ASSESSING THE EFFECTIVENESS OF A BUSINESS SIMULATION AS A CAPSTONE INTEGRATING TOOL
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Abstract
The capstone course in most undergraduate business schools is designed to help graduating seniors understand the relationships between the functional work performed in discrete departments of a business organization, such as marketing or finance. The pedagogy may include case analysis, lecture and class discussion on business strategy and policy topics.

Our school recently adopted a business simulation that is provided by a third party developer. This simulation is now the centerpiece in the capstone course. This approach was adopted in order to enhance students’ knowledge and understanding of business processes, and the functionally integrated manner in which most businesses operate. This paper reports on student perceptions of effectiveness in achieving this goal, issues that arose including questions of academic freedom, and the changing role of the instructor in a classroom focused on experiential learning.

Introduction
Most undergraduate business programs use a curricular model fashioned on discrete departments or disciplines. In such a model, students select a major, such as finance or marketing that reflects a specific functional area of a business organization and is taught by faculty who’ve specialized in that discipline. Students must also take a prescribed set of business core courses, generally referred to as a common body of knowledge, that are function-specific, usually taught by faculty in each discipline. Because the actual practice of business blurs these functional divisions, many schools use a capstone, or final course to help graduating seniors appreciate the interaction of various departments in day-to-day operations. One tool available to faculty is a business simulation, in which students are formed into teams that become companies competing against each other for market share, profits, and growth in a closed industry.

Simulation Chosen
The experiential learning tool the faculty chose, as the best option to help students integrate discrete business functions into business operations, was a business simulation. Simulations are widely used. It’s reported that 95% of Association to Advance Collegiate Schools of Business (AACSB)- accredited schools and more than 60% of large companies use a simulation in some form (Faria, 1998). Simulations create a realistic business decision-making environment in the classroom without the monetary risks of operating a for-profit enterprise (Doyle & Brown, 2000). Simulations help students develop and improve critical thinking and decision-making skills. They can provide a dynamic, competitive, and imperfect environment, typical of business situations. And experiential learning offers higher levels of student participation, and thereby higher levels of learning (Boyatzis, Cowen, & Kolb, 1995).

A business simulation called “Capstone” provided by Capsim, Inc. of Northfield, IL was selected after a team of faculty reviewed various commercial offerings. Capstone offered a high-growth, closed industry environment. The simulation can be administered either individually, or as team-run companies. Decisions are required in each round (which represents a single year of operation) in many different areas of the firm, including R&D, marketing, production, finance, human resources, and total quality management (TQM). Capstone offers many training options for both faculty and students, it is widely used in business academia, it provides online and telephone support, and it’s reasonably priced.

Student Feedback
Student response to the adoption of an experiential simulation was very positive. Comments after the first pilot semester included the following:

“This course gave me a better understanding of how accounting, management, and finance come together.”
The strengths of this class were the simulation and the group experience that comes with the class… I just wish it was longer.”

“Excellent course using the Capstone simulation versus writing another business plan.”

I think this course gives students their greatest opportunity to gain real-world experience in the classroom. I feel confident now in fields I didn’t major in.”

These comments were typical of the entire group. Students were appreciative of the chance to work on their decisions in class, and also commented favorably on the greatly reduced role of the lecturer in this model. A spirit of competition pervaded the classroom, particularly in the later rounds, as students stayed after class to view the results, and worked on weekends to try to get ahead of “the competition.”

Concerns about the Simulation
The adoption of a business simulation was not without problems. After all, this represents a major change for both students and faculty. Both groups were affected by the steep learning curve that accompanied the adoption of a business simulation. Not only were students and teachers expected to deal with synthesizing the contents of a course, now they were also expected to learn the mechanics of the simulation. It soon became apparent that time was needed to ‘learn’ the rules of the game, and to understand the limits and restrictions on decision entry. Only after both groups became comfortable with these data entry issues was it possible to understand the application of different business strategies and their outcomes.

Faculty Concerns
Since the capstone course in this curriculum is common to all students, multiple sections meet each semester. For faculty used to teaching in a specialized area, the interdisciplinary nature of the simulation meant questions and issues arising outside their expertise could be problematic, but needed to be addressed. The adoption of this simulation also raised concerns among faculty about changes in pedagogy. The ‘game’ couldn’t be fit into an existing course very well, because of the amount of time required to both learn how it works and use it to demonstrate business principles. This meant, for some, giving up traditional lecture classes and replacing them with business laboratories, where the students spend the class periods working together on their simulation decisions, while the instructor assumes the role of coach or consultant for each of the teams.

The issue of academic freedom also arose. Does faculty have the right to choose content and delivery of a course? And how can multiple sections of the same course be assured consistent delivery of course outcomes and objectives without a specific set of goals? These questions are still being addressed at the time of this writing, although it is believed that in the case of core courses, content, objectives, and outcomes are the purview of the entire department, not individual instructors or discrete disciplines.

Student Concerns
The business simulation requires a high level of student engagement. Some students are not conditioned to this enhanced participation, and find they need to change their approach to class to be successful. Students also find they need to ‘brush up’ on long-forgotten principles from different functional areas they may have been exposed to many semesters before. Teams tended to struggle early on in organization and division of responsibilities. Most groups began the simulation huddled around a single screen, making each decision as a group. This method seemed to provide comfort to the group, but proved to be very inefficient. In later rounds, teams divided up the decision-making responsibilities, either functionally, or based on markets or segments of operation in order to meet the increased amount of analysis required for decision making in later rounds.

Conclusions
Based on self-reported student perceptions, the adoption of a business simulation in the capstone business policy course has been an early success. Students report more interest in the class, higher levels of overall engagement, and seem to appreciate the experiential aspects of the course, versus a lecture-based class. Students also claim a better
understanding of the interdependencies of the various functional areas of a business.

The course is used as an assessment platform because it offers one last chance at a cross-section of the entire student body of the business school. As such, students experience both direct and indirect measures of knowledge. The simulation provides an imbedded individual assessment tool that measures students’ understanding of individual business functions as well as business processes that cut across functional areas. This mechanism provides feedback on how students compare to other students in schools around the globe. What remains undetermined is the actual learning impact of the experiential simulation versus the more traditional lecture course it replaced.

A teaching circle is being established to help individual instructors deal with questions of course setup and administration, as well as pedagogical issues. It is believed that this free exchange of ideas and experiences will help all instructors reach a comfort level with the many changes this adoption has precipitated. Initial and follow-up training for all instructors in the mechanics of the simulation is also helpful. And tutoring classes, or labs, will be established next semester to help struggling students.

Students generally are very positive about the course change. Generating the same positive outlook among the faculty teaching the course is a slower process, but must be achieved for the program’s ultimate success.

References


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