, the choices in your pair, and if you are in a fixed pair or a mixed group.

Before we start the experiment, you will be asked to answer ten questions designed to verify your understanding of the instructions. You will receive \$0.25 for each question you answer correctly. If you have a question at any time, then please raise your hand and someone will come to answer it.

RECORD SHEET (optional)

[illegible]

QUIZ -- UNEQUAL SESSIONS

We would like you to answer 10 questions, to make sure that instructions are clear. You will receive \$0.25 for each question answered correctly at the first try. Press OK to start. Thank you.

Question 1: Each block is composed of:

- A) at most 18 periods
- B) at least 18 periods plus an uncertain number of additional periods, depending on a series of random draws
- C) an average of 18 periods

Question 2: Suppose we have reached period 24 of a block. What is the probability that the block will continue?

- A) 75%
- B) 25%
- C) the block will stop for sure

Question 3: In blocks with fixed pairs:

- A) my match is the same person and has my same color in each period
- B) my match is the same person in each period, but her color may change
- C) my match may change across periods but her color never changes

Question 4: Consider a block with mixed groups. Can your match and her color change across periods?

- A) yes--it is likely that my match and her color will change in the block
- B) no--my match cannot change but her color may change in the block
- C) no--my match may change but her color will not change in the block

Question 5: Suppose you are a consumer in a period. Will you switch to a producer role the following period?

- A) unsure--there is a 50% chance that I will switch role
- B) no--I will remain a consumer

C) yes--I will switch role to producer

Question 6: Suppose you are a consumer and Z is the outcome. Will the points that you earn be the same if you are in a fixed pair as opposed to a mixed group?

- A) yes--the points I earn from outcome Z are the same in a fixed pair and in a mixed group
- B) no--I will earn 3 more points from outcome Z in a mixed group, than in a fixed pair
- C) I will earn 0 points from outcome Z as a consumer

Question 7: Suppose you earn 260 points in block 1 and 200 points in block 2. At the end of the session block 2 is randomly selected for payment. How many dollars will you earn in the experiment, in addition to the \$7 show-up fee and payments from this quiz?

- A) the amount cannot be calculated
- B) $\$0.18 \times 200 \text{ points} = \36.00
- C) $\$0.18 \times 200 \text{ points} \times 5 \text{ blocks} = \150.00

Question 8: Is it possible that your match in blocks 1-4 is the same person who was your match in a previous block?

- A) yes--this is always true
- B) unsure--it is not always true but it is very likely
- C) no--it is impossible. My match in a block 1-4 cannot be my match in any other block 1-4

Question 9: Recall that you are a consumer half of the periods and a producer half of the periods. Suppose a block that lasted 22 periods is selected for payment. The outcome was Y in every period. Suppose your color was GREEN and you were in a mixed group in that block. How many points did you earn in that block?

- A) 176 points = 11 periods \times (11+3) points
- B) 99 points = 11 periods \times 3 points + 11 periods \times 6 points
- C) 121 points = 11 periods \times 11 points

Question 10: Recall that you are a consumer half of the periods and a producer half of the periods. Suppose a block that lasted 22 periods is selected for payment. The outcome was Z in every period. Suppose your color was RED and you were in a mixed group in that block. How many points did you earn in that block?

- A) 143 points = 11 periods \times 13 points

B) 99 points = 11 periods x 3 points + 11 periods x 6 points

C) 198 points = 11 periods x (13+3) points