

Appendix A: Experimental Instructions for *Messages First*

General Information

Thank you for being part of our research. You will be participating in a study of labor markets. If you read these instructions carefully you may earn a significant sum of money paid to you privately at the end of the experiment.

Each of you will be randomly assigned to one of two groups: “Managers” and “Employees.” Whether you are a manager or employee will be noted on your computer screen.

Each market period will have four stages:

- Stage 1: Each manager assigns a wage to an employee.
- Stage 2: The employee observes the wage received and may type messages to his or her manager.
- Stage 3: The employee chooses the amount of work to provide.
- Stage 4: Each manager receives the amount of work provided by his or her employee and the market period ends.

Details for computing employee and manager earnings will be provided. The computer screen will display the wage in each period, the amount of work provided, and will transfer all the text from an employee to his or her manager. At the end of the round, the computer will tell you the income that you receive for that round, after which the next round will begin. There will be two 10-round sections of the experiment, with each round played for money. **You will never be matched with the same person twice in the same 10-round section.** Also, you will never know the identity of the person with whom you have been matched. Your total income for the experiment will be the sum of the earnings in each of the ten periods plus a show-up fee.

How the Labor Market Works

1. At the beginning of each period, each manager is matched with one employee. The manager chooses a wage for his or her employee and enters it into the computer. Employees must accept this wage.
2. The computer will display the wage given to each employee on his or her screen.
3. No manager will know the identity of the employee with whom s/he has been paired, and no employee will know the identity of the manager.
4. The employee will have 30 seconds during which s/he is free to type any message into the computer which will be sent to his or her manager. The employee must not write profanity, threatening messages, or anything which identifies the employee!
5. The employee will then choose an amount of work to provide and enter it into the computer.
6. The manager will find out how much work was provided by his or her employee when it appears on his screen. Both managers and employees will have their incomes computed for them by the computer.

How Do Employees Calculate Their Income in Each Period?

1. Employee income in Experimental Dollars is determined by the following formula:

$$\text{Employee Income} = (\text{Wage} * 5) + (100 - \text{Amount of Work Provided})$$

2. Employees determine the amount of work by choosing a number between 0 and 100. The lowest amount of work you can choose is 0, 1 is a slightly higher amount, and so on up to 100, which is the highest amount of work.
3. The higher the amount of work you choose, the better it is for your manager.
4. The higher the amount of work you choose, the higher your work-related costs.

How Do Managers Calculate Their Income in Each Period?

1. Manager income in Experimental Dollars is determined by the following formula:

$$\text{Manager Income} = (\text{Amount of Work Provided} * 5) + (100 - \text{Wage})$$

2. Managers determine the wage by choosing a number between 0 and 100. The lowest wage is 0, 1 is higher, up to 100, which is the highest wage.
3. The higher the wage, the better it is for your employee.
4. The higher the wage you choose, the higher your costs.

Practice Exercises:

$$\text{Employee Income} = (\text{Wage} * 5) + (100 - \text{Amount of Work Provided})$$

$$\text{Manager Income} = (\text{Amount of Work Provided} * 5) + (100 - \text{Wage})$$

1. Assume the manager assigns a wage of 80 experimental dollars, and the employee chooses an amount of work of 20.

What is the employee's income? _____ experimental dollars

What is the manager's income? _____ experimental dollars

2. Assume the manager assigns a wage of 30 experimental dollars, and the employee chooses an amount of work of 90.

What is the employee's income? _____ experimental dollars

What is the manager's income? _____ experimental dollars

During the experiment your income will be calculated in "Experimental dollars" which will be converted into real dollars at the rate of:

$$400 \text{ experimental dollars} = \$1$$

You will also receive a \$10 show up fee. There will be 20 total periods. Your total earnings for participating in the experiment will be the sum of your earnings in the 20 market periods plus the show up fee. You will be paid privately at the end of the experiment.

Are there any questions?