Developments in Business Simulation & Experiential Learning, Volume 11, 1984

THE PERCEIVED RELATIONSHIP BETWEEN PEDAGOGIES AND ATTAINING OBJECTIVES IN THE BUSINESS POLICY COURSE

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ABSTRACT

Along with the growth and development of the Business Policy and Planning area, there has been a growing discussion on how to best teach the "capstone" course. Part of the cause for the debate on pedagogical effectiveness seems to lie in the unclear definition of what objectives the course (Or instructor) is seeking to fulfill. This research reports student perceptions of the relationship between three pedagogies (lecture, case study, and simulation) and course objectives relating to knowledge, attitude, and skill acquisition. This study differentiates itself from other research in that all three pedagogies were integral elements of the same course, allowing the respondents to give their perception of the relative effectiveness of the pedagogies. Results indicate there are perceptual differences in the effectiveness of pedagogies in goal attainment.

INTRODUCTION

One of the courses required of colleges offering business programs that operate under AACSB guidelines is the business policy and strategy formulation course (i.e., the capstone course). Generally the purpose of this course is to integrate and apply the knowledge gained from the various business disciplines (finance, marketing, management, etc.) toward the formulation, implementation, and evaluation of administrative action. Another purpose involves teaching students new theoretical concepts associated with strategy and policy formulation and administration. As stated by Gordon and Howell (1959), the course is to be a vehicle which will "give students an opportunity to pull together what they have learned in the separate business fields and to utilize this knowledge in the analysis of complex business problems." (p. 206).

Since first introduced, there have been changes in the capstone course. The first such courses relied heavily on the pedagogy of the case method approach, although not to the exclusion of the use of the lecture method (McNair, 1954). A more recent approach to the course has been the use of the computer based simulation or management game. These three pedagogies (lecture, case study, and simulation do not constitute an exhaustive Listing of methodologies used, but rather note those most prominently used (Anderson and Woodhouse, 1981).

Some research has been conducted which addresses the question of which method is the best for teaching this course, but with inconclusive results (McKenney, 1962; Raia, 1966; Wolfe and Guth, 1975; Wolfe, 1975a; Wolfe, 1975b; Snow, 1976; Blythe and Gosenpud, 1981). The problem appears to revolve around the issue of course objectives. Depending on the objectives the instructor wishes to achieve in the course, the pedagogy for best accomplishing those objectives may vary.

Many objectives have been noted as appropriate for the capstone course. According to Anderson and Woodhouse (1981) three general categories of objectives tend to emerge from the literature: 1) the acquisition of knowledge, 2) the development of attitudes, and 3) the development of skills, all relevant to the general management of an organization. It should be noted that these three categories are different in kind, not just different in degree. Therefore, each must be examined differently.

Knowledge focuses on new knowledge, not the repeating of what should have been learned previous to the capstone course. Generally, this new knowledge would focus on the concepts of strategy and policy, the importance of proper implementation of strategy and policy, and in some cases, knowledge about the relationships between the organization and its environment, as well as the interrelatedness of the subsystems of the organization.

Attitude development involves learning to look at the organization through the eyes of a generalist rather than a specialist. Many objectives focus on the development of attitudes which align with the general manager-type decisions maker (who is pragmatic, results oriented, realistic, and able to make decisions under conditions of uncertainty and ambiguity). One of the objectives might be to shift the learner's attitude away from what has been acceptable in the sterility of the classroom to that which is required in the world of business.

The skills category stresses the use of principles and concepts already learned, and attempts to develop a degree of skill in the application of knowledge. Learning is reinforced through the practice of these skills. There is a critical difference between knowledge and skills. Knowledge is the result of acquisition of information. Skills are the effective use of this knowledge for making intelligent, reasoned managerial decisions.

THE STUDY

The research reported here focuses on student perceptions of the relationship between the three pedagogies (lecture, case study, and simulation) and some possible course objectives.

Data for the study were collected through the use of a questionnaire administered at the end of an M.B.A. Business Policy course. A total of sixty-three questionnaires were returned of which fifty-nine were usable. Students were asked to give their response on the effectiveness of using case study, simulation, and lecture as educational tools for their personal improvement on a variety of items that relate to the general categories of knowledge, attitude and skill acquisition. The format of the course was one that used all three pedagogies as integral elements in its design. Class days were specifically devoted to these pedagogies throughout the semester. Primary emphasis was on the case study and simulation pedagogies with lectures used to address issues raised by the former and to present topics, concepts, and models of business policy and strategy formulation not otherwise discussed. Case studies used were complex, integrative cases from the International Case Clearing House at Harvard. All but one of the respondents indicated they had prior exposure to the case study method of instruction. However, only one third of them indicated prior experience with a simulation exercise. Of those with prior simulation experience, sixty percent thought this exercise to be more complex than their prior experience, fifteen percent saw it as comparable in complexity.

The case study portion of the course was conducted with the instructor serving as a facilitator of class discussion

and as a questioner of points made by the students. The responsibility was clearly on the students to analyze the information given in the case and to draw conclusions on the future course of action the principals in the case should take. The simulation operated with student teams serving as divisional mangers of their company reporting to corporate management (the instructor). Besides their weekly operating decisions, students were required to write up organizational goals and strategies for their firm, as well as submit annual operating plans analyzing past operations and presenting courses of action for the coming year. The lectures followed the traditional format of the instructor presenting specific topics relating to policy and strategy formulation.

RESULTS

Table 1 shows the results of the t-test comparisons between the three pedagogies for each of questions (objectives) on which the subjects were asked to report. The questions are grouped into the general objective categories of knowledge, attitude, and skill acquisition as discussed above. Both p value levels of significance and t values are reported for each paired comparison; case vs. simulation, case vs. lecture, and simulation vs. lecture. A **"+"** sign is used to indicate which pedagogy had the higher mean in their paired relationship. No **"+"** sign indicates the means were identical.

For example, Question 1 (in the skill category) asks how effective the case method (or computer simulation, or lecture) was as an educational tool for improving <u>your</u> personal stability to analyze problems"? The results indicate that respondents did not perceive a significant difference between cases and simulation as a means of helping them to improve their ability to analyze problems ($p = .842$). The **"+"** sign indicates cases were rated higher (although, again, nonsignificantly) than simulations on this question. On the other hand, relative to the lecture method, the respondents reported both the case and simulation were significantly better methods for increasing their ability to analyze problems. (Case vs. lecture, $p = .001$; simulation vs. lecture, $p = .001$).

<u>Case Study vs. Lecture</u>

The comparison of case study and lecture methods shows significant differences in perceived effectiveness on thirteen of the fifteen questions asked (see Table #1). In all thirteen of the questions where significance occurs, the case method was perceived as more effective than the lecture method. However, when the questions are grouped together by the general categories of knowledge, attitude, and skill objectives, the merits of the lecture method surface. Both questions where no significant difference exists between the two methods occurs under the knowledge objectives category. Closer inspection of the questions in this category shows the significant differences between these two pedagogies occurs on questions relating to <u>understanding</u> issues relating to the subject (Questions #12, 13, 14). Questions focusing on <u>awareness</u> of subject matter (Questions #6 & 9) show no significant difference. It would appear that the lecture method is seen as equal to the case method for introducing students to material, but that cases provide better means for aiding comprehension.

There is a clear difference between the two methods in how the questionnaire respondents perceived their effectiveness at accomplishing attitude and skill objectives. For all questions the case method was rated as more effective than lectures.

<u>Case Study vs. Simulation</u>

The perception of the case study method as the more effective pedagogy for accomplishing course objectives does not carry over when it is matched with the simulation. There is significant difference in perceived effectiveness on ten of the fifteen questions, with the simulation being favored in nine of the ten.

The simulation was favored for three of the five knowledge objectives, with no significant differences reported for the other two questions. However, even though nonsignificant, the respondents were leaning toward the simulation as the preferred method for accomplishing these objectives. Clearly, the simulation is perceived as more effective for attaining knowledge objectives.

The simulation is also favored for accomplishing attitude objectives. Respondents perceived the simulation as being significantly more effective than cases for four of the five questions relating to attitude objectives. The nonsignificant question again also favored the simulation.

Interestingly, given its strong applications focus, the simulation looses its total dominance of the case method when skill objectives are compared. The simulation is viewed as significantly more effective for two of the five questions, the case method for one of the five. For the two questions where significant differences do not exist, each pedagogy was favored by respondents for one question. The simulation is perceived as significantly more effective than cases for accomplishing skill objectives related to direct implementation issues (make decisions, apply techniques), while the cases are seen as more effective at improving communications skills.

<u>Simulation vs. Lecture</u>

Perceived differences between pedagogies is most dramatic when comparing the simulation and lecture methods. The simulation is seen as significantly more effective than lectures for four of the five knowledge questions, and all five questions for both the attitude and skill objectives. The sharp contrast in the form of these two pedagogies undoubtedly has a major impact on these results. The active versus passive nature of these techniques is self evident and must be taken into consideration when analyzing these results. This will be discussed more below.

<u>Knowledge, attitude, and Skill Acquisition</u>

When reviewing the above in terms of the three general objective categories the following summary statements can be made. With respect to the acquisition of knowledge, the respondent saw considerable differences between the three pedagogies. The greatest difference occurred in the comparison of the simulation and lecture methods of instruction. Perceived differences seemed to be oriented toward gaining an understanding of organizational dynamics (Questions 12, 13, 14) as opposed to gaining exposure to new forms of information (Question 6 and 9).

Differences in perception of pedagogical effectiveness were most pronounced in the category of attitude development. Fourteen of the possible fifteen comparisons had significant differences. The simulation was seen as being most effective in achieving the attitude objectives, with lectures being least effective and cases falling in between. There is a close association between the active vs. passive nature of the pedagogy and the participants perception of its relative effectiveness at achieving attitude objectives. Given the active (vs. passive) involvement required of simulation participants, its strong impact on attitudes is not surprising. It has long been reported that attitude change occurs through experience not through the dispersal of facts or information

(Maier, 1973; Maier, Solem, and Maier, 1975). Compared to the other two pedagogies, the simulation exercise contains an inherent advantage in this area. The importance of active involvement to effect attitude change (whether perceived or real) should not be overlooked.

In the general area of skill acquisition, the lecture method is seen as decidedly less effective than either the case method or simulation. Again its passive nature would appear to work to its disadvantage. Achievement of skill oriented objectives would seem to require a more active involvement by the participant. The case method and simulation are relatively equal in this area, with the simulation being more effective in achieving the "doing" type of objectives as opposed to the "thinking" objectives.

It appears both the case and simulation are effective at achieving skill objectives, although they emphasize different objectives within that category.

"Absolute" Effectiveness of the Pedagogies

It appears from these results that the three pedagogies are most similar in their effectiveness at achieving knowledge objectives and most dissimilar at achieving attitude and skill objectives. Of course, what has been reported so far has been how the three pedagogies compare with each other. While the relative aspect is important, it would be of questionable interest if all three methods were low in terms of an absolute measure of their effectiveness. To determine their "absolute" effectiveness one must evaluate the means for the questions derived from using the one to seven scale on the original questionnaire. The means for each question, grouped by the general objective categories of knowledge, attitude, and skill, are given in Table 2. Since the focus at this point is to look at the degree to which each of these three pedagogies impacts on each of the three learning categories, it is necessary to generate means for each pedagogy in each category. These means (averages of the averages or grand means) are shown in Table 3. As can be seen, the range of absolute values is from 3.09 to 5.60. (The respective values on the questionnaire were 3.0 = helps somewhat, 4.0 = moderately helps, 5.0 = helps quite a bit, and 6.0 helps greatly). These values indicate that all three pedagogies are perceived by the respondents to help acquire knowledge, attitudes, and skills, although in varying degrees.

CONCLUSIONS

The results clearly indicate perceptual differences in the effectiveness of the three methodologies for achieving the general objectives of knowledge, attitude, and skill acquisition. This should not be interpreted to mean any one particular pedagogy is better than the others. The conclusions are constrained by the research design of the study. The respondents were asked to give their opinions ('Please rate...[tl]) as to the merits of three pedagogical methodologies in helping them to acquire various knowledge, attitude, and skill objectives. It can not be concluded, from the results reported in this study that any pedagogy is better than any other for acquiring knowledge, attitude, or skills. The reason is simple: no objective data have been linked with the respondent perceptions. It is the beliefs of the respondents that are being reported.

Therefore when the respondents replies to the various questions are tabulated and analyzed, the results indicate, for example, that they do not believe that they can acquire skills by means of sitting in a classroom and listening to a lecture about skill development. How this equates with fact has not been tested here. However, this is not an insignificant point with respect to the development of an instructional package.

What people believe will work, will probably end up working. What people believe will not work, will probably fail It is the Pygmalion Effect in action again. Considerable research has supported the impact expectations can have on performance (Rosenthal and Jacobson, 1968). A negative attitude toward a particular methodology will most likely inhibit learning.

It appears that students are negative on lectures, and why not. Many of them have had to endure lectures given by persons who apart form their intellectual expertise, were less than dynamic at the speaker's stands.

By contrast the simulation is new, different and personally challenging. The motivation literature tells us that any change is stimulating and invigorating. To what extent respondents perceptions of the simulation were affected because of its novelty is unknown, but we do know that sixty-five percent were first time users of a simulation and sixty percent of the remaining thought it more complex than their other experiences with simulation exercises. It may be that the simulation, because of the change/newness it brings into the classroom has some inherent advantages over the other methodologies. If this is the case, its advantage is only temporal Once it becomes a familiar part of a student's educational environment, it will have to succeed on its own merits.

This argument dissipates some when considering the case method of instruction, since all respondents indicated prior exposure to this pedagogy. However, the frequency of their exposure to the case method is undoubtedly less than that of the lecture method. As such, it is still providing some introduction of variety into the educational environment.

In short, it seems clear that users of our educational systems are sensitive to the methodologies used in the pursuit of course objectives and they have some definitive beliefs on their relative and absolute effectiveness. To ignore this fact, when designing a course can only serve to raise the existing barriers to learning even higher.

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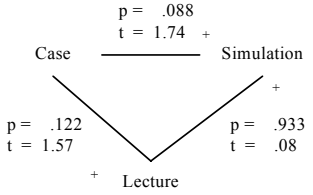
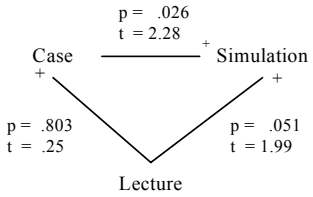
TABLE #1
COMPARISONS OF PERCEPTUAL
PEDAGOGICAL EFFECTIVENESS

KNOWLEDGE OBJECTIVES

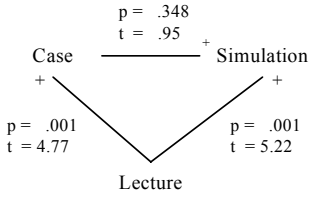
Question #5: Knowledge of Management techniques



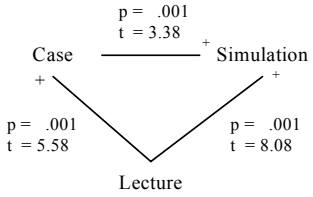
Question #9: Knowledge of Concepts of Corporate Planning and Strategy Formulation



Question #12: Understand Impact an Individual Can Have on an Organization



Question #13: Understand Complexities and Inter-Relationships of Managing an Organization



Question #14: Understand Impact of the External Environment

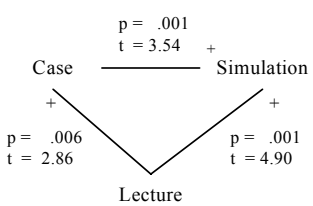
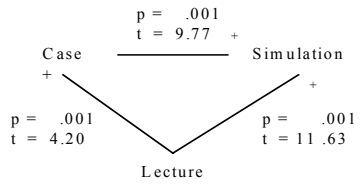


TABLE #1 cont.

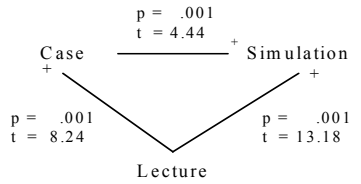
ATTITUDE OBJECTIVES

Question #7: Willingness to Take Risks

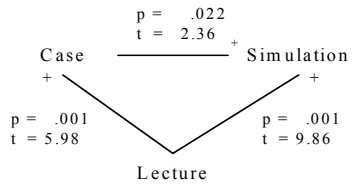


Question #8: Recognition of Impact of Your Personal Behavior

Question #10: To be Future Oriented



Question #11: Learn How To "Live With" Decision Made



Question #15: View Organization as a Generalist vs. Specialist

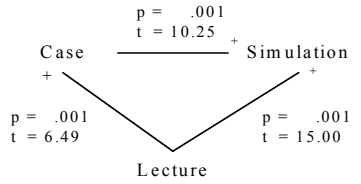
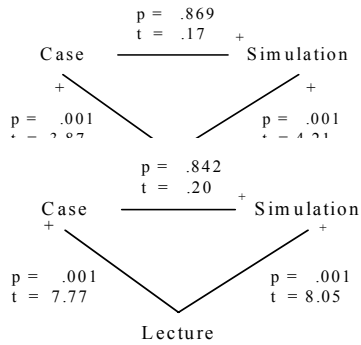


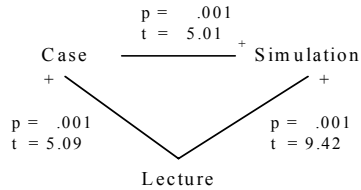
TABLE #1 cont.

SKILL OBJECTIVES

Question #1: Ability to Analyze problems



Question #2: Ability to Apply Techniques



Question #3: Ability to Think Creatively

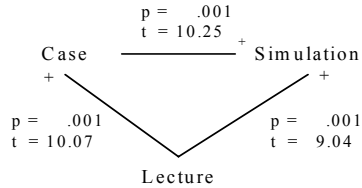
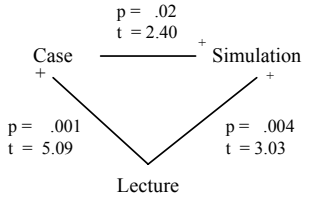


TABLE #1 continued
SKILL OBJECTIVE
Question #4: Ability to Communicate Ideas



Question #5: Ability to Make Decisions with Incomplete Information in an Uncertain Environment

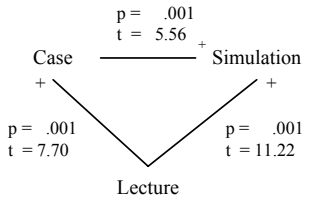


TABLE 2
MEANS OF THE QUESTION
GROUPED BY OBJECTIVE CATEGORY

		CASE METHOD	SIMULATION	LECTURE
Knowledge objectives				
Question	6	4.22	4.58	4.57
	9	4.80	5.22	4.74
	12	4.61	4.80	3.41
	13	5.37	5.90	4.30
	14	4.51	5.29	3.83
Attitude objectives				
Question	7	3.88	5.63	2.84
	8	4.66	5.51	2.41
	10	4.75	5.83	3.60
	11	3.93	6.05	2.59
	15	4.97	5.00	4.03
Skill Objectives				
Question	1	5.36	5.32	3.90
	2	4.54	5.49	3.45
	3	5.19	5.24	3.36
	4	5.03	4.58	3.76
	5	4.92	5.81	3.16

TABLE 3

AVERAGE OF THE AVERAGES OF CASE METHOD, SIMULATION, AND LECTURE WITHIN THE CATEGORIES OF KNOWLEDGE, ATTITUDE, AND SKILL

	CASE METHOD	SIMULATION	LECTURE
KNOWLEDGE	4.70	5.16	4.17
ATTITUDE	4.44	5.60	3.09
SKILL	5.01	5.29	3.53
	4.72	5.35	3.60