

RL

Preparation Before Experiment

1. Please confirm that following items are on your desk.
Please raise your hand if there is something missing.

- ✓ Pencil and calculator
- ✓ Receipt
- ✓ Written informed consent

2. You will be asked to fill out the receipt and written informed consent according to the experimenter's instruction, thus, please wait for the experimenter's instruction. When you've finished filling out these sheets, please call the experimenter by raising your hand. The experimenter will collect these sheets.

After you have finished the above two tasks,
please wait for experimenter's instruction.

Warnings During the Experiment

- ✓ Talking, using mobile phone, catnapping, reading, and doing things unrelated with the experiment is prohibited. **Please turn off your mobile phone now.**
- ✓ If you are not able to follow the instruction of the experimenter, you will be asked to leave the experiment. In such a case, you will not be paid.
- ✓ Your private information, name etc., will not be disclosed to other participants either during or after the experiment. Please be assured.
- ✓ This experiment is instructed using these slides.
- ✓ **Press the right arrow (→) button** on keyboard to move to **the next slide**, and the **left arrow (←) button** to **move back a slide**.

Please start reading the slides.

Welcome to Economic Experiment

- ✓ Thank you for participating in today's economic experiment.
- ✓ If you have any questions, please raise your hand and ask the experimenter.

Experimental Procedures

Today's experiment will progress as follows:

- Instructions of experiment (these slides)
- Control questions
- Actual experiment
- Post-experimental questionnaire
- Payment

Overview 1

- ✓ Every subject in this room is provided with the same documents and slides for today's experiment.
- ✓ Today's experiment will be conducted with computers. We will later explain how to operate it.
- ✓ You will earn some points according to your choice during the experiment.
- ✓ The more points you get, the more money you will earn. You will be paid in cash after the experiment. The details are provided in the later slides.

Overview 2

- ✓ At the beginning of the experiment, the computer randomly allocates all participants in this room into groups of 4 members.
- ✓ The people you are grouped with are called “your members”. Your members remain the same throughout the experiment.
- ✓ During the experiment, you and your members will be named from ID 1 to 4. Your ID will change every period. More detailed information will be provided when we explain on how to view the computer screen.
- ✓ In this experiment, you can earn income points by contributing to the investment. Also, there is a deduction rule. Points you earn are determined by these two rules. We will later explain about the details of these rules.

Overview 3

- ✓ The same task will be repeated 15 times.
- ✓ After period 15, please remain seated quietly until the experimenter instructs.
- ✓ As soon as all participants finish all 15 periods, you will fill out a questionnaire. After that, you will receive your earnings.

Task in each period

- ✓ We will explain your task in each period.
- ✓ At the beginning of each period, you are endowed with 24 points of experimental currency.
- ✓ You decide on how many of 24 points to contribute to the investment. Please decide on contribution from 0 to 24. You can earn income points from the investment.
- ✓ While you make the decision, your members also do the same task.
- ✓ After you and your members decide, the result of you and your members will appear on the screen.
- ✓ Your earning points are determined by two rules. We will explain these rules below.

Points in Each Period (1)

✓ First, we will explain about the investment rule. You can earn income points by contributing to the investment.

✓ Your income points are determined as follow:

Income points = (the sum of you and your members' contributions) x 0.35

✓ The income points of you and your members are calculated by the same formula, therefore you and your members obtain the same income points.

Points in Each Period (2)

- ✓ Your points which is not contributed (24 points – your contributions) remain in your hand, and for each point you keep for yourself, you earn a point.
- ✓ If you contribute 1 point of your endowment to the investment, the sum of your group's contributions increase by 1 point. Therefore, your income from the investment increase by 0.35 points.
- ✓ In such a case, note that the income of all group members increase by 0.35. Therefore, the total income of group increase by $0.35 \times 4 = 1.4$.
- ✓ As mentioned above, if you contribute to the investment, your members also earn income points. Similarly, you also earn income points from contributions of your members. You obtain $1 \times 0.35 = 0.35$ income points for each point a member contributes to the investment.

Points in Each Period (3)

- ✓ Next, we will explain the deduction rule.
- ✓ When your contributions is more than 12 (i.e. an integer from 12 to 24), you will not be deducted.
- ✓ Among those whose contributions are less than 11 (i.e. an integer from 0 to 11), the minimum contributor's income points will be deducted by 12 points.
- ✓ If there are more than one minimum contributor, all the minimum contributors will be deducted 12 points. If all members are minimum contributor, everyone is deducted 12 points each.
- ✓ The number of points that will be deducted (i.e., 12) is the same among you and the other members. And, it doesn't change throughout the 15 periods.

Points in Each Period (4)

✓ We will explain your total points in each period.

✓ It is decided by the following equation:

Your total points = (points you keep) + (income points) – 12 points

Note: There are two cases in which you are deducted 12 points or not deducted. Please, confirm the deduction rule.

✓ In other words, the equation above is as follows:

Your total points = (24 points – your contributions) + (the sum of your and members' contributions x 0.35) – 12 points

Note: There are two cases in which you are deducted 12 points or not deducted. Please, confirm the deduction rule.

Points in Each Period (5)

- ✓ Let's calculate the above equation using examples.
- ✓ (ex.1) Assume that your contributions are 5 and your members' contributions are 10, 15 and 20. The sum of you and your members' contributions is $5 + 10 + 15 + 20 = 50$ points. In such a case, income points are $50 \times 0.35 = 17.5$. You are deducted 12 points by the deduction rule. Therefore, your total points is $(24 - 5) + 17.5 - 12 = 24.5$ points.

Points in Each Period (6)

- ✓ (ex.2) Assume that your contributions are 10 and your members' contributions are 5, 15 and 20. The sum of you and your members' contributions is $10+5+15+20=50$ points. In this case, income points are $50 \times 0.35 = 17.5$. You are not deducted by the deduction rule. Therefore, your total points is $(24-10)+17.5=31.5$ points.

Points in Each Period (7)

- ✓ (ex.3) Assume that your contributions and your members' contributions are 24 each. The sum of you and your members' contributions is $24 + 24 \times 3 = 96$ points. In this case, income points are $96 \times 0.35 = 33.6$. You are not deducted by the deduction rule. Therefore, your total points is $(24 - 24) + 33.6 = 33.6$ points.

Explanation of Screen (1)

- ✓ Here, we will explain how to view the computer screen and operate your computer.
- ✓ The numbers and results of the deduction rule on the screen of explanation are the examples created for the explanation. Note that these are different in actual experiment.

Explanation of Screen (2)

This shows the current period

1 out of 15

Decision screen

This is your "ID" in the current period. Your ID is decided randomly in each period, as is that of your members. Therefore, for example, ID 1 in period 1 is not same person as the ID 1 in the following period.

Your ID is 3.

あなたは 3 さんです。

You have 24 points.

あなたは 24 ポイント持っています。

Please enter your contribution in this space using the keyboard.

How many points do you contribute ? 何ポイントを投資しますか。

Your contribution あなたの投資額

Please, press OK button when you are done.

OK

Explanation of Screen (3)

Period

1 out of 15

Result screen

These information are used to calculate your income points.

Your ID is 3.
 Your contribution
 Sum of your group members' contribution
 Your remaining points
 Your income points from public goods
 Deduction rule
 Your total points in this period

あなたは3さんです。
 あなたの投資額
 あなたと相手の投資額の合計
 あなたが手元に残したポイント
 配当ポイント
 減額
 減額なし
 この回のあなたの獲得ポイント

Each members' contribution.

You and your members' contributions are as follows:
 ID 1's contributions
 ID 2's contributions
 ID 3's contributions
 ID 4's contributions

あなたとあなたの相手の投資数は以下のようでした。
 1さんの投資数
 2さんの投資数
 3さんの投資数
 4さんの投資数

The information on whose points are deducted.

Deduction rule were applied to the following members:
 ID 1
 ID 2
 ID 3
 ID 4

以下の人(に)減額ルールが適用されます。
 1さん
 2さん
 3さん
 4さん

Total points in this period of you and your members:

あなたとあなたの相手の今回の獲得ポイントは次のようになりました。
 ID 1
 ID 2
 ID 3
 ID 4

All members' total points in this period.

OK

Please press OK button as soon as you confirm. The next period will start when everyone has pressed the button.

Earnings

- ✓ We will explain your earnings.
- ✓ Your earnings is determined by the following equation:
$$\text{Your earnings (yen)} = (\text{Total number of points you earned during the experiment}) \times 3 \text{ yen} + \text{show-up fee } 500 \text{ yen}$$

(Rounded up at the ones place)
- ✓ As the above equation shows, the more points you get, the more money you will be paid.
- ✓ Also, please notice that the decision you make in every period directly affects your earnings.

This is the end of the instruction

- If you have any questions so far, please ask the experimenter.
- From now, we will check your understanding. Please raise your hand quietly, and receive a control questions from the experimenter.
- In answering the questions, you are allowed to re-read this slide. Use the left arrow key(←) to move back slides.
- When you are finished answering the questions, please raise your hand quietly. The experimenter will correct your answers. Please check and try again if your answer is wrong.
- After all subjects answered all questions correctly, we will start the experiment.