#### CREATING A RESPONSIBLE MANAGERIAL EXPERIENCE

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interrelated face individuals questions attempting educate to managers/executives [2]. The first question is one of intent. Should management education be directed toward an extensive understanding of, and appreciation for, organizational and behavioral theories? Or should such education be focused on the mastery and acquisition of the skills and insights needed to be successful as a manager? As any astute educator is aware, these goals are not mutually exclusive. Indeed theoretical knowledge that is not accompanied by ability to apply concepts is valueless. On the other hand, a manager who lacks an understanding of ~ things happen is reduced to "seat of the pants" management. For purposes of our discussion, we are assuming that "management education" consists of both competencies: theoretical understanding and mastery of managerial tasks.

The second question is concerned with how such competencies can be developed in traditional academic settings. Fortunately, the presentation of theoretical concepts tends to be straightforward. Lectures, lecture-discussions, real-life illustrations, and reviews of field and laboratory research are all techniques which are accepted as being effective for this purpose. However, pedagogies for enhancing managerial skills are generally less well refined. The more familiar techniques include role-playing, case analyses, field projects, experiential exercises, and business simulations. Unfortunately, these latter techniques frequently fail to create situations wherein students can effectively experience true managerial responsibilities [3]. Not surprisingly, in recent years many detractors have criticized such techniques, particularly simulation games, for failing to achieve their promise [1] [4].

It is the authors' contention that the failure of simulations to develop managerial skills can be traced to the absence of a true managerial experience. In reality, most simulations create a situation that allows students to further practice and develop discrete technical and analytical skills [2, p. 415].

In the following discussion, a procedure is outlined which has been developed and implemented in a number of graduate management classes. The procedure has been designed to improve the educational value of a simulation exercise by <u>formally structuring</u> a <u>system</u> <u>which</u> should increase the managerial responsibilities for the participating students.

#### A ROTATING SYSTEM OF MANAGERIAL RESPONSIBILITY

The rotating system functions to provide <u>each</u> student in the computer-simulated business firm<sup>1</sup> an opportunity to formally assume a managerial position. In contrast, traditional simulation exercises normally require that each group of students select a "group leader." This leader generally functions in this capacity throughout the exercise. Consequently, other group members are unable to experience "managerial responsibility," and operate more as functional specialists in marketing, finance, production, or accounting. By rotating group leaders, all members of the group are expected to:

- ...plan the group's strategy, activities and its operations during the designated period. coordinate and organize the group members to meet the simulation's requirements.
- ...analyze and delegate various tasks to group members.
- ...be accountable for the performance and actions of the group.
- ...evaluate and appraise the performance and contributions of group members.

The initial step in establishing this procedure involves formulation of the groups. Team formation is accomplished by statistical random assignment. Students are explicitly told that "in theory," random assignment is eminently fair. Each student has an equal chance of being in any group. Having students form their own groups creates potential team composition problems. In self-selection, some groups may contain friends while other groups contain "leftovers." If the instructor assigns students to groups based on functional expertise, additional problems may be encountered. Students may tend to use the simulation as a vehicle to merely apply their technical skills. The development of broader analytical or conceptual abilities will most likely be inhibited. Of course, random assignment may not always create groups that are lacking intergroup composition differences. Nor will random assignment always prevent narrow functional specialization. It does however serve to establish nearly "equivalent" groups. The instructor should critically analyze the results of the random assignment process to determine if any potentially dysfunctional assignments have occurred.

Experience with this process has shown it to be best understood and accepted by students. Perhaps more importantly, random assignment is needed to minimize the impact of prior group cohesiveness.

Evaluation of student performance is dependent upon several factors: performance as a team leader, team performance while a group leader, and performance as a team member

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<sup>&</sup>lt;sup>1</sup> The computer simulation is a revised version of SIMQ, a comprehensive computer simulation originally written by Brian Schott and Arthur C. Nichols in 1972.

when not formally the team leader. In addition, the composite performance of each team is used to assist in the evaluation of the total group performance.

During the period when an individual is assigned as group manager, he or she receives points in two ways. In organizations managers receive rewards based on their units' performance. Likewise in this procedure, the leader receives points based on the performance of his/her team relative to competing teams. Consequently, the student "manager" has a definite stake in his or her team performing well. However, since a single evaluation criterion may not adequately measure managerial performance, supplemental procedures are utilized. A method that some corporations use involves "subordinate" evaluation. Forms typically used in organizations are provided for assessing performance. These forms assess the leader's performance in setting objectives, organizing the work of the groups, influencing and motivating group members, and integration of group activities. Evaluation on each of these dimensions is obtained by ranking on a 1-5 scale.

The team leaders are required to formally appraise the performance of each subordinate during the period. Evaluation forms are employed to assess the team member's amount of effort, group support and cooperation, and overall value. At the end of all periods, subordinate ratings are averaged. Each student then receives points based on their average subordinate evaluation score. This mechanism should enhance the formal power and responsibility actually <u>experienced</u> by each manager.

In order to measure the students' perceptions of this managerial rotation and evaluation system, a post-simulation questionnaire was given to the participants. The questionnaire contained some general questions about the course and some questions directly addressing the perceptions of the management system.

The students' responses were segregated into two groups. Group one had instructor "A" for the course and all students in this group had participated in the same simulation "world." Group two had instructor "B" and these students were in another simulation world. The parameters that defined both worlds were identical.

### **RESULTS**

Three questions used a seven-point response scale ranging from one (low) to seven (high). The students were asked to circle the number that best represented their feelings. The first question asked the students to note the overall value of the simulation. The average for group one was 4.63. Group two averaged 4.76. Next, the students were asked how accurately the subordinate evaluations reflected actual subordinates' performance. For this question, group one averaged 4.08 and group two averaged 3.83. Finally the students were asked

how accurately the supervisor evaluations reflected actual supervisor performance. Group one averaged 4.00 and group two averaged 3.64.

Several other questions were structured using a five point Likert-scale format. Students could pick one of five response alternatives ranging from strongly agree (1) to strongly disagree (5). The results of five Likert-scale questions for each of the two groups are presented in Tables one and two.

Table 1 Evaluation of the Management System -- Group One Percentage of Students Responding (N=72) Strongly Strongly Item Agree Neutral Disagree Disagree Agree Experienced Added Respon-15 35 11 21 18 sibility Gained Valuable 1 18 27 36 18 Experience Used Management Role to 10 35 19 10 26 Coordinate Didn't Do 15 14 Anything 18 1 52 Different When Manager Overall the 20 25 Management 18 26 11 System Was Worthwhile

Table 2

Evaluation of the Management System -- Group Two

Percentage of Students Responding (N=63)

Item	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Experienced Added Respon- sibility	7	25	25	18	25
Gained Valuable Experience	5	11	23	31	30
Used Manage- ment Role to Coordinate	3	34	19	22	22
Didn't Do Anything Different When Manager	25	29	6	32	8
Overall the Management System Was Worthwhile	10	19	26	24	21

### **DISCUSSION**

The major objective of the rotation and evaluation system was to create a procedure which would increase the opportunities for students to assume managerial roles in simulated business firms. The results indicate moderate success in achieving this objective. Our experience has shown that having only one group leader throughout the exercise (as in many previous simulations) prevents the three or four remaining members of the team from experiencing managerial responsibilities. Our data, presented in Tables I and II, suggest that between one-third and one-half of all students actually experienced added responsibility due to the rotation system.

One area of particular concern is the accuracy of the appraisals provided by the supervisors and subordinates. These data reveal that the students perceived their appraisals to be less than completely accurate. After the simulation, individuals personally expressed apprehension about the potential negative impact of an accurate evaluation on their fellow students' grades. Their concerns were similar to those voiced by some "real-life" managers whose appraisals had a direct impact on their subordinate's rewards. Unfortunately, the upward response bias we encountered is also present in many other performance appraisal systems.

An overall examination of the data in Tables I and II suggests the management rotation system was beneficial and useful for about one-third to one-half of the students. The authors believe that the management rotation system holds promise for improving the educational value of management simulation games. Moreover, while some details of the system need refinement, we feel this moves us a step in the right direction toward making business simulations a responsible managerial experience.

# REFERENCES

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