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USING A BUSINESS GAME TO DEMONSTRATE BROAD BUSINESS CONCEPTS

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ABSTRACT

To be effective, capstone classes for undergraduates should include more than participating in a computerized business game and the study of cases. Participants in this session will discuss three activities which have proved to be very effective ways to integrate and demonstrate the use of information gained in core courses as well as broad business concepts.

INTRODUCTION

The most difficult problem in using a computerized business simulation as the main foundation for a capstone class for undergraduates is finding ways to get students to rigorously apply the knowledge and skills they have acquired in core business courses. All too quickly the rules of thumb and guesses they use at the beginning of play become the foundation for their decisions throughout the game-- even after they have acquired sufficient understanding to shift to more rational and accurate approaches to decision making.

In addition to playing games and the study of cases, what can be done to augment the learning from undergraduate capstone courses?

SPREADSHEETS

The spreadsheet assignment provides more learning in capstone courses than any other activity. In almost every case when players are asked what they would change if they could begin again to play the game, they report they would complete the spreadsheet earlier.

To be more specific, in the strategic planning classes at California State Polytechnic University

at Pomona, *The Business Strategy and Policy Game*¹ is used as the primary learning device. Ten planning forms are presented in the player's manual to help the students make decisions. For each line of each form there is a description in terms of what information goes in each entry and what calculation is required .

Generally, at the beginning of play this multitude of information is ignored in favor of general feelings and guesses, but over time more of the players use more and more of these forms as a basis for their decisions.

From the first day of class, students learn that they are required to produce at least a minimum spreadsheet for which they would earn a grade of C. They can improve their grade by improving the quality of their spreadsheet: A fully integrated sheet would earn them a B+. By developing individually designed and executed enhancements a player can raise an earned grade up a full grade level.

A minimum spreadsheet requires the completion of a Marketing Plan, a Production Plan, a Raw Material Plan, a Cost Estimates Plan, and a Cash Budget. Players can type as many entries as they want and make as many estimates as they want. They must do at least one *if, then, else* statement and one *two-variable simultaneous equation*. On average, it will take about six hours to complete a minimum sheet.

In an integrated spreadsheet, data is entered just once. The Income Statement and Balance Sheet are also required. All formulas are entered, all sheets are linked, all calculations are made including two three-constant simultaneous equations. On average, an integrated sheet will take 35-40 hours to complete.

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When properly completed, the integrated spreadsheet will tell a student the result of the current decisions within the limits of the accuracy of the sales forecast. Truly, the student comes to know from personal experience the value of a decision-support system.

CALCULATIONS

In addition, students renew their acquaintance with techniques gained in mathematics and quantitative methods.

Seasonal indexes are calculated and then used to enhance the accuracy of sales forecasts. Methods of forecasting the trend of sales (*weighted moving averages, linear regression, exponential smoothing,*) are tried. The size of the error between forecasted and actual sales in each market serves as the basis for setting the size of safety stocks. After two-variable and three-variable simultaneous equations are solved, the possible use of a *determinates* approach for solving more complex equations is described.

GOAL SETTING

To demonstrate the value of strategic planning, we require students to make strategic plans for their companies and to evaluate the level of their goal achievement.

Near the end of the trial period, students set goals, means, and schedules for their first year of play (short-range plans). These goals can be changed when they no longer guide behavior. At the end of the first year, students evaluate how adequately their goals have been achieved.

Near the end of the first year of play, students set goals, means, and schedules for their second year of play and also goals for their next 3 years (long-range plans). At the end of the second year, students evaluate how adequately their short-range goals have been achieved.

Near the end of the second year of play, students set goals, means, and schedules for their third year of play (short-range), goals for their next 3 years (long-range plans) and goals for the next 12 years (very-long-range plans).

At the end of the quarter, students make complete strategic, tactical, and operational plans for the company to be passed on to succeeding managers.

In this session, forms and spreadsheets which are used in these activities will be demonstrated and discussed.

REFERENCES

- 1) *The Windows 95⁷ Version of The Business Strategy and Policy Game*, David L. Eldredge, James R. Marshall, and Abolhassan Halati. Los Angeles: CREDR Corporation, 1998