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THE EVOLVING BUSINESS POLICIES COURSE--IS MANAGEMENT GAMING THE LOGICAL PEDAGOGY?

Allan S. Baillie, University of North Dakota
Robert Mclntire, California Polytechnic State University
William Newell, University of Washington
Chad Pierson, California State University-San Diego
Precha Thavikulwat, University of North Dakota

ABSTRACT

The business policies course, in terms of both content and pedagogy, is undergoing dramatic changes. Many of those changes have received little attention in the literature and yet these changes clearly affect the quality of the business policies course. The panel reviewed their experience in the use of management games in teaching business policies with the following pedagogy: a course which divides the emphasis between case study and half game participation (Bob Mclntire), the use of management games over multiple sections with emphasis on intercollegiate competition (Chad Pierson), a case study course designed to emphasize experiential learning with the interaction game, Boss, as the primary vehicle (Precha Thavikulwat), and the use of a complex game (Topexec) for the total business policies course (Bill Newell).

INTRODUCTION

Business policies instruction appears to emphasize two general pedagogical approaches: case studies or management gaming. Most of the critical literature appears to reflect either one viewpoint or the other or a faction within those two pedagogical approaches [1, 2, 3, 4, 5, 6, 7, 8]. Of interest is the fact that within these two general pedagogical schools, there is a significant evolution taking place.

CASE STUDY BASED ON THE HARVARD APPROACH

Although the Harvard case study approach seems to emphasize the practice of management of "real world" decision-making, the very process by which students interact while analyzing case situations and arriving at recommended solutions is a principal thrust of much of the pedagogy discussed by Harvard faculty[1O, 11, 12, 13, 14]. A favorite theme of many of these authors is Charles Gragg's idea that wisdom cannot be transmitted by lectures and reading assignments{ll]. Certainly, Dean Wallace Donham was of the same view when he installed case study as the primary pedagogy at the Harvard Business School in 1923.

Andrews, along with other Harvard faculty, advocates the use of complex cases which hopefully present the total situation of a company [15, 16]. His students are asked to analyze the state of the company, to identify principal problems, and to prescribe a program of action. Over their two years at Harvard, students study hundreds of cases reflecting actual company situations. The maturing student learns to formulate a pattern of purpose and policy and how to convert plans into results.

Most institutions following the Harvard leadership in the use of cases fail to study anywhere near the number of cases used at Harvard. As opposed to one case per session in virtually all courses at Harvard, most business school policies courses target five or six cases for analysis each term. Under this type of course structure, text material and readings are used to supplement case study.

Adding support to this latter approach is the fact that over the last ten years, business policy and strategy has become the focus of more intensive research to test propositions concerning the context of strategy and the process by which it is formulated, the objective being to test various hypotheses with statistical rigor [17]. This evolution in the study of strategy and policies is propelled by consultants and practitioners who now have evolved techniques for evaluating corporate business portfolios and for matching business strategy closely to the firm's situation. Such techniques are having a significant impact on strategic-related decisions of managers. Thompson and Strickland is an example of a business policies text that reflects the application of these techniques to the study of business policies [18]. Such developments tend to reemphasize the value of readings and lecture rather than solely depending on the results of Intensive case study.

THE APPLICATION OF MANAGEMENT GANES

Since the introduction of management gaming into the business curriculum in the early sixties, there has been considerable debate about its effectiveness [4, 9, 7, 8]. The Wolfe and Guth study [4] is of particular interest because it is both objective and comprehensive.

The results of the study tend to favor the use of management games for policies courses. Some of the principal findings are helpful in better understanding the application of management gaming to the policies courses. They hypothesized and demonstrated that the game was more effective in teaching policymaking principles and concepts while cases are more effective in imparting facts. To quote the authors: "The game's results came from improvement across almost all (examination) questions rather than outstanding improvement just a few." Student enthusiasm is a universal finding in similar studies and this was true in this study (based on peer group ratings). The authors reported: "Class participation was higher in game sections and it was easier for these students to talk personally and make their experience with management game relevant." However, it is noteworthy that the drop-out rate was somewhat higher in the game sections than in the case sections, and those teams of students doing poorly on the game lost some of their enthusiasm as play progressed; nor were game players any more involved, based on class attendance, a finding which differs from the results of other studies.

The Raia [5] Study offers several other points worthy of our consideration in understanding the appropriate application of

management gaming: students do not necessarily enjoy the course any more than students studying the cases; students may not achieve course objectives any better, although achievement levels were higher for the game sections; students prefer a combination of the game and cases; students feel the game is quite important to learning; students indicate the game as the most liked aspect of their course, and finally, the author did not find results using a complex game were superior to those using a simple game. These findings are important because they suggest a number of useful discussion areas in considering the proper application of management gaming to the policies course.

Experience in Using Games in Conjunction with Cases

There seems to be general agreement on the objectives of the capstone policy and strategy course to: 1) familiarize students with the business environment, 2) learn to apply sound management concepts and techniques, 3) to develop a systematic approach to analyzing and solving complex business problems, 4) to gain insight into the task of business managers and to develop a top management viewpoint. To these, four additional student objectives might be added: 5) to gain experience in formulating objectives, 6) to learn how to identify and neutralize constraints, 7) to obtain experience in differentiating a total task into component tasks and skills, and 8) to gain experience in designing the communication and control mechanisms needed to integrate all of these tasks and skills.

Some of these objectives are best satisfied through the use of case analysis while others are best accomplished though the business game. The cases seem to have advantages with regard to some of these objectives, while games have advantages in meeting others:

1. Familiarity with business environment-- Clearly, when several cases and several different industries are used, the student receives a greater familiarity with business than is possible in a game.

2. Apply sound concepts and techniques-- The soundness of concepts and techniques in case analysis is normally determined by the instructor and, sometimes, others based upon a written or verbal report. In gaming, such soundness quickly becomes apparent and a change in strategy is possible.

3. Systematic approach to complex problem analysis and solution--Case method lends itself to the use of a systematic model and enables its use in a variety of different situations and environments which may help students develop confidence in its use.

4a. Develop a top management view--Games demonstrate the need for clear objectives, good organization, functional interrelationships, importance of good information, consequences of decisions, and the pressures of time and competition.

4b. Insights into the tasks of business managers--Games are more effective in teaching decision making, feedback, tradeoffs, time pressures, group interaction, teamwork, and the importance of each function to the overall objectives.

5. Objective setting--Objectives are often given in cases. In gaming, students must formulate, defend, and change objectives in a dynamic environment.

6. Constraints Identification--Games simulate one industry. Cases expose students to several environments and several sets of constraints. But it should be noted that games permit opportunities for a series of sequential decisions aimed at neutralizing competitor actions and feedback on their effectiveness.

7. Task and Skill Differentiation--Games require a team to organize into roles and the executive workload that ensues reinforces the realization by the student executives of the need for each function and the dependent relationships between and among such functions.

8. Task and Skill Integration--In game play, teams organize to assure that all executive functions are assigned to specific individuals, that an information system is designed to yield the information needed for executive decisions, and they employ these plans, modifying them where necessary in a dynamic environment.

Management games can be effectively used with multi- sections involving large enrollments if the following conditions are satisfied: a) an appropriate simulation must be selected and adapted to use on the local computer; 2) a support staff must be developed to adapt continually to the local computer and to process the student decisions; 3) a mail system needs to be developed to collect decisions, distribute results and stand-by for “instant” correction of errors; and 4) student teaching assistants must be developed to help the game participants learn the simulation procedure and to help them adjust their strategies. Student assistants also monitor the team performances, report their findings to the instructors and help in determining the grade to be assigned to students for game activity. The work of the student assistant is coordinated by a member of the faculty familiar with the game play and the requirements of the business policies course. The coordinator must select and train the assistants in their activity, negotiate with computer center managers, help the business policy instructors, establish the manner in which the game is integrated into the policies course, and work to keep the instructors and hundreds of students to a prescribed schedule.

Once the organization of game play is established, instructors must seek ways to enrich the student’s experience with the game. There are two places to look for enrichment:

Internal. Instructors can stimulate interest by having students name the company; use formal titles; use organization charts; prepare a strategy, then prepare reports with charts, graphs and pro forma financial statements indicating team performance in appropriate business format; hold decision-making meetings; hold formal reviews for the board; utilize consultants; and designate shareholders. Students who do well can be given positions to assist instructors.

External. There are numerous sources of enrichment external to the course. Executives from the business community can be used extensively to add realism and interest. Inter-university games can play an important role in stimulating local students because student

performance can be used to select the team to represent the university. Such intercollegiate competition can also be used as a benchmark for local conduct and performance. Results of the intercollegiate game competition does provide insights into the improvement of local game play.

Development is the aim of any simulation--development of the students, as well as the staff and faculty. It is not enough to go through these exercises unless all involved will evolve to a higher level of understanding of the central manager's role, learning to formulate purposeful plans and how to convert plans into results.

Creating Realities in the Classroom Using Boss

Inasmuch as the business policies course is a capstone course in the business school curriculum, it is an ideal place for students to practice learned skills in the face of reality. Prior to the policies course, students attend courses to learn facts, principally from lectures and readings, so it is of importance that the students' course experience be as real as possible. Consequently, the primary responsibility of the instructor of a policies course is to create reality in the classroom. The management game, Boss, is a critical part of the students' real experience, even though it involves little class time.

The game is supported by an interactive, mainframe computer. The computer keeps accounts, executes decisions enforces rules, and facilitates the administration of the game. Because the computer can be accessed from many terminals and operates 24 hours a day, students can play the game at times convenient to themselves. The computer makes the game easy to play and to administer.

Boss is a game that is quantitative, psychological, and real. The game is a trading game: players buy from one market and sell to another, keeping the profits or absorbing the losses as the case may be. The game is also a supervisory game with players hiring each other to do the work. The game is computer-supported, but not computer-run. The computer will execute orders, keep records, and ensure that the appropriate procedures are followed. But people, other players, and not the computer, will determine the consequences of what is done. Because the consequences are determined by people, the game creates a reality in which students may properly practice the skills of management.

After game play is under way, all the students are owners of firms and through incentives built into the game these owners are forced to hire classmates to work for them. They must pay these classmates an agreed upon amount out of firm funds, outline employee roles and decide performance criteria, and even fire them if that becomes necessary. The owners, then, are bosses In the true sense of the word and must profit from the efforts of their employees or lose some of their own points because of unsatisfactory firm performance.

To get the most out of the game, owners must plan their moves. They must study each problem that is faced and consider principles that might be relevant to each case. They deal with numbers, so mathematics can help, provided the relationship of variables is understood. In addition to the mathematical considerations, students must deal with people, so people's feelings become important. They must help subordinates with their jobs, but cannot do it for them. Owners must explore employee expectations, attend to their problems, and they will do well by the owners.

As in any policies course, much time must be spent in considering real case situations. Students analyze Harvard type cases and make presentations, giving them practice in self expression, as well as better familiarity and understanding of the central manager's role in actual corporations. Throughout the course, students are asked to role play functional managers in various typical situations these managers encounter.

Real cases, role playing, and genotypical games are three complementary parts of the business policy course. Cases giving students practice in self-expression, role playing gives practice in listening and the game gives practice in carrying out managerial activity. All three are created realities by which students can develop proficiency in management.

Approximating Actual Management Decision Simulation Through TOPEXEC

Computer business management decision simulations, when properly designed and utilized, provide a unique contribution to teaching business policy as a complement to other pedagogical methods, such A lectures, readings, cases and field studies. While decisions made by top-level executives are made in a dynamic environment, most education methods deal with static rather than dynamic situations and often take into account a more limited number of variables than encountered by executives.

A management decision simulation complements other teaching methods by introducing a dynamic sequential decision process that more closely approaches the essence of real business situations. A simulation such as TOPEXEC, designed by Professor Albert N. Schrieber of the University of Washington, places the student in a realistic industrial setting and economic environment which requires an integrated approach to a dynamic environment under conditions of uncertainty.

At the University of Washington, the TOPEXEC simulation is the subject of separate graduate and undergraduate business policy courses. Thus, the simulation does not compete with other parts of the regular business policy case courses, but instead serves as a valuable complement to them. Students are divided into six teams, each representing a competing company, and run a business for a simulated 6-year period. This approach permits the simulation to serve also as a basis for various types of planning and analysis.

As an example, since the TOPEXEC simulation takes place in the context of a real economic time period (disguised), students may work on realistic forecasting analyses. The highly realistic and complete accounting and financial data provided as output give students an opportunity to make good analyses and to learn to use actual data reflecting performance of the company as an integrated whole. It provides a situation for developing skills in human relations. On occasion, the course has been teamed with a course in human relations, whereby the policy simulation course became a laboratory for studying decision making and group dynamics.

TOPEXEC uses CRT terminals for interactive input, and provides for pro forma "what-if" type of experimentation with decision inputs. One of its main features is the use of progressive enrichment by phases whereby students begin with a simple restricted form (so they do not bankrupt themselves while learning the mechanics of the simulation), and are introduced to advanced phases by the instructor. For example, some of the phases include: adding plants, purchase and sale of inventory and plant capacity among the competitors, acquiring capital through sale of common stock, issuing bonds, and

trading stock on the New York stock market, improving product distribution, scrapping old equipment and buying new plant equipment, competitive bidding for large contracts, facing a variety of realistic catastrophes which require extensive re-evaluation of the firm's situation, and consideration of various schemes to reduce taxes. Teams playing TOPEXEC must apply all they know and become totally absorbed in play to survive in the market. This TOPEXEC approach to management decision simulation has proven to be a powerful pedagogical method.

In Conclusion

Management games may hold the key for the greatest advancement in business policies pedagogy, in ways hard to predict. Even at Harvard, the curriculum was affected as a direct result of an optional course-- management gaming. Thomas Moore recently commented in his article about espionage at the Harvard Business School, "Now eleven years old, once again the game has proved its uncanny ability to simulate real situations, including some that were not programmed." 19 The reported scandal on game play caused Harvard faculty to rethink business ethics and its role in their MBA program. Clearly the power of all these developments should be appraised before passing judgment on the appropriateness of management gaming for business policies.

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