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EXPERIENTIAL LEARNING IN A CROSS CULTURAL SETTING - THE PRACTICE OF SIMULATION APPROACH TO BUSINESS EDUCATION IN JAPANESE UNIVERSITIES

Tom Basuray, University of North Dakota
Stephen E. Blythe, University of North Dakota

ABSTRACT

The purpose of this research is to investigate the usage of simulation in business administration courses in Japanese universities. Questionnaires were sent to fifty Japanese business professors; the response rate was 40% (20 responded). Overall, due to the limited sample, the results are inconclusive. However, half of the subjects did not use any simulation in their teaching methodology; the other half indicated some use of simulation (range of usage from ten to eighty-five percent).

INTRODUCTION

A review of available literature on simulation and experiential learning, and the number of scholarly papers presented on these topics at various academic gatherings are testimonies to the efficacy of experiential teaching/learning method as practiced in the institutions of higher learning in the United States. The influence of simulation and experiential learning in business education is especially significant, as evidenced by the increasing number of simulation materials now in print for the various business administration disciplines, and by the interest among business educators in creative dialogues with other like-minded individuals through professional associations such as the A.B.S.E.L.

However, till now, not much effort seems to have been expended in identifying the interest in and the commitment to the experiential learning methods among the educators in other cultures. A search of the past A.B.S.E.L. proceedings fails to indicate either substantial participation by educators from other countries or research conducted by educators from this country. Considering the extent to which the template of business administration education, as developed in the United States, has been duplicated in other countries, the absence of research as to the extent the simulation techniques are in use in other cultures is quite striking.

The thrust of the research effort, reported here, is to initiate the preliminary steps to bridge the knowledge gap that currently exists in this area. This paper discusses the results of a pilot study conducted in the Summer of 1980 as to the use of simulation material in business administration education in the Japanese universities.

Theoretical Foundation for Simulation Use Behavior

Theoretical statements explaining and predicting simulation and experiential exercise use behavior are mostly at the developmental stage. The few available researches tend to derive cause and effect relationships between a limited set of variables which preclude valid generalizations pertaining to a process that is generally perceived as complex. Estes indicated that the utilization of computer based simulation is appropriate when learning of the application of a specific skill or tool to a business problem situation is the major objective (3). The efforts of Burns and Gentry to conceptualize a number of the process variables relevant to provide data as to

simulation exercise use decisions and their efforts to cast these variables into a functional cause and effect linkage set are most noteworthy (1).

The basic model postulated by Burns and Gentry is that:

Games Used (Nature, Conduct) f (Concepts Taught)
modified by (Student Attributes, Instructor Con- side rations)

Each of these variables were then operationalized along a number of dimensions. These variable sets were then connected by conceptualized cause and effect relationship flowcharts described as hypothesized propositions.

Since the present research attempting to examine the use of experiential and simulation exercises in a cross cultural teaching/learning environment is designed to be a pilot study, the scope of data collection was limited to a few variables. Therefore, it is not possible to test the seventeen propositions delineated by Burns and Gentry. Nevertheless, the authors feel that, despite the absence of a methodological design to test the validity of the propositions, the data gathered would provide indirect support of the broadly stated relationships established by Burns and Gentry.

Methodology

A survey questionnaire titled, Simulation Utilization Questionnaire was developed for the purpose of gathering information from business college faculty in Japanese universities. The questionnaire was designed to gather information under two major categories. The first data category was termed "demographic" and asked respondents to provide the following information:

1. Number of years teaching experience at the college/university level
2. The highest academic degree held by the respondent
3. The respondents major field of concentration in the highest academic degree program
4. The country where the highest academic degree was earned
5. The proportion of teaching time spent by the respondent in one or more of the business disciplines
6. In each of the business disciplines (e.g. management, marketing, etc.), the proportion of time spent in graduate and/or undergraduate teaching
7. The average number of students in the classes taught by respondent

The second data category was titled, "simulation usage information" and asked the respondents

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1. The proportion of time the respondents devoted to simulation and non-simulation methods of teaching
2. For a specific business discipline (such as management, marketing, economics, etc.) the proportion of simulation-oriented instruction that the respondent utilized in teaching
3. The titles of the courses where the respondent utilized simulation and the proportion of time devoted to simulation
4. The frequency and the method of evaluation conducted by the respondent to assess the effectiveness of simulation-centered courses.

A list of fifty (50) business administration faculty currently teaching in Japanese universities was obtained from current membership directories of The Academy of Management and The Academy of International Business. The survey of questionnaires, along with postage-guaranteed return envelopes, were mailed to the respondents from Tokyo. A total of twenty (20) responses were received (40% return rate). The responses were coded and were subjected to Statistical Analysis System (SAS) package treatment.

Results

The results of Category I data (demographic information) analysis are summarized below:

1. 50 percent of the respondents had been teaching for 18 or more years (average number of years taught by all respondents 15.5 years)
2. 60 percent of the respondents had Masters as the highest academic degree
3. 50 percent of the respondents had Management as the major field of concentration in their highest academic degree program
25 percent of the respondents had Business Administration as the major field of concentration in their highest academic degree program
4. 80 percent of the respondents earned their highest degree in Japan, 15 percent of the respondents earned their highest degree in the United States, while 5 percent of the respondents earned their degree in Germany
5. 80 percent of the respondents reported teaching responsibilities in the Management area and, of these, 50 percent reported devoting 60 or more percent time to teaching Management subjects. In comparison to this, only 30 percent of the respondents reported some teaching responsibilities in the Marketing area. 10 percent of the respondents reported as having some teaching responsibilities in the Accounting area. 25 percent of the respondents reported some teaching responsibilities in the Economics area. Only 10 percent of the respondents had some teaching responsibilities in the Finance area.
6. Of the 80 percent respondents involved in teaching Management courses, half devoted 40 percent or more time to teaching graduate level courses. In comparison, only 20 percent of the respondents who were teaching some Marketing courses had any

graduate course responsibilities. This was also identical to the percent of respondents who were involved with graduate courses in the Economics area.

7. 50 percent of the respondents reported teaching classes of 65 or more students. The average number of students in classes taught by all of the respondents was 89.

The results of Category II data (simulation usage information) analysis are summarized below:

1. Half of the respondents did not use any simulation in their teaching methodology. The other half indicated some use of simulation in their instructions (range of usage from ten to eighty five percent).
2. Of the respondents who are teaching in the Management area, 31 percent reported using some simulation. In comparison, of the respondents who were teaching in the area of Marketing, 50 percent reported using some simulation. Of the respondents who were teaching in the area of Economics, 80 percent reported using some simulation.
3. Of the respondents reporting use of simulation in teaching, all used student evaluations to assess the effectiveness of courses they taught.

Of the respondents reporting use of simulation in teaching, 60 percent used evaluation from faculty colleagues to assess the effectiveness of the courses they taught.

Of the respondents reporting use of simulation in teaching, 60 percent used some form of self-evaluation to assess the effectiveness of the courses they taught.

4. The specific courses where some of the respondents reported using simulation are International Business Management, Multinational Enterprises, Seminar in International Business, Economic Development, Economics, Business Games, Productivity Measurement, Application of Programming, Marketing Management, and Marketing Seminar. No simulations were reported in Personnel Management, Industrial Relations and Human Relations courses.

Other results of interest are summarized below:

1. Of the respondents with Ph.D. as the highest earned academic degree, on the average, 21 percent reported using some simulation, while among the respondents with Masters as the highest earned degree, only 18 percent reported using some simulation.
2. No significant correlations were detected among any of the variables generated through the questionnaire though the relations were, in all instances, in the directions hypothesized a priori. For example, the use of simulation in classes with greater number of students was low (negative, though not significant, correlation).

Discussions

The results of the pilot study failed to establish any statistically significant correlation between certain demographic variables and the nature of simulation

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exercise use by business administration faculty in Japanese universities. But the absence of statistically significant correlation notwithstanding, some interesting patterns do emerge which may be indirectly explained by the hypothesized cause and effect framework of Burns and Gentry.

Half of the respondents in this study did not use any simulation in their teaching methodology. In the context of this finding, two of the results obtained in the demographic variable section appear to be quite noteworthy. First, the average number of students rolled in the Japanese business classes (as reported by the respondents) was 89. Compared to class sizes in the United States, this appears to be higher. Second, 50 percent of the respondents had been teaching for 18 or more years. Burns and Gentry hypothesized that (a) the number of students in the class will negatively affect their ability to participate in the exercise; and (b) familiarity with business topics being taught and the user's teaching philosophy will affect the user's motive for using game or exercise (1). These two propositions may help explain why half of the Japanese business faculty (who have begun their teaching careers 18 or more years ago) decided against simulation exercise use in classes where, on the average, 89 students were enrolled. Another Burns and Gentry proposition states that the accountability and autonomy will positively affect participant involvement in the exercise. The formality of the Japanese societal structure and the cultural orientations towards formalized interactions between the older and younger members of the Japanese society may lead to an assumption of low accountability and autonomy vested in the Japanese students. The results of this study indicated that all of the respondents using simulation in teaching conducted student evaluations to assess the effectiveness of the courses. It may be speculated that those faculty who did not use simulation exercises in their teaching methodology, by conducting relatively lesser amount of student course evaluations, were providing lesser amount of accountability and autonomy to the students in their classes. This would indirectly support the last proposition of Burns and Gentry cited above.

Estes reported that greater effectiveness of simulation exercises is to be expected in courses that attempt to impart a skill orientation for specific problem solutions (3). The courses where the use of simulation exercises was reported by the Japanese business school faculty exhibit such skill orientation characteristics.

Catalanello indicated that an important variable in a discussion of experiential exercise use behavior was the cost and benefits accruing to the instructor as a result of the decision to use such techniques (2). The benefits to be gained from use were listed by Catalanello as (a) increased instructor interest in teaching, (b) increased status due to teaching innovativeness, and (c) greater teaching effectiveness. Costs associated with use of experiential techniques were (a) greater time demands placed on the instructor, (b) increased frustration experienced by a portion of the students, and (c) lack of peer support. In a society such as ours, where the academic freedom acts as a powerful support infrastructure, the cost items (b) and (c) may not carry much weight. However, in a traditional society such as Japan, these may be significant barriers (costs) to implementation of innovations such as simulation and experiential techniques. Only 15 percent of the respondents had earned their highest academic degree in the United States. It may be assumed that the overall teaching/learning climate would be along traditional Japanese patterns.

Conclusions

This pilot investigation as to the intensity of the use of simulation techniques by business college faculty in Japanese universities failed to provide any conclusive

evidence regarding cause and effect relationships among variables. Nevertheless, the trends exhibited are quite interesting and revealing in some respects. The obvious limitations of the study are in the narrow scope and in the absence of comparative data from other countries. The authors are fully aware that a comparative analytical framework would be necessary to identify the cultural influences that may help explain the greater intensity of the use of simulation and experiential techniques in one environment than in another. The analysis of the use behavior of experiential techniques in the United States must, of necessity, be the cornerstone as far as business education is concerned. The authors hope that such research efforts would provide the necessary linkages towards the establishment of a true theory that is so noticeable by its absence.

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