

EMERGENT SIMULATIONS
IN
ADMINISTRATION COURSES

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The concepts of simulation and experiential learning provide opportunities and results that are difficult to obtain using traditional lecture methodology. The manipulation of a simulation model, through trial and error, to yield optimal solutions is considered as an intermediate step between proposed problem solutions and real life experimentation. Could a better operational definition be stated for higher education, particularly in business?

Often business professors overlook the most readily available and perhaps potentially most parsimonious simulation regarding organizations and human interactions in those organizations. When we do recognize the fact that our instruction takes place in an organization setting and our class itself is a potential work group, or set of work groups, we often limit the utilization of these givens, to the more obvious areas of human relations, principles of administration, and maybe organization theory.

This paper describes a general simulation framework which the authors have applied to a broad spectrum of business courses. Based on this experience, we have come to the position, that with a degree of effort and creativity this approach has potential for most areas in the business curriculum.

We started from the premise that the objective of a college of business was to train students to be professional managers. This goal was translated into activities that result in experience in making decisions in situations where all the facts are not known. In addition, those facts that are known are continually changing. This appeared to be an accurate description of a rather broad range of business areas.

Due to the involvement of the authors in the Business Policy course area, we were aware of the need to encourage students to recognize that many business functions cut across all the operational activities of a firm. A benefit of the structure described in this paper is the creation of opportunities for the student to see parallels and make syntheses. It is our feeling that, this process is necessary for true wisdom to be gained in all areas of administrative problem solving.

Our action starting point was developing a description of the desired output of our simulation. This output was identified as obtaining results that though not identical would be similar to those actually produced in real business systems. These results while a very real part of the

experiential process, would also provide input data for future activities. With this approach chapters are not ended and cases discussed and discarded. Each new problem is realistically constrained by the consequences of earlier decisions as well as by interaction with colleagues. The student faces the frustrations and satisfactions of living with his prior behavior.

The process part of the simulation is allowed to emerge and evolve. The students put together an organization of their peers. In the process they have the opportunity to see what happens, and possibly understand better why it happens the way it does. The students are given a large degree of freedom and are allowed to be more free wheeling in their progress. They make their own mistakes and achieve their own successes. However, at the same time, they come to recognize that failures and successes occur within a context of the success or failure of their colleagues.

With the desired output identified as results similar to those actually encountered in business organizations and with the process viewed as the experiential component, which is allowed to emerge, the input component becomes the point of control and direction for the educator utilizing this approach. Our guiding criteria for developing the simulation inputs was to provide a minimally constrained framework within which the students could develop and test behavior patterns.

The basic structure is intentionally kept simple, as is the general mechanics of operation. Students are organized into work groups, which can be simply called groups, or task groups, or in a more formal simulation companies. In the later situation the total class would then be considered an “industry.”

If the class is dealing with personnel or general administration, the organizing of the groups can involve the submitting of applications to the instructor for the job of company president. After presidents are chosen, other members of the class can submit application letters and data sheets to them. A wide range of alternatives are available to provide experiential referents during this job hunting and position filling process. If the class is one in another subject area, for example marketing, the group formation process may be shortened or at the extreme, based on instructor assignments.

After formation each of the groups produce a “product.” In a production class this might be a physical product. However, in most cases we have found a great deal of flexibility is available by considering the groups as consulting firms in the subject area of the particular course, e.g., marketing, finance, small business management, communications, organizational behavior, etc.

Now that we have organizations and products the remaining element to complete the necessities of the simulation is a market. The market for a given company is all the other students! groups in the class.

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An additional element in our simulation is realistically called the “Government.” This role is performed by the instructor and depending on the amount of involvement planned, his staff of assistants. These assistants may be external to the class or selected from class members. The obvious reason for including a government is to maintain whatever degree of direction and control that is deemed desirable. Due to the dynamic and uncertain nature of the process, a mechanism for continual monitoring and adding corrective inputs should be part of the given structure. Monitoring and control is necessary, but should be part of the simulation instead of being viewed as externally imposed constraints.

The main structural input into the simulation is a calendar of assignments and due dates provided by the instructor. The task requirements are intentionally demanding in terms of time commitment and intellectual productivity. They are also overlapping in the sense that preliminary proposals regarding one product are due prior to the completion date of a previous product. These factors make efficient group organization and total group involvement significant to group survival and success.

The “text” content of the course is provided by the students exposure to the conceptual and empirical literature on the topics assigned for their consulting reports. Thus, appropriate material is covered by the design of the assigned projects. The students are faced with the need to organize and summarize this material in the form of reports. For success these reports must communicate to others their grasp of the subject matter • To accomplish this, discussions occur within the groups and in the class, when it meets for additional conceptual material to be provided by the instructor.

On the date the consulting report is due, enough copies are made available for all class members. The members of each company then meet as a “market committee” to rank-order all of the other companies’ products. These rankings are then converted into points and eventually become a component of the course grade. The availability of points permits the periodic preparation of financial statements in courses where this experience is appropriate. The competitive market permits emphasis on such factors as market intelligence, consumer response and marketing strategy where these topics are the focus of the course.

Government contracts in the form of special research reports may be bid and awarded. If this alternative is utilized, taxes on company profits may be used as a basis for government funds. Sub-contracting of activities between firms can be encouraged or facilitated if industrial marketing is part of the course subject area.

Conflicts within, between, and among companies may be handled by some form of arbitration procedure. The whole area of labor relations may be encouraged if this is a topical area of the course in which the simulation is being used. Emergence

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of counter vailing power groups, such as business councils, to lobby or pressure “government,” should provide useful topics of discussion and perhaps special research.

In this brief outline, we have described a basic simulation approach which has the flexibility of being adaptable to an extremely broad range of course requirements. The limits exist only thru the constraints of the instructors imagination, specific interest, and general course demands.

Within this flexible framework the student must come to terms with the human side of organizations; he must cope with vested interests, resistance to change, power politics, seemingly unethical decisions; and, he must cope with these factors emotionally as well as rationally and intellectually. The student’s traditional education is oriented toward the rational or quantified solution. This education does not prepare the student for the socio-psychological dynamics which are involved in effective organizational action. Because the businessman has to operate Sd function in a world of uncertainty and must live by the use of his intelligence, cunning, or wits, and because his strategy of operation is crucial to survival in the market place, it seems imperative that a business school give the student a taste of those problems. Utilization of this emergent simulation concept removes the student from the generalized world of the scholar and moves him closer to the particularized world of the administrator who operates at a particular time, with particular limits, in a particular organization. At the same time the available theoretical data is utilized as the starting place for this movement in a pragmatic direction. The student is forced to develop priorities among his values and then face a challenge to those priorities through entering a new situation with different circumstances. This situational orientation recognizes that the administrator never enjoys the economist’s “long run,” he works always in the short run. He never enjoys the pleasure of “other things remaining equal;” for him they never do.

An additional benefit from this approach has been the withdrawing of the professor from his traditional judging role and permitting him to step into the role of resource person and counselor. In this latter role he enjoys the pleasure of becoming functionally useful to the student. The occasion and reason for the students resource search comes from the circumstances in which they find themselves, rather than from the “legitimate” authority of the instructor to tell them what to do and when and how to do it. Thus, with this emergent simulation we have moved toward a learning experience which arises from the student’s need to know rather than from reaching a certain time in the passing of the quarter or the semester.