

## **Business Games and Experiential Learning in Action, Volume 2, 1975**

### **BUSINESS SIMULATIONS: COMPETITION OR LEARNING**

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#### **INTRODUCTION**

This paper discusses the desirability of emphasizing winning as opposed to experimentation and learning in intercollegiate business games, of the type sponsored by Emory University, the University of Nevada at Reno, and Michigan State University, and classroom use of business simulations. Discussion is based on two years of experience as faculty advisor to the Georgia Southern College teams in the Emory Intercollegiate Business Games [1, p.263] and use of the same simulation [2] (The Business Management Laboratory), in an MBA course in business policy.

Before undertaking comparisons, I would like to point out that both experiences have been most satisfying. The business simulation is highly effective in causing students to internalize the integrative nature of central management. I have found no other teaching method is as effective in communicating management's need to deal with multiple, interrelated objectives. Nor are other methods as useful in generating a high level of involvement. As has been pointed out by David Burks [3, p.268] and others, the problem relating to student motivation is usually one of keeping students from spending too much time and effort on the simulation. Whether in the IBC or in the classroom, the simulation affords excellent opportunities to "learn to learn" [4, p.28]. The simulation demonstrates to students their need to supplement game play with study and research in functional areas in which they may be weak. The instructor or advisor is frequently presented with ideal situations for 'mini-lectures', group discussion, and guidance of students in reading or research; situations in which the student is seeking knowledge.

Participation in a business simulation provides an on-going behavioral laboratory in which group processes can be reviewed and analyzed. Individual students can gain considerable self-objectivity, as well as exposure to other faculty and other students, particularly in the case of the IBG. Students are faced with time constraints which force them to budget their time effectively. They must develop ways of dealing with the situations of uncertainty which confront them or else become hopelessly frustrated.

The possibilities for secondary research presented by the simulations have hardly been touched. Enormous potential exists for research on organizational and individual behavior, decision processes, and learning processes. The work being done by Geoff Churchill [5, p.116], Art Nichols [6, p.245], Brian Schott, and others at Georgia State in using the business simulation as a vehicle for motivating and demonstrating application

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of quantitative methods is excellent. And all of these activities are possible in an emotionally-involving but 'fun' situation.

There is little doubt that simulation is here to stay. There is much to be done in discovering more efficient and effective ways of using simulation. Work reported at the first ABSEL conference in Oklahoma and at the various National Gaming Council meetings represents considerable progress, but much more is needed. Tracks II and III being used for this conference address two important needs: innovative applications and results of research on behavior and learning.

### **COMPETITIVE PRESSURES OF IBG**

This paper offers some observations on behavior and learning elicited by IBG competitions and use of the general business simulation in the classroom relative to learning versus competition. It is suggested that the IBG results in major emphasis on competition, while, depending on how it is administered, simulation in the on-campus classroom course may stress and reward learning to a greater extent. It is not clear that the two simulations should stress one versus the other, although most writing regarding in-class use of simulation calls for more emphasis on learning and less on winning [4, p.31], [7, p.24]. It is certainly easier on the instructor to evaluate the competitive results than the learning experience. Many advocates of simulation have dealt with this difficulty by supplementing the simulation with other assignments, quizzes, cases, or reports which hopefully allow evaluation of overall performance as well as play of the game.

It may be that the IBG competition and the classroom simulation should have different major objectives. Perhaps the IBG competition should identify winning as its major objective. At any rate the issue should be addressed. If the major thrust of the IBG competition is to learn about business, rather than to learn about simulation, means should be found to reward the learning experience to a greater degree.

It was quite tempting to submit a paper for this conference which treated IBG competition in a farcical way. Possibilities included a Dean's poll of the top 20 IBG teams. Post-season bowls with professional offers hanging in the balance awarding successful faculty advisors with tenure or promotion recruiting top high school gamers firing advisors whose teams failed to place scouting of opponents personnel and on-campus games-electronic espionage - breaking current parameter lists, etc. The approach of highly successful teams in past IBG competitions reveals techniques such as bringing observers who will be the next year's participants.

At Georgia Southern we decided that participation in the IBG competition should be primarily a learning experience for the students. Having committed to such an approach, it is still difficult not to get involved in directing the activities of the students. The interest of colleagues in how our team is doing are we winning etc. encourages trying to win. On the other hand, the students' learning is greatest when they are allowed to

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make mistakes in projecting cash flows, for example, they have not “enjoyed” the real learning experience of getting a special loan and having their credit rating sky-rocket.

One can argue that a faculty team might do no better than a student team. This may be true, but administering the same simulation in a number of graduate courses, or advising several different teams in the competition, certainly does not hurt. Having a listing of the computer code and knowing the specific functions used in the simulation does not insure success, especially when the simulation uses a large number of parameters and results are dependent on the decisions of all teams, but such knowledge certainly lessens the uncertainty. (So far I have resisted the temptation to analyze the simulation fully, but the temptation does exist.)

The IBG competition also encourages a “go-for-broke” approach. Early in the competition, and without sufficient data on which to base such a strategy, some teams greatly expand production capacities, etc. If other firms counter with similar actions the industry attains considerable excess capacity and destructive competition often results. In real life such a situation would probably result in several of the firms leaving the industry. The IBG simulation allows all firms to continue in competition (as it probably should). What do the students learn from such an experience? That collaboration is the best way to insure adequate profits? That a certain amount of “cooperation” is necessary for survival? It may be that such learning should take place, although this could become a very sensitive situation. Should intercollegiate business game competitions teach that too much competition is harmful?

Students feel considerable pressure to do well for their school, or, at the very least, to perform respectably. This perceived pressure discourages experimentation which could produce greater learning. After all, a major advantage of a simulation is that it allows one to make mistakes which might be disastrous in real life.

Several actions would help to minimize the competitive pressures, including judging more on decision processes than on final results. Again, it is not clear that the competition is itself bad. It may be that competition should be the major goal.

### **IN-CLASS SIMULATIONS MAY OR MAY NOT STRESS COMPETITION**

It is also not clear that using simulation in the classroom avoids the problems mentioned previously. Depending on the manner in which the simulation is administered and evaluated, many of the same problems may occur in the classroom. A potential problem which is largely avoided in the IBG but can easily occur in the classroom environment is that of overt collaboration. It may be desirable to have a high degree of competition to counteract felt pressures to collaborate. It has been my experience that in-class simulations may encourage more conservative strategies, especially if the course

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grade is strongly affected by results of the simulation. For example, if effective strategies are identified early in the game, the students are rewarded for sticking with these strategies. More learning would result from experimenting and occasionally failing. The instructor can greatly affect the competition versus learning ratio by his methods of administering the game. And again, it is much easier to evaluate results of game play than to evaluate the amount of learning that has occurred.

Motivating MBA students to spend time and effort on the simulation has not been a problem. The problem is in resisting student attempts to make the simulation the entire course. Extensive effort and imagination is displayed by MBA students in preparing annual reports on their firms' operations.

The classroom simulation allows the instructor to recognize the effects on student attitudes and learning of participation in the simulation. He is thus in a better position to stress the learning aspects of the simulation and to guard against the students' leaving the simulation with gross misconceptions. He still must stress learning to learn and decision processes, and provide necessary debriefing on transferability of successful strategies to other situations, etc.

Thus, while there is no guarantee that an in-class simulation suffers less from over-emphasis on competition, it provides more easily controlled conditions for stressing the learning experience.

### **SUMMARY**

Business simulations used either in the classroom or in IBG competition have added an exciting new dimension to business education. The potential risks of using simulation are greatly outweighed by the advantages.

Intercollegiate business games generate much greater pressures to win the game than to learn from the process. Learning is certainly possible, but the highly competitive aspects of the IBG do not reward the learning process. Perhaps the objective of the IBG is competition and winning, and perhaps this is a proper objective. If, on the other hand, learning is more important, then ways should be devised to reward the learning process more effectively.

Use of business simulations in the classroom can also easily become overly competitive. Maintaining a desirable balance between competition and learning is important. Many good simulations are now available, both for teaching specific concepts and for providing opportunities for decision-making in a multi-objective business environment. We need to learn how to better utilize the simulations. Research is needed to determine how to achieve a proper balance between competition and learning.

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### REFERENCES

1. Jensen, Ronald, "Intercollegiate Business Gaming: The State of the Art," Simulations, Games and Experiential Learning Techniques: On the Road to a New Frontier, James M. Kenderdine and Bernard Keys, Eds. (1974), pp. 263-267.
2. Jensen, Ronald L. and David J. Cherrington, The Business Management Laboratory: Student Manual, (Dallas, Texas: Business Publications, Inc., 1973).
3. Burks, David B., "Intercollegiate Business Gaming from a Participant's Viewpoint," Simulations, Games and Experiential Learning Techniques: On the Road to a New Frontier, James N. Kenderdine and Bernard Keys, Eds. (1974), pp.268-271.
4. Graham, Robert G. and Clifford F. Gray, Business Games Handbook, (American Management Association, Inc., 1969).
5. Churchill, Geoffrey, "DØG: A Decision Mathematics Game," Simulations, Games and Experiential Learning Techniques: On the Road to a New Frontier , James M. Kenderdine and Bernard Keys, Eds. (1974), pp. 116-122.
6. Nichols, Arthur C., "SIM<sup>Q</sup> a Business Simulation Game for Decision Science Students: Towards a Total Gaming and Teaching Package," Simulations, Games and Experiential Learning Techniques: On the Road to a New Frontier, James M. Kenderdine and Bernard Keys, Eds. (1974), pp. 45-247.
7. Byrne, Eugene T. and Douglas E. Wolfe, "The Design, Conduct and Evaluation of a Computerized Management Game as a Form of Experiential Learning," Simulations, Games and Learning Techniques: On the Road to a New Frontier, James M. Kenderdine and Bernard Keys, Eds. (1974), pp. 22-30.
8. Stair, Ralph M., Jr., "Intercollegiate Business Gaming: The Reno Experience" Abstracts of papers and demonstrations, National Gaming Council, October 8-10, 1974, Pittsburgh, Pennsylvania.
9. Day, Ralph L., "Growing Emphasis on Implementation," Simulations, Games and Learning Techniques: On the Road to a New Frontier, James N. Kenderdine and Bernard Keys, Eds. (1974), pp. 314-315.