

## **General Instructions**

Thank you for your participation in this study. All of the procedures used will be exactly as they are described in these instructions. The study should last approximately 20 minutes and must be completed in one sitting. Before beginning, please remove any distractions that may affect your ability to complete the study. Others may be completing the study at a later time, so please do not discuss the study with anyone. During the study, you will not be able to go "back" to previous screens.

This is a study on decision making in an organizational setting. You will receive \$5.00 as a participation fee. Additionally, you will earn money based on a task you complete during the study, as explained to you in these instructions. As long as you complete all parts of the study, you will receive your compensation, regardless of the decisions you make during the study.

In the study, you will earn points based on the task you complete. The points you earn will be converted into dollars at a rate of \$1.00 for every 50 points. Your decisions will remain completely anonymous. We will not be able to relate your responses to you individually.

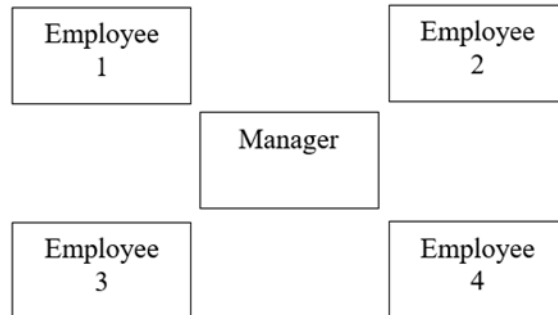
Prior to completing your task, you will read a set of instructions that describe the task and your compensation for the task, and you will complete a brief quiz to check your understanding of the instructions. Following the task, you will complete a brief questionnaire.

Please proceed to view your task instructions.

## Task Instructions

### Role

You and every other participant in this study have been randomly assigned the role of either **Employee** or **Manager** in a manufacturing company. The company is organized into teams of five, made up of four employees and one manager. The company is more successful when its teams produce higher output.



You have been randomly assigned the role of **Employee (1)**. You will be randomly matched with three other participants in the role of Employee, and one participant in the role of Manager. The five of you will remain matched together for the duration of the study.

As explained in more detail on the next page, you will work on your task for one period. You will not need to communicate with any other participants at any time during the study, and you will all remain anonymous to each other and to others throughout the study and after.

## **Primary Task**

You and the other Employees on your team will complete the same task. Your task consists of deciding how to use individual resources (expressed as points), which will affect your individual and team output.

You will begin your task with 50 points from each of two pools of resources – which will be referred to as “A” and “B.” Points can be used in any proportion you choose to either:

1. Increase your own total output or
2. Increase the total output of another member (or other members) of your team of your choosing.

Points used are converted into output points based on a multiplier.

Specifically, A points used to increase your own total output have a multiplier of 2.0 and therefore generate output of 2 points per point used in this manner. A points used to increase the total output of another member of your team have a multiplier between 1.5 and 2.5, which will be randomly determined separately for any Employee who chooses to use points in this way.

B points used to increase your own total output have a multiplier of 1.0. B points used to increase the total output of another member of your team have a multiplier between 0.5 and 1.5, which will be randomly determined separately for any Employee who chooses to use points in this way.

The output generated by the use of each A and B point is summarized below:

Resource (point) type:	Output generated per point if used to increase your own total output:	Randomly determined output generated per point if used to increase the total output of another member of your team:
A	2.0 points	Between 1.5 and 2.5 points
B	1.0 points	Between 0.5 and 1.5 points

To illustrate, suppose on a given team that Employee 1 chooses to use 35 A points and 35 B points to increase their own total output, and chooses to use their remaining points (15 of each type) to increase the output of Employees 2, 3, and 4 (i.e., 5 points of each type used to increase each of these Employees' output). Employee 1's decision would have the following effects on their own total output and the output of their teammates:

Effect on Employee 1's total output:

Resource (point) type:	Points used to increase own total output	Output generated
A	35	$(35 \times 2 = )$ 70 points
B	35	$(35 \times 1 = )$ 35 points
Total		$(70 + 35 = )$ 105 points

\*Suppose also that Employees 2, 3, and/or 4 use a total of 12 points to increase the total output of Employee 1, and that these points generated output of 10 points. Employee 1's total output would include these 10 points.

Effect of points used by Employee 1 to increase the total output of **Employees 2, 3, and 4:**

Resource (point) type:	Points used to increase total output	Output generated
A	5	Between 7.5 and 12.5 points
B	5	Between 2.5 and 7.5 points
Total		Between 10 and 20 points

**Recall that the output generated per point used to increase the output of another Employee is randomly determined separately for any Employee who chooses to use points in this way and ranges between 1.5 and 2.5 for A points and 0.5 and 1.5 for B points.**

Suppose, for example, that the random draw results in multipliers of 1.5 for A points and 0.8 for B points. In that case, the points used by Employee 1 would generate the following output for teammates:

	Points used and output generated for:					
	Employee 2		Employee 3		Employee 4	
Resource type:	Points	Output generated	Points	Output generated	Points	Output generated
A	5	7.5 points	5	7.5 points	5	7.5 points
B	5	4 points	5	4 points	5	4 points
Total		11.5 points		11.5 points		11.5 points

If you choose to use points to increase the total output of another Employee (or other Employees) on your team, **they** will learn:

1. Someone used points to increase their total output on their behalf.
2. How many points were used in this manner.
3. How much output was generated by these points.

However, they will never learn that it was you who increased their total output. Additionally, **you** will learn how much output was generated for the benefit of your teammate(s) by any points you choose to use in this manner.

Similarly, if another Employee on your team chooses to use points to increase your total output, **you** will learn:

1. Another Employee used points to increase your total output.
2. How many points were used by your teammates in this manner.
3. How much output was generated by these points.

However, you will never learn who used points to increase your total output. Additionally, the other Employee(s) will learn how much output was generated for your benefit by any points they choose to use in this manner.

All of this information will be provided at the end of the study, along with feedback about what your total output was and your resulting compensation.

## **Performance Evaluation**

Each team of four Employees will be matched with one participant in the role of Manager.

The participants randomly assigned to the role of Manager know the task that Employees will complete, and they will be complete a separate task. Managers will not have an opportunity to increase the total output of any Employee.

Managers are responsible for completing performance evaluations for each of the Employees on their team.

Specifically, each manager will be instructed to rate the overall performance of each Employee on a scale of 1-100 (with 1 representing poor performance and 100 representing outstanding performance).

To assist in the performance evaluation process, Managers will be provided with the following information for the Employees on their assigned team:

1. The total output for each Employee. As discussed earlier, this includes output generated by the Employee themselves, as well as any output generated for their benefit by other Employees.

Managers know each Employee can choose to use points to increase the total output of any other Employee on the team, but will not learn whether any Employee used points in this manner or whether any Employee's output was increased by points used in this manner.

Managers will receive performance information in summary form as follows:

Employee	Employee total output
1	Output generated by the Employee's use of their own points plus any output generated by points used to benefit the Employee by teammates.
2	
3	
4	

Thus, while you will learn the composition of your total output (i.e., how many points were generated by you and how many points were generated by teammates who used points to increase your total output), **the Manager will not learn this information.**

## **Payoffs and Compensation**

Your total compensation for the study includes your participation fee of \$5.00.

You will also receive additional compensation based on your total points earned (50 points = \$1.00) from tasks completed.

This compensation will include the elements described to you previously:

1. Points (output) generated by any points you use to increase your own total output.
  2. Points (output) generated by any points your teammates use to increase your total output.
- As previously mentioned, the sum of (1) and (2) is equal to your total output for the period.
- 

## **Example**

For illustrative purposes, consider the example presented to you earlier.

Suppose on a given team that Employee 1 chooses to use 35 A points and 35 B points to increase their own total output, and chooses to use their remaining points (15 of each type) to increase the output of Employees 2, 3, and 4 (i.e., 5 points of each type used to increase each of these Employees' output).

Suppose also that Employees 2, 3, and/or 4 use a total of 12 points to increase the total output of Employee 1, and that these points generated output of 10 points. Employee 1's total output would include these 10 points.

Results would be determined as follows:

Effect on Employee 1's total output of Employee 1's use of points:

	Points used by Employee 1 to increase their own total output	Output generated
A	35	$(35 \times 2 = )$ 70 points
B	35	$(35 \times 1 = )$ 35 points
Sub-total		$(70 + 35 = )$ 105 points
Output generated from the <u>12</u> points used by teammates to increase Employee 1's total output		10 points
	<b>Employee 1's total output</b>	$(105 + 10 = )$ 115 points

Effect of points used by Employee 1 to increase the total output of Employees 2, 3, and 4:

Resource (point) type:	Points used to increase total output	Output generated
A	5	Between 7.5 and 12.5 points
B	5	Between 2.5 and 7.5 points
Total		Between 10 and 20 points

**Recall that the output generated per point used to increase the output of another Employee is randomly determined separately for any Employee who chooses to use points in this way and ranges between 1.5 and 2.5 for A points and 0.5 and 1.5 for B points.**

Suppose that the random draw results in multipliers of 1.5 for A points and 0.8 for B points. In that case, the points used by Employee 1 would generate the following output for teammates:

	Points used and output generated for:					
	Employee 2		Employee 3		Employee 4	
Resource type:	Points	Output generated	Points	Output generated	Points	Output generated
A	5	7.5 points	5	7.5 points	5	7.5 points
B	5	4 points	5	4 points	5	4 points
Total		11.5 points		11.5 points		11.5 points

The team's Manager would see the following information for Employee 1 (note that the Manager would see the same information for the other Employees on the team as well):

Employee	Employee total output
1	115

Recall that Managers know each Employee can choose to use points to increase the total output of any other Employee on the team, but will not learn whether any Employee used points in this manner or whether any Employee's output was increased by points used in this manner.

In addition, suppose the team's Manager rates Employee 1's performance at 75 (1-100).

Employee 1's compensation would include:

Points earned from total output:	115
Total points	115

Compensation earned:  $(115 / 50 \times \$1.00 = )$  \$2.30 plus participation fee