

# Insights into Experiential Pedagogy, Volume 5, 1979

## COMPUTERIZED BUSINESS SIMULATIONS AND EXPERIENTIAL LEARNING EXERCISES: AN INSTRUCTIONAL INTERFACE

Michael D. Crino, Texas Tech University

### ABSTRACT

This paper presents the position that an integrative use of computerized business simulations and experiential learning exercises in the classroom might provide a more enriched learning environment than either technique when used alone.

### INTRODUCTION

During the last few years computerized business simulations and experiential learning exercises have begun to enjoy considerable popularity among management instructors. There is little question that such popularity is well-deserved, as both these techniques appear to contribute significantly to the instructional process.

However, there is one disturbing outgrowth of the increased use of both these approaches to experiential learning. It seems that each approach is maturing independently of the other. It is common to find introductory business courses completely dominated by one or the other technique. Typically, courses where experiential learning exercises are used tend to overlook many management science concepts. Similarly, courses where computer simulations are used tend to make equally short work of behavioral science concepts. It appears that we have forgotten that the principle objective is the provision of both technical skills and an appreciation for individual and group processes in organizations. To some extent this appears to be the end result of an unfortunate concentration on the differences between these two approaches.

The purpose of this paper is to propose what promises to be an effective alternative to this accommodation of content to 'technique.' In particular, this paper will focus on the proposition that considerable potential exists for the development of 'simulation-compatible' experiential exercises.

Given this proposition, it might prove worthwhile to briefly review the distinguishing characteristics of both computer simulations and experiential learning exercises.

### COMPUTERIZED BUSINESS SIMULATIONS

Computerized business simulations are being used increasingly more often as a means for providing realistic business experiences in the classroom. There are a number of excellent simulations available. Regardless of the specific simulation selected, however, there are characteristic similarities:

(1) A number of 'firms' are organized, consisting of 4 to 6 students. These student groups become totally responsible for certain managerial decisions which in turn determine the success or failure of their 'firm.' Such decisions typically include the pricing of the product, promotional expenditure, capital investment, raw material

inventories, and production levels.

(2) A simulated business environment is provided within which the student firms interact. Students are made aware of the constraining dynamics of their marketplace and the types of 'information' available. Such information allows them to monitor and to some extent, anticipate these dynamics (e.g., economic index, price index) and their possible effects on the firm (e.g., financial reports, production reports.)

(3) All decisions from each firm are entered into the simulation allowing for direct competition among firms. This competition takes place within the general economic constraints determined in advance by the instructor (e.g., level of economic growth, inflation rate.)

(4) Reports on how each firm fared are then provided to each individual firm in order that the student managers may determine the quality of their last set of decisions. These reports are also used as a basis for future managerial decisions.

(5) Objective means of determining each firm's performance (relative to one another) are generated by the simulation and provided to the instructor at fixed intervals. At the end of the simulated play the instructor shares this information with the students, and a determination of performance rank is made for each firm.

### EXPERIENTIAL LEARNING EXERCISES

Management instructors are confronted with an ever increasing amount of behavioral science material in introductory management, business policy, and personnel administration textbooks. *Many* have discovered that these concepts are difficult to teach given their "abstract" nature. Partially in response to this instructional difficulty a number of experiential learning exercises have appeared on the market. These exercises attempt to facilitate the instruction and learning of behavioral science concepts by structuring concept-relevant situations which require active student participation. From this participation it is hoped that the student may extract an appreciation for the "dynamics" or "essence" of a given topic.

Inherent in many of these exercises is a need for a group task upon which to focus or build the learning environment. Students are sometimes formed into work groups which exist for the entire semester or into such groups on an ad hoc basis.

These groups are provided with a task requiring the effort of all group members. After the completion of the task each group member is made aware (debriefed) of the various processes underlying the task solution process (e.g., motivational, leadership, decision-making.) This awareness is accomplished through group discussions, individual assessments, lectures, or combinations of the three.

## Insights into Experiential Pedagogy, Volume 5, 1979

### ADVANTAGES OF INTEGRATION

Basic to both computer simulations and experiential exercises is a reliance upon student work groups. The proposed integration of these two approaches rests upon this common element. Indeed, it is the substitution of business simulation decision-making groups for the task groups characteristic of many experiential exercises that is the heart of this proposal.

To the extent that such substitution is possible there would be several distinct instructional advantages. Among them:

(1) Compatibility of experiential exercises and computer simulations. The decision-making process for business simulations and experiential learning exercises generally consume major portions of class time. Thus, the use of computer simulations and experiential exercises have often been viewed as mutually exclusive classroom activities. This would not be the case if the experiential learning exercises were based on the individual and group processes existing as a natural part of the decision making for business simulations.

(2) On-going vs. ad hoc. Business simulation group processes offer an evolution of interpersonal relationships and leadership patterns, as well as task success/failure history. This on-going quality compares favorably with the contextual sterility characteristic of many experiential learning exercises.

(3) Non-trivial task. The non-trivial and obviously relevant nature of the simulation decision making task would serve to increase student and instructor commitment to the work groups and exercises. This increased commitment would contrast sharply with the often cavalier attitude of students toward many experiential learning exercises.

(4) Opportunity to adjust behavior. The use of business simulation decision-making groups would create an opportunity for behavioral science concepts to be immediately put to use by students. Often it appears as though experiential learning is confined to the experience which facilitated its original acquisition. No opportunity is provided for subsequent adjustments in behavior within the original group. Business simulation decision making groups allow for such subsequent behavioral adjustments.

### EXERCISE DEVELOPMENT

Simulation-compatible experiential exercises could be developed with a number of behavioral emphases. Exercises might be written dealing with interpersonal conflict, leadership, motivation, decision-making, and group dynamics, to name a few.

The following three examples of such exercises, while admittedly unsophisticated, have enjoyed considerable success when used in conjunction with The Executive Game [1] and ADSIM (3).

(1) Leadership: Students are requested to identify the various bases of power for leaders (i.e., coercive power, reward power, legitimate power, expert power, referent power) and discuss their relevance to leader-

ship in their work groups.<sup>1</sup> Further, they are requested to trace the evolution of leadership in their work groups specifying the personal and behavioral characteristics of those assuming leadership roles. Additionally, challenges to current or past leaders are to be described accompanied by an analysis of why these challenges were or were not successful.

(2) Work group norms and control: This assignment requires an initial discussion of current work group norms and the means utilized by the group to insure conformity from its members. Students are requested to describe and analyze incidents where group norms were violated with reference to: the individual's deviant behaviors; the group's reaction; and the subsequent behaviors of the individual.

(3) Role analysis: Students receive the following statement of assignment and accompanying materials (see Appendix) Using 'Committees--the roles people play' as your guide, isolate and describe behaviors representative of the various roles assumed by your fellow group members and yourself during the semester. Be sure to include roles from each general category of roles in your discussion (i.e., group building, group blocking, group maintenance.) Discuss the group's reaction to the various group blocking behaviors that were described. To what extent did these group blocking behaviors contribute to the success or failure of the group efforts?

### CONCLUDING REMARKS

The issue raised in this paper is that the use of computerized simulations and experiential exercises need not be viewed as two mutually exclusive alternatives. Appropriate combinations of both techniques would allow our students to develop technical skills in a learning environment which is sensitive to the consideration of individual and group processes.

### REFERENCES

- [1] Henshaw, Richard C. and James R. Jackson. The Executive Game. (Homewood, Illinois: Richard D. Irwin, Inc. 1972)
- [2] French, R. P. and B. H. Raven. 'The Bases of Social Power, in Studies in Social Power, ed. Darwin Cartwright. (Ann Arbor: University of Michigan Press, 1959)
- [3] Pray, Thomas F. and Daniel R. Strang. ADSIM: Administrative Simulation: A Management and Economic Decision Making Game. (Unpublished manuscript, 1977).
- [4] Strang, Daniel R., Michael D. Crino and Thomas F. Pray. "Considerations for the Use of Computerized Business Simulations," ABSEL (Association of Business Simulations and Experiential Learning) Proceedings of Annual Meeting, 1978, pp. 169-75.

---

<sup>1</sup> This classification was developed by R. P. French and B. H. Raven, 'The Basis of Social Power,' in Studies Social Power, ed. Darwin Cartwright (Ann Arbor: University of Michigan Press, 1959), pp. 150-67.

**Insights into Experiential Pedagogy, Volume 5, 1979**

## Insights into Experiential Pedagogy, Volume 5, 1979

- [5] Wedgewood, Hensleigh. "Where Committees Go Wrong," Personnel, July, 1967, pp. 35-39.

### APPENDIX

#### COMMITTEES - THE ROLES PEOPLE PLAY<sup>2</sup>

##### I. Group Blocking Roles

###### The Aggressor

- \*deflates status of others in group
- \*disagrees with others aggressively
- \*criticizes others in group

###### The Blocker

- \*stubbornly disagrees and rejects others' views
- \*cites unrelated personal experiences
- \*returns to topics already resolved

###### The Withdrawer

- \*will not participate
- \*is a "wool gatherer"
- \*carries on private conversations within group
- \*is a self-appointed taker of notes

###### The Recognition Seeker

- \*tries to show his importance through boasting and excessive talking
- \*is overly conscious of his status

###### The Topic Jumper

- \*continually changes the subject

###### The Dominator

- \*tries to take over the meeting
- \*tries to assert authority
- \*tries to manipulate group

###### The Special Interest Pleader

- \*use the group's time to draw attention to his own concerns

###### The Playboy

- \*wastes the group's time in showing off, telling funny stories, and the like
- \*acts with nonchalance or cynicism

###### The Self-Confessor

- \*talks irrelevantly about his own feelings and insights

###### The Devil's Advocate

- \*when he is more devil than advocate

##### II. Group Building Roles

###### The Initiator

- \*suggests new or different ideas for discussion
- \*proposes new or different approaches to problems

###### The Opinion Giver

- \*elaborates or builds on suggestions made by others
- \*gives relevant examples
- \*offers rationales
- \*probes for meaning and understanding of matters under discussion
- \*restates problems

###### The Tester

- \*raises questions to "test out" whether group is ready to come to a decision

###### The Summarizer

- \*tries to pull together or reviews the discussion content

##### III. Group Maintenance Roles

###### The Tension Reliever

- \*uses humor at appropriate times to draw off negative feelings
- \*calls for a break at appropriate times
- The Compromiser
  - \*doesn't stick stubbornly to his point of view, but is willing to yield when necessary for the progress of group

###### The Harmonizer

- \*mediates differences of opinion
- \*reconcile points of view

###### The Encourager

- \*praises and supports others in their contributions
- \*is friendly and encouraging

###### The Gate Keeper

- \*keeps communication open
- \*creates opportunities to encourage participation by others

<sup>2</sup> Adapted from "Where Committees Go Wrong," by Hensleigh Wedgewood in Personnel, July, 1967.  
The Clarifier