

Simulations, Games and Experiential Learning Techniques:, Volume 1, 1974

A VIDEO-TAPE/COMPUTER LEARNING EXPERIENCE

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SYNOPSIS

A new method of case presentation has been developed which overcomes common inadequacies of the written case by adding video-tape, computer programs, and computer data files.

These other forms of media are used instead of hoping that print alone will excite the student into depth analysis. Students form their own opinions based on tapes of interviews with executives instead of depending on the case-writer to describe behavioral aspects of the situation. The case allows the students to gain the experience of extracting information from computer files instead of using digested data of the real situation from a neatly summarized table. The credibility of executives' declarations is exposed for students by face-to-face confrontation, instead of losing this key information.

Students using this method in a pilot case (Paradise Products Company) get a more realistic experience in situation analysis, symptom identification, problem finding, alternative development, and trial implementation. The students get their first exposure to the case from written introductory material. They "sit-in" on interviews with key people in the case to gain deeper understanding of the situation. They process computerized data to examine the scope of the problems they define. They try-out solutions by translating their recommendations into simulation programs. Finally, the students get a demonstration of the role technology can play in business problem analysis.

INTRODUCTION

This paper describes an experiential learning technique which utilizes a set of information items presented in different forms. The paper also explains how the system was created and how a pilot program was utilized for a course in business policy. Hopefully, this will stimulate some ideas for improvement and further development of the technique, or some replication of the current technique.

The three information items combined by the technique are print, video-tape and computer tape media. The print material provides a typical introduction to an actual business case. The video-tape depicts the principals of the firm within their organizational environment as they are interviewed by the casewriter. The computer tape contains operating data about inventory, orders, purchases and finances.

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THE PRINT (WHY AND WHAT)

Setting the stage with general background information about the firm in a business case is done best in print. The portability of print makes it more convenient than any other medium, and the kind of information to be conveyed for this purpose does not require anything more complex. One of the major drawbacks of print is its unsuitability for describing reality, because it depends so much on the imagination. But for introductory information, only basic data is involved and very little pictorialization is needed.

The print segment in this case presents a brief history of the firm, its current setting and a surface indication of the level of its operations. The names of key personnel and their positions are introduced, and the scope of the operation in terms of products, services and sales levels is cited. A brief explanation of the environment and its peculiarities is also offered. The problems of the firm, as viewed by its management, are identified, but in a minor way only, so as not to inappropriately influence the student's own perception of the issues.

THE VIDEO-TAPE (WHY, WHAT AND HOW)

The behavioral aspects of a case are illuminated for the student as he watches and listens to the people in the firm. Students form opinions of the managers, their competence, how they view their jobs, and what they feel is really important. The tone of voice, the facial expression, and the general tenor of the interview conveys a great deal of information that is never available through the traditional written case.

The video-tape segment of the case presentation material consists of a two-level series of recorded interviews. The first level introduces the situation through a general staff meeting and a plant tour. It also "takes the student along" to depth interviews with executives of the firms. The second level gets into more detail by showing interviews with middle-managers where the problems are discussed quite realistically.

These video-tape cartridges were prepared by capturing real interviews. The discussions between casewriters and company personnel were completely unrehearsed and candid. The tapes were edited only to maintain anonymity and to eliminate redundancy. By viewing these tapes, students are exposed to the process of information gathering through interviews.¹

THE COMPUTER PACKAGE (WHY, WHAT AND HOW)

The data analysis aspect of case study is developed through the use of computer readable data about the firm's operation. Students grow

¹ See Appendix C from the case, attached

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accustomed to dealing with basic data in this form, and gain experience in analyzing it through the use of modern data processing methods.

The computer support material in this case includes two packages. One provides financial information in the form of fiscal data with a set of computer programs that allow the student to analyze the data from a time-sharing terminal. The other package provides operational information in the form of customer files and inventory item files. This is a random sample of real records which allows a student to interrogate and analyze with his own programs.

The student who has only a minimal acquaintance with computer utilization can easily explore a financial statement output for selected time periods or selected characteristics (such as assets, or profits). Or, such a student can develop percentage distributions or various other operants to create time ordered ratio analyses. The student who is more "computer sophisticated" can write programs at the terminal to explore relationships between customers and product line, sales and order frequency, and other such operational analyses.²

CREATION AND UTILIZATION

The case study chosen to demonstrate these techniques is Paradise Products Company, a Honolulu based distribution firm. It deals primarily with inventory problems in a remote island environment which amplifies the importance and problems of materials management. It describes a firm dealing in wholesale office and industrial products, with a retailing division. The environment of the island economy presents some very uniquely exaggerated difficulties. The case was prepared by simply capturing the firm on video-tape and extracting computerized data from its files.

The demonstration case can be utilized for courses in operations management, marketing and general business management (or policy). The media and content also encourages its use in courses on behavior, organizational structure, accounting, management information, decision models, etc.

Of perhaps greater importance than this particular case, is the technique which can be replicated by other "casewriters." The traditional print format can be extended by other media to form a system with which better learning can take place.³

² See Appendix D from the case for more detail. A copy is attached to this paper.

³ The written portion of the Paradise Products Company case study is available from the Intercollegiate Case Clearinghouse, Soldiers Field, MA 02163. The teaching note contains a detailed description of the computer materials and their use. The video-tapes and computer tapes may be obtained from the authors, College of Business Administration, University of Hawaii, 2404 Maile Way, Honolulu, HI 96822.

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APPENDIX C

PARADISE PRODUCTS COMPANY VIDEO-CARTRIDGE SUPPORT PACKAGE⁴

The video-cartridge support package, which provides face-to-face discussions with key personnel of Paradise Products Company, is divided into two segments. The first is an introduction to the situation and a series of interviews with executives. The second segment provides depth discussion of the problems with middle managers.

The case description should be read before interacting with the first segment of tapes (Series A). The second segment (Series B) should follow after some careful analysis is started.

The following list identifies the material on each tape in terms of names and positions of the people involved and the viewing time. It should be remembered that the situations depicted are real and not staged; the environments are not studio facilities, but actual office areas where acoustics are not controlled. The realism of the interviews is maintained even at the expense of perfect communication. The only editing associated with these tapes was for the purposes of brevity and anonymity. Audible references to actual names were deleted from the sound track only, while the less useful portions of the interviews were cut from the video as well.

CARTRIDGE NUMBER	CONTENT	TIME, MINUTES
A1	General Meeting — Warehouse Tour	15
A2	General Sales Manager — C. Sharpe	20
A3	Inventory Manager — R. Russell	15
A4	Operations Manager — R. Sakura	20
AS	Controller — C. Sumo	20
A6	Branch Operations Manager — D. McDonald	15
A7	General Manager — C. Loo	20
B1	EDP Supervisor — A. Pica	20
B2	Warehouse Supervisor — H. Miller	20
B3	Stock Status Coordinator — M. Fume Recount Supervisors — W. Sato/G. Smith	15
B4	Retail Stores Manager— R. Bear Merchandise Manager— S. Green	20
B5	Freight and Traffic Supervisor — V. Wong	15

⁴ The video-tape support package was prepared by Professor Morton Cotlar with the assistance of Herbert Kreinik and Charles E. Shook.

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APPENDIX D COMPUTER FILES AND ANALYSIS PROGRAMS⁵

The computer support material available for this case consists of two analysis packages, each of which is available for use with either a IBM 360/370 APL system or a system using BASIC language. The two analysis packages are:

1. Financial Analysis Package
 - a. The financial data of Figures 1 and 2 in machine readable form
 - b. A set of computer programs that allow the student to analyze the financial data from a time—sharing terminal by performing one of the following functions:
 - (1) Print a balance sheet or an income statement for any selected time periods.
 - (2) Print any line of the financial statements for selected time periods.
 - (3) Print a percentage distribution with any line as base, and a set of other lines as the percentages for selected time periods.
 - (4) Print the result of any line +,-,X,÷ any other line for selected time periods.
2. Data Files Package
 - a. Customer Master File
 - b. Inventory Item Master File

The Financial Analysis Package can be used by students who have no programming knowledge or experience. The ability to operate a timesharing terminal is sufficient. The Data Files Package contains a large random sample of records from the master files of PPC's data processing system which students can interrogate and analyze to develop a better understanding of the problem. A sample analysis program is given to illustrate how the data is accessed and to demonstrate the type of analysis which might be appropriate. A student will be expected to write his own programs, and thus must have some minimal programming ability to utilize the machine readable data files. The user instructions for each system and samples of its utilization are available in a student user's manual. The manual and detailed instructions for obtaining and installing these computer materials are available by writing the authors.

⁵ The Computer Support Package was prepared by Professor Ralph H. Sprague with the assistance of Dennis Dinsmore, Jerry Hanson, and Richard Lenox