Virtual enterprise: transforming entrepreneurship education

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Abstract

Entrepreneurship education is ripe for utilizing experiential learning methods. Experiential methods are best learned when there is constant immersion into the subject matter. One such transformative learning methodology is Virtual Enterprise (VE). Virtual Enterprise is a multi-faceted, experiential learning methodology disseminated by the City University of New York. (CUNY) CUNY has administered VE methodology on a variety of student cohorts who have found VE methodology very effective and helpful for achieving their entrepreneurship education goals.

Virtual Enterprise has its roots at Kingsborough Community College since 1998. CUNY administrators were so impressed with the results at Kingsborough that they created the Institute for Virtual Enterprise in May, 2002. The award winning methodology has been the subject of various research studies concerning its effectiveness on various student cohorts. This article is a brief synopsis of the evolution of VE, its multi-faceted approach to entrepreneurship education, and its effectiveness as a transformative, experiential methodology.

Keywords: Entrepreneurship, Experiential, Methodology, Simulation, Virtual Enterprise

Introduction

Many academics utilize, or look for ways to utilize, experiential methods when teaching business courses. Specifically within the business discipline, entrepreneurship is one of those subjects that afford educators the opportunity to be creative by allowing students to actually do, and therefore learn, the work of an entrepreneur. Usually, this is done by requiring students to conceive, create, and operate their own business. Instead of just talking about what a business plan is; entrepreneurship professors make their students create business plans. Instead of just talking about advertising and marketing, professors make their students create advertisements and marketing plans in order to learn the tools of the entrepreneur.

At Kingsborough Community College, part of the City University of New York, business professors allow students to learn the tools of the business person through a multi-faceted approach. First, students create their own businesses through a variety of methods. Some professors utilize the $10 business. This is a method wherein students are given $10 to create their own micro-businesses. Student businesses of this nature tend to become resellers of existing products such as cakes and water, etc. Other professors require students to start their own E-Bay based businesses. These businesses are usually bartering type businesses, or students finding things in their parent's garages and attics and selling them on the internet. While both of those methods are great ways to teach entrepreneurial skill sets, Kingsborough transformed business education by creating its own program called Virtual Enterprise.

What is Virtual Enterprise?

Virtual Enterprise is a unique, experiential-learning methodology wherein students create and operate their own virtual businesses in a global economy of over 4,000 firms in 40 countries. Pierce and Jones, (1998) found that students engaged in contextual learning are more motivated, use self-directed methods aimed at acquiring in-depth understanding and have superior long-term recall than students involved in more traditional teacher-led activities. This is one of the foundations for Virtual Enterprise. How VE works is simple. Students create a business concept and then implement the plan within the confines of the IVE Global Marketplace. Once students decide on the type of business they wish to operate, they then create a business plan, estimate start-up costs, and make an oral presentation to investors from the local business community for virtual start-up capital.

 After the venture capital presentation is made, CUNY's Institute for Virtual Enterprise then provides virtual seed money to the VE firm along with a corporate bank account. VE students then use that seed money to pay bills, make inventory purchases and start to operate their virtual businesses. They learn the financial aspects of running a business by doing it, as opposed to just learning the theories behind financial management and regurgitating them on a written exam.

What makes Virtual Enterprise more effective than other experiential learning methods is its global marketplace and the financial aspects of its MarketMaker component. (www.ivefinancial.com) The MarketMaker is the educational, electronic, financial teaching tools that make VE courses truly unique. The MarketMaker is the virtual economy behind VE methodology and it consists of: a virtual bank, a virtual stock market, virtual credit cards and a virtual ecommerce shopping mall. The virtual bank simulates a real banking environment. Students learn valuable cash flow management skills, lines of credit, as well as payroll and other banking aspects of running a business.

The virtual credit card allows students to learn the skills of using credit properly. Virtual business credit cards are offered to virtual enterprise firms to make purchases and pay bills. Finally, the IVE Shopping Mall allows students to trade their virtual products in a global electronic marketplace. After receiving the initial seed money to start a new VE firm, students are given access to upload their products to the IVE Shopping Mall. The IVE Shopping Mall is a global electronic commerce marketplace for all virtual enterprise students and firms world-wide. VE is an international program as there are VE students around the world that participate in this program. The global nature of VE provides another learning moment, as students have to learn how to deal with different languages and cultures as part of international trading within the VE marketplace.

In addition to learning the financial aspects of running a business, students also learn the sales, budgeting, negotiation, human resources, and technology skills of running a business. For example, marketing plans have to be learned, created and implemented. This includes creating advertising, estimating sales goals, as well as uploading products to the IVE Shopping Mall in order to sell or trade products. VE students learn a variety of communication skills by negotiating with suppliers or becoming human resources employees and working as the intermediaries between employees and management within the VE firm.

Research on Virtual Enterprise

Virtual Enterprise methodology worked so well in the Department of Tourism and Hospitality at Kingsborough (where the program originated) that it was necessary to investigate and validate the methodology before making a case to take it CUNY-wide. In addition, the Secretary's Commission on Achieving Necessary Skills (SCANS) was released a few years earlier. The SCANS report (http://www.academicinnovations.com/report.html) gave researchers of business and career programs a benchmark to study the types of curricula that prepares students for the transition from academics to career. The SCANS report found a variety of skills and competencies that were required of students to learn in order to be prepared for their careers.

The Center for Advanced Study in Education (CASE) is a research organization of the City University of New York. In 2000, it was tasked with conducting a study on Virtual Enterprise Methodology. A year-long study of VE methodology was conducted by Schroeder and her findings were published in 2001. Schroeder found that VE courses not only incorporated

the same set of SCANS skills, but a variety of other skills and competencies in addition to the SCANS skills.(http://www.ive.cuny.edu/ve/ve_documents/CASE_Study_Report_2001.pdf)

Some of the results of the Schroeder study (Appendix A) gave CUNY administrators the findings they needed to bring VE methodology CUNY-wide. CUNY created the Institute for Virtual Enterprise (IVE) in 2002, and tasked IVE with disseminating VE methodology across the entire university system as well as any other universities interested in adopting VE in their programs. At the same time, Virtual Enterprise was being offered to a variety of student cohorts and research continued to study VE methodology. Additional research was conducted on the student cohorts that were taking VE at that time.

The first, cohort specific research was conducted by Borgese (2001). Borgese researched the effects of Virtual Enterprise on at-risk students. Virtual Enterprise was administered to this cohort because these students were in danger of being dismissed by CUNY because of their low grade point averages. Borgese's dual qualitative and quantitative study revealed that those at-risk student's grades improved, specifically in Math, English and Technology, after taking a VE course. In addition, these at-risk students spent more time working in their VE course than their other courses because students saw the benefits of what they were learning to future "real-world" application. Finally, results showed that these students felt that VE also helped them in other academic subjects and fostered a positive attitude for them to pass their developmental English and Mathematics courses (Borgese,2001).

Graziano (2003) studied the effects of Virtual Enterprise at Kingsborough Community College as part of his doctoral dissertation. Graziano also conducted a dual qualitative and quantitative study. He found that KCC-VE students were making great progress in all SCANS areas as well as the other skill sets identified by Schroeder in 2001. Additionally, Graziano's study revealed that students were receiving experiential learning for career fields, specifically in Tourism and Hospitality, as well obtaining career preparation skills after taking a Virtual Enterprise course. Finally, Graziano's study showed that VE was providing what several focus group participants have called a link to the real-life realm of business. Graziano (2003).

These three studies served as the foundation for the Institute for Virtual Enterprise to bring VE methodology beyond the City University of New York. IVE started offering information sessions, or "salons", on VE methodology to any and all interested parties. The salons were held at Kingsborough Community College in Brooklyn, New York and educators and administrators came from all over the United States to participate. Early adopters of VE methodology, outside of the CUNY system were: Howard Community College, Hayward Community College, Edmonds Community College, Frostburg State University, Rhodes State College, Monroe College, Montgomery College, and Shoreline Community College.

Adoptions and Awards

Virtual Enterprise methodology was rapidly being adopted by college administrators for application in their entrepreneurship programs. Some colleges and universities that could not

afford to send multiple administrators to the salons at KCC asked for IVE to send VE experts to their schools to make presentations to their administrators on their own campuses. In addition to these presentations, the United States Association for Small Business and Entrepreneurship (USASBE) accepted academic presentations on VE methodology at their annual conferences. As a result of these presentations even more adoptions occurred.

Professional conferences, like the United States Association for Small Business and Entrepreneurship Annual Conference, (USASBE) allowed IVE administrators to present their findings and "get the word out" about this transformative way of teaching business. No greater accolade for Virtual Enterprise could have been received other than USASBE's Innovative Entrepreneurship Course Award at USASBE's 2008 Annual Conference. (http://usasbe.org/about/awards/education.asp#course) Virtual Enterprise methodology received the award and was finally recognized as being truly innovative by administrative bodies outside of CUNY and grant funding agencies.

Student Cohorts Served

In addition to the students already mentioned above (Business and Tourism and Hospitality, Leadership, Social Entrepreneurship, and At-risk students) VE courses have been introduced to a variety of other student cohorts. For example, VE is offered to students in the "My Turn" Program at Kingsborough. The My Turn Program allows students over the age of 55 to take courses, free of charge, on a space available basis. My Turn-VE students love the program so much, because VE courses allow them to socialize as well as learn business skills that they previously did not have. This particular VE course created many senior-aged entrepreneurs. Most of these students wound up creating their own E-Bay based businesses after they took the VE courses because they believed they had the self-efficacy to succeed after taking a VE course.

As previously mentioned, corporate education opportunities have also been created through the use of Virtual Enterprise methodology, specifically within the area of customer service and culinary based-businesses. VE courses were offered to students who took the courses as part of their job requirements at two local businesses in the New York City area. The business owners heard of VE methodology and contracted with the Institute for Virtual Enterprise to train their employees in customer service as well as proper food handling techniques. Both business owners were happy with the results because they felt their employees were better prepared to deal with customers and perform their jobs after taking the VE course. The business owners noted that the employees returned to work with a greater outlook on how the employees relate to the customers has a direct result on the success of the business.

The Virtual Enterprise program has also been administered in over 40 countries, and the amount of international collaboration is growing. Each year, the Institute for Virtual Enterprise holds a Virtual International Trade Show. At the trade show, VE firms from around the world make real sales pitches via teleconference. Students from around the world make their sales

pitches and then time is given for the students to buy and sell their products. (At the last iteration of this conference VE firms from Australia, Ghana, Belgium and Austria participated. (http://ive.cuny.edu/viewarticle.php?sid=154) Obviously, this is not an easy feet to accomplish due to time zone differences and language barriers. However, the videoconferences build student presentation skills, and communication skills in general, as they have to learn how to overcome those barriers in order to sell their products.

Not Just Student Benefits

The study of Virtual Enterprise methodology has uncovered benefits for instructors as well. In order to be a VE instructor, one has to give up a great deal of control in the classroom. VE instructors are commonly referred to as moving from being a "Sage on the stage, to a guide on the side". VE instructors have to be willing to step back and let the students do the work with guidance from the instructor as opposed to being a dictator in the classroom.

Research conducted by the Institute for Virtual Enterprise has shown that VE instructors must be willing to give up some control of the VE course in order for the students to be successful. Keep in mind that this does not work well for everyone, as many hard-line instructors do not wish to give up control to the students. While this is fine for some instructors, it just will not work with VE methodology. This is one of the main reasons that IVE states that VE methodology is not for everyone. If an instructor is unable, or unwilling to give up some control of the VE course to the students, then he will not be a successful VE instructor.

Along with the shifting of the role from instructor to facilitator, additional outcomes were noted for VE instructors, specifically in the increase of the instructors' ability to function within cross-disciplinary teams. Since VE courses are business oriented many new faculty members, especially within non-business disciplines, were reluctant to teach VE courses. Schroder's (2001) research showed that the interaction between VE instructors was considerably higher than in regular business courses because of the instructor mentor program established at Kingsborough. The mentoring of new VE instructors as well as the interaction of cross-disciplinary teams for VE instructors eventually became a function of the Institute for Virtual Enterprise.

Faculty development for VE instructors is ongoing and continues to this day. There are a variety of faculty development seminars that are offered throughout the year by the Institute for Virtual Enterprise. As part of the recent grant for Virtual Enterprise for STEM disciplines, IVE hosted a seminar in order to teach instructors of biotechnology and information technology disciplines the basics of VE methodology. The two-day seminar was held at Kingsborough in February of 2010. In addition to the faculty development training seminars, IVE maintains faculty resources on its web site at: www.ive.cuny.edu. This is done for any, and all, instructors who are interested in adopting Virtual Enterprise methodology.

Educators who are interested in the methodology can go online at: http://www.ive.cuny.edu to view some of the activities and initiatives associated with Virtual

Enterprise. A teaching tool kit is available for all professors that utilize Virtual Enterprise methodology. Instructors collaborate with a VE staff member to facilitate access to the various tools such as The MarketMaker financial software, the online shopping mall, and the banking program. VE instructors then allow their students to research the VE marketplace and create their own virtual businesses.

Summary and Conclusion

For anything to be transformative, by definition, it must change something dramatically. The old way of teaching business courses is a recipe for failure for our students. There is a 1996 quote from D.H. Hammond et al that states: *"Many professors still require students to memorize their course materials and then complete closed-book examinations. We could find no record of a business meeting in which the CEO said, "Please put all your books and notes under the table and take out a clean piece of paper; we are going to make a business decision."*

This quote remains the inspiration for Institute for Virtual Enterprise administrators to bring VE methodology world-wide. Business should not be a discipline that requires students to memorize and regurgitate facts and theories. Business is learned by doing. From the creation of a business, to the operation of the business, to the harvesting or closing of the business, students must learn by doing. This is true just as much for failing businesses as well as successful businesses. Sometimes, VE students learn more through what they did wrong as much as by what they did right.

The Institute for Virtual Enterprise continues to profess the benefits of Virtual Enterprise methodology. IVE's successes are clear that VE methodology works. From awards, to research, to faculty development, to adult education and at-risk students, to the creation of well-prepared entrepreneurship students; Virtual Enterprise is truly a transformative teaching methodology.

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Appendix A

The following are some the Learning Outcome Domains Identified by Schroder (2001)

Career Competencies:

- Technology/Internet tools: computer literacy, Internet skills, retrieving and managing information via technology

- Entrepreneurship/Business knowledge: developing business plans, developing marketing and sales strategies, accounting skills, etc.

- Career self-efficacy expectations: sense of preparation for and confidence about future performance in the workplace

Psycho-social Competencies:

- Critical thinking/problem solving: analysis, synthesis, evaluation, decision-making, creative thinking
- Intrapersonal skills: ability to understand and manage self, management of change, learning to learn, personal responsibility
- Interpersonal skills: teamwork, relationship management, conflict resolution
- Understanding the connection between academic skills and attainment of career goals

Academic Competencies:

- Global Awareness: understanding the global marketplace, culture and diversity
- Communication skills (oral & written): reading, writing, speaking and listening
- Information management: collecting, analyzing, and organizing information from a variety of sources