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AN EVALUATION OF SLIM
(A SYSTEM LABORATORY FOR INFORMATION MANAGEMENT)

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ABSTRACT

This user's experience with the new SLIM/BML package suggests that the current version of the DSS SLIM is not well suited for Business Policy courses because it requires more competence in programming than is possessed by most students. While game administrators can design SLIM-based decision models for student use, it is unlikely that many policy teachers will make the investment in time to develop the skill needed to provide these tools. SLIM is a positive contribution to the kind of technology which Business Policy games need and it is hoped that others will take up the gauntlet and carry us further toward the goal of user-oriented DSSs.

INTRODUCTION

It is rather common for Business Policy instructors to use a computerized business simulation as a means for demonstrating the need for integrated decision- making at the policy level[6]. These games require students to assume the role of top management in hypothetical firms and to develop decisions in less wall clock time than would be the case if they were managing real firms. This time scale compression can lead students to make decisions with very little use of any of the tools and techniques which we teach them about in their functional courses. The compressed time scale presents game administrators with the problem of judging team performance without adequate time to analyze the performance data developed during the game play. In 1980 Sugges [5] suggested that game builders provide decision-support systems (DSSs) to enable players and administrators to rationally cope with this time scale compression. Courtney and Jensen [3] recently made a DSS package available for use with The Business Management Laboratory L a computerized business game which has been available in its current version since 1977. The DSS package title is <u>A System Laboratory for Information Management</u> (SLIM).

The purpose of this paper is to report on my experience with SLIM during a graduate course in Business Policy taught in the summer of 198t at Temple University. This was perhaps not the best time to test SLIM because the summer course had an accelerated schedule which involved two meetings per week for seven weeks instead of the usual once per week meeting for 14 weeks. Thus the student teams were required to submit two decisions per week instead of one decision per week which compressed the decision- making time scale even more.

SLIM is a data-oriented OSS as opposed to a model-oriented DSS.' Data-oriented DSSs consist of a data

'This is a distinction made by Alter [1]
base and a data management system to update and retrieve specific data items. Model-oriented DSSs consist of a data base and software designed to assist in the solution of managerial problems; e.g., the software may offer forecasting models, production scheduling models, cash flow projection models, etc. SLIM, therefore, is perhaps more suitable for those teaching an MIS course than for those teaching a policy course. The following critique of SLIM is from a Business Policy course perspective and statements made from that perspective may have little relevance for those who might wish to use SLIM as an instructional aid in an MIS course.

SITUATIONAL DESCRIPTION

MBA students at Temple have played BML without SLIM for over two years and therefore have some prior knowledge of BML before reaching the capstone Business Policy course where BML is used as a supplement to the usual case method. Typically however they are unprepared for the cognitive complexity of BML. Since 20- 30% of a student's grade comes from his team's performance in BML student's are motivated to rather quickly gain insight into the interrelationships between various game variables and profitability. While the BML student manual and the administrator try to offer some guidance in gaining this insight, for the most part students are expected to devise their own methods for accomplishing this task. It has been observed by Courtney and Jensen [2] that the students receive little information about competitors' positions and decisions on a quarterly basis and that only certain aggregate information is available on an annual basis. Therefore students often reach the end of the game play with a feeling of frustration which results in part from the time-scale compression and in part from not having access to information which realistically might be available to them if they were managing an actual firm.

SLIM addresses this second area by providing a data base which students can interrogate to gain access to more information about competitors than the standard version of BML provides to them. Furthermore SLIM gives them access to information which the standard version of BML does offer annually, but which they now can have within one quarter after the decision has been made. It is not surprising that the students were pleased to learn about the availability of the SLIM package.

THE SLIM PACKAGE

Those currently using BML can either modify the basic program of BML by adding a subroutine which creates a data base or they can simply discard their current version of BML and load the new BML/SLIM version. It is also necessary to install a data dictionary, a data base manager, and the SLIM program itself which consists of a query language and a query processor. After

each decision has been run the data base is updated and students can retrieve data from the data base via an interactive terminal using SLIM.

SLIM provides the students with the capability of either retrieving subsets of the data base or creating programs which are in effect report generators. This latter capability is limited by the kinds of functions SLIM contains and the programming proficiency of the students. The need for students to develop a capacity to create files of SLIM commands is perhaps the biggest weakness of the SLIM package for Business Policy students.

STUDENT EXPERIENCE WITH SLIM

After students were introduced to BML and had made a trial decision, they were introduced to SLIM. All teams there were seven teams consisting of two to three students each were encouraged to use SLIM and all did try SLIM at least one time. One team only tried SLIM once and never attempted to use it again. Another team used SLIM more than any of the others, but only to retrieve subsets of data. They did not ever develop a SLIM program to do any data processing although they did manually process the subsets of data.

A third team had a member who was a systems analyst. He worked on a fairly complex SLIM program which would develop a proforma income statement but by the end of the seven week course had not succeeded in getting it to run. While one may speculate about why this student was not successful, I think the important point is that his efforts spent developing the SLIM program reduced his contribution to the team decision making effort for BML. Furthermore, it was observed that the SLIM package does not lend itself to very great flexibility in generating printed labels for items which can be internally calculated using the SLIM data processing capability. The other teams made limited use of the SLIM package in the data retrieval mode.

DISCUSSION

Generally speaking students stated that they were pleased to have SLIM available but they found that its usefulness was limited for two reasons. First, as noted previously, the course met on an accelerated basis and therefore by the time they had gained some facility with SLIM, the course was over. Second, writing SLIM programs was complicated enough that they would have preferred having programs available for their use rather than having to develop programs for themselves.

The first problem is one that might be diminished in intensity by using SLIM during a 14-week long course. It also might be ameliorated by providing students with a sample data base which they could practice on sooner rather than waiting until the actual game data base has been created. The administrator could also give the students exercises to practice on the sample data base.

The second problem is more serious and more difficult to deal with. It appears that many students (and administrators) lack the skill and perhaps also the motivation to write their own SLIM programs. Thus the providers of DSS packages are going to have to make standard programs available to students and administrators who are using the DSS package in Business Policy courses. Perhaps the SLIM designers have chosen not to do this because they also merchandise the SLIM package to those who teach MIS courses. MIS instructors of course will have students wanting experience

in creating report generator programs.

Two ways of dealing with this situation are as follows:

1. Have students in MIS courses write report generating programs which can be used by students and administrators in Business Policy classes.

2. Offer DSS packages specifically designed for the needs of the courses toward which they are aimed. This of course is easy to suggest but costly to implement as one always prefers to spread the development costs of a DSS over the widest possible market.

CONCLUSION

Based upon the experience this user has had with the DSS known as SLIM, the package is of limited value to those teaching Business Policy courses. Initially it increases the cognitive complexity of the business game situation. This cost is perhaps repaid over time by the improved data retrieval capability. More importantly, however, SLIM requires that students create their own report generating programs. This diverts student time away from the main thrust of a Business Policy course and is therefore an activity which many students will be unwilling to engage in. If the SLIM designers want to provide SLIM as a DSS for those using BML for Business Policy courses, they need to provide modules which assist students in sales forecasting, production scheduling, making cash flow analyses, and developing proforma statements.

REFERENCES

[1] Alter, Steven, "A Taxonomy of Decision Support Systems," Sloan Management Review, April, 1977, pp. 39-56.

[2] Courtney, Jr., James F. and Jensen, Ronald L. SLIM: A Management Simulation System for Teaching MIS and DSS. (Unpublished paper), 1980.

[3] _____. SLIM: System Laboratory for Information Management. (Dallas: Business Publications Inc.), 1981.

[4] Jensen, Ronald L. and Cherrington, David J. The Business Management Laboratory: A Computer Simulation. Revised edition. (Dallas: Business Publications, Inc.), 1977.

[5] Sugges, Jr., Peter R., "New Technology For Business Games," Experiential Learning Enters the Eighties Edited by Daniel C. Brenenstuhl and William D. Biggs. (Tempe, Az.: Bureau of Business and Economic Research), 1980, pp. 67-71.

[6] Wolfe, Joseph, "The Effects and Effectiveness of Simulations in Business Policy Teaching Applications," The Academy of Management Review, April, 1976, pp. 47-56.