Game Theory Principles IV

Experiment I

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Row	Column: Left	Column: West	Column: East	Column: Right
Top	30	1	-40	-10
Up	4	3	5	-3
Down	5	-3	4	3
Bottom	-20	-10	30	1

GAME-EXPERIMENT-1

1. You will play the game with the above payoff matrix twice, once as row and once as column.
2. The entries in the payoff matrix denote row's payoffs.
3. Column's payoffs are the negative of row's payoffs.
4. You will play against the instructor.
5. You and the instructor simultaneously make your choices.
6. When you play as the row player the instructor plays as the column player.
7. When you play as the column player the instructor plays as the row player.

8. The instructor will make as many choices as a row player as the number of column players he faces: these are referred to as his first row choice, his second row choice etc.
9. The instructor will make as many choices as a column player as the number of row players he faces: these are referred to as his first column choice, his second column choice etc.

10. You will be handed a red sheet and a blue sheet with copies of the payoff matrix.
11. When playing as a row player, circle your strategy choice, top, up, down or bottom, on the red sheet.
12. When playing as a column player, circle your strategy choice, left, west, east, or right, on the blue sheet.

13. When everyone in class has made her/his strategy choices on the red and blue sheets, they will be collected.

14. Everyone's choice as a row player will be matched with the instructor's choice as a column player: A randomly chosen red sheet will be matched with the instructor's first column choice and is then removed from the red sheets; a randomly chosen red sheet from the remaining red sheets is then matched with the instructors second column choice ... and so on until all red sheets have been used.

15. Everyone's choice as a column player will be matched with the instructor's choice as a row player: A randomly chosen blue sheet will be matched with the instructor's first row choice and is then removed from the blue sheets; a randomly chosen blue sheet from the remaining blue sheets is then matched with the instructors second row choice ... and so on until all blue sheets have been used.
16. The payoffs from all these matches will be added up.

17. If the sum of the instructor's payoffs from all matches exceeds zero, the instructor wins.
18. If the sum of the instructor's payoffs from all matches is less than zero, the class wins.
19. If the sum of the instructor's payoffs from all matches equals zero, there is a tie.
20. If the class wins, one of the players who had the highest payoff against the instructor will receive \$10 from the instructor.