Insights into Experiential Pedagogy, Volume 6, 1979

TEACHING PERT EXPERIENTIALLY IN MARKETING RESEARCH

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ABSTRACT

The paper discusses the use of PERT in planning the term project (the extended live case" approach) for a Marketing Research class. The use of PERT supplies some greatly needed structure to the project, and consequently the students gain an appreciation for an approach that had heretofore been only a topic.

INTRODUCTION

Performance Evaluation and Review Technique (PERT) is a planning approach to which most business undergraduates are introduced in one or more of the introductory business function courses. While many textbooks provide a good coverage of PERT, the approach may appear to be quite sterile to students who have never been faced with the need to systematically attack a new problem of considerable magnitude (or at least, have never systematically attacked such a problem) . One approach to making PERT relevant to students is to use the case method, selecting a problem pertinent to the students. A good example of such a case is the Lodge Istics Wedding Case [1]. Another approach is to have students use the technique to help organize a class project. The latter approach is the topic of this paper, as PERT was used in a Marketing Research course to help plan a project faced with severe time constraints.

THE ORGANIZATION OF THE MARKETING RESEARCH CLASS

The Marketing Research course at Kansas State University has taken a project orientation since 1973. The approach taken at Kansas State is similar to the 'live case" approach to Marketing Research that was discussed at last year's ABSEL conference [3; 12]. Whenever the course is taught, students are required to turn in written cases and to complete a survey research project. However, differences in class size and in the length of the semester have dictated that different approaches be used in the summer session as opposed to the regular school year. During the spring semester, for example, the students are placed in small groups (with a maximum of three or tour persons per group) and required to complete the entire process from questionnaire design to data collection to analysis to write-up in the 18-week time period. The large number of groups prevents the instructor from providing much guidance to any one group. On the other hand, the small class size during the summer (eight to sixteen) enables and the short time period (eight weeks) dictates that the instructor provide a great deal of guidance to a class project (all students work on one project) . Should the students spend a couple of weeks defining the starting point of the task during the summer, as they frequently do during the spring, there is virtually no way for them to successfully complete the project.

Consequently the summer Marketing Research class works on a project as a whole, with the instructor acting as the project director. In addition, the students are required to turn in a written case each Friday. Some of the cases would qualify as experiential exercises themselves, such as Burns' mail survey simulator [2]. The cases provide the bulk (70 percent) of the grade for each individual, largely because of the difficulty faced in determining the quantity and quality of the individual's input to the group project. Even with the instructor guiding the project, the eight-week time limit presents severe time constraints, which in turn make a great deal of planning necessary. The first two summers that the Marketing Research course was taught using the group-project approach, the instructor had to rewrite the final draft of the project before submission to the sponsors. A strong desire to provide the student research experience with closure available only through personal presentation of the final report was instrumental in the decision to plan the project progress more carefully.

PLANNING THE RESEARCH PROCESS

The instructor supplied the students with a list of the specific activities that needed to be completed (see Figure 1) Also included were projections of the number of days needed to complete each task and a delineation of the tasks that must precede one another. While it might have been a good learning experience for the students to deter-mine the steps involved in the process and to estimate the times involved themselves, the instructor provided these inputs in order to save time. The breakdown of the project into specific tasks was intended to meet several purposes;

1. To improve the students' perception of what is involved in the project. Getting a handle on what has to be done is extremely difficult for most students when they go through the marketing research process the first time.

2. To promote planning of the allocation process for the various individual tasks. Some of the tasks were required of all students, such as secondary information search, developing and pretesting questionnaires, collecting data, coding, and keypunching. Other tasks were individualized (or assigned to a small group), such as developing the sampling plan, computer analysis, writing the various sections of the report, and integrating the pieces into a final draft. Having the tasks laid Out early allowed a planned distribution of individual tasks rather than the more haphazard 'pick-someone-when-needed' approach used in earlier classes.

3. To allow the students to use PERT to help plan their own time allocations. They realized that some activities, such as planning the sampling plan and writing a summary of the secondary information, can be done during a dead" time such as the time spent waiting for the questionnaires to be prepared.

FIGURE 1
MARKETING RESEARCH PROJECT ACTIVITIES

	Activity	Estimated Time	Predecessor Activities
a.	Choose project topic	4 days	----------
b.	Develop preliminary information needs	1 day	a
c.	Search secondary sources	3 days	b
d.	Define information needs	2 days	c
e.	Choose method of communicating questionnaires	1 day	d
f.	Develop and pretest individual questionnaires	5 days	d
g.	Combine individual questionnaires into class questionnaire	2 days	f
h.	Pretest questionnaire	3 days	g
i.	Get questionnaire typed, copies made	4 days	h
j.	Develop sampling plan	3 days	e
k.	Collect data	5 days	i, j
l.	Prepare coding instructions	1 day	i
m.	Code data	1 day	k, l
n.	Keypunch data	1 day	m
o.	Set up computer program for analysis	2 days	l
p.	Make trial runs of program	1 day	o
q.	Define relationships to be investigated by computer analysis	2 days	h
r.	Computer analysis of the data	4 days	n, p, q
s.	Set standard format for the write-up of the findings	2 days	i
t.	Interpret data and write-up results	5 days	r, s
u.	Write summary of secondary sources	3 days	c
v.	Write summary of intent of the questionnaire	2 days	i
w.	Write summary of the sampling design	2 days	j
x.	Integrate pieces into a well-written report	4 days	t, u, v, w
y.	Present the report	1 day	x
z.	Receive feeling of immense satisfaction	a long time	a-y

The activities were discussed individually in order for students to obtain a better understanding of what each task involved. The time estimates were discussed, as well as the possibility of expediting some of them, if necessary. For example, while no definite decision was made early as to the means of distributing the questionnaire, the use of the hand-delivered questionnaire as discussed in [4;8;11] was assumed. Then the class discussed the data collection requirements for each student; it was decided that 20 to 25 respondents per student would be a realistic figure. Also, it was decided that the five-day time estimate could be expedited to one day, but only at a painful cost to some individuals.

Finally the students were required to draw a PERT diagram of the process. The critical path (a-b-c-d-f-g-h-i-j-k-m-n-r-t-x-y) was 47 days long, which created problems since the eight-week course only had 38 class days. The need to work on weekends and/or to expedite some activities became very clear. The PERT diagram proved invaluable as the project progressed, since the question "Where are we now? could be answered (since the students had a better idea of where they were going) and answered in some detail (ahead or behind schedule).

The most important step in the process is the first one, choosing the project topic. The procedure used consisted of the teacher presenting the students with a variety of topics (ones supplied from local businesses seeking inexpensive marketing research or ones of interest to the instructor himself) and then letting the students add subjects of their own. A possible conflict of interest may arise, as the final choice may be between topics high in terms of student interest and topics high in terms of instructor interest. Since the project approach, especially when the instructor serves as project director, involves an enormous amount *of* the instructor's time,[1] the instructor may want to use the project as an opportunity to obtain empirical data on a publishable topic. My experience with supervising more than a hundred small group projects has found that only a very few [6; 7; 10] can serve as the basis for publishable research. For the most part, students are "getting their hands dirty for the first time and the end result is a very good learning experience, but frequently a fairly poor written project. When the instructor serves as project director, the quality of the research process can be controlled.

It is my firm belief that the choice of the project topic must be made by the students themselves. The course is very time consuming and the students need the assurance that they are working on their project. In each of the three times that I have used the class project approach in the summer, the project topic chosen was one suggested by a student (possibly an indication of my inability to market" my preferred topics). However, the instructor should be able to add related questions in the questionnaire-design stage that will result in interesting data from an academic research perspective. The first two summer projects yielded an article [51 and an ICCH case [9].

CONCLUSIONS

This paper has discussed the teaching of PERT experientially in a course that itself is experiential in nature (or the "live' case approach). My perception, which was supported by informal student feedback, is that the application of PERT in a situation where the students themselves were struggling to get a good perspective of the entire process was quite successful. The students saw the value of the technique, as they were able to save some of their own time through its use.

From a broader perspective, this paper has dealt with an extended experiential approach in a marketing research class. The intent of the course is to get students totally involved in the marketing research; this is accomplished through the use of a series of short cases on the separate components of the process and through participation in a class survey research project, which integrates the different components. My marketing research course has always had a strong experiential orientation. As I have adapted to this mode of teaching over time, I have seen more and more opportunity for integrating new concepts into the process. The teaching of PERT experientially is one such example.

[1] At last year's ABSEL conference, Al Burns referred to teaching marketing research in this manner as the "suffering bastard' approach, after a drink in the hotel bar.

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