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Techniques

Practice Makes Perfect: Using a Computer-Based Business Simulation in Entrepreneurship Education

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Abstract

This article explains the use of a specific computer-based simulation program as a successful experiential learning model and as a way to increase student motivation while augmenting conventional methods of business instruction. This model is based on established adult learning principles.

Introduction

Practice makes perfect. Is not that what we are always told? Whether learning to shoot hoops in basketball or learning to play scales on the piano, we are advised to practice in order to reach proficiency. But what about learning academic subjects? Is there a way to practice those? For example, how do students attain some level of proficiency in business, management, marketing, or advertising without actually being in business?

The technical college where I teach confers associate degrees in applied science. There is an emphasis on application--using, demonstrating, doing--in our programs. An emphasis on application may seem obvious in the auto mechanics program, the welding

program, the computer networking program, and even in the nursing program, but how do business students demonstrate they can do business? Starting, owning, and operating a business usually involves a large investment of cash, energy, and emotion. Entrepreneurs put a great deal of themselves on the line. Is there a safe way to mitigate that risk? Is there a way to practice being a business owner before actually becoming one?

As the primary instructor for our Marketing and Management degree, I have seen great results in helping students demonstrate their proficiency in business practices by employing computer-based business simulations. The greatest success has come from using a sophisticated simulation program in our capstone class, Entrepreneurship, in the fourth and final semester. In fact, in the 10 years this simulation has

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been used, our students have consistently placed in the rankings of top 10 teams worldwide. For a small town technical college with fewer than 1,000 full-time students, that seems an impressive achievement. So how do we do it?

Application

The simulation program we use is found at www.capsim.com operated by Capsim Management Simulations, Inc. (The Capsim Business Simulation Experience, 2010). The website offers two versions of the simulation: Foundation® and Capstone®. Capstone® is their flagship product and offers an enhanced simulation experience, but Foundation® has proven sufficiently challenging for our 2-year associate degree program.

The Foundation® game is set up so that students make strategic product decisions for a \$40 million business. The game begins with each team having one identical product. Teams may add up to four additional products in two market segments--high and low technology--throughout eight rounds. Team decisions are made in four primary modules: Research & Development (R&D), Production, Marketing, and Finance. As the game progresses, two additional decision modules may be activated: Human Resources and Total Quality Manufacturing (TQM). Teams plan the rollout of their new products by deciding on design criteria concerning the product's size, performance, and reliability characteristics in the R&D module. They must plan increased plant capacity and automation levels in the production module. Product pricing and promotional spending levels are determined in the Marketing module. Finally, funding decisions for how capital will be raised--selling bonds or issuing stock--are made in the Finance module. Since product design and increased capacity are required one full round in advance before a product can be introduced, planning and timing are critical elements in this simulation just as they are in real life. Optimal design characteristics for products in both high- and low-technology segments move throughout each round. The perfect product for Round 2 will be old and less desirable by Round 6, reinforcing the importance of staying alert to what

customers want and the price they are willing to pay.

While the simulation can easily accommodate large classes with teams comprised of many members, our students seem to get the most out of their experience when they run the team/company themselves as a team of one. This better helps students imagine being the CEO, who is calling all the shots and making all the decisions for this \$40 million venture they have taken over. Computer teams can be used to round out six teams per competition.

Link to Adult Learning

The Andragogical Model (Knowles, Holton III, & Swanson, 1998) identified six assumptions for the ways in which adults learn differently from children: (1) the need to know, (2) the learner's self-concept, (3) the role of the learners' experiences, (4) readiness to learn, (5) orientation to learning, and (6) motivation. The use of the Foundation® business simulation easily applies four of these assumptions: students are able to see the relevancy of what they have been learning academically (Assumption 1); the simulation game is experiential (Assumption 2); the simulation presents a dynamic, changing, problem-solving scenario (Assumption 5); and students' classroom learning can be immediately applied through simulation decision-making (Assumption 4). In fact, Knowles specifically identifies simulation exercises in his discussion of the role of the learners' experiences (Assumption 3) and the readiness to learn (Assumption 4).

Indeed, recent research confirms the effective use of computer simulations in business school instruction and specifically in Entrepreneurship. Brawer (1997) noted that "computer based simulations provide environments wherein participants experience realities of the business world that are risk-free....simulations also offer sufficient insight into the actual operations of a business so that participants can later transfer the simulation model strategies into real-life situations."

Conclusion

It is easy to imagine the pride students feel when their team ranks in the top 10 teams worldwide in any

endeavor. Their success validates not only their academic learning but also their practice, which is the student's application of their learning. "Based on real life situations, [entrepreneurial simulations] are used to help students formulate their own ideas about engaging in an existing business or creating a new venture" (Brawer, 1997). What better way to encourage the economic growth our nation so desperately needs right now than for community and technical colleges to be graduating successful, confident entrepreneurs from our business programs. This is a practice from which we can all benefit.

References

Brawer, F. (1997, April 28). Simulation as a vehicle in

entrepreneurship education. Digest Number 97-1. *Ewing Marion Kauffman Foundation, Kansas City, MO. Center for Entrepreneurial Leadership*, 3-4.

Knowles, M., Holton III, E., & Swanson, R. (1998). *The adult learner: The definitive classic in adult education and human resource development*. Woburn, MA: Butterworth-Heinemann.

The Capsim business simulation experience. (2010). Retrieved May 17, 2011, from Capsim Web site: <http://www.capsim.com/business-simulations/products/business-simulations.html>