

BUSINESS SIMULATION RE-REVISITED

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INTRODUCTION

“Soon we’ll be out, amid the cold world’s strife.
Soon we’ll be sliding down the razor blade of life”.

Dr. Tom Lehrer
circa 1953

Over the past few years, the use of business simulation games has been subjected to increasing criticism. It has been alleged, and perhaps demonstrated in research studies, that simulation games make no greater contribution to the student’s mastery of business knowledge and technique than does the lecture of a competent professor and/or case analysis [3][4]. Despite such criticism,¹ some recent research has indicated that games do have a positive influence on acquired knowledge [9]. The research reported in this paper suggests that the heavy focus on using business simulation games to teach business principles may have obscured the potential value of the business game as a behavioral learning vehicle.

This paper reports the peripheral behavioral/emotional findings from an earlier business simulation research project that was designed primarily to investigate the effect of the personalities of the team members on their success in a decision-making environment [10].

PURPOSE

The specific problem addressed in this paper is the omission from business college curricula of opportunities for the student to experience “reality exposure” to the behavioral situations that he may encounter when he enters the business world.

Literature in the behavioral field of business and the experiences of the authors in industry, suggest that the following behavioral situations are typical of those encountered frequently in business activities.

¹ It was expected that the Neuhauser [3] article would elicit a plethora of diverse responses. The lack of such rejoinders has led the researchers to conclude that either (1) no one read the paper, (2) everyone agrees with Neuhauser’s conclusions or (3) no one agrees and disapproval is demonstrated by disregard.

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Competition--The real world is competitive at more than one level of activity.

External Barriers--In the real world, frustrations can result from encountering barriers over which the individual has no control.

Unstructured Environment--The real world manager does not always have specific direction, structure and instruction for achieving the objectives for which he is responsible. At times, he must confront ambiguity, uncertainty and risk by relying solely on his own ability and resources, with the recognition that his decisions may be modified later.

Time Constraints--The practitioner in the real world faces hourly, daily, weekly and monthly time constraints, which are all woven into the major quarterly and annual deadlines he must meet. He must learn to establish his priorities and allocate his time accordingly or be prepared to accept the penalties of not so doing.

Group Process--No one works in a vacuum. The absolute choice of one's superiors, colleagues and subordinates is seldom, if ever, available.

Evaluation--Evaluations do occur in the real world. Such evaluations under certain circumstances, may be both negative and "unfair" from the individual's point of view.

The above categories are arbitrary on the part of the authors; however, they do reflect comments received from students who participated in the simulation.

RELATED RESEARCH

The preponderance of research into the learning aspects of business simulations concentrates on the acquisition of business skills, with research results being generally inconclusive.

There is some reference in the literature regarding the need for learning behavioral skills. Snow states: "There is a need to isolate behavioral as well as conceptual skills associated with this type of decision-making...." [6, p. 134],

Rowland and Gardner [4] conclude that there are certain initial factors, both group and individual, that may be more critical in determining game performance than other (quantitative) factors.

Few, if any, of the studies even allude to the possibility of behavioral learning. Wolfe [9], using the critical-incident method, reported on the effectiveness of certain performance behaviors, but the study was not intended to focus on "reality learning".

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Sims and Hand [5] cite research which deplors the lack of “reality training” in MBA programs. Such criticisms extend to undergraduate programs and emphasize that classroom knowledge, based upon theory, may be necessary, but not sufficient, to provide students with the necessary tools to perform well in a real world of uncertainty and change.

In their studies of business games as a research method, Babb, et. al. [1] found little correlation between game success and real life success. Wolfe [8], however, concludes that there is a significant linkage (causality not implied) between real life rewards and simulation rewards.

There appears to be a need for more research into the value of simulation gaming in terms of its ability to provide learning experiences involving other than business (technical) skills.

RESEARCH ENVIRONMENT

The formal research was conducted as a component of the Business Policy course in the Spring semester, 1977. The research population included three sections of a senior- level, required Business Policy course (51 students),

Students were required to make one team decision per week. In addition, each student was required to write a paper evaluating the team’s interaction relative to himself, the contribution of other team members and the game as a learning experience. This paper is largely based on the feedback from those term papers.

The game used was Barton’s IMAGINIT Management Game [1]. This game requires the student to make decisions on 13 different elements, such as prices, production quantities, materials ordering, etc. It is sufficiently complex to be interesting and yet not be confusing for the undergraduate student.

METHODOLOGY

Consistent with the purpose of the research, the methodology employed only sought to verify that an “awareness” of the existence of behavioral situations was experienced by the students as a result of participating in the game. It should be stressed that there was no deliberate injection of “reality training” into the game. Exposure to reality was to occur by the natural emergence of behavioral conflicts in a psuedorealistic, unstructured environment.

The game was played in a completely unstructured environment. The students were given a brief introduction, provided a text on the game and turned loose. From then on, they were essentially on their own. Questions on game parameters were

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answered by the administrators, but the game was not integrated into, or even discussed, in the classroom.

Comments regarding teammates, team interaction, peer/instructor evaluations, and other obvious expressions of emotional content were extracted from the term papers and each comment was recorded. These comments were then sorted into approximately fifteen categories. The comments were re-analyzed and consolidated into the six categories previously listed.

FINDINGS

Consistent with the objectives of this study, this section records student reactions to the several categories of intended behavioral exposure mentioned above. Again, no presupposition of “learning” is made. Exposure implies some absorption which may or may not eventually be integrated into individual behavior. Percentages listed reflect the number of comments recorded from term papers only. Verbal comments were supportive in these categories, but are not specifically recorded.

Competition

Six students (12%) expressed positive feelings toward the competitive elements of the game. One indicated that a more competitive atmosphere should be provided. Another expressed his feelings of “excitement” about beating another team.

External Barriers

Students indicated a high frustration level with the computer. Complaints ranged from deliberate degradation of input (of which there was none) to computer errors on the output (of which there were none). On several occasions the computer was down and output was late. This did cause some understandable anxiety and frustration for the student (24%).

Many students indicated difficulty in arranging convenient team meeting times (Does this ring a bell?), Several students suggested that team assignments should be made in such a way that class/work schedules of team members would not conflict (24%).

Unstructured Environment

The absence of a structured classroom environment appeared to be extremely uncomfortable for the students. Even though one or both instructors were available during regular university hours, and the home phone numbers of both were listed in the syllabus, there were expressions of objection to the lack of “regularly scheduled” interaction with a single instructor. (Perhaps 16 years of academia “overconditions” the students with regard to an expectation of and a need for structure and direction.) The offering of-the game as a non-classroom experience with no formal, regularly scheduled interaction with a given instructor was the most frequently expressed cause of frustration (31%).

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Time Constraints

Most students felt that the time required to prepare decisions and to analyze the output of the game was inordinate compared to that required for the course itself (Business Policy lecture/case study course). This was especially noted by students who turned in “late” decision inputs, in which case their prior input was processed; a penalty which was considered somewhere between wearing a hair-shirt and the rack (55%).

Group Process

Most student comments on the group process may be regarded as negative (the authors concur; who the hell wants to work with some idiot!), The most significant criticism concerned specific attributes of team members’ non-participative efforts such as: (1) lack of attendance at team meetings, (2) lack of understanding and/or ability regarding the game (course) itself, (3) lack of positive attitude, (4) lack of contribution (even if attendance was good), and (5) lack of confidence in questioning a “bad” group decision (57%).

Some comments were made regarding over-participation. These cases were usually described by such words as “autocratic”, “over-bearing”, and “domineering” (20%).

Team composition criteria were criticized by many students (24%). Some felt that teams should not be comprised of members of different sections. Others suggested that team assignments should be deliberately inter-disciplinary in order to provide a broad spectrum of expertise.

Age, sex, race and language barriers were mentioned (18%). One of the more succinct comments was: “Women have their place and it is not making business decisions.”

The group process appeared to be a painful experience for some students (20%). Many would have preferred to work alone and felt that group results were based, more often than not, on aggression rather than logic.

Despite the negative comments on the group decision-making process, a great many students admitted that some value was received from the experience (60%). The most prevalent comment concerned the opportunity to meet new people and make new friends.

Evaluation

Although evaluation was not the most frequently expressed source of irritation in term papers, it was certainly one of the major areas of concern orally expressed to the authors (and almost anyone else that would listen). Despite the fact that the criteria for “winning” were clearly explained in the introductory lecture, in many one-to-one conferences and were written in the syllabus, dissatisfaction about performance evaluation grew over the term of the game,

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Several students were quite vocal in their objections to the use of peer evaluations (although most students were eager to make peer evaluations of team members who did not contribute). Anger and animosity were most intensely expressed over disciplinary action taken on late decisions.

LIMITATIONS

The entire study may be somewhat limited in its results by the authors' reluctance to severely penalize a student because of his required participation in a research study. The game, per se, accounted for only 15 percent of the student's course grade. The required paper was counted as 10 percent of the total grade. The low percentage of the final grade directly attributable to the game may have lessened the student's interest and effort relative to the game.

The research methodology was somewhat less than rigorous² and, hence, the findings are not considered to be profound. There may be some value, however, in this attempt to first classify some of the emotional (albeit negative) aspects of working-for-a-living and then to relate them to feelings experienced by students in a business simulation.

CLOSING REMARKS

The major question was, and is, whether or not the educational system can provide a method or vehicle whereby the student may experience behavioral situations in an academic setting that may better prepare him for emotional/behavioral situations he may be exposed to in the business world.

This research was approached from the standpoint of trying to expose students to some of the emotional and behavioral situations that may be encountered after they leave an academic setting. The authors do not aspire to be psychologists, but rather to offer an experience that may provide the students with a greater awareness of real world emotional situations. Based upon the findings, a great many students did experience the emotions related to the categories defined.

Other questions must be addressed. Should not students learn that they will never work in a vacuum -- that they must work with and be interdependent upon other people? Can business educators, through innovative curricula, at least start removing the student's "Linus blanket" requirement for a structured, directed environment?

² The authors agree with the unspoken comment of the reader in that this may be a gross understatement.

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Perhaps the business simulation game may be a vehicle whereby the student not only learns functional principles, but also is enabled to make a better transition from academia to the business world.

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