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AN INTEGRATED BUSINESS INSTRUCTION SYSTEM

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ABSTRACT

This system *is a* compilation of six computer-based programs with companion cases which allows the business student to apply business decision making to a single enterprise. The programs are divided into three levels. The Introductory level is designed to acquaint the underclassman with a limited number of business decision variables. The Analytical level programs contain an expanded set of variables and are designed to accompany functional core business classes as an aid to application and decision making. The Comprehensive level is designed to integrate all the business functional areas and focus on strategy development and profitability.

PROBLEM

As a result of analyzing student performance in the business capstone course at Geneva College, it was apparent that students were having difficulty applying previously covered material. The nature of a capstone course is to require each student to integrate what he or she has learned in other core business courses in an applied decision making experience. What was found was the inability of the student to use the data and analysis in making effective decisions. They could “crunch the numbers,” but did not understand how to use the results.

SOLUTION

The initial step in solving this dilemma was to utilize computer simulations in several functional classes. This required an intensive search to identify relevant high quality commercial products. These simulations vary

considerably as to format, group/individual usage, and single run/multiple run capabilities. In addition each simulation uses a different business environment.

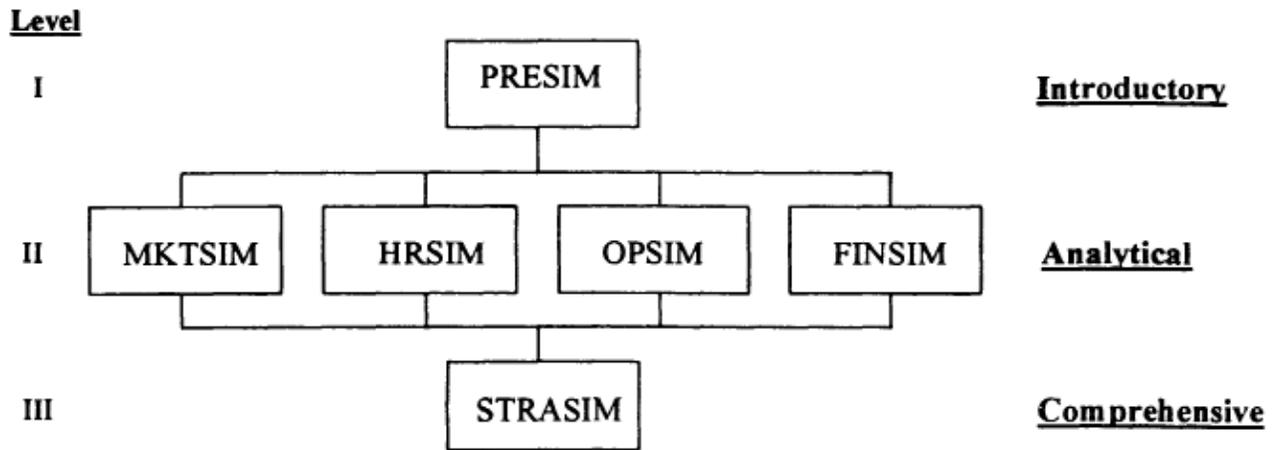
It was determined that while there was a marked improvement in student performance, there was still a slow learning curve effect and continued weakness in analysis. In response, it was apparent that the goal should be to provide a better methodology to prepare students for the integrating experience of the capstone course. In so doing I believe that this methodology will further improve students integrating skills in their professional careers. The integrated business instruction system is currently under development.

New Methodology

The first step in the development of a new methodology was to design a new course, Business Systems, at the sophomore level. The purpose of this new course was to help the student apply and integrate basic business decision variables presented in introductory classes. These classes include accounting, economics, statistics, computer applications and management. The Business Systems course uses a new simulation and companion case especially designed to introduce students to the simulation process. The case provides the necessary business environmental data which the student will need to make effective decisions in the simulation. By applying and integrating early in the program of study, I believe the student has a better likelihood of grasping the business functional material presented in their junior and senior years.

Once students have been introduced to the introductory simulation and case, the plan is to

FIGURE 1
MODEL FOR AN INTEGRATED BUSINESS INSTRUCTION SYSTEM



provide a similar simulation and case in each core business class. The model for this approach is shown in Figure 1 above. The overriding goal is to make these simulations and cases continuous and integrative. I hope to accomplish this by adding new decision variables appropriate to the area of study while at the same time maintaining the basic decision variables from the introductory simulation. I believe by factoring out the operation of the simulation and maintaining a familiar business environment, the student will be able to focus on integrating the new decision variables and their effect on the operation.

The simulations developed thus far for this instructional system are Excel-based models. Excel was chosen because of its integrative dialog features (a Windows environment) and the ability to write the simulation code in Visual Basic. Other benefits of using this technology include: 1) full control of the decision and environmental variables, 2) easily generated tables of data, 3) student familiarity with the product, and 4) the ability to visually depict trends and analyze student performance at any point during the simulation process.

Students make decisions by entering values onto a dialog screen. This information is transferred to a spreadsheet which provides a full history of all decisions made each period. The student workbook is then saved to his/her network folder. The instructor's module reads all the student workbooks (decisions), processes the data and writes the results of the simulation run back to the student workbooks. Students can then read and analyze the results in preparation for the next decision.

The tools provided in this package are very instructor oriented. In order to assess student performance at each stage of the decision process, appropriate displays must be provided to the instructor. This system is very simple to operate. Decisions made during a class period can be simulated and returned to the student within the class period.

By using a common simulation process and maintaining a familiar business environment (case), the student will be able to focus on decision making. Their ability to integrate the effect of changes in the decision variables to the business operation should be improved.