## BERKSHIRE II: AN EXPERIENTIAL DECISION MAKING EXERCISE

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This paper describes a competitive experiential exercise which can be used to identify and illustrate some of the factors that either help or hinder decision making in organizations. In decision making it is essential that the people involved are able to recognize and clarify the problem, seek out relevant information, diagnose the situation, identify causal relations, prepare solutions, and implement and evaluate these decision solutions. This exercise provides an opportunity for participants to engage in an activity where they will be involved in all of these aspects of decision making.<sup>1</sup>

This exercise involves a small group format where the class is divided into two to four teams which compete against each other in the accumulation of points earned through the playing of a three dimensional tic-tac-toe game. The rules of the exercise include five or six mandatory procedures which are described to the participants in both oral and written form. However, experience with the exercise shows that these rules unknowingly are commonly violated. When a violation occurs the offending team is prohibited from making a play in its usual turn. The only information given the team about the violation is the statement "I'm sorry." Consequently, the task for the team is to identify the error and correct it so that subsequent plays will be accepted. The limited feedback, the competitive nature of the game, and the time pressure is sufficient to generate a rich mixture of decision making behavior. The details of the exercise are presented in the Appendix to this report.

The exercise normally will run for 2 to 3 hours. Thus you will need one extended class period or two periods of at least fifty minutes. The exercise involves two sections. The first is the running of the play and the second is the process analysis and discussion of the exercise results. The materials required for the exercise are a three D tic-tac-toe board, playing chips, scrap paper to be used to make "play cards" and instructions for the participants, observers, and umpire.

This exercise is of particular value in studying decision making because the interest and excitement that it generates creates a very favorable learning environment that students long remember. Some of the major topics that the exercise is directed toward are:

1. The assumptions that one makes in solving problems and the impact of these assumptions.

2. The impact of frustration and defensive behavior on decision making.

<sup>&</sup>lt;sup>1</sup> (This exercise is a modification of one described in Finch, F., H. Jones and J. Litterer. <u>Managing for</u> <u>Organizational Effectiveness</u>, McGraw Hill Book Company, 1976.)

- 3. The role of personal frames of reference on decision making.
- 4. The value of organization and planning in decision making.
- 5. The role of communication or its lack in decision making.
- 6. The role of task and process behavior in decision making.

# APPENDIX A

## UMPIRES INSTRUCTIONS FOR BERKSHIRE II

In conducting this exercise it is essential that the instructor be thoroughly familiar with the operation of the exercise since he is an active and central figure in the process. The simulation is most effectively played with 2, 3, or 4 teams of five to eight team members. There should be at least one observer used per team. The following instructions govern the play of the exercise for the umpire.

1. Establish the number of teams to be used and assign players to them. Assign observers and select a timekeeper.

2. Designate locations from which each team will operate. If possible provide enough space between them to allow for privacy.

3. Locate the game board at the front of the room and devise a means to conceal it from view of all but the umpire and the player making a move. A cardboard box or an inverted rostrum work well for this purpose.

4. Pass out materials to participants. This would include the participants instructions for Berkshire II, slips of paper to use for play cards, and playing chips.

The chips used should be of different colors so that it is easy to determine which team occupies which square. The number of chips used will vary depending on the number of teams playing. Give each team <u>only</u> six counters and explain that these are the only official *ones* to use.

Number of Teams	Number of Chips Per Team	
2	15-20	
3 or 4	10	

<u>Do not</u> give instructions on how to obtain additional ones. One of the dilemmas of the game is to determine how to acquire additional playing chips. These can be obtained only during the regular turn of the team and only as a consequence of <u>directly asking</u> the umpire for some additional chips in question form. For instance, "Can I have six chips." A statement of need ("We are out of chips") is <u>not</u> sufficient to obtain chips. It is the responsibility of the teams to take the initiative in asking for more chips if they run out. Give up to six chips if asked for in proper form.

Each team should fill out a play card each time they are to make a move. These cards should take the following form:

#### BIIPC

Be sure to instruct teams in how to complete this card. Failure to fill out the play card in this exact form constitutes an error and results in a forfeiture of a turn. However, do not state this fact in your instructions to the teams.

5. Locate the timekeeper at the rear of the room behind the teams. He should be given the written order of rotation of players for each team prior to the start of the exercise. One of his duties is to insure that each team makes their plays in the appropriate sequence. Arrangements should be made whereby the timekeeper can secretly signal the umpire if a team is out of rotation on its playing sequence. When this occurs the umpire on receiving the signal will disallow the move by saying "I'm sorry" and return the counter to the player.

The other duty of the timekeeper is to call every 30 seconds for the next team to make its play, keep the same order of teams and maintain a strict time schedule.

6. Reveal as little as possible to the participants except that it is a decision making exercise. Do not reveal the sources of errors that result in disallowing a play. For best results do not unduly emphasize the need to study the rules.

7. Allow fifteen minutes for each team to plan strategy and organize itself. Then have the timekeeper call the first team to make its play, give no further instructions or explanations.

8. Give no help to teams. On errors, say only "I'm sorry" and hand the chip back to the representative.

9. Anything not specifically prohibited by the instruction sheet is permitted (spying on teams, checking on board, writing down board status, hazing, etc.). Do not reveal this until after the play of the exercise is completed.

10. Some points of operation to note are:

- a. teams play only one chip per turn
- b. teams must stay in order
- c. representatives must hand play card and chip to the umpire
- d. it is an error for representatives to play a chip on the board themselves
- e. no feedback on mistakes only "I'm sorry."
- f. they cannot use any substitutes for chips

11. When the board is full remove chips in between team turns. It is helpful to keep separate scores for each game in order to maintain interest and heighten competition.

12. The game can be terminated when all error sources are leaned or when the time allotted by the umpire runs out. Forty minutes to an hour is usually sufficient for the play portion of the exercise.

13. Summary of errors:

- a. team representative does not reach umpire in 30 seconds.
- b. team representative out of "batting order" or team order.
- c. play card not completed in designated form.
- d. play card and chips not handed to referee.
- e. representative places chip on board himself.
- f. team does not use official playing chip.

Responses to any of the above is "I'm sorry" with no feedback. Simply return chip and play card to the player.

14. One approach for processing the exercise is as follows:

- a. Have each team take 15 minutes to review their performance, identify the things that facilitated decision making effectiveness, and the barriers that restricted effectiveness.
- b. While teams are discussing their performance, the observers should meet and prepare their reports.
- c. Reconvene the class, have observer and team reports, and hold a general discussion on decision making effectiveness.

# APPENDIX B

# PARTICIPANT'S INSTRUCTION FOR BERKSHIRE II

Berkshire II is a competitive decision making exercise in which task groups compete against each other in the play of a three dimensional tic-tac-toe game. The objective of the game is to score more points than any other team. The game begins when the umpire notifies the timekeeper and it ends when the allotted time has elapsed.

## I. Definitions

- A. Umpire: The instructor who directs the exercise.
- B. Timekeeper: The person assigned to regulate the sequence of play.
- C. Observer: An individual assigned by the referee to study the performance of each group and report on how the game was played.
- D. Problem Board: The three dimensional tic-tac-toe board.
- E. Counter: A small disc used to record plays on the apparatus. Each team has a different color.
- F. Group representative: Member designated to take his group's moves to the umpire.

# II. <u>Regulations</u>

A. A point is scored whenever a group succeeds in placing three (3) of its counters in a straight line. This line may be on the horizontal planes either across or diagonal, or on the vertical plane, either vertical or diagonal. (See Part I this section)

- B. Before sending a representative to the board each group will select the play desired and three additional alternate plays. In the event the play is already made by another group, the first alternate play will be used, etc. If none of the alternate plays can be used, the group will forfeit its turn.
- C. The four alternate plays are to be written on the "BIIPC Card" and are taken by the group representative to the umpire who will place the counter in position according to the written instructions' from the group listing plays in order of preference.
- D. The group representative may observe the board report its status back to his group.
- E. Members will alternate as group representatives. The order of selection is similar to a baseball batting order. Once determined, the order must be followed exactly until the game is finished. Before starting the game, write out the "batting order" and give it to the timekeeper.
- F. The problem will continue until the allotted time has elapsed. In the event the Problem-Board is filled before then, the referee will clear the board of counters and start over without interruption and without notification to the groups.
- G. Time limits will be strictly enforced. Each group will be allowed 15 minutes before the play begins to study the instructions and to prepare a place of action. After the group is notified that its turn has arrived, the group representative has only 30 seconds to deliver the groups instructions to the referee and observe the board.
- H. Scores for each group will be announced and tabulated on a blackboard as the game progresses.
- I. Points are scored in the following manner

THE 3-D PROBLEM

INSTRUCTIONS:

Points may be scored in the following manner:

1. On a single level:

(a) Straight line across or vertically.

Example: Figure 1-A1, A2, A3, A3, A6, A9.

(b) Straight line diagonally.

Example. Figure 1- Al, A5, A9.

NOTE: POINTS MAY BE SCORED ON LEVEL B AND C IN A SIMILAR MANNER.

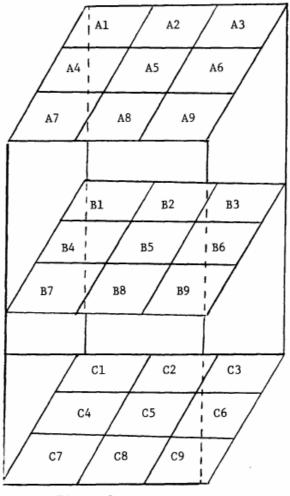


Figure 2

Al	A2	A3
A4	A5	A6
Α7	A8	А9

Figure 1

- 2. On a Tri-level:
  - (a) Straight line vertically from level A to B to C.
  - Example: Figure 2 A3, B3, C3.
  - (b) Straight line diagonally from edge to edge.
  - Example: Figure 2 A2, B5, C8 or A7, B8, C9.
  - (c) Straight line diagonally from corner to corner.
  - Examples: A1,B5, C9 or A7,B8, C9.
- NOTE: 2 OR MORE POINTS MAY BE SCORED IN A SINGLE MOVE.

### OBSERVERS INSTRUCTIONS FOR BERKSHIRE II

Each observer is to closely watch the performance of the group to which he is assigned and he is to be prepared to report on these observations to the class at the end of the exercise. Observers should, also, watch the other groups when possible in order to make comparisons between groups. Observers are not to communicate or take part in the exercise, but are to listen carefully and to take complete notes of what occurs. Actual quotes of what is heard and descriptions of what is seen are very helpful for feedback purposes.

(1) <u>Planning</u>:

Did they understand the procedures? Did they define the problem thoroughly at the beginning? Were objectives defined? Was a plan of operation developed? Was it agreed on? Did the group redefine the problem or revise their plan after the exercise had progressed?

(2) <u>Organization</u>:

- (a) People. Was a group leader appointed? Did one member assume leadership? What kind of "organization" did they set up? Did they work together or as individuals? How did they respond to success and to failure?
- (b) Task. Was the work divided among members, handled primarily by one or two people, or did all work on everything?
- (3) <u>Controlling</u>:

Did the team decide what information they needed and how they were going to get to tell how well they were doing? Were restrictions placed on individuals or activities? Did they use their feedback effectively? Was corrective action taken?

#### (4) <u>Leadership</u>:

What kind of "leadership" did they have? Who? Did group representatives bring back useful information? Was it listened to? Did informal leaders arise? Who were they? What contribution did each one make?

(5) <u>Work Climate</u>: What was the group climate? Friendly or Hostile? Acceptance or Rejection? Was their evidence or teamwork?

# (6) <u>Communicating</u>: Were people listened to? Were instructions and reports clear?