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A COMPARATIVE EVALUATION OF A MARKETING GAME

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ABSTRACT

A popular marketing game was evaluated within a controlled experimental design. The simulation increased knowledge when tested by both objective and essay questions but knowledge increases were not greater than those obtained through the use of cases. The two teaching formats produced different perceptions of the instructor's testing methods, impartiality, availability, and classroom procedures.

INTRODUCTION

Most of business gaming's uses and evaluations have been in the general management or business policy area [12; 14]. A wide variety of functional and industry-specific games are also available but evaluations of them have been sparse [4; 61]. This scarcity, however, has not deterred the adoption of marketing games. Using publishing activity as a proxy for collegiate usage, the number of marketing games has increased by about two per year over the past decade. Undoubtedly, a large number of privately-published games are also being used.

As was the case for the adopters of the first policy games, marketing game applications have apparently been made on faith alone. A marketing course, however, appears conducive to gaming because of the practical theories involved and the quantitative interactive outputs obtained. This paper presents a controlled evaluation of a popular marketing game in a marketing principles course application.

BACKGROUND

A number of studies have employed marketing games but learning effectiveness was usually not central to their interests. Philippatos and Moscato [9; 10; 11] basically investigated the relationship between information usage and company operations. In total, information availability or unavailability did not alter output performance in any appreciable manner.

Rowland and Gardner [13] used MARKSIM [5] in a marketing principles course to determine hierarchical effects on learning results as well as the game's use as an organizational research laboratory. Looking only at their study's learning aspects, a high correlation existed between a student's grade-point-average and game performance although a modest negative correlation existed between game performance and course grades.

PROBLEM STATEMENT

An experimental design tested the efficacy of the lecture/game teaching format versus lecture/cases in meeting the objectives of a large marketing principles section at The University of Tulsa. Course objectives included the (1) mastery of specific knowledge, and (2) analysis of unstructured problems. The general hypothesis for testing the marketing game's power was:

H₁: Students in the lecture/game group will learn more than students in the lecture/case group.

Student interest is an additional learning factor of interest. Case adopters have often cited student enthusiasm and the game's unique learning environment as major simulation benefits. Accordingly, a second hypothesis was generated:

H₂: Students in the lecture/game group will express more positive course attitudes.

METHODOLOGY

Students in one large marketing principles section were randomly assigned to teams in two laboratory sections. Teams in one laboratory section (n = 31) analyzed marketing cases while teams in the other laboratory (n = 32) played Day and Ness' Marketing in Action [3] game. The case group performed oral and written analyses of four cases and the game group prepared four written assignments on the simulation. Each laboratory section met with the instructor nine times in addition to attending weekly common lecture and discussion meetings. The same instructor served all groups.

A pre-test post-test design was employed. Specific knowledge was determined through objective test questions while unstructured problem-solving ability was tested through essay questions and short case analyses. The pre-test was administered during the semester's first week and the post-test served as the course's final examination. Three intermediate examinations were also administered every fifth week during the semester. Student attitudes were obtained from a standardized university-administered student evaluation questionnaire applied during the semester's twelfth week.

RESULTS

Table 1 displays the summary results of overall learning scores. Pre-test scores are identical demonstrating initial group equivalency. Post-test scores reveal statistically significant (p < .01) improvements in overall knowledge levels for both groups but that the improvement was greater for the case group (p < .01). Table 2 reveals that a degree of within-test difference existed as the case group performed better on the examination's objective questions. An analysis of the three interim tests showed no discernable pattern of change. The game group initially outperformed the case group, the case group performed better on the second test, and scores were equal on the third test.

The overall student evaluation questionnaire revealed no differences between the two groups. These evaluations yielded ordinal data thus t-tests could not be performed. An examination of extreme scores yielded the differences presented in Figure 1

DISCUSSION

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This study has found that the marketing game studied increased knowledge levels but no more so than did the cases assigned to the comparative group. Although the game group initially outsourced the case group, this initial superiority disappeared. The student evaluation questionnaire also revealed that the case group

1. Marketing in Action may be too complex or too simple for the student population studied.
2. The instructor may be more adept at the case method than acting as an experiential facilitator.
3. The simulation's workload could have taken time away from studying for the various tests administered during the semester.
4. High game performance may have been perceived as having little impact on the course's grade or reward system.

Group	Measure	
	Before	After
Game	41	67
Case	41	70

n.s. p < .01 p < .01

CONCLUSION

It was found that the marketing game helped in increasing student knowledge. The more traditional case approach, however, was perhaps marginally superior to the simulation. Further study should examine the reasons for these results so that the supposed benefits of each approach might be maximized in the specific teaching application being made.

TABLE 2
POST-TEST COMPONENT SCORES

Group	Question	
	Objective	Essay
Game	38	29
Case	41	29

p < .01 n.s.

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FIGURE 1
SUPERIOR SCORES

Game Group	
1.	Presented historical origins of ideas and concepts.
2.	Wrote test questions for which the meanings were clear.
3.	Gave tests which allowed students to demonstrate what they had learned.
Case Group	
1.	Utilized class time to achieve course objectives.
2.	Encouraged students to ask questions.
3.	Encouraged students to express their own ideas.
4.	Was fair and impartial in dealing with students.
5.	Was available for conferences outside of class.

held a more favorable view of the instructor on certain items. Overall he was perceived to be a better utilizer of class time, more supportive, and more available for student counseling.

Although the game was successful, it was not superior as hypothesized. Given the complexities and unknowns of the typical experiential learning environment, a number of factors may be involved. Burns and Gentry [1] among others [7; 8] have categorized them as those dealing with what is being taught, the game/task situation, exercise procedures, and participant and instructor attributes. This suggests the following possible explanations for the results found:

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