

**Developments in Business Simulation and Experiential Learning, Volume 34, 2007**  
**THE EFFECT OF EXPERIENTIAL LEARNING EXPERIENCES ON**  
**MANAGEMENT SKILLS ACQUISITION**

Chris Scalzo  
Morrisville State College  
ScalzoCM@morrisville.edu

Linda Turner  
Morrisville State College  
BoozerLT@morrisville.edu

**ABSTRACT**

*Business simulations allow students to experience a fictitious business in a safe learning environment. Students make decisions and try to understand business within a confined environment. Simulations permit students to use various management skills and see consequences from making decisions. Dutton (1985), in Teach and Schwartz (2004), suggested that business courses should be taught more in an experiential format, similar to natural science courses, thus making the learning process more interesting and involving the student in the learning process. This article will provide theoretical background on experiential learning, simulations, and management skills followed by a brief history of the management course offered at Morrisville State College. Thereafter, a discussion of the rewritten course currently taught will follow as a course offering management skills in experiential learning format. The student should learn in an environment similar to work that prepares students for success in business. Snow, Gehlen, and Green (2002) suggested that learning from the simulation varies in many ways that include: (a) the simulation introduction, (b) amount of class time, (c) impact on student grades, and (d) integration with the whole classroom experience. The students noted that the simulation was more useful for integrating the business education. Therefore, students placed more importance on the game. These students found that games or simulations were useful in (a) developing managerial skills, (b) learning new concepts, (c) developing planning skills, (d) using financial data in making decision and (e) improving teamwork skills. Whetton and Cameron (2005) found that simulations helped students gain management experience. The background on management skills provided a foundation for a current course that teaches management skills in an experiential learning format. Prior to 2003, BSAD 116 – Introduction to Management and Organization was a lecture-based course with supplemental exercises. After 2003, the rewritten course incorporated student-learning objectives and reflected an experiential learning environment. The new course provided*

*students with the opportunity to experience management skills through student involvement and participation in simulated management decision-making activities using Smith and Golden's Entrepreneur simulation (2002) in a safe environment.*

**INTRODUCTION**

Business simulations allow students to experience a fictitious business in a safe learning environment. Business simulation is a technique that presents a situation or process through an apparatus (Oxford Dictionary, 2005). Students have the ability to make decisions and understand business within a structured environment. Simulations allow students to use management skills such as decision-making and control in a safe setting. According to Keys and Wolfe (1990), experiential learning facilitates participant application of prior knowledge through meaningful activity.

Grey (2004) suggested that lived experience introduces the student to messy and sometimes irrational complexity of decisions in business, thus bringing a person closer to managerial reality. Malik and Morse (2000), in a study by Teach and Schwartz (2004), noted that students are asking professors to train and not just educate them, thereby making the classroom more realistic. Dutton (1985), in Teach and Schwartz (2004), suggested that business courses should be taught more in an experiential format, similar to natural science courses, thus making the learning process more interesting and involving the student in the learning process. The authors noted that care should be taken in not overstating the learning that would occur from the use of simulations and that some students appear to have unmet objectives (Teach and Schwartz, 2004).

According to an interview by Kenneth Thompson (2004) with Milton Blood, the managing director of AACSB accreditation, assurance of learning will play an important part of conceptual change in the standards. The new standards, set in 2003, will emphasize the interaction between students and faculty and try to set a standard where the student cannot be a passive recipient of education and must be active participant in that exchange. One of the noted

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ways that AACSB will look for active learning will be the use of simulations.

This article will provide theoretical background on experiential learning, simulations, and management skills followed by brief history of the management course offered at Morrisville State College. Thereafter, a discussion of the rewritten course currently taught will follow as a course offering management skills in experiential learning format. In order to gain an understanding for the experiential format of the management course and the reason for a change to an experiential format, a literature review that looks at (a) experiential learning, (b) business games and simulations including the effectiveness in teaching and (c) a review of management skills important to industry will form a basis for the paper.

### **THEORETICAL BACKGROUND**

#### **EXPERIENTIAL LEARNING**

Bowen (1987), as noted in Keys and Wolfe (1990), suggested that experiential theory has more impact from business games when the learning is: (a) tied to emotional arousal; (b) maintains a safe environment; and (c) maintains adequate processing time and understanding of the process. Keys (1977a; 1989), as noted in Keys and Wolfe (1990), suggested that three factors are essential to effective learning that included: (a) content that includes new ideas, principles or concepts; (b) opportunities to apply the content; and (c) feedback on the actions taken and an ability to tie performance at regular intervals and subsequent results. The author implied that an opportunity exists for teachers to use other methods instead of lectures to help students in the learning process.

Howard, Markulis, and Strang (2000) suggested that students today think differently and see the world in an entirely different light. Educators of the new generations must accept and adapt some of the new learning parameters of the recent generations into the courses they teach. Therefore, professors will need to move more towards the techno-centric style of learning whereby students may find interest in simulations. Morse (2001) reinforced that experiential learning is about performance, reflection, and repetition.

#### **BUSINESS GAMES AND SIMULATIONS**

Faria (2000) found that game related assignments improved performance and that smaller teams outperformed larger teams as well as conflict did not hamper performance. Gosen and Washburn (1998) found that game-centered sections of courses outperformed lectured-centered courses based upon a review of midterm and final exams. From 1975 to 1977, researchers in seven out of nine studies determined that students scored higher on common exams or felt they learned more over traditional lecture and case classrooms (Faria, 2000). Wolfe (1997) found that evidence existed that computer-based general management games were effective for teaching strategic management and that

knowledge level increased in all participants.

#### **EFFECTIVENESS OF BUSINESS GAMES AND SIMULATIONS**

Kilman (1975) found that students in the real-life experience reported the following: (a) a better understanding of the material and a course with more impact on their personal life; (b) better in-depth understanding of organizational dynamics and interpersonal relationships; and (c) more relevance to their course material and future career. While real life experiences are a good idea for students, research using simulation/games is important in identifying if this method is effective as a research tool. In a further exploration of effectiveness, Randel et. al. (1992) found the following summary in this meta-analysis: (a) 56% of the studies reviewed found no difference between simulation/gaming and conventional instructional methods; (b) 32% found differences between gaming and other teaching methods; and (c) 12% favored simulation games over other teaching methods.

Peach and Platt (2000) concluded that the first few decisions are where players learned the rules and imitated each other's strategy. As students, continue in the game and the idea of possibly failing the course become more imminent, more thoughtful consideration of decisions become more important and the tools become useful in decision-making. The authors concluded that 10 to 12 decisions seem to be optimal for achieving learning.

Rollier (1992) found that marginal learning ceased after four decision and uncertainty was gone after six decisions. Swenson (2001) noted that class lectures provide a passive-receptive role due to listening and note taking as the method of learning while this method bears little resemblance to how learning occurs on the job. The student should learn in an environment similar to work which should better prepare students for work. Snow, Gehlen, and Green (2002) suggested that learning difference and learning from the simulation experience vary many ways that include: (a) the simulation introduction, (b) amount of class time, (c) impact on student grades, and (d) integration with the whole classroom experience.

The authors noted that student with high internal desire to learn did not find the lack of information discouraging versus the student with a desire for a good grade or degree completion. The team cohesion was uniformly the same amongst all subjects in each class, but generally higher amongst the classes where the simulation was integrated into the course over the semester. The differences between the scores on an eleven-point scale were only two points. The students felt positive about the simulation. There was some difference in (a) attitudes of importance, (b) level of confidence, (c) usefulness of the simulation and (d) contribution to learning between the two classes.

The authors found that personal effort and importance as well as team effort and importance related strongly in the study based upon a pre-simulation survey. In a survey completed after the simulation, a positive relationship

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appeared between actual effort and team effort, effectiveness and actual effort in the simulation, usefulness and effective and feelings of material learned and effectiveness of the simulation. In the end, the authors noted that classroom styles related strongly to confidence and expected team efforts. The authors also felt that cohesion appeared central, to be important in the simulation and drove effort in the simulation (Snow, Gehlen and Green, 2002). This critical factor addressed in the first weeks of the course allowed effective student team formation. In addition, the authors noted that effects from pedagogy were indirect versus global.

Snow, Gehlen, and Green (2002) reviewed when to introduce a game/simulation. The authors suggested how the introduction of the simulation influenced (a) student attitudes, (b) confidence, (c) game play, and (d) material learned from the game. All students indicated that the simulation/game integrated into the classroom experience provided confidence. The students noted that the simulation was more useful for integrating the business education. Therefore, students placed more importance on the game. In addition, the students' efforts increased over the semester. The integration of the simulation was more useful and using some exercises that are part of the simulation set the stage for the actual simulation. These exercises played a role in preparation for making decision and the learning experience during the actual simulation experience.

In a related study on introduction of simulation into a class, Anderson and Lawton (2003) noted that finding the right time to introduce a simulation/game is important. The authors determined that three factors were pertinent to this discussion (a) scope of the simulation, (b) student preparation, and (c) objective in the course. The scope of a simulation can be broad (i.e. cover many topics through multiple inputs) to limited (i.e. cover a specific topic). The authors noted that game introduction without prior knowledge of marketing created a lack of effective framework for decision-making. While students in the study lacked effective decision-making capabilities, this study presented material first and introduced the simulation in order to provide that framework for decision-making. While introduction to a simulation creates a better learning environment, the effectiveness of the simulation is still paramount. The authors also noted some limitations to the study such as a lack of studies on the timing of simulation introduction and that this was one study with one group in one course.

While the reasons for not using a simulation varied and create skepticism, Klassen and Willoughby (2003) stated, "An effective game will help students understand concepts more quickly and remember them better than from a lecture" (p. 1). The authors found that students had a better understanding of inventory management, still saw inventory decision-making as moderately difficult, but thought the game was worthwhile. When the simulation ran a second time, the groups showed little change from the first game, thus providing no marked improvement in higher

profitability as compared to the first game played. The students improved their performance on the number of orders placed while profitability remained similar to the first simulation decision, thereby, showing some learning occurred regarding order placement. The importance of this study shows that students do gain learning in specific tasks.

### MANAGEMENT SKILLS

In 1985, Luthans, Rosenkrantz, and Hennessy, reviewed what managers actually do at work. Some findings included interaction with others and building networks of cooperative relationships among managers. However, Kotter (1982), as noted by the authors, made no observations of decision making, providing direct orders or advanced planning in order to spend time with others.

A study by Curtis, Winsor, and Stephens (1989) revealed the top 10 factors that help students obtain employment after college and skill needed for successful job performance were communication skills. The most important courses of study in college for entry-level managers and the top traits that students should have acquired from those courses and throughout life involved courses with listening, speaking and writing. These skills become important in the use of simulations as students (a) must interact, (b) speak with each other, and (c) present in class as well as complete written work in order to complete the simulation experience. In order to make simulations successful, communications is an important requirement.

A 2001 survey by the American Management Association revealed that customer focus ranked first in both studies. Both section of the survey appeared to have common skills of importance, but may rank them different in importance. This study reinforced the skills needed in the work world as well as practiced and experienced during the class or simulation.

A related study by Chang et. al. (2003) noted that students found simulations useful 86% of the time. These students found that games or simulations were useful in (a) developing managerial skills, (b) learning new concepts, (c) developing planning skills, (d) using financial data in making decision and (e) improving teamwork skills. The study provided important links to the relationship of management skills taught in other countries and the results of using simulations in a classroom to develop those skills as well as provide a different cultural perspective in the use of simulations/games.

Whetton and Cameron (2005) found that simulations helped students gain management experience. The authors found that management skills were behavioral, controllable, developable, interrelated and overlapping, and sometimes contradictory. The behavioral aspects reflect an identifiable action set that individuals perform and observe in action. These skills are observable and common across different individuals. The background on management skills provides a foundation for a current course that teaches management skills and the move to an experiential learning format.

## **COURSE HISTORY AND BACKGROUND**

The merging of experiential learning and management skills created an opportunity to provide students with experiencing hands-on knowledge of management skills needed in their professional lives. Prior to the spring of 2003, BSAD 116 – Introduction to Organization and Management was a typical lecture format class. The students arrived for class to learn management skills in two one hour and 50 minutes classes or three 50-minute classes. The coursework included topics traditionally taught in management courses and the instructor utilized a lecture format. The course used many individual assignments and tests as the focus of grading.

While the course schedule covered all the required topics for a good management class, there were some problems with the course and direction of the course. Primarily, the format did not provide students an opportunity to gain hands-on experience and the skills necessary for the effective practice of management. Consequently, in order to correct the problem, the BSAD 116 redesign provided students with the opportunity to (a) gain a feel for business in the classroom, (b) experience different management skills, and (c) to act like managers and in particular make decisions like real managers.

## **REVISED COURSE**

The revised course, BSAD 116 – Introduction to Management and Organization, incorporates the student-learning objective identified in the literature, and attempts to connect students to the material as well as provide those students with a chance to experience management skills in a safe environment using a business simulation. The new course format provided students with the opportunity to experience management skills through student involvement and participation in simulated management decision-making activities using Smith and Golden's Entrepreneur simulation (2002). The revised format allowed students to gain practical skills and experience in (a) teamwork, (b) planning, (c) control, (d) organizing, (e) effective communication skills, and (f) leading.

The Entrepreneur simulation provided students with the opportunity to gain management decision and other management related skills within a relatively short time. The learning activities allowed the students to gain the following skills:

1. Planning and strategic planning- Students were required to create a vision, mission, several objectives tied to the simulation and plans to support the objectives;
2. Decision-making- Students made 12 quarterly decisions over a three year period in the simulation;
3. Communication- Students completed the experience by working and communicating together in teams ;

4. Control- Students created a budget and compared the actual results to budget figures in order to gain a better understanding of control issues; and
5. Teamwork-Students must work in teams throughout the fifteen week semester in team assignments and the completion of all decisions.

Each team consists of two to four students. Each team member is an owner of the business. The team format provides an avenue for students to discuss and learn the topics, as well as to experience teamwork and leadership. Each team completes the following team activities that include (a) creating a business name, (b) identifying a business plan, (c) the creation of a mission, vision and objectives for the company and (d) devising organizational charts.

## **COURSE SCHEDULE AND OUTLINE**

When using the simulation experience in a traditional classroom setting, the textbook chapters and other instructional materials used must center on the simulation – related topics so that students have an opportunity to gain prior knowledge, skills, and abilities necessary to making effective simulation-based decisions.

On the first day of class, the syllabus becomes an employee manual and students become employees who work for the professor or CEO. The concept is that each student team will run a business under the conglomerate form of business ownership. The first day involves going over the employee manual and getting everyone to introduce him or herself. In week 2, students become familiar with organizational behavior topics including managing individual and group/team behavior. By the end of week 2, students create cross- functional, self-managed teams, and team members who work together for the remainder of the semester. By the end of week 3, team members progress from the initial stage of team formation to active performance. As evidence of their progression, each team is required to develop and submit for evaluation, a team charter that identifies the rules of team conduct.

After the completion of the team charter assignment, the next phase of student background knowledge and skill development focuses on leadership and management theory. A leadership lab designed to develop and enhance individual/team leadership skills follows a faculty-led lecture presentation of leadership and management theory. At this point, the students will start to design their companies and create a simple business plan. Following the leadership lab, an ethics, and decision-making lecture discusses both topics independently and together. Then, students perform an ethics related individual assignment to reinforce ethical decision-making. This assignment tries to stimulate critical thought and analysis regarding ethical decision-making, and to provide students with a foundation for making sound ethical decisions under both individual and team-based scenarios.

The presentation of lecture materials related to planning and strategy follows ethics and decision-making. At this

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point in the semester, the professor introduces the simulation to the students, and begins to engage in pre-decision making activities that include creating a vision statement, a mission statement, and objectives. The exercise in writing the mission, vision, and objectives provides the opportunity for the student to assess the team's progress and determine their success during the simulation. This activity of creating objectives provides students with the ability to set objectives in a real setting and try to manage a company in achieving those objectives. The assessment of the objectives and the team's ability to meet the objectives appears in the presentation after the second year.

The next lecture material discusses the issues and concepts related to organization culture and human resource management. This topic provides another management skill that students should understand in order to manage operations. Each team is required to complete an organization chart depicting the organization's structure at two separate points in time: at the beginning of the simulation and after ten years of hypothetical growth in 3 different geographic regions.

The last topic presented is control. This topic presentation introduces students to (a) financial statements, (b) financial ratio analysis, and (c) budgets. Possessing background knowledge in all four areas of management, students can engage in simulation-related decision-making activities.

These activities take place in the final three weeks of the course. The student teams make 12 quarterly decisions where each decision represents one quarter of a single year. The decisions require students to decide on (a) inventory ordered for sales in the business, (b) advertising, and promotion for the business, (c) employment of part-time sales associates and the pay level for those associates, and the payment of dividends and loans. The student, in each quarter, must decide how to handle 12 different decision situations that include (a) location placement, (b) financing for the business and (c) various ethical scenarios of the remaining quarters (i.e. bribes, political contributions and dealing with employee situations). There are four quarters in each year. At the end of year two, students create a presentation portfolio that consists of the following:

1. Peer evaluation from each team member
2. Quarterly and Yearly actual result spreadsheet
3. Quarterly and Yearly budget result spreadsheet
4. Variance spreadsheet
5. Original Decisions for all four periods for the year
6. Management Audit
7. Bonus Compensation form
8. Copy of presentation with six slide per page

The presentation must cover three basic components that include:

1. Results of the first two years of operations and comparison to budgets;
2. Actual performance compared to their stated objectives; and
3. The team's changes in objectives and/or decision-

making process, especially if the team did not meet specific objectives.

The students will make four more decision representing the third and final year. After the simulation is completed, the class participates in a debriefing exercise. Instead of taking a final exam, students give an oral final presentation and submit a management portfolio similar to the first portfolio. The second presentation provides the students an opportunity to improve presentation skills.

The new course provides students with management skills in an experiential learning format. The student learns: (a) decision-making and consequences; (b) planning skills through writing the mission, vision, and objectives and comparison to actual results; (c) communication skills through the presentation, assignments, and teamwork; (d) control skills in comparing company actual and budgeted results; (e) teamwork skills from students interacting in teams to complete various assignments during the semester; and (f) organizational skills from putting the portfolio together for both presentations. For the skills not covered directly by the simulation, the course provides team activities to reinforce those concepts.

## CONCLUSION

This classroom experience resulted from a desire to change the teaching of management skills in the classroom. The use of a simulation created the opportunity for students to learn management material and skills within a safe environment. This paper provides a methodology for teaching management skills in an experiential learning environment. While this paper provides a methodology for an experiential learning experience, future papers will review whether students' views of management skills change due to the use of a simulation.

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