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LETTER FROM THE EDITOR

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Thank you for your interest in *The Journal of Entrepreneurship Education.*

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INTERNATIONAL ENTREPRENEURSHIP: THE INFLUENCE OF CULTURE ON TEACHING AND LEARNING STYLES

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ABSTRACT

Recent developments in the competitive global business environment underscore the importance of entrepreneurship and technology in terms of capitalizing on new business opportunities. As such, business education which is focused on entrepreneurship and technological innovation is becoming increasingly significant. This education deviates from the traditional business education in terms of its focus, goals and methods of delivery. This study presents an innovative approach to teaching entrepreneurship and technological innovation. The rapid assessment approach (RAM) presented in this study capitalizes on the Baldrige and European Foundation for Quality Management frameworks in its attempt to formulate an educational framework designed to facilitate entrepreneurship and technological innovation education in different cultural settings.

INTRODUCTION

A course *in* International Entrepreneurship must, by its very nature, deal with prudent risks involved with converting ideas into real business opportunities in today's global arena. However, teaching approaches that are successful with one culture may not be successful with another. This is especially true when generating innovative technology-based business concepts, conducting mutually beneficial business negotiations, and developing comprehensive business plans using a consensus process in a team environment. In practice, the students' basic culture becomes a source of conflict in cross-cultural teams attempting to implement the entrepreneurial process. The lead author gained experience in a multi cultural environment during a three year period teaching a course in Innovative Entrepreneurship for the Hochschule Bremen's International Master in Business Administration Program. Using this experience, the objective of this study is to present an approach that appears to overcome many of the cross-cultural conflicts when teaching international entrepreneurship. The rapid assessment approach presented in this study capitalizes on the Baldrige and European Foundation for Quality Management frameworks. The rapid

assessment approach provides an educational framework toward the systematic evaluation of new business concepts where important cultural differences exist. Utilizing this approach, students appear to easily gain confidence in the educational process which leads to enhanced learning experience. Three mini cases are presented to illustrate the advantages of the rapid assessment educational framework.

BACKGROUND

Instructors often adopted the subject-based teaching models handed down by their former professors (Wright, 1995). It is therefore not surprising to learn that engineering and business curriculum were frequently separate and distinct with very few cross-disciplinary offerings. As a result, engineering graduates had few business skills and Master of Business Administration (MBA) graduates had little or no knowledge of how to manage technology innovation. Companies requiring new technology-based product development often hired engineering graduates and implemented extensive training programs to provide these engineers the necessary business skills. In parallel, MBA graduates in high technology companies became frustrated due to their lack of understanding of the innovation process. The problem was further exacerbated because the engineering and technology curriculum gave little attention to practical managerial and teamwork skills (Coleman, 1996). However, those launching new business ventures as well as those in existing business requiring new product or service innovations are in need of both management and innovation skills. Responding to market demands, both large and small to medium sized firms sought a workforce with practical business skills, the ability to communicate well, and an aptitude to function well in teams (Haffner & Maleyeff, 1995). Challenges on an international dimension were further complicated because the Internet and Web based technologies have rapidly thrust virtually every business into a global competitive arena. In part due to these demands and the associated globalization challenges, institutions of higher learning responded with changes in their business curriculum.

Teaching international entrepreneurship in the changing global competitive arena creates a potential a misalignment between traditional teaching and learning approaches and those necessary in a cross-cultural team environment. Calabree (1993) notes that due to rigidity often encountered in institutions of higher learning change is challenging. This difficulty may be overcome in part by taking a more open system approach that embraces flexibility and benchmarking of key business processes used in striving to achieve a sustainable competitive advantage. Flexibility is a competitive dimension that an organization can utilize to respond to marketing uncertainty and change (Butler & Ewald, 2000). However, to capitalize on this flexibility, cross-disciplinary skills appear to be essential. Czuchry and others offer an open system orientation for implementing such approach (Czuchry, Yasin & Gonzales, 2004). The effectiveness of this approach can be further enhanced when the influence of cultural differences are incorporated in the context of teaching international entrepreneurship.

Significant progress has been made by Leigh and others who have introduced cross-disciplinary programs teaching entrepreneurial skills that balance technical and business abilities (Ochs & Booth, 2001). Although teaching methods vary and the debate regarding entrepreneurship curriculums continues, both the business and educational communities appear to agree that a course dealing with the fundamentals of starting a business, managing technology innovation, and developing a business plan using teamwork and negotiation skills is needed (Kautz). The April 2002 US News and World Report identifies three top colleges having graduate certificates in entrepreneurship that serve as helpful benchmarks: University of Chicago, University of California – Berkeley, and Georgia Institute of Technology. Other universities have majors, minors, or concentrations in entrepreneurship. The literature dealing with cultural influence on teaching and learning styles in the context of international entrepreneurship suggests that new models and methods are necessary. Although cultural differences in the interpretation of terms such as "enterprise" are discussed (Gibb, 2002), cultural differences in learning entrepreneurship while performing in cross-cultural teams are not addressed. This apparent gap in the literature may be partially closed using the novel approach presented in this study. The purpose of this article is to share the practical experience gained in our Innovative Entrepreneurship Course for the Entrepreneurship Concentration in the Hochschule Bremen's International Master in Business Administration (IMBA) Program in order to shed some light on a path that others may choose to follow.

THE RAPID ASSESSMENT METHODOLOGY

The rapid assessment methodology (RAM) utilized in this study is based on broader quality management frameworks such as the Baldrige and European frameworks. Although the focus on the current study is to utilize the rapid assessment methodology in an educational context, this methodology has been used to improve the competitive position of several organizations. The rapid assessment methodology is useful because it is simple, practical and systematic in nature. It can be used in isolation or as a part of a more comprehensive strategic effort.

The rapid assessment methodology (RAM) provides a quick-cost-effective way to identify an organization's strengths and improvement opportunities. It is also a useful tool when evaluating business feasibility plans for starting new business ventures. In this context, the importance of the individual assessments is underscored. The reason is the strengths and improvement opportunities are often different when viewed from different stakeholder perspectives. We have experienced significant benefits in teaching and learning when students play the role of different stakeholders. Frequently, the students recognize that suppliers, employees, investors and customer have different objectives and therefore evaluate strengths and improvement opportunities differently. In this context, the RAM becomes an effective tool for developing improved skills for evaluating business plans and ventures. After the self evaluation is completed, an informed strategic decision can be

made and a systematic approach can be implemented if the international market is cost justified. This exercise offers a rapid assessment methodology as a means for jump starting the organization's attempts at globalization. The results of the rapid assessment provide a roadmap for closing gaps between the business' current capabilities and those required to succeed internationally. In addition, this approach provides a practical means for avoiding the adverse consequences of a major failure that could occur if the company prematurely enters the international arena.

The RAM process starts by responding to the statements in Exhibit 1. If one strongly disagrees with the statement he/she circles 1. If one disagrees, 2 is circled. If one agrees, 3 is circled. Finally, if one strongly agrees, 4 is circled.

After completing the individual assessments, the team members meet with the aid of a facilitator. Ask someone to serve as the facilitator. The facilitator asks for a show of hands as she or he asks:

- How many scored this item as zero;
- How many scored as one;
- How many scored as two;
- How many scored as three; and
- How many scored as four.

The facilitator summarizes the number of individuals that scored each response.

Next, as a team examine the responses summarized for each item. Notice that responses of 1 or 2 are generally improvement opportunities, while items with scores of 3 or 4 are generally strengths. Here, it is important to avoid the temptation to simply average scores and deal with the average numbers. Different scores are equally correct and often are determined by stakeholder objectives. Depending on the organization's strategic objectives, strengths and improvement opportunities will become higher priority. Capture these different stakeholder perspectives. For each item, summarize the strengths by sharing why each person scored the item as a 3 or 4. Here it is important to avoid taking averages because different answers are equally valid depending the stakeholder's objectives. Capture these differences for strengths. Repeat the process sharing why items were scored as 1 or 2. Capture these improvement opportunities on an individual basis for the new business venture.

Next, it becomes important to distill the strengths and improvement opportunities to identify the vital few. Review each of the strengths and improvement opportunities listed above and take into consideration the stakeholder perspective. Identify the major improvement opportunities for overcoming the organization's major strategic challenges and achieving their major goals and objectives. For start-up ventures, the need to raise capital is commonly a major challenge. Hence, the deal offered by the entrepreneur must allow between 18 to 36% returns compounded annually. Earnings Before Interest Taxes Deprecation and Amortization (EBITDA) must grow at a pace to

achieve these returns. Should an exit strategy call for selling the company in five or so years, company valuations can be approximated by using industry multipliers of EBITDA. Although this may be sufficient for classroom exercises, it is important to recognize that evaluating companies based upon pro-forma data is difficult at best. Operating agreements in Limited Liability Companies generally allow for several different methods of company evaluation. That being said, an exit strategy defining investor's return on investment often becomes a key success factor and therefore becomes a major priority. Start-up organizations must also have high confidence operational schedules that can deliver revenues before the organization runs out of cash. Entrepreneurs must have indemnified risks in their operational plans and marketing strategy audits that have also been mitigated with appropriate strategies in their business plans. Here is another frequent priority item. The business concept or model should have an associated revenue stream based upon value pricing strategies that generate sufficient gross margins. Frequently, flow charts identifying the key value producing and pricing steps with associated cash flows are important. An organizational profile extracted from the business plan and augmented with the items mentioned here regularly provides a framework for the reviewing team in selecting the vital few or items deserving highest priority.

For each of the top priority improvement factors, an implementation time frame short range (less than six months), medium range (six to 18 months), and longer range (longer than 18 months) is established. Then rank the improvement opportunity by financial resources required. Some may require little or no additional investment. Those that require nominal investment and that can be accomplished in less than six months are called "quick hits." Summarize your quick hits.

EXHIBIT 1: RAPID ASSESSMENT METHODOLOGY (RAM) SYSTEMS LEVEL EVALUATION STATEMENTS

Self-Rating Scale							
0	NOT SURE how our organization compares to this statement.						
1	STRONGLY DISAGREE: This statement DOES NOT DESCRIBE our company at all. There is no evidence of this activity in our facility.						
2	DISAGREE: This statement generally DOES NOT DESCRIBE our company. There is little evidence of this activity in our organization.						
3	AGREE: This statement GENERALLY DESCRIBES our company. There is a great deal of evidence of this activity in our organization.						
4	STRONGLY AGREE: This statement DEFINITELY DESCRIBES our company. This activity pervades our organization.						
	Part 1: Global Market Development and Competitiveness	Circle one					
1	Our company's leadership, strategic planning, and customer and market focus are directed towards development and/or strengthening of global areas of business.	0	1	2	3	4	
2	Our leaders are effective in setting direction and seeking international opportunities.	0	1	2	3	4	
3	Our leaders effectively communicate and incorporate a global focus within the company.	0	1	2	3	4	
4	Our leaders use continuous learning to improve the company's global focus.	0	1	2	3	4	

EXHIBIT 1: RAPID ASSESSMENT METHODOLOGY (RAM) SYSTEMS LEVEL EVALUATION STATEMENTS						
	Self-Rating Scale					
5	Our company is effective in identifying and evaluating qualitative and quantitative global business information to recognize international opportunities and to adapt the company's strategic and business plans to pursue these opportunities.	0	1	2	3	4
6	Our company is effective in determining current and future requirements, needs, and expectations of customers in current and/or potential international markets.	0	1	2	3	4
7	We are effective in selecting and using global information to prepare for entry into international markets preparing for competition with existing companies in international markets and benefiting from and influencing global market trends, and preparing for competition from potential new international entrants into the company's current markets.	0	1	2	3	4
8	We have developed and communicated a global perspective throughout our workforce and workforce practices as it pertains to business requirements in applicable markets.	0	1	2	3	4
9	The unique requirements of international markets are an important consideration in designing, managing and improving key product, service, production/delivery, support and partnering processes.	0	1	2	3	4
10	Current levels and trends of customer satisfaction and market performance in international markets are favorable and compare well with other excellent companies in this area.	0	1	2	3	4
11	Current levels and trends in key measures of performance in international markets or segments are favorable and compare well with other excellent companies in this area.	0	1	2	3	4
12	Current financial performance in international markets is strong and trends compare favorably with other excellent companies.	0	1	2	3	4
13	Key measures of operational performance in international markets are strong and trends compare well with other excellent companies.	0	1	2	3	4
	Part 2: Uses of the Internet and Web Based Technologies	Circle one				
1	Our company uses the Internet to purchase supplies, inventory, materials, and/or other products and services through business-to-business sites, online exchanges or other Web based venues.	0	1	2	3	4
2	We sell our goods and services to businesses, consumers and/or operate an exchange through the Internet.	0	1	2	3	4
3	Web based technologies are deeply embedded in our company's distribution, delivery and other logistical processes.	0	1	2	3	4
4	Our company effectively uses the Internet to advertise products and services to customers.	0	1	2	3	4
	Part 3: Risks of the Internet and Web Based Technologies	Circle one				
1	We protect our intellectual property (trademarks, copyrighted works, patents, and trade secrets).	0	1	2	3	4
2	We carefully monitor compliance with our own privacy policy.	0	1	2	3	4
3	We use the most secure system available to ensure that all communications are confidential to the extent that we represent them as such or as the applicable relationship requires.	0	1	2	3	4
4	We routinely consider antitrust and anti competition laws.	0	1	2	3	4

EXHIBIT 1: RAPID ASSESSMENT METHODOLOGY (RAM) SYSTEMS LEVEL EVALUATION STATEMENTS						
	Self-Rating Scale					
5	Our CEO or equivalent has overall responsibility for our Internet and technology strategy and deployment.	0	1	2	3	4
6	We are routinely offering new online services to our customers.	0	1	2	3	4
7	We effectively integrate our legacy and new technologies.	0	1	2	3	4
8	Our implementation team is cross functional (i.e., not just technical employees).	0	1	2	3	4
9	Our leadership embraces technological change.	0	1	2	3	4
10	We are realistically budgeting for technology on both a short and long term basis.	0	1	2	3	4
11	We routinely consider cost savings attendant with outsourcing certain functions.	0	1	2	3	4
12	Our suppliers have the technological capabilities to perform as required/represented.	0	1	2	3	4
13	We monitor how our competitors are using technology to change/innovate their goods and services.	0	1	2	3	4
14	We view our competition as within and without our industry and country.	0	1	2	3	4

ILLUSTRATING THE RAM APPLICATION

Study Setting

The study stetting for the three mini cases discussed below was a course in Innovative Entrepreneurship that was taught in a multi cultural environment in 2004, 2005 and 2006 at the Hochschule Bremen as part of the International Master in Business Administration Program. Graduate students from England, China, Saudi Arabia, USA, Denmark, Norway, Turkey, Pakistan, Uzbekistan, Taiwan, and Uganda participated. Students were required to participate in cross-cultural teams and conduct specific tasks. These included the tasks listed below.

- Select a specific technology or business concept.
- Identify and quantify the market.
- Conduct strategic thinking.
- Develop a commercialization strategy and operational plan.
- Provide supporting pro-forma financial data.
- Define the proposed offering and sources of venture capital; and
- Generate a comprehensive business feasibility plan.

Students were introduced to several concepts that were new to them. Although, conflict can often be productive when conducting the tasks cited above, undue conflict can become counter productive. Cultural differences exacerbate the consequences of these unnecessary conflicts and

present challenges that can adversely impact the ability to achieve desired learning outcomes. Culturally based teaching and learning challenges that were the most critical centered on three issues:

- How will students deal with failure and saving face in the context of generating innovative technology based business concepts?
- How will students conduct mutually beneficial business negotiations?
- How will a cross-cultural team be implemented using a consensus decision making process?

The teaching/learning process employed for the class required considerable active participation by students including a team project, individual participation and team involvement as well as the enhancement of presentation skills. A significant aspect of the process was the utilization of the performance excellence criteria presented by both the Malcolm Baldrige Quality Award Program (2006) and the European Foundation for Quality Management (http://www.efqm.org/). The criteria provide a tested and objective framework to create a successful new enterprise as well as a means to evaluate other class team projects. Cultural behaviors cannot be changed in any short time frame. However, the lead author found that an objective external frame of reference provided by the performance excellence criteria when combined with the rapid assessment methodology provided a systematic approach for focusing on the business case and associated issues and appeared to de-sensitize the cultural issues. Three specific examples are given below to illustrate the challenge and discuss the benefits of using such approach.

Mini Case 1:

How Will Students Deal With Failure and Saving Face in the Context of Generating Innovative Technology Based Business Concepts?

The cultural impacts of difficulties in accepting failure and saving face can have an adverse impact on exercises requiring creativity to generate innovative technology based business concepts. Although no one wants to make blunders, a willingness to learn from failures appears as fundamental in some entrepreneurial scenarios. In some cultures, the need to save face further complicates the problem of generating a list of ideas and then systematically evaluating resulting business concepts. This latter point is underscored when a dominate male suggests his business idea. Often he will flatly refuse to give up his idea regardless of the counter arguments provided by his teammates. The lead author observed this situation in each of the three years the class was taught

at the Hochschule Bremen as part of the International Master in Business Administration Program. The patterns that emerged are similar to the situation outlined here and the results of using the external performance excellence criteria were consistent with the findings presented here.

The situation involved an Oriental student who was withdrawn and apparently not accepted by other members of his cohort. This latter point was underscored when the other members of the cohort made it clear that he was an unwelcome member of any of the teams that were in the process of self selecting. At the height of his frustration, the student became emotional and was about to leave the class. One of the instructors helped the student calm down and then the other instructor guided the class through an exercise designed to focus on the individual strengths that each student brings to a team. As a result, the student was allowed to join one of the teams, albeit with some reluctance. As the team proceeded through the initial brainstorming of business ideas and the filtering of concepts to select preferred alternatives, the process was culturally constrained. By that we mean that the Oriental student was frustrated and disengaged, a charismatic male from Denmark was attempting to facilitate, a Norwegian male with a strong entrepreneurial family background was enthusiastically participating and a dominant female was further polarizing the group and causing the group to become dysfunctional.

The instructors coached the students on using the performance excellence criteria embedded in the Rapid Assessment Methodology. After some hesitation, students became proficient and used this external reference frame to judge the value of suggestions made by each team member. The Oriental student's list of ideas was presented and evaluated using the objective criteria. By focusing on the value proposition in the context of the external performance excellence framework, one of the Chinese student's initially rejected idea emerged as one deserving of further study. The student himself experimented with varying his idea based upon market research data. For example, when he examined their approach to determining current and future needs of customers in the proposed international market (please see item six in Exhibit 1 Part 1: Global Market Development and Competitiveness) he surprised the lead author and the group by reshaping his proposed approach to the market. When his teammates also applied the external objective criteria they not only selected his revised concept, but they also unanimously agreed that he should become the CEO of their new business venture.

Throughout the remainder of the process, the group continued to use the Rapid Assessment Methodology and Performance Excellence Criteria to guide them. This external framework refocused on business problems and solutions. The team dynamics became surprisingly positive. At one point approximately half way through the course it became apparent that any one of the four team members could discuss any of the business issues that were key to business success with equal knowledge and with extremely well-aligned strategies and implementation plans. The team's enthusiasm continued to build throughout the course. They all sought to proactively and collectively become engaged with assignments and became one of the most effective teams that the lead author experienced in the three years with the program.

The final team presentation required each team member to participate. During the presentation, it became clear that each of the students could present any of the charts, discuss any of the strategic issues and supporting financial pro-forma statements, and/or explain the proposed company offering in a convincing fashion. Both the written business plan and oral presentation were judged outstanding by independent external reviewers including Hochschule Bremen faculty and program administration. At the conclusion of the course, the Oriental student thanked the lead author profusely and said, "This has been the best experience of my program because I have been able to contribute and I have learned so much in a short period of time!" The authors firmly believe that the systematic application of the external performance excellence criteria were the key to transforming a dysfunctional group into a high performance team with outstanding results. Perhaps the dominance of the group in terms of leadership may play a role of importance equal to that of culture, when evaluating and systematically improving business concepts. Should this outcome be substantiated through further research, it could become an important finding that could have a significant bearing on how international entrepreneurship is both taught in the classroom and practiced in today's global arena.

Mini Case 2:

How Will Students Conduct Mutually Beneficial Business Negotiations?

The cultural impact on conducting mutually beneficial business negotiations was illustrated on two different occasions through the role of young women involved in a predominately male business environment.

The first situation involved an excessively aggressive Muslim woman. She was committed to changing the role of women in the business environment of her country. At the same time, she was trying to overly compensate for being the only woman in her graduate business program cohort. As a result, the men in the cohort tried to ignore her or at best tolerate her aggressiveness. As a consequence, her influence on the business case and associated entrepreneurial thought processes was minimized. Initially, this caused her frustration and the group became dysfunctional.

The instructors coached the students on using the performance excellence criteria embedded in the Rapid Assessment Methodology. After some reluctance, students became proficient and used this external reference frame to judge the value of suggestions made by each team member. When the aggressive woman used the objective criteria to substantiate her business arguments, she became more effective and the group began to move in a positive direction. She became engaged and her influence went from being confrontational to problem focused and in some instances even supportive. As one example, (please see Exhibit 1 Part 1: Global Market Development and Competitiveness) she cited item number five "our organization is effective in identifying and evaluating qualitative and quantitative global business information to recognize international

opportunities and to adapt the company's strategic and business plans to pursue these opportunities" and then made her point that they needed a more comprehensive assessment of the Chinese market for water purification systems. Her teammates accepted this improvement opportunity and refined their marketing plan accordingly. By the way, she used a similar argument when reviewing one of the other students' team presentations and then proceeded to produce specific evidence that the market was not a monopoly as claimed by that team. She then produced specific fact-based evidence to substantiate her claim. In this manner, she greatly enhanced her business effectiveness and gained respect from her classmates. Although cultural barriers will still exist for her in a male dominated society, she may find that these same objective criteria make her better able to have her business ideas implemented.

The second situation involved a Muslim woman who had developed a rather passive business posture as a member of a male dominated society. This pattern of acquiescence carried over into her class team project involvement. Initially, during the process of brainstorming for determining the team project her ideas were rejected. At this point in the process, it appeared she would give up and accept one of the men's ideas. However, with coaching she used the fact-based criteria to quantify the value of her concept. When the objective data was presented to the group and the group used the performance excellence criteria to rank order the competing alternatives, her idea surfaced as having the greatest potential. Although continuing efforts to develop a business plan were difficult, the result was perhaps her first leadership experience. She gained confidence throughout the course and her presentation skills increased dramatically. After her final presentation, she shared how much she had benefited with the lead author. She said, "I have never felt so good about my performance in a class before this experience! Thank you so much for the opportunity!" Likewise, it was one of more difficult adjustment for the men who had to respond to female leadership throughout this process. Again, the fact-based-objective criteria appeared to provide a framework for focusing on the business issues. However, it is clear that cultural male-female roles in their respective societies will continue to have a dramatic impact on the acceptance of women in business scenarios.

Nevertheless, this process of using external objective criteria gave both the aggressive and passive women the opportunity to participate as effective team members. Likewise, by focusing on the fact-based merits of the women's ideas to address the global business issues, it provided insight to the dominant male members on the value add of the women's contributions and the opportunity to modify their inappropriate male personal behaviors. Although no classroom experience can resolve generations of cultural barriers, the teaching and learning process provided by the rapid assessment methodology helped the instructors move into the role of coaches, and the students were more likely to grasp some of the new concepts involved with entrepreneurship.

In both situations, the performance excellence process allowed the group to focus on the business plan development rather than individual differences. The final team presentation required each team member to participate. In each situation, the women made effective-fact-based

presentations. Because their proposed offerings for the new business ventures were able to withstand evaluation against the performance excellence criteria, they gained credibility. As a result, the enterprise business plans and presentations were judged outstanding by independent external reviewers including visiting MBA students and faculty from the United States.

Mini Case 3:

How Will a Cross-Cultural Team be Implemented Using a Consensus Decision Making Process?

When cross cultural teams are required to use a consensus process to implement the chain of entrepreneurship and develop a comprehensive business plan, cultural differences often become the major impediment to the process. The lead author observed this situation in each of the three years the class was taught at the Hochschule Bremen as part of the International Master in Business Administration Program. By consensus, we do not mean unanimity or a majority vote. Consensus implies that each student is willing to listen to the other with empathy while attempting to understand the other's idea, concern or issue. In consideration for listening, the group agrees to support the outcome of the consensus process. The penalty for the consensus process is that it takes time. Clearly, a benevolent dictatorship is more time efficient. However, consensus has two major benefits. First, differing views provide different perspectives with different strengths and improvement opportunities. Viewing the same issue as a customer, supplier, employee or investor often gives differing answers, each of which is correct depending upon the perspective. This is a significant learning outcome for the students. Secondly, by accepting the consensus process students agree to support the resulting decision. This in itself is beneficial because many cross-cultural barriers appear to be removed when the process is successful. This latter benefit is emphasized by looking across the results obtained teaching eleven different cross cultural teams of four or five students each over the past three years.

Cross-cultural international student teams are expected to complete the tasks shown in the study setting described above. The chain of entrepreneurship is comprised of three major steps. Step one involves a creative process to generate candidate ideas for technology based businesses. Step two requires analysis of the details, filtering of alternatives and practical implementation to deliver value to a satisfied customer. The final step in the chain consists of delivering products and services to a customer or client that is willing to pay a premium to receive the provided value. Almost universally, the cross-cultural international student teams experienced counter consensus barriers that were rooted in their cultures. These issues can be broadly classified as:

- Business roles and responsibilities in a male dominated society.
- Fear of failure because of the stigma a particular society places on such an outcome.

- A dominant personality, either male or female, that has difficulty listening to others with empathy.
- The need to save face.

Each of these cultural issues becomes a barrier to the entrepreneurial thought process. Almost paradoxically, achieving consensus appears to accelerate the learning of underlying concepts of entrepreneurship and suggests a practical means for implementation. Throughout this teaching and learning experience, the lead author found that use of the performance excellence criteria presented by both the Malcolm Baldrige Quality Award Program (2006) and the European Foundation for Quality Management (http://www.efqm.org/) were helpful to achieving a consensus process. When combined with the Rapid Assessment Method a systematic approach for focusing on the business case and associated issues appears to de-sensitize the cultural issues and promotes a consensus process.

The performance excellence criteria can be tailored to new business ventures and embedded in the rapid assessment methodology. The result is a quick systematic approach for addressing practices from which the students can learn to address business success behaviors including: leadership, strategic planning, customer and market focus, human resource management, and objective outcomes. Please see Exhibit 1 Part 1: Global Market Development and Competitiveness. When this is done, the group looks at individual behaviors through a less culturally biased filter. This caused individuals to better understand the give and take required to make their business venture successful in a globally competitive arena.

Several beneficial outcomes were observed. First application of the objective performance excellence framework tends to minimize the impact of culture on the business decision making process. Second teaching and learning outcomes were achieved in an accelerated manner. All plans and presentations were judged by external reviewers and all were found to meet or exceed expectations. Third, the plans exhibited a range of quality and received a range of grades. However, there was content in the process as the students' review of instructor performance was outstanding and students claimed to have realized the learning outcomes defined in the course description. Fourth, the performance excellence criteria provided a means for students and faculty to evaluate plans and presentations on an objective basis from the perspectives of a customer, supplier, employee and/or investor. Fifth, reviews appeared to be independent of culture suggesting that this approach helped develop positive learning outcomes.

SUMMARY AND CONCLUSIONS

Experience gained in a multi-cultural environment during a three year period teaching a course in Innovative Entrepreneurship for the Hochschule Bremen's International Master in Business Administration Program is used to suggest an approach that appears to overcome many of

the cross-cultural conflicts when teaching international entrepreneurship. The performance excellence criteria presented by both the Malcolm Baldrige Quality Award Program (2006) and the European Foundation for Quality Management (http://www.efqm.org) provides an objective framework to evaluate business plans for creating new technology-based business ventures. When combined with the rapid assessment methodology, these criteria provide a systematic approach for quickly focusing on the business case and associated issues and appeared to de-sensitize the cultural issues.

The teaching/learning process employed for the class required considerable active participation by students including a team project, individual participation and team involvement as well as the enhancement of presentation skills. Four cultural issues were identified when teaching eleven cross-cultural teams with students from more than ten different countries. In broad terms, these issues were:

- Business roles and responsibilities in a male dominated society.
- Fear of failure because of the stigma a particular society places on such an outcome.
- A dominant personality, either male or female, that has difficulty listening to others with empathy.
- The need to save face.

Three mini-case studies were presented that suggest that the novel approach discussed in this chapter has several important benefits. First, application of the objective performance excellence framework tends to minimize the impact of culture on the business decision making process. Second, teaching and learning outcomes were achieved in an accelerated manner. Third, although the plans exhibited a range of quality and received a range of grades, there was content in the process as the students' claimed to have realized the desired learning outcomes. Fourth, the performance excellence criteria provided a means for students and faculty to evaluate plans and presentations on an objective basis from the perspectives of a customer, supplier, employee and/or investor. Fifth, reviews appeared to be independent of culture suggesting that this approach helped develop positive learning outcomes.

Results of this study suggest that the systematic application of the external performance excellence criteria contributed to transforming a dysfunctional group into a high performance team with outstanding results. Observations also suggest that an individual's leadership position in the group may play a role of importance equal to that of culture. Should this outcome be substantiated through further research it could become an important finding that could have a significant bearing on how international entrepreneurship is both taught in the classroom and practiced in today's global arena. Another significant finding was that women in male dominated societies benefited from having these external criteria as a guide. In the mini case study these benefits appeared to occur when the women adopted either an aggressive or passive posture in the business setting.

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DEVELOPING ENTREPRENEURIAL COMPETENCIES: A STUDENT BUSINESS

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ABSTRACT

Entrepreneurship training requires a non-traditional approach in which students must learn to embrace the challenges of operating in a business environment that favors creativity and risk-taking. Not only must students be exposed to a business education that emphasizes multi-disciplinary skills but they must participate in an "entrepreneurial experience". This paper describes a student business organization's project that provides for an "entrepreneurial experience". The students applied course knowledge, exercised their analytical skills, learned to communicate effectively, utilized their negotiation skills, worked effectively in teams, complied with legal requirements, and utilized creative thought processes to solve business issues. The students experienced new business start-up issues such as writing marketing and business plans, obtaining a business loan, and applying for licenses and permits. The students experienced all aspects of business operations including writing a policy and procedures manual and human resource management manual. Through this "entrepreneurial experience" the students developed entrepreneurial competencies. The manuscript is of special interest to faculty that desire that their students have an actual "entrepreneurial experience". The manuscript describes in detail the process of starting a student-run business and continued operations of the business.

INTRODUCTION

Entrepreneurship and small business has been acknowledged as a fundamental component of economic growth and health. In 2002, there were 22.9 million small businesses and they provided 75 percent of the net new jobs in the economy. Small business entrepreneurial endeavors represent 99.7 percent of all employers and 97 percent of all U. S. exporters (Small Business Administration, 2006). The recognition of small business entrepreneurial significance couple with widespread

dissatisfaction in traditional business programs has spurred tremendous growth in entrepreneurship courses at all levels of post-secondary education (Solomon, Duggy & Tarabishy, 2002). Katz (2003) states that " entrepreneurship education has enjoyed more than 50 years of growth, with accelerated growth in the 1990's, when courses, endowed positions, centers and publications began doubling every 3-5 years."

Entrepreneurship training requires a non-traditional approach to business education that stresses generalized cross-disciplinary skills. In addition students must learn to enthusiastically embrace the challenges of operating in a business environment that favors creativity and risk-taking. Students must experience entrepreneurship to actually grasp the true nature of entrepreneurship. This article describes a student project that not only encompasses the skills and knowledge acquired in the classroom but also incorporates the "entrepreneurial experience".

This article describes a student organization's project which provides for the "entrepreneurial experience". At the core of the start-up and subsequent operation of the business project resides the over-riding goal of developing entrepreneurial competencies. These business start-up activities and continued operations of the business provide the opportunity for students to develop the various competencies and hone their entrepreneurial skills set. The business project provides educational opportunities for the students to exercise, in a real-life environment, their communications, teamwork, analytical, creative, and negotiation competencies in a multi-disciplinary, process-oriented environment. By its very nature, the start-up and the subsequent operations of a business require the use of skills and knowledge from all functional areas of business, providing the multi-disciplinary nature of the project.

The next section briefly surveys the literature that specifically addresses the changing nature of business education and the need to develop an "entrepreneurial culture". The following sections contain the project's learning objectives, descriptions of the applications of the students' skills to the start-up activities and subsequent operations of the newly created business. The conclusion summarizes of the application of the students' skills to the start-up and continued operations of their business.

ENTREPRENEURSHIP EDUCATION

"The characteristics of seeking opportunities, taking risks beyond security, and having the tenacity to push an idea through to reality combine into a special perspective that permeates entrepreneurs. An "entrepreneurial perspective" can be developed in individuals (Kuratko, 2004, updated 2006)." Charney & Libecap (2000) found that entrepreneurship graduates are more likely to start new businesses, have annual incomes that are higher, own more assets, and are more satisfied with their jobs.

Entrepreneurship education is distinctive in that it requires a "generalists" approach versus the more traditional specialized business education programs (Hills, 1988). Plaschka & Welsh

(1990) argue that entrepreneurship education should be "geared toward creativity, multi-disciplinary, process-oriented approaches, and theory-based practical application." Historically, small business management courses were tailored towards post-start-up companies. Hence, traditional approaches focused on knowledge-based courses in areas such as management, accounting and finance. In sharp contrast, entrepreneurship education focuses on new growth ventures (Guglielmino & Klatt, 1993). This approach focuses more on skill-building courses.

The change in emphasis necessitates additional and more broad-based skills or competencies. These competencies include but are not limited to communication (written and oral), creative thinking, leadership, analytical, strategic long-term planning, and teamwork skills. In addition, educators must establish an enterprise culture which fosters entrepreneurial skills (Gibb, 1987, 2002). Students must be able to prosper in the "unstructured and uncertain nature of entrepreneurial environments" (Ronstadt, 1990). Entrepreneurship courses or courses that have entrepreneurial components should develop skill building in the following areas: negotiation, new product development, technological innovation, opportunity recognition, market entry, the legal requirements of new businesses, and the ability to create a linkage from vision to action (McMullan & Long, 1987; Vesper & McMullan, 1987; Johannisson, 1991).

AACSB International - The Association to Advance Collegiate Schools of Business (AACSB) responded to the gap between traditional business programs and entrepreneurship-type education by adding several of the above mentioned skills to the newly added Assurance of Learning (AOL) section of the most recently adopted accrediting standards (AACSB, 2003, revised 1/2006). The Accounting Education Change Commission (AECC) also responded to this gap as evidenced by the publication of Position Statement No. 1: Objectives of Education for Accountants, which contains the above mentioned skills (AECC, 1990). The subsequent offering of financial grants to colleges and universities (Williams, 1992, 1993) for curriculum revision that integrates the entrepreneurial "generalist" skills set provides further evidence of the attempt to bridge the gap between traditional business programs and entrepreneurship education.

Entrepreneurship educators must expand their pedagogies to include new and innovative approaches. Kuratko (2004, updated 2006) states "It has been said that one definition of insanity is doing the same thing and expecting different results. Therefore, the emerging generation of entrepreneurship educators must avoid the paradigm paralysis that has consumed so many business disciplines." Because entrepreneurship education is outside traditional business disciplines and there is no dominant pedagogical model, curriculum experimentation is utilized. However, there are some common elements that have arisen over the past ten years. Solomon, Duffy, & Tarabishy (2002) state that, "Offering student opportunities to "experience" entrepreneurship and small business management is a theme among many entrepreneurial education programs." The creation of business (new venture) plans, case studies, and guest speakers are the most employed in-class pedagogical methods. Pedagogies applied outside the classroom include consultation with practicing entrepreneurs, interviews with entrepreneurs, field trips, internships and cooperative education

opportunities with actual entrepreneurs and student entrepreneurship clubs (Gartner & Vesper, 1994; Coo, 2000). Reality-based pedagogies such as student start-ups have been recommended by many educators (Hills, 1988; Porter & McKibbin, 1988; Truell et al., 1998). Students must have substantive hands-on experience working with community ventures to add value to real ventures (McMullan & Long, 1987).

LEARNING OBJECTIVES

Utilizing their entrepreneurial skills, students operationalized their vision into a real-live, operating business. More specifically, the students achieved the following learning objectives:

- *Students applied knowledge obtained in core business courses to make decisions related to starting the business and subsequently operating the business.*
- *Students applied analytical skills by utilizing real business information and situations to solve problems and make decisions (e.g. analyzing the geographical environment to determine best operating facility).*
- *Students communicated (both orally and in writing) a marketing plan, a business plan and a policies and procedures' manual.*
- *Students orally communicated to and persuaded potential stakeholders (e.g. discussions with University administrators, bank loan officers).*
- *Students utilized negotiation skills to obtain resources (e.g. loan from bank officers).*
- *Students effectively worked in teams to achieve results (e.g. writing the marketing and business plans; staffing the business during operating hours).*
- *Students sought and obtained information about and complied with legal requirements related to their business (e.g. permits and licenses).*
- *Students utilized creative thought processes to solve business issues (e.g. operating logistics).*

PRELIMINARY START-UP ACTIVITIES

The student organization, Students In Free Enterprise (SIFE), persevered through many of the start-up activities required of any other entrepreneur beginning their own business, with additional activities due to the nature of the business location – a university campus. Students In Free Enterprise (SIFE) is a global non-profit organization that is funded by financial contributions from corporations, entrepreneurs, foundations, government agencies and individuals. SIFE is a partnership between business and higher education that establishes student teams on university campuses. SIFE teams develop projects that address SIFE's five educational topics: market economics, success skills, entrepreneurship, financial literacy, and business ethics. The start-up activities include marketing research, the development of both a marketing plan and a business plan, and finally the approval of university administrators.

Marketing Research

Several SIFE students enrolled in a marketing research course during fall 2004 used the requirements of the course as an opportunity to develop their business project idea. The students conducted marketing research with a focus on providing food products on a business school campus at a mid-sized, southeastern United States university. The business school campus, geographically removed from the main University, provided no venue for food with the exception of snack machines.

Students conducted focus groups with follow-up survey questionnaires to their target market. The target market, of course, was business school faculty, staff, students, and administrators. The results of these efforts revealed the desire for a food service providing hot dogs, bratwursts, chips and drinks. Also derived from the marketing research results were prices the target market would be willing to pay for the food. Support for the idea from university officials, validated with both focus group and survey results, provided the energy to implement their business idea into a reality.

Marketing Plan

Subsequent to the marketing research course, several of these same SIFE students enrolled in the marketing strategic planning course. The course provided the avenue for the SIFE members to incorporate their marketing research into a marketing plan, a prelude to the business plan.

The development and writing of the marketing plan required the young entrepreneurs to perform situational and SWOT analyses. They performed an analysis of the environment, the industry, the firm (i.e. the university's SIFE organization), and the firm's current marketing efforts. Highlights of their analyses included the increase in consumer spending on fast food, the affect of increased oil prices on transportation, the level of students' disposable income, and the limited

competition within walking distance of their campus. The SIFE members also analyzed the local SIFE's organizational structure, mission, objectives, financial resources, strengths and weaknesses to determine whether the business idea was a good fit for the local SIFE organization.

The situational analysis provided the foundation for the SWOT analysis. The SIFE members determined their strengths included SIFE's strong on-campus reputation, strategically located facility, quick service, and lower prices. These strengths were matched with the opportunities to provide good service with a customer focus in a convenient location. Identified weaknesses included limited funds and a new business with limited customer awareness. The limited funds weakness would be mitigated with funds from the small business administration and/or a loan from a local financial institution. The limited customer awareness would be mitigated through advertising in the campus newspaper, local media, and the offerings of coupons.

The marketing plan also included sections describing their planned outcomes, marketing strategy with detailed action plans, controls and evaluations, and financial implications for the plan. They identified the need for customer awareness, profitability, and liquidity. Customer awareness would be determined through annual surveys of the target market. Liquidity and profitability objectives would be measured by their ability to pay their debts as they came due and a positive income, respectively

The marketing strategy contained action plans to meet the aforementioned goals and objectives. During this phase, the SIFE members named the business, "Business Bites," and decided on the menu and prices. In addition, they established their operating hours, the location, and the facility that would most effectively meet the needs of their target market. Business Bites would sell hot dogs, bratwursts, chips and drinks between the hours of 10:00 a.m. and 3:00 p.m. from a kiosk. They would strategically position the kiosk between the two main buildings on the business school campus. Initial promotional materials included flyers, press releases, and video commercials as part of their advertising campaign. Finally, the marketing plan contained Business Bites' preliminary financial projections including sales forecasts, detailed cost estimates, and break-even analysis.

Business Plan

The completed marketing plan became the basis for a comprehensive business plan. The business plan followed the format taught and developed in the university's Small Business Development Center's "How to Write a Business Plan" course offered regularly to small business and aspiring small business owners. In addition to the marketing aspects, the business plan discussed the possible competition, management, operational plans, and pro-forma financial projections for running the business. The completed business plan was presented to the appropriate university administrators, namely the business school dean, university attorney and auxiliary services personnel and the university president and vice presidents. Approval from the administrators cleared the first major hurdle into turning Business Bites into a reality.

Originally, the business plan was based on a need for an initial $20,000 in capital investment. This included funds for a new concession kiosk, necessary equipment, and a small amount of working capital. Financial projections in the business plan forecasted annual breakeven sales of almost $29,000.

Additional Start-up Activities

With the plans in place and approval from appropriate university administrators, the SIFE members began implementing their plans. Financing Business Bites became the next major hurdle to opening Business Bites. As with most start-up enterprises, SIFE believed it could actually begin operations with less than the $20,000 projected in the business plan. SIFE located a good secondhand kiosk. In fact, it was decided that operations could begin with as little as $10,000. The SIFE members presented their business plan to the loan officers of a local bank. Subsequent to the presentation, a $7,500 loan was approved (signed by SIFE's president and vice-president) with an agreement to make monthly payments for the duration of the loan. The local SIFE team provided the extra $2,500.

The SIFE members faced many decision points prior to opening their kiosk windows. With the loan funds, SIFE members purchased the kiosk and delivered it to the physical location. They worked as a team to coordinate efforts with the university plant operations department to have the water, gas and electrical lines run to the kiosk. The university covered the cost of installing these lines. Research provided the basis for the selection of equipment (e.g. refrigerator, stove) and food vendors while maintaining their budget. They also researched and complied with health department requirements for serving food with the follow-up inspection of their facilities. Business Bites carries liability insurance including the required extended liability coverage for food.

Advertising commenced with the distribution of flyers across the university campus, focusing on the business school campus. Faculty received flyers to announce the grand opening in each of their classes. Video commercials appeared on a local television station and press releases went out to the university newspaper. Food was purchased and the windows opened; it was time for the grand opening!

GRAND OPENING & SUBSEQUENT OPERATIONS

In April 2005, Business Bites became a reality. With the local news media and a huge gathering of Business Bites' soon-to-be customer base, the local Chamber of Commerce arrived with the Grand Opening ribbon-cutting scissors. Business Bites officially opened and is still a continuing business.

A paid SIFE-member manager and volunteer SIFE members operate Business Bites, with the SIFE Leadership Team of students serving as an oversight board. The volunteer SIFE members

earn SIFE hours for working at Business Bites. Ultimately, complete responsibility for the overall operations, including but not limited to, staffing, purchasing food, ensuring adequate inventory and supplies, counting the daily cash receipts, and maintaining agreed-upon operating hours resides with the manager. However, as employees begin and work their shift, they check inventory levels, ensure the cleanliness of the facility, and maintain responsibility for cash receipts. The faculty advisor maintains responsibility for cash payments.

The SIFE members that work at Business Bites continue to implement the entrepreneurial skills utilized during the development of the business. Semi-annually, SIFE conducts surveys of their target market to ensure satisfaction and additional needs. This process made Business Bites aware of the desire for additional and different types of food. As a result, the team negotiated a business relationship with a local restaurant to provide Business Bites with chicken salad, tuna salad, and barbecue sandwiches. Additional menu additions identified through the survey process included breakfast with coffee and the expansion of their current operating hours. The large proportion of evening students arriving on the business campus after working have expressed an interest in evening hours.

Business Bites students face varying degrees of risk. Although the students do not put at-risk any of their own personal savings, they did place SIFE funds ($2,500) at-risk. SIFE funds are raised through various fund-raising projects such as golf tournaments. SIFE members forgo the opportunity to earn personal income from part-time employment in the local community. SIFE students are willing to take this risk given the opportunity to gain a greater return on their time investment and to gain an entrepreneurial experience. The students do place at-risk Business Bites funds invested in adding additional capital such as debit and Flex card technology, coffee equipment, and other capital deemed necessary by consumer surveys for the long-run success of the business.

As an epilogue, Business Bites sustained a net loss of $2,400 in its first year of operation. However, this loss was the result of writing-off the cost of the start-up activities, including the cost of the equipment. In its second year of operation, Business Bites has become marginally profitable earning approximately six percent rate of return.

LEARNING OUTCOMES

Several opportunities arose during the business start-up and subsequent operating of their business to exercise analytical, communication, negotiation, teamwork and creativity skills. Given the nature of the project (SIFE project and non-classroom) and with the exception of communications' assessments (discussed below), traditional classroom assessments of the outcomes were replaced by the students' abilities to apply their entrepreneurial competencies to achieve the start-up activities and ultimately get a business "up and running."

The young entrepreneurs' analytical and creative skills were tested from the very beginning and at every turn. They faced and made decisions about the contents of (1) their idea presentations

to administrators and bank loan officers, (2) the marketing plan, and (3) the business plan. Marketing research revealed additional issues to be resolved. Surveying to identify the food demands, best times to operate, products' sales prices, administering the survey, obtaining and analyzing the survey results, analyzing their strengths and weakness, and analyzing opportunities and threats all had to be addressed. The overall business plan highlighted the necessity to analyze and make additional decisions related to, among other decisions, the operating facility and location, selecting equipment, food and supplies' vendors. In the final phase, before approaching the bank loan officers, students put their skills to work when determining and assessing their capital needs. Sales and costs forecasts provided the basis for creating projected financial statements, budgets, breakeven point, operating profits, and start-up capital needs.

The students experienced the necessity of good oral communications skills as they approached university administrators for approval of their business idea. This same skill set in addition to their written business plan proved beneficial as they approached bank officials with their loan proposal (written business plan and formal presentation of their business plan). The students experienced less formal oral communications exercises as they approached potential vendors and sought feedback from potential customers. The major written experiences occurred during the writing of the marketing and business plans. Communications opportunities continue to arise as they communicate with vendors, suppliers, and university officials.

Both oral and written communication skills were covered in their marketing research and marketing strategic planning courses. With respect to oral communication skills, both courses stressed the ability to talk in public without overt signs of nervousness or distress, to think on one's feet and to professionally address a question or concern, to clearly communicate with an audience, to engage an audience in a formal presentation, to summarize a large amount of information into a clear and well organized presentation, to use technology to enhance a presentation and to demonstrate professionalism. These skills were discussed in both courses and the students' presentations were graded based on the successful illustration of these skills. A similar skill set was needed in preparing their written business plan including the ability to write clearly, to conduct quality primary and secondary research, to illustrate application of their knowledge, communicate professionally and to be both interesting and well organized in their writing. The creation of an effective written document was covered in both courses through the use of handouts(such as one describing presentation, grammar, and content issues that students needed to address in writing papers), the syllabi, and the requirement to submit written work in several drafts so improvements could be made before the final paper was submitted.

The students found that the entrepreneurial skills required to start the business extend into the operating activities of the business. For example, Business Bite's officers exercise analytical skills and risk-taking as they evaluate inventory and sales to determine re-order points and additional menu items. Staffing also provides an outlet for exercising analytical skills, as Business Bites is staffed with SIFE members whose schedules vary during the day and change each semester. The

manager's tenure spans for a one-year period and the duration of an employee's is at least one semester. As a new manager annually takes over, they run the risk of a business failure or an inability to open due to lack of personnel or new health code regulations. Additional risks includes the inability to meet the demand of requested foods either because they run out of food or their current supply of products do not match "new" demands of the customers.

Current issues facing the officers include: operating hours and whether to service the "nontraditional, working, evening student" population; whether to add alternatives to the cash-only payment method; compliance with new health code regulations and a new health inspector; and developing an accounting information system and internal control structure. Finally, the current management of Business Bites is evaluating the cost and benefits of adding debit and Flex card technology.

CONCLUSIONS

Students demonstrated entrepreneurial competencies throughout the entire process, beginning with the broad vision of operating a business, experiencing the start-up activities and culminating in the day-to-day operating of a productive and profitable business. "Entrepreneurship is more than the mere creation of business….entrepreneurship is an integrated concept that permeates an individual's business in an innovative manner (Kuratko, 2005)." **O**perating Business Bites provides SIFE students with the opportunity to exercise their entrepreneurial skills in a variety of areas including analytical, communication, negotiation, marketing, human resource management, and operations. The described students' "entrepreneurial experience" provided for a continuing, on-going mechanism to enhance the entrepreneurial skill set in an academic environment.

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EXPERIENTIAL ENTREPRENEURSHIP IN THE CLASSROOM: EFFECTS OF TEACHING METHODS ON ENTREPRENEURIAL CAREER CHOICE INTENTIONS

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ABSTRACT

In recent years experiential courses have become increasingly popular. Yet to date very few studies have examined what the impact of these studies have on students' intentions to become an entrepreneur. This study examines the differences in various pedagogical approaches to entrepreneurship on career choice intentions. The study indicates that there are significant differences in these approaches' impact on entrepreneurship students' decision to become an entrepreneur and significant differences in whether the impact is positive or negative. Data was gathered from 98 students in a large Midwest University.

INTRODUCTION

While discussing entrepreneurship education, Donald F. Kuratko has stated that "unless students go to bed at night and feel their spines sweat, they [will] never know what it feels like to be an entrepreneur" (Kuratoko, 2003). While it may not be possible or necessary to have their students feel their spines sweat, many instructors have experienced the challenges of trying to convey the entrepreneurial experience in the classroom. Some have compared teaching entrepreneurship without the experiential process to teaching someone to swim without a pool. The fundamentals can be taught, but the individual will not really know what it's like to swim until the person dives into the pool and begins to swim. If one has only been taught on land, then they will not likely have much confidence in their attempt to swim. Similarly, many students are entering their careers with only the fundamentals that were taught on "dry land." In recent years, increasing numbers of universities have begun to add experiential based programs. While not all of these programs involve the actual creation of a new venture, many involve experiential activities such as networking, business plan creation and dialogue with other entrepreneurs and venture capitalists.

This study addresses several research questions, among them: Do experientially based activities have a greater impact on decisions to become entrepreneurs and, second, is the impact

positive or negative? Additionally, the study examines the relationship between items that impact on the decision to become an entrepreneur and if that impact is positive or negative.

Much of the early research in entrepreneurship examined traits and characteristics of the entrepreneur with the belief that there were some defining characteristics that could help identify and predict entrepreneurial success. The trait approach has been widely criticized because of the difficulty of trying to characterize homogenous personality traits of a heterogeneous group of individuals. Some have argued that entrepreneurship should be viewed as a process rather than a set of traits that define entrepreneurs. Gartner (1989) suggested that the process in which entrepreneurs engage is what makes them unique, articulating that even if someone has all the required entrepreneurial traits, the person may not become an entrepreneur. Gartner argued it is the start up of a new venture that makes someone an entrepreneur. If one were to apply the process view to education, then focus in the classroom should be on the steps individuals take in setting up a business such as networking and writing business plans. Recent surveys on the methods used in teaching entrepreneurship indicate that few actually go though the steps and processes required in starting a new venture. In other words, many entrepreneurship students seem to be learning by reading and listening, not doing.

ENTREPRENEURSHIP EDUCATION

It is widely argued that entrepreneurial education started in 1947 at Harvard University with a single course. In the mid-1980s, entrepreneurship became more popular with many programs offering entrepreneurship tracks and some majors for MBA and undergraduate students.

Much of the focus in entrepreneurship education has been on developing a business plan (Ronstadt, 1985), although many entrepreneurship courses include activities such as visits from experts, case studies and special projects related to the development of a business, including some limited hands-on approaches (Gorman, Hanlon, & King, 1997; Vesper & McMullan, 1988). The most common approach used by universities is the creation of business plans. Yet, there is little research that indicates that the creation of a business plan is an effective approach to teaching entrepreneurship. To date, there is not much research describing the impact or effectiveness of different methodologies for teaching entrepreneurship (Winslow, Solomon & Tarabishy, 1999). Honig (2004) argued "…neither the teaching of business plans, nor the plans themselves, are sufficiently justified on the basis of theoretical or empirical literature." This study takes a first step in examining the impact of various pedagogical approaches for teaching entrepreneurship.

EXPERIENTIAL LEARNING

The process of learning, by individuals or organizations, is complex and has no one definition. Brookfield (1984) described learning as the process of acquiring skills and knowledge.

Kolb (1984) described learning as "the process whereby knowledge is created through the transformation of experience." Experiential learning is any knowledge gained through experience. Experiential learning actually occurs when students engage in some activity, reflect upon the activity, derive insight from the analysis, and incorporate the result through a change in understanding (Kolb, 1984).

The most widely recognized theory of experiential learning is Kolb's Experiential Learning Theory (ELT). The literature on ELT is extensive; simply stated, Kolb describes the process of experiential learning as one where the individual uses his or her experience to transform activities into knowledge and development (Kolb, 1984; Torbert, 1972). Advocates of experiential learning argue that individuals can learn better by doing. Lewis & Williams (1994) suggest that experiential learning is taking a more prominent role in education; it is not always the case in entrepreneurship.

The most frequently used pedagogical approach is the writing of a business plan. Hills (1988) surveyed entrepreneurship educators and found writing a business plan was identified as being the most important feature of entrepreneurship courses, although some have questioned the effectiveness of using the business plan as the primarily learning tool (Honig, 2004). As a result of these doubts, educators have changed coursework to make courses more practical and experiential in nature. Peterman & Kennedy (2003) found practical programs that provide real-world experience seem useful in enhancing intentions of entrepreneurs. Their study examined high school students and the effects of practical approach compared to more traditional approaches.

Although having students write a business plan has benefits, one problem associated with just using a business plan approach is the lack of consistency in performance-related results associated with planning. Specifically, researchers disagree about the relationship between planning and performance. Two studies (Bracker, Keats, & Pearson, 1998; Schwenk & Shraeder, 1993) found a positive relationship between planning and profitability in terms of growth and performance; however, other studies found a negative, or lack of relationship, between business plans and profitability (Boyd, 1991; Robinson, 1979; Robinson & Pearce, 1984). There is not only disagreement about the relationship between planning and performance, but there is also little evidence about the learning effectiveness of a business plan.

THE CALL FOR EXPERIENTIAL LEARNING

Winslow, Solomon and Tarabishy (1999) provide an extensive survey of the pedagogical approaches used in entrepreneurship classrooms. Of the 209 institutions that responded to the survey, none reported starting a business as part of the curriculum. Additionally, authors did not examine the impact of these pedagogical approaches.

Educators increased use of experiential learning in the classroom reflects a desire to move away from traditional teaching methods such as text and lectures, particularly given the challenges of trying to create a real experience in entrepreneurship. This study examines the role of

entrepreneurial activities in the classroom and their impact on students' intentions to become an entrepreneur.

RESEARCH QUESTIONS

This paper addresses several research questions: What type of pedagogical approach has the most impact on the nascent entrepreneur's decision to start a new venture? Is the impact positive or negative? Thus, which approaches in entrepreneurship are effective in helping students to answer the question of whether or not they should consider entrepreneurship as a career choice? An examination of the literature seems to reflect that, although there are many commonalities in approaches, i.e., business plan and texts, there seems to be little evidence of the impact of these approaches.

HYPOTHESES

Educators should attempt to help prepare students for the endeavors they will undertake. Experiential learning is used in various parts of the curriculum, but may be particularly beneficial for preparing entrepreneurs. "Experience is often synonymous with emotions and their deeper meaning" (Kayes, 2002).

The experiential activities involve processes of getting out in the community and engaging in the activities that are likely to have a greater impact than activities such as reading. Activities such as networking and interviewing entrepreneurs develop real relationships which will likely influence the decision to become an entrepreneur. Unlike reading, the experiential activities involve actively participating in the learning and should lead to an increased impact on the decision to become an entrepreneur. This belief is reflected in hypotheses 1.

H1: Experiential approaches will have a greater impact on the student's decision to become an entrepreneur than reading activities.

It is further predicted that experiential approaches will have a greater impact than listening/watching approaches. Listening to or watching someone does not necessarily have the same effect as truly experiential activities. There is little or no relationship building and no significant consequences of the experience. For these reasons, it is predicted that experiential approaches in entrepreneurship will have a greater impact than listening/ watching, which is reflected in hypothesis 2.

H2: Experiential approaches will have a greater impact on the students' decision to become an entrepreneur than listening/watching activities.

Although it is predicted that experiential activities will have a greater impact than listening/watching activities, it is further predicted that listening/watching activities would have a greater impact than reading. Listening to others describing their experiences gives the student a sense of what entrepreneurship is really like. Guest speakers may include entrepreneurs, lawyers and accountants who can give a first hand view of the real world of entrepreneurship. The student also has a chance to interact with the speakers through a question and answer session. Additionally, with a first hand account, the individual presenting the information may convey a sense of passion that is not reflected in written form. Based on these ideas, it is predicted that the listening/watching activities will have a greater impact on the decision to become an entrepreneur. This idea is reflected in hypothesis 3.

H3: Listening/Watching approaches will have a greater impact on the students' decision to become an entrepreneur than reading activities.

HYPOTHESES RELATED TO INTEREST

Textual depictions of entrepreneurship cannot convey passion in the same sense as an interaction with a person. The written word does not carry the same weight as shaking hands with and exchanging business cards with a successful entrepreneur. Experiential activities give students the opportunity to actually get a better preview of what it is to be an entrepreneur. These experiences may be positive or negative, but in general should increase interest in becoming an entrepreneur when compared to reading about entrepreneurship. This is predicted because, in general, when someone is allowed to actively participate in an activity, it will lead to more interest. This prediction is reflected in hypothesis 4.

H4: Experiential approaches will lead to a greater interest in becoming an entrepreneur than reading activities.

In the same sense as predicted above, it is further predicted that experiential activities will make students more interested in starting a business than listening or watching activities. The latter activities which are often delivered asymmetrically do not have the same effect as the more experiential type activities. Experiential approaches allow students to get their hands around a concept and reflect on it. They allow a more in-depth feel to the learning experience. If a student can truly relate to what the entrepreneurial experience is like, it is predicted that experience will lead them to be more interested in becoming an entrepreneur. This belief is reflected in hypothesis 5.

H5: Experiential approaches will lead to a greater interest in becoming an entrepreneur than listening/watching activities.

The verbal approaches are different from the written. Using a verbal approach, students can often relate to a real person. Often times the experiences are neutral or even negative. However, a guest speaker or an instructor relaying personal experience gives the students a feel for what entrepreneurship is like, which is often exciting. It is predicted that verbal approaches will lead to a greater interest in becoming an entrepreneur than reading.

H6: Listening/watching approaches will lead to a greater interest in becoming an entrepreneur than reading activities.

In addition to examining the differences between experiential and other approaches, this study seeks to answer if there is a positive relationship between those activities that are considered high impact and how positive or negative the impact is. In other words, do the items that the students rank as having a high impact on the decision to become an entrepreneur persuade or dissuade students from wanting to become entrepreneurs? Peterman and Kennedy (2003) found that positive entrepreneurial experiences were related to higher desirability of starting a business. So it is important to determine if there is a relationship between activities that have a high impact on the decision to be an entrepreneur and if those activities are positive or negative. It is predicted that those activities that have a high impact on student decisions to become entrepreneurs will likely be perceived as positive. This belief is reflected in hypothesis 7.

H7: The relationship between the impact of an activity and the students' interest will be positive.

METHODOLOGY

Students at a large Midwest University were required to take part in one of eighteen entrepreneurial activities (which can be found on Table 1). At the end of the semester the students were surveyed about the relative impact the activities had on their decision to become an entrepreneur and if it made them more or less interested in becoming an entrepreneur. Not all of the students engaged in each of the activities, but most did participate in a wide variety of entrepreneurial experiences. The students were told that the purpose of the survey was to get feedback about the course and their attitudes toward entrepreneurship; the students were not required to participate in the study.

SURVEY

The classroom experiences in which the students engaged are listed below. The students were asked how much of an impact the activities below had on the decision to become and entrepreneur and if these activities made them more or less interested in becoming an entrepreneur.

Two of the questions that were on the survey (questions 1 and 2) involve activities that occurred prior to the class.

Table 1: Pedagogical Experiences Measured For the Entrepreneurship Students

(1) previous experience in an entrepreneur family
(2 previous experience starting a business
(3 "lessons from the firing line" readings about entrepreneurs
(4) textbook presentations about entrepreneurship
(5) reading business plans written by peer students
(6) hearing presentations by practicing entrepreneurs
(7) participating in a venture forum with entrepreneurs venture capitalists and service providers
(8) hearing the instructor's experiences as a small business owner/operator
(9) interviewing a practicing entrepreneur
(10) preparing a business plan more than three employees
(11) talking to other students about their entrepreneurial intentions
(12) examining websites dedicated to entrepreneurship
(13) reading about entrepreneurs in the current news
(14) reading about entrepreneurs in history
(15) seeing videos about entrepreneurs
(16) reading about the Small Business Administration
(17) writing a self-employment plan and
(18) exchanging business cards with entrepreneurs vc's, angel investors and service providers.

RESULTS - DESCRIPTIVE

An examination of the data reveals some interesting information about what is being taught in university entrepreneurship programs. Table 2 shows some of the results of the survey with the experience ranked by the student's perception of whether it provided a realistic preview of entrepreneurship. The students indicated that interaction with entrepreneurs, either as guest speakers or through interviews, as well as business plan preparation and self-employment plans, provided a good preview of entrepreneurship. Counterintuitive to expectations, prior experience as an entrepreneur was ranked near the bottom of the list with respect to realism. A likely explanation for this result is that many of the businesses started prior to or during college do not reflect the scope and magnitude of the business discussed and planned for in an entrepreneurship course.

Factor analysis was run to examine the impact that each of the activities had on the students' perceptions of entrepreneurship. Specifically, the students were asked to evaluate each of the above 18 projects on the question "Did these activities have an impact on whether or not you would want to start a business?" The latent variables were derived by partitioning the activities into categories, either reading, watching or doing (experiential).

Initially, three constructs were measured (reading, listening/watching, and doing) with prior business and family experience excluded because they occurred prior to class. In the initial examination, the measurement variables loaded reasonably well; however, writing a business plan

did not load well with the experiential constructs. A fourth construct (true experience) was created to reflect the more experiential nature of prior experience, family history and business plan writing. The measurement variables that remained in the experiential construct were more networking in nature. The analysis showed that each of the factors loaded well and they are reflected in Table 3.

Table 2: Percent Indicating Activity Provided Realistic Preview and the Impact

	Activity	Percent indicating activity provided a realistic preview of entrepreneurship?	Did the project have an impact on your decision to become an entrepreneur?	Did the experience make you more or less likely to become an entrepreneur?
1	Interviewing An Entrepreneur	98%	5.48	5.35
2	Self Employment Plan	97%	5.54	5.69
3	Guest Speaker	95%	5.22	5.16
4	Preparing a Business Plan	93%	5.86	5.21
5	Listening to Instructor about Ent.	92%	4.43	4.29
6	Working With SBA	87%	4.70	4.91
7	Family had Business	81%	5.11	5.40
8	Read Articles on Ent.	79%	4.06	4.29
9	Reading Other Business Plans	76%	3.91	4.32
10	Watching Video About Ent.	75%	4.12	4.50
11	Reading an Entrepreneurship Text	70%	3.82	4.04
12	Going to Ent. Websites	70%	4.26	4.39
13	Reading Newspaper Articles about Ent.	70%	4.18	4.54
14	Go to forum on Ent.	68%	3.88	4.21
15	Prior Experience as Entrepreneur	68%	5.77	5.59
16	Exchanging Business Cards With Ent.	67%	4.29	4.65
17	Reading Book on Entrepreneurship	64%	3.88	4.34

HYPOTHESES TESTING

The scores for each of the variables were summed and compared using t-tests. Each group was compared to see if the results on impact and interest varied between the experiential, reading, listening and watching. The findings indicate that there are significant differences between the groups among the pedagogical approaches in both the impact and the interest in becoming an entrepreneur. Table 1 shows the means and differences for the populations examined.

In order to test the differences in the groups, the means between the groupings were compared for the question "Did the activity have an impact on your intention to start a business and did it make you more or less likely to want to start a business?" They were measured on a one to seven scale where one indicated that there was no impact in their decision to become an entrepreneur and seven indicated a significant impact. Likewise, the question of whether the activity made the person more or less interested in becoming an entrepreneur was measured on a one to seven scale with one indicating the person was much less likely and seven much more likely to become an

entrepreneur. Table 4 shows the average scores for each of the groupings and Table 5 reveals the differences in these groupings. There were significant differences in the means for many of the activities as is reflected in hypotheses tested as shown in Table 5.

Table 3: Factor Loadings of Observed Variables

			Estimate	Standard Error	Critical Ratio	P	Standardized Estimate
Read Book	←	Reading	1.00				0.788
News	←	Reading	0.79	0.15	5.40	***	0.774
Read Web	←	Reading	0.78	0.16	4.99	***	0.789
Read Bus.	←	Reading	0.80	0.18	4.39	***	0.586
Read Text	←	Reading	0.70	0.18	3.96	***	0.581
Read Articles	←	Reading	0.85	0.17	5.03	***	0.728
Read SBA Info	←	Reading	0.40	0.22	1.85	0.064	0.402
Video	←	Watching	1.00				0.705
Instructor Personal	←	Watching	0.82	0.17	4.97	***	0.668
Guest Speaker	←	Watching	0.90	0.17	5.38	***	0.754
Self Emp. Plan	←	Doing	1.00				0.565
Network Students	←	Doing	1.14	0.45	2.56	0.01	0.517
Interview Ent.	←	Doing	1.42	0.45	3.19	0.001	0.687
Attend Forum	←	Doing	1.72	0.62	2.76	0.006	0.619
Exchange Bus Cards	←	Doing	1.47	0.57	2.60	0.009	0.589
Write Business Plan	←	True Exp	1.00				0.897
Prior Family Exp	←	True Exp	0.60	0.30	1.98	0.047	0.418
Prior Business Exp	←	True Exp	0.73	0.30	2.45	0.014	0.786

* Bagozzi and Yi suggest that Factor loadings greater than 0.60 establish convergent validity

Table 4: Average Responses for the Impact and Intentions for Starting a Business

	Indicate the impact the activity had on your decision to become an entrepreneur? 1 = No Impact 7 = Significant Impact	Did the activity make you more or less likely to become an entrepreneur? 1 = Much Less Likely 7 = Much More Likely
Reading	3.93	4.29
Listening/Watching	4.75	4.71
Experiential	4.74	4.87

Table 5: Differences in Pedagogical Approaches

Differences in Pedagogical Approaches for *Impact of Each Activity*

		N	Differences on Impact	Significance	
Difference Between	Experiential and Reading	98	0.81	0.00	H1*
	Experiential and Watching	98	-0.01	0.90	H2
	Watching and Reading	98	0.83	0.00	H3*

Differences in Pedagogical Approaches for *Interest in Becoming an Entreprenuer*

			Differences on Interest	Significance	
Difference Between	Experiential and Reading	98	0.57	0.00	H4*
	Experiential and Watching	98	0.15	0.19	H5
	Watching and Reading	98	0.42	0.00	H6*

H1: Experiential approaches will have a greater impact on the students' decision to become an entrepreneur than reading activities.

Hypothesis 1 predicted that there would be significant differences between experiential and reading. The findings indicate that there are significant differences between experiential and reading $t(98) = -6.762$, $p = .00$, confirming hypothesis 1.

H2: Experiential approaches will have a greater impact on the students' decision to become an entrepreneur than listening/watching activities.

The differences between experiential and verbal were not significant $t(98) = .121$, $p = .90$. Part of the explanation for this finding is that the listening/watching component included guest speakers who on occasion may have had a strong message that created a high impact on the decision to become an entrepreneur.

H3: Listening/Watching approaches will have a greater impact on the students' decision to become an entrepreneur than reading activities.

Hypothesis 3 predicted that there would be significant differences in the impact on students between listening/watching and reading. As predicted, there were significant differences between verbal and reading $t(98) = -7.219$, $p = .00$. The inclusion of guest speakers and the instructor's version of entrepreneurship likely had powerful impacts on the students' perceptions.

This study also tested to see if the experiences influenced *how* interested they were in becoming an entrepreneur. The specific question that was asked in the survey is "Did the experience make you more or less likely to want to start a business?" The expectation that experiential learning would have a greater impact is reflected in hypothesis 4:

H4: Experiential approaches will lead to a greater interest in becoming an entrepreneur than reading activities.

Using a comparison of the means between the groups, the findings indicate that there are significant differences between experiential and reading $t(98) = -6.216$, $p = .00$ in the interest in becoming an entrepreneur.

H5: Experiential approaches will lead to a greater interest in becoming an entrepreneur than listening/watching activities.

Contrary to what was predicted, there were not significant differences between experiential and verbal $t(98) = -1.323$, $p = .19$. The experiential activities rated higher by students for their interest in becoming entrepreneurs (mean score of 4.87 for experiential versus 4.71 for listening/watching), however the results were not statistically significant.

H6: Listening/watching approaches will lead to a greater interest in becoming an entrepreneur than reading activities.

The findings indicate that there are significant differences between verbal and reading $t(98) = -3.947$, $p = .000$ in the interest in becoming an entrepreneur. The results seem to indicate that experiential approaches have more impact than reading and generate more interest than both reading and verbal approaches.

The relationship between high impact activities and interest was measured in hypothesis 7:

H7: *High impact activities will be positively related to the decision to become an entrepreneur.*

This hypothesis was tested by using Pearson correlation to see if those activities that students indicated had a high impact on their decision to become an entrepreneur made them more ($r = .627$) or less likely to choose an entrepreneurial career. This study found there was a very positive relationship between high impact activities and interest in becoming an entrepreneur, indicating that those activities that influence students the most make them more likely to become entrepreneurs.

DISCUSSION: IMPLICATIONS FOR THE CLASSROOM

It is important for educators to continuously improve their methods and teaching styles. In order to accomplish this, we must assess the effectiveness of the pedagogical approaches. This study has shown that if one wants to encourage students to be entrepreneurs, then traditional approaches

are not as effective as experiential approaches. These findings may reflect the uniqueness of entrepreneurship courses which intuitively would seem to require more hands-on work. These findings should not be interpreted to say that the use of a textbook should be dropped; rather educators should be encouraged to augment course work with more experiential approaches if the goal is to educate and promote future entrepreneurs.

This study has shown that activities that are more experiential in nature have a greater impact on the decision to become an entrepreneur and that the activities make the students more interested in becoming an entrepreneur. These findings provide evidence for those wanting to include more experiential-based methods in the classroom. This study provides evidence that an experiential approach to entrepreneurship is positively related to interest in new venture start up, which may alleviate the fear of some that giving the students real hands-on experiences may lessen their desire to become entrepreneurs. On the contrary, this study shows the opposite, perhaps indicating that instructors should be encouraged to adopt more experiential-based learning.

The fact that experiential approaches tend to have more impact and create more interest is positive for the experiential learning argument. The activities not only provide hands-on experiences, but the activities do not discourage entrepreneurial ventures. One of the more astounding findings was that one of the primary approaches used in entrepreneurship courses, reading the textbook, had one of the smallest impacts on the desire to become an entrepreneur and the impact was not very positive.

It is important to recognize that traditional approaches such as reading the text have little impact on the decision about entrepreneurship as a career, *and* these approaches make students less interested in becoming an entrepreneur, which would seem to defeat the goals of an entrepreneurship course. The experiential approach also tended to give the students a more realistic preview of being an entrepreneur, which is important giving the findings from Sherman, Digman, Sebora and Hansen (2006) who found that giving a realistic preview of entrepreneurship may help nascent entrepreneurs make better decisions when evaluating opportunities. This study should encourage greater use of verbal and experiential learning in entrepreneurship courses, including the actual start up of new ventures, but not the elimination of more traditional approaches.

LIMITATIONS

As with any study, there were several limitations. Not every student was exposed to the same treatment. The study was conducted over several years, so the guest speakers and other course aspects varied throughout the study. Additionally, some treatments were more intensive than others. Specifically, one would expect the impact of writing a business plan vs. watching a video to be different given depth and complexity of the assignment, but the overall evidence supports the notion that experiential activities are positively related to interest in becoming an entrepreneur and these activities have a higher impact on the decision to become an entrepreneur.

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IS NON-TRADITIONAL ENTREPRENEURSHIP TRAINING HELPFUL TO NASCENT ENTREPRENEURS? YES AND NO.

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ABSTRACT

Scholars and practitioners have argued whether or not entrepreneurship can be taught. One camp insists entrepreneurship is teachable while the other remains skeptical. While we take the side with the camp that insists entrepreneurship is teachable, we question whether the non-traditional programs are serving their purpose. In this study, the effectiveness of the non-traditional entrepreneurship training programs is evaluated based on a database which surveyed randomly selected nascent entrepreneurs across the nation (n=830). The results suggest that these programs provide valuable information and guidance for nascent entrepreneurs. However, the results also indicate that sponsoring agencies need to focus more towards promoting these programs.

INTRODUCTION

Entrepreneurs are important to the economy of a country and the world (McDaniel & Sharpe, 2002). A significant portion of all new jobs in the 1970's and 1980's were created by new organizations (Timmons, 1992). Among numerous factors that lead to new organizational creation, an entrepreneurship education and training program is crucial. Training is critical for preparing people to start their own businesses (McGinty, 1998). Training entrepreneurs who may develop successful and innovative businesses can even lead to better economic transition (Wan, 1988).

Two main educational forces in entrepreneurship training programs exist to serve different audiences. Traditional programs serve the college students in typical business school settings. Non-traditional programs accommodate those individuals starting their new businesses as they seek assistance in more focused and practical ways. Traditional programs were subject to studies and analysis resulting in abundant scholarly publications (Bechard & Gregoire, 2005; Soloman & Fernald, 1991). However, the non-traditional programs deserve close attention. Despite the millions of dollars of investments made by various government agencies, universities and other business associations, evaluation studies of non-traditional program effectiveness have been scarce thus far. In addition, evaluations of many training programs have generated a vast number of debates, where 'teachability' of entrepreneurship has stood out. One group argues that entrepreneurship is more of a personality trait hence it is not teachable (Ede, Calcich & Panigrahi, 1998), while the other group

proposes that training programs change potential entrepreneurs' mindsets, which in turn encourage them to undertake the entrepreneurial endeavor (Curran & Stanworth, 1989).

In this article, we attempt to evaluate the effectiveness of non-traditional programs and also add new insights towards the entrepreneurship teachability debate. We aim to make contributions in the following areas. First, we provide a better picture of how the public money has been used by non-traditional training programs. Second, we suggest how to improve these programs. Third, we help to reconcile the two streams of research on whether entrepreneurship is teachable.

NON-TRADITIONAL TRAINING PROGRAMS

Various levels of government, universities, and business associations offer non-credit workshops, seminars and classes to audiences who are interested in starting their own businesses (Soloman & Fernald, 1991). At the government level, the Small Business Administration (SBA) offers seminars through its main agencies, such as the Small Business Development Center (SBDC) and the Service Corps of Retired Executives (SCORE). These agencies provide workshops detailing fundamental business concepts such as how to obtain loans, deal with legal issues, and develop business plans. For example, SCORE Chapter 28 in the Milwaukee metropolitan area organizes monthly business workshops on business planning, marketing, and financing.

Universities also grasp their shares in non-traditional settings. For instance, the University of Wisconsin at Madison sponsors a training program called "Agricultural Entrepreneur Training." This program intends to support nascent entrepreneurs who are hoping to realize their dreams by starting their own business in the agricultural areas. Participants obtain basic skills in business planning, marketing research, and financial management. Various business associations also participate in the growing entrepreneurship training scheme. The Hmong Association of Wisconsin sponsors biannual workshops for its clients, providing the basic business management skills. In addition, invited speakers, such as local politicians and successful minority entrepreneurs, share their experiences at such workshops.

Most of these non-traditional programs are free or charge only a token fee. The Agricultural Entrepreneur Training workshop charges a $1,000 fee for a total of ten sessions. However, the Wisconsin Department of Commerce contributes $750 if the participant completes the business plan on time. Other recent examples include the SBDC of the University of Wisconsin-Milwaukee charging a mere $10 fee for the three hour seminar. The Hmong Association even complements free seminars with free lunch.

LITERATURE REVIEW AND RESEARCH QUESTIONS

Numerous government agencies and other non-profit organizations have exhausted millions of dollars for training entrepreneurs while the teachability debate continues. One group of scholars

has focused on insufficient entrepreneurial characteristics in people rather than training program effectiveness. Zinger, LeBrasseur and Zanibbi (2001) argue that an entrepreneur's overconfidence often serves as an obstacle to his/her seeking assistance from training programs. Such scholars believe that entrepreneurship is about personality traits and therefore, it is not teachable (Ede, Calcich & Panigrahi, 1998). "You cannot teach drive or initiative or ingenuity. You cannot teach a mindset or a personality," (Sudikoff, 1994, p. 24). It is believed that those traits are inborn and training does not assist entrepreneurs in achieving their goals. Entrepreneurs are often so confident about their own abilities that they rely on themselves for venturing instead of getting help from certain sponsored training programs (Zinger, LeBrasseur & Zanibbi, 2001).

Conversely, other researchers have argued that training and education programs play a major role in developing entrepreneurship in people (Garavan & O'Cinneide, 1994). The training programs may not lead to direct performance, however, they strengthen the entrepreneurial capabilities (Zinger, LeBrasseur & Zanibbi, 2001). Further more, entrepreneurship training programs serve as a socialization process (Curran & Stanworth, 1989). They support by inculcating nascent entrepreneurs' psychological mindsets encouraging participants to take further action. Entrepreneurship is full of uncertainty, and risks. The training programs help the participants to reduce anxiety by providing valuable resources, such as information regarding where to acquire a loan or how to obtain a license.

We believe that entrepreneurship can be taught only when the training and educational programs are effective. Hence it is important to evaluate those programs. One way to evaluate and assess these programs is to follow the e-marketing campaign evaluation model (Scarborough & Zimmerer, 2006). An effective e-marketing campaign focuses on two capabilities: how well it is accessible (hits or counters) and how recommendable it is (sticky and viral). First, the more hits on the links to a company's website, the more effective the website is thought to be. Second, the longer the user stays with the website (sticky), the more likely the user shares the link with others (viral), and thus the more effective the campaign is.

By the same rationale, we argue that effective entrepreneurship training programs in non-traditional settings need to be evaluated from two angles. First, the more visits to these programs, the more effective they are. In entrepreneurship training, it is the promotion of these programs; are there enough people using the programs? Or how accessible are the programs? Since entrepreneurs often over-estimate their own abilities, they rarely seek external assistance (Zinger, LeBrasseur & Zanibbi, 2001). We expect the answer to our first research question: "Are these programs well attended?" to be a negative.

Secondly, we argue that an effective program is one that is perceived to be providing excellent services and that is more likely to be recommended by its participants. In entrepreneurship training, it is about how good the programs are: Are the programs valuable and will the participants recommend them to others? We believe that the sponsored training programs may help strengthen the entrepreneurial capabilities (Zinger, LeBrasseur & Zanibbi, 2001). It can also serve as a

socialization process during which entrepreneurs' mindsets may be changed and in turn they may be encouraged to take actions (Curran & Stanworth, 1989). Hence we expect the answer to our second research question: "Are these programs perceived to be helpful by nascent entrepreneurs?" to be a positive.

Third, there are different training programs provided by different agencies. If different agencies provide unequally effective programs, we should not evaluate the overall effectiveness of the programs. Instead, we should focus on the differences between the programs. Since many programs are jointly sponsored by several entities across different levels, we expect the answer to our third research question: "Are these programs offered by different entities equally effective?" to be a positive.

We summarize our research questions and our expectations in Table 1 as follows.

Table 1: Research questions and expectations

Research questions	Expectations
Are these programs well attended?	No
Are these programs perceived to be helpful by nascent entrepreneurs?	Yes
Are these programs offered by different entities equally effective?	Yes

NON-TRADITIONAL PROGRAM EVALUATION

Often times, non-traditional programs are evaluated by the program organizers to examine if they are fulfilling their intended purposes. Third-party evaluation is seldom conducted for these programs. The potential problem with this approach is three fold. First, social desirability bias can be a threat; when people know other people are watching, they tend to behave in a way that is socially desirable. Program participants might praise a program because they know the organizers or because they have received the service for a nominal fee. Under such scenarios, participants are expected to praise the programs. Second, the evaluations are fragmented when each evaluator adopts his own evaluation scheme. Fragmented evaluation methods invite subjective conclusions about their effectiveness. Third, reported favorable training results may stem from other causes rather than from the quality of these training programs. They may stem from the strong motivations of the participants instead of the training effectiveness, since more motivated individuals tend to attend these programs. These three arguments prompt a need for an objective and standardized evaluation system that can be used for all providers. We use such an evaluation system in this study.

DATA DESCRIPTION

Our data was obtained from the Entrepreneurial Research Consortium (ERC) database. This database was compiled by the University of Michigan's Survey Research Center which was the result of the coordination by thirty-two institutions (Reynolds, 2000). The sample was compiled through a random digit dial of telephone numbers. The sample was selected from a national database. A total of 1,261 people were surveyed. Of those surveyed, 830 were nascent entrepreneurs and the remaining 431 were used as the comparison group. The 830 nascent entrepreneurs were asked about their experience in training programs (for details about the database, see Reynolds, 2000). Since entrepreneurship in essence is about creating businesses, using nascent entrepreneurs is a valid approach (Gartner, 1988). In addition, nascent entrepreneurs can be the best benefactors of the entrepreneurship training because entrepreneurs need more directions and guidance at the beginning stage of their venturing endeavor.

However, questions may arise regarding if the nascent entrepreneurs and the comparison group are the same. We ran three t-tests on the age, education, and house- hold income between the two groups. We did not find any significant differences between the two groups ($p=0.69$ for age, $p=0.81$ for education and $p=0.29$ for house-hold income). We believe there is no sample bias and hence we can use nascent entrepreneurs as our sample for this study.

The database includes numerous questions regarding the quality and accessibility of the educational programs. We were particularly interested in the following questions.

1. Have you made contact with any of such programs?
2. If you desire the service, would you know how to contact them in your area?
3. Would you recommend to those starting a new business to seek this kind of help?
4. Do you think those starting new businesses would find this kind of help valuable?
5. Who is the sponsor of the program?

The above questions 1 and 2 address research question 1. Questions 3 and 4 are intended for research question 2. And questions 3 and 5 are used for research question 3.

DATA ANALYSIS

To answer our first research question "Are these programs well attended?" we measured the proportion of nascent entrepreneurs who answered yes to questions 1 and 2. Of the total 830 nascent entrepreneurs, only 238 (a response rate of 28.7%) responded to question 1: "Have you made contact with any of such programs?" However, out of the 238 respondents, 20.6% made contacts with such providers for assistance. If we assume that those non-respondents would answer no, then a mere 5.9% made contacts with such programs. A total of 208 (a response rate of 25.1%) responded to

question 2, "If you desire the service, would you know how to contact them in your area?" We found that only 64.4% knew how to contact their desired agencies. Once again, if we treat the non-respondents as non-contacts, then only 16.6% of the total nascent entrepreneurs knew how to make the contacts with the agencies if they desired the services. This outcome suggests the answer to our first research question, "Are these programs well attended?" to be disappointingly negative. This result agrees with our expectations.

The second research question is: "Are these programs perceived to be helpful by nascent entrepreneurs?" Note that this question is relevant only to those who have responded to questions 1 and 2. We found that out of the total 238 respondents who actually contacted the agencies, 62 (a response rate of 26.1%) responded to question 3: "Would you recommend to those starting a new business to seek this kind of help?" Of those 62 respondents, 88.7% replied that they would recommend the program. Of the same 62 respondents who answered question 4: "Do you think those starting new businesses would find this kind of help valuable?", 85.5% considered the programs to be "very valuable" or "extremely valuable." Since only 62 out of 238 entrepreneurs answered questions 3 and 4, the sample may be biased. We ran several t-tests between the respondents and the non-respondents on their age, education, and house-hold income. We did not find any difference between the two groups. Therefore, the answer to our second research question is affirmative in that these programs are indeed perceived to be valuable. The finding agrees with our prediction.

Our third research question is: "Are these programs offered by different entities equally effective?" We used two questions to test this hypothesis, question 5, "Who is the sponsor of the program?", and question 3, "Would you recommend to those starting a new business to seek this kind of help?" We cross-break the two questions in a bivariate table (Table 2). We did not find any difference in services provided as judged by whether the nascent entrepreneurs would recommend the program to others ($p=0.83$ in Table 2). Therefore, we conclude that different sponsors provide equally effective programs to their clients, and it is as we have predicted. Hence, we can use the overall evaluation results regarding the effectiveness of those training programs. We will discuss our results related to the first two research questions only.

DISCUSSION, IMPLICATIONS, AND LIMITATIONS

Our analysis depicts a mixed picture on the effectiveness of non-traditional entrepreneurship training programs. First, not enough nascent entrepreneurs are taking advantage of these programs. Only about 21% of the respondents actually make contacts with the program providers. Close to 36% of the respondents do not know how to contact a program provider when they are indeed seeking assistance. A more interesting indication is that out of those who know where to get assistance, close to two thirds do not actually seek assistance. The statistics seem to throw a shadow over the promotion of these programs (Garavan & O'Cinneide, 1994). It may support the notion that entrepreneurs are indeed those individuals who prefer not to seek training programs as they are

indeed the "rugged individualists", who prefer to work on their own and refuse to be educated (Zinger, LeBrasseur & Zanibbi, 2001).

Table 2: User recommendations of different programs

Would you recommend the program?	Programs Sponsors			
	Government	Educational Institutions	Business Associations	Total
Yes	16	14	13	43
No	2	1	2	5
Total	18	15	15	48
Pearson chi-square = 0.37, df = 2 and p = 0.83				

However, our analysis also supports the other end of the teachability argument spectrum. Approximately 90% of the actual participants found the programs to be very valuable and would recommend them to others who are interested in starting their own businesses. Overall, they perceive the programs to be helpful and effective. This indicates that entrepreneurs can be trained. At a minimum, they can form positive perceptions about the program because the training they receive can help them tremendously in several areas (Curran & Stanworth, 1989).

Therefore, we contribute by reconciling the two arguments in the entrepreneurship teachability debate. Our findings point out that they both are right: entrepreneurs are both teachable and un-teachable. Some entrepreneurs may prefer to rely more on themselves rather than seek help from others. Their characters determine that they should be self-reliant. In such a case, they refuse to be trained and hence they are non-teachable. However, when they open their minds and decide to look for help, their perceptions will be changed. They tend to like what they receive and they even go a step further to recommend the programs to others. This way, we can conclude that they are teachable. Hence both arguments are right, but neither by itself is a complete answer.

The mixed picture points out that non-traditional entrepreneurship training programs are successful in their quality and contents, and provide useful knowledge and guidance for entrepreneurs. However, these programs are not so effective attracting potential clients because only a small portion of the total entrepreneur population uses the service. We argue that non-traditional entrepreneurship training sponsors have two tasks: attract participants and assist those who attend. The sponsors have been successful in the second task, but they have not done so well in the first task. We believe the more important question to ask is how to attract more participants, not how to teach and what to teach. The sponsors can benefit by focusing on attracting more clients while maintaining the high quality of services they are currently providing. Every year, millions of dollars are spent on training entrepreneurs. As various agencies allocate their budget, more emphasis should be made on promoting their programs. This way, the budget serves a better purpose.

Our results also suggest that all sponsors provide equally effective training programs for entrepreneurs. This can be largely due to many programs being jointly sponsored by several entities across different levels. The Wisconsin Entrepreneurship Training is a joint effort between the Wisconsin Agricultural Innovation Center (Department of Agriculture, Trade and Consumer Protection), the University of Wisconsin, and several technical colleges. Each sponsor adds a unique service value, but the combined work of several entities results in more talents and hence a better training program. However, this may backfire. The entrepreneurs may become confused about the training agencies, and hence hesitate to ask for help or do not know where to get the assistance. This may be one of the reasons for the low response and participation rate.

Our study has its limitations. While an established database may provide many benefits, it limits us from answering some important questions. An important research question can be how the diverse offerings by each provider would affect their usage. We should also research how the nascent entrepreneurs and the comparison group differ. However, we do not have the data available to address such issues. We encourage further research to investigate those important areas by designing surveys specifically answering those questions.

CONCLUSION

In this study, we take a small step to address an important entrepreneurship issue-the effectiveness of non-traditional entrepreneurship training and educational programs. Through our research, the two streams of research on the entrepreneurship teachability debate can be reconciled. We also describe a true and better picture of the non-traditional training programs. The suggestions we provide may help the training sponsors to pay more attention to the promotion side of the programs. Further research work can build on our findings and make further investigations into this relatively under-explored area.

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ENTREPRENEURSHIP AND THE AT-RISK STUDENTS IN THE MISSISSIPPI DELTA

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ABSTRACT

The ASU SIFE Team developed a program that was funded by a grant from the Horizon Institute of Technology. This program offered 32 at-risk students from two Arkansas delta school districts, Newport and South Mississippi Co. an opportunity to explore the role of technology in a free market economic system and to motivate them to pursue careers in the areas of math, science, business, entrepreneurship and technology. We examined the results to determine the effectiveness of the program using raw data, standard regression analysis and loglinear models and determine the significance of 8 factors on success in the program; gender, race, parental income, access to home computer, mother and father's education level, hours of computer use at school, hours of play on computer video games as dependent variables, and school district. The independent variable was the score on the MAME Standardized Test. Of the factors tested on success in the program; race, parental income, mother's educational level access to a computer at home, hours of computer use at school, and hours of play on computer video games were all significant at the .01 level. Only gender and father's educational level were not significant at the .01 level of significance.

INTRODUCTION:

An opportunity exists to "brand" the minds of area school children with collegiate aspirations in a hands-on environment. The focus was on children that are from low income, disadvantaged and minority backgrounds and expose them to an educational experience that will promote continued investments in their own human capital by seeking a higher education. The students are frequently left behind unless some intervention takes place. We also planned to help them explore the world of entrepreneurship by making them real decision makers in a business simulation.

Our Review of the literature concerning working with at-risk students indicates that there are four consistent factors that promote success. First students must see the practical value of the information they are learning. One study found that a series of practical interactive seminars designed for Hispanic students in Laredo Texas was the most effective instructional technique in working with those labeled "at-Risk". (Osterhage and Wyatt, 1999,). This is consistent with other research in that area (Becker, 1990) and (Glasser,1980. We decided to use this same approach in our program.

Second at-risk students need to be exposed to technology. AT-Risk students, indeed all modern students perform well when exposed to technology (Bianco, 2002). The ASU collaborate effort offered a variety of distinct venues that encompass technology and education. Each venue will focus on attracting middle school aged students ($6^{th} - 8^{th}$ graders) within the Northeast Arkansas area and exposing them to a unique educational experience. Including exposure to math, science, business and technology. Emphasis will be placed on these topics as life and career choices. Students who are exposed to such technical information are more likely to succeed in the business world. (Harris, 1988)

Third the teaching must be personalized demonstrating a caring attitude toward the leaner, particularly in dealing with at- risk students (Osterhage, 1999).

Finally, students need to feel that they have some ability to make choices that will impact and even change their destiny. (Glasser, 1980) This is an important since the feeling of helplessness in facing choice has a major impact on the ability of students to make the right choices. We wanted to make sure that students could see a brighter future for themselves through the world of business. We began by selecting two of our more progressive area school districts with a high percentage of at-risk children and asking them to identify and contact children for the program. The two districts selected the participants, provided chaperons and bus drivers for the 4 weekend excursions. A team of 8 SIFE members provided additional chaperons and program coordinators who helped plan and execute the camp. Together these teams planned and executed a program on each of four consecutive Saturdays running beginning October 28, and ending on November 18, 2006.

Module #1 began with students taking a pretest version of the test of Marketing. Accounting, Management and Economics [MAME], which became the basic instrument for our study. This session was under the guidance of Dr. Larry R. Dale Sam Walton fellow from the department of economics in conjunction with SIFE student Carla Benson. We then proceeded to present a SIFE developed Power point presentation called " Economics and Free Enterprise", which provided basic information on the free enterprise economy. We introduced the concept of economics and then proceeded to explore the market, command and traditional economic systems. Our focus quickly turned to the Market system, where consumers and producers interact to determine prices and quantities sols through something called "dollar voting". Next we introduced students to the natural, capital and human resources used to produce goods or services. Then we talked about the mixed nature of the economy of the USA with input from government and traditions, but a dominance of consumers led production through various markets. We ended the first program by showing the film "The Kingdom of Mocha", which reviewed all of the concepts previously covered. Mocha has a maturing market economy. Cousin Henry's invention of the automobile is the rage. Demand escalates and a big boom begins on Mocha. Everything is going great until the village is ravaged by a storm which causing inflation as supplies become scarce. Big Daddy interferes by imposing a price and wage freezes, which causes a recession. Neighboring countries take advantage of the recession and lack of production by selling Mocha its exports. The islanders convince Big Daddy

that if the freeze is lifted that Mohan's will start producing and selling goods again in a free market. Pablo has to go further and further to find sources of wood fuel. This causes his prices to escalate making villagers angry. Pablo convinces Big Daddy that taxing him more will actual reduce fuel supplies and Pablo finds ways to cut costs bringing supplies in line with incomes again.

The film covers basic economic vocabulary such as: Supply, demand, markets, Price, Productive resources [natural, capital, human], entrepreneur, production, consumer, producer, goods and services. It also reviews the basic tenants of a free enterprise economic system with producers providing a good or service that consumer's need or want; with vary little interference from government.

Module #2 Finance and accounting, under the leadership of Dr. Henri Torres module 2 was designed to aid students in development of their Annual Report. Henri and his team were in charge of the Accounting and bookkeeping records of the camp. The Finance module included a balance sheet and income statement using computer software. Students learned about assets, liabilities and stockholders equity as part of a balance sheet. The income statement included : revenue from sales, costs of goods sold and operating items covered. This became a series of presentations based on overheads developed by the team.

Module #3 Business law was led by Dr. Sandra Bevill and Allan Decker, SIFE alumni . This module included learning about and using the basic excel program to calculate budgets and create graphs that would appear in our annual report. All of this led to individualized help in producing and printing our professional looking annual report.

Module #4 was directed by dr. Torres in Marketing that looked at the role of advertising in getting consumers to notice your product. The best product in the world is a flop if nobody knows about it. Students used computer programs to create an advertising brochure about their company and the great product that it produced and sold. Each module of instruction was conducted in a computer lab setting where students developed a business that made and sold Tye Dye T-shirts, socks and shoelaces with the use of basic technology business solutions. The experience was fun, profitable and memorable for the attendees. Students developed an annual report, kept track of their income and eventually showed a profit of 14% on sales of over $3,700 in sales. We pointed out that corporations would have paid half of their profit, on average, for corporate taxes. We gave half our profit to the two school districts for a total of $600 to provide technology software for the schools involved in the project. The rest was returned to the students in one of three forms wages, commissions and dividends. By a vote of all stockholders wages were set at $1 per Saturday, $2 for officers. Commission equal to 25% of sales on each item for every student. Dividends were awarded each stockholder. Everyone in the group was provided with 10 shares of stock at $1.00, which they paid back from their income. In addition students bought an additional 224 shares when they found out that they would receive dividends on each share of stock they owned. Ownership of stock. Shares in the company, entitled then to one vote. Thus every share they owned gave them some decision making power in the company. A dividend of 33 % was paid on each one dollar share of

stock purchased. We also had awards for the top three sales persons and other productivity awards for individual performance and creativity.

Students spent half their time in learning modules and half their time creating their product; Tye-Dye T-Shirts, socks and shoelaces. Students learned how to create a PowerPoint presentation for the Stockholders meeting and closing ceremonies of the camp.

CONCLUSIONS AND EXTENSIONS

We also ran a standard regression analysis and a loglinear model to examine the following 8 independent variables to see which were significant predictors of success on the MAME [y-dependent variable]; gender [GEN], race [RC], age [AG], fathers education [FE], mothers education [ME], owned a home computer [HC], use of a computer at school [SC], hours playing video games [HV]. This is expressed in the functional relationship;

$$Y = X1\ GEN + X2\ RC + X3\ AG + X4\ FE + X5\ ME + X6\ HC + X7\ SC + X8\ HV$$

Of the independent variables examined we discovered that the following were significant at the .01 level of significance; age, mother's education level, owning a home computer, use of a computer at school. Some of these elements were expected. Age should prove to be a factor with older students doing better on the test than younger students. The students ranged in age from 10 to 14. Owning a computer would improve scores on computer and technology questions. We pulled those and looked at them separately. Students with home computers had a mean score on those questions of 83% as compared to 71% for those without a computer. A similar pattern existed in students who spent more time playing video games or using the computer at school.

The class consisted of 51% Female students, 49% Male students. We discovered that gender, contrary to the conventional wisdom, was not a significant predictor of success in the program. Young girls were as interested in business and economics as were boys when presented in this format.

The racial mix was 61.7% African-American Students, 28% Caucasian students and 11 % Hispanic and Asian. Race was also not significant at the .01 level. Children from minority backgrounds were just as enthusiastic about making money as were whites.

Despite the fact that almost all of the children came from low-income families with 83% eligible for the free lunch program, 42% had and used a computer at home. Having a computer at home and playing games on the computer were both significant variables. In terms of computer use at school 61% of the children said they spent more than two hours per week on the school computer, with 11% more than 6 hours per week.

In parental education level 18 % of the children's father and 35% of the mothers had a college education. The average education of the mothers was 14.5 years and the fathers 13 years.

The mother's educational level was significant at the .01 level and the father's was not. This may be a result of the fact that 64% of the children came from a one parent household usually headed by a mother. The mothers influence seems to be greater on these children than that of the father.

Our students showed a marked improvement that was statistically significant at the .01 level as compared to the national norm on the test. The pretest mean performance at the 62 percentile was well below the national norm of 72 percentile, but well above the posttest performance at the 91 st percentile.

The school district was not significant, this may be due to the fact that both districts include students from their economics classes and their students had some familiarity with the subject before coming to the workshop.

They also showed greater interest in technology. Most important students over whelming expressed interest in obtaining a higher education 83%, and a willingness to study hard to make that dream possible by 77%. This was a marked improvement over the pre-camp survey with only 22% saying they planned to go to college. We believe that our project succeeded in training students to be skilled entrepreneurs and taught them to appreciate the economic system that makes such a dream possible. These results involving technology were consistent with other studies including (Becker, 102) and (DeCanio, pg. 172).

One of the participants expressed it this way. "I learned that success comes from hard work and learning basic information."

The one surprise is that the mother's level of education was significant but not the father's. One explanation is that the mother has more influence over a child's attitude toward education and therefore toward their achievement level.

Two of the more interesting findings in this study that deserve further exploration in terms of reaching at-risk students are the relationship between the educational level of the mother and technology on performance in business education and entrepreneurship. These seem to have great potential as tools for educators in reaching these hard to reach students.

This project demonstrates another technique that may be used in reaching the at-risk students in our society with projects that promote success.

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Table 1: Raw Data and Regression Statistics

Factor	Raw Data	Correlation
Gender [Dummy Variable]	Female 61% Male 39%	.135
Age	10-7.7%; 11-19.2% ;12-34.6% 13-23%; 14-15.3%	**.002**
Race	African-Amer. 78.7% White 18% Hispanic 3.3%	.270
Mothers education in years	Mean 14.33 yrs 85% completed High School 35% College Graduate	**.0016**
Fathers education in years	Mean 13 82% completed High School 18% College Graduate	.09
Uses Computer at home	42% Use home Computer	**.0007**
Hours spent on School computer per week	Less than 1-38% 2-5 hrs- 50% More than 6 11%	**.0023**
Plays Video Game	28% more than 2 hrs per week 24% Less than 2 hrs more 1	**.004**
Pretest Mean on MAME	58%	
Post Test Mean on Mame	72%	
Difference between pre and post test means	+14%	

No significant difference exists between the data derived by using the standard correlation matrix or the F and T-Tests, and that derived fom the loglinear model. **Bold** indicates signiificance at the .01 level

THE USE OF MICRO STUDENT CONSULTING PROJECTS AS AN ALTERNATIVE TO TRADITIONAL FIELD-BASED STUDENT CONSULTING PROJECTS: AN EXPLORATORY STUDY

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ABSTRACT

Entrepreneurship and entrepreneurship education are widely recognized to have made tremendous progress in the U.S. over the past 20 years (Solomon, Winslow, and Tarabishy, 1998). This paper uses a case study to analyze the efforts of a faculty member to introduce a new form of active learning into the classroom experience. Active learning is defined as any strategy "that involves students in doing things and thinking about the things they are doing" (Bonwell and Eison, 1991, p. 2). The introduction of active learning has become increasingly important to schools and colleges of business as they respond to criticisms about the lack of relevancy in the classroom (Bennis and O'Toole, 2005; Porter and McKibben ,1988; Lyman, 1997).

A case study methodology is employed to describe the process used to help students gain a better understanding of the problems facing small business owners through the completion of micro consulting projects. Using field-based student consulting projects as a point of departure, an alternative to traditional field-based consulting projects is presented in the form of micro student consulting projects. Then, the results of a semester's worth of projects are described that were completed by students at a small, public university in the Southeast.

Among the benefits of the micro projects to the student are the confidence gained by selling their abilities as a consultant to a small business owner. The small business owners benefit from the analysis and recommendations that the students make. In addition, the students benefit from offering a professional opinion on a real business problem. We discuss how other instructors might entertain the option of having their students complete micro consulting projects. Then, we conclude by discussing possible directions for future research for faculty who use micro student projects as a form of active learning.

This research provides a unique look into the process of conducting field-based student consulting projects at a school with little or no history of entrepreneurship education. Given the continued interest in entrepreneurship that exists, this study provides the reader with a template for creating and maintaining an alternative pedagogy for entrepreneurship education. More importantly, given the lack of formally trained entrepreneurship educators, this study provides a detailed assessment of the efforts of a faculty member to attempt an alternative pedagogy to help students grasp the challenges of small business management. While the specific objectives and milestones of any academic program are unique to that institution, this study may be used as a benchmark for the efforts of others to teach small business management at their own university or college, especially those institutions with limited resources.

INTRODUCTION

Jim Fiet (2001b) of the University of Louisville said, in 2001, "Today, there are over 800 colleges and universities with entrepreneurship classes, programs, and initiatives." (Fiet, 2001b, 102). He goes on to point out that this figure demonstrates phenomenal growth in the thirty year period since 1971, when only sixteen colleges and universities taught entrepreneurship in the U.S. Entrepreneurship continues to be a popular program of study among college students in the U.S. In fact, the growth rate of entrepreneurship among colleges and universities in the U.S. is nothing short of phenomenal (Katz, 2003). In 1980, fewer than 20 universities and colleges offered courses in entrepreneurship, while today more than 1,200 universities have at least one course in entrepreneurship (Katz, 2006). This paper uses a case study to analyze the efforts of a faculty member to introduce a new form of active learning into the classroom experience. Active learning is defined as any strategy "that involves students in doing things and thinking about the things they are doing" (Bonwell & Eison, 1991, 2). The introduction of active learning has become increasingly important to schools and colleges of business as they respond to criticisms about the lack of relevancy in the classroom (Bennis & O'Toole, 2005; Porter & McKibben ,1988; Lyman, 1997).

Thus, the purpose of this study is to describe the efforts of one individual to introduce active learning in a small business management course at a school with little or no history in entrepreneurship education. As entrepreneurship education is still in the exploratory stage (Gorman and Hanlon, 1997), our choice of a research design was influenced by the limited theoretical knowledge researchers have of entrepreneurial education (Fiet, 2001). In such a situation, it is appropriate to use a qualitative research method in order to gather the necessary information (Eisenhardt, 1989; Yin, 1994). The current research necessitated that we observe the process of teaching a course in small business management that included a micro consulting project in great detail. Thus, we adopted a research method described by Audet and d'Amboise (1998) which was broad-minded and flexible. Like their study, our aim was "to combine rigor, flexibility and structure without unduly restricting our research endeavor" (Audet and 'Amboise, 1998, p. 11 of 24).

We use the following sections to describe this unique approach to teaching small business management. First, we briefly review the literature on entrepreneurship education. Second, using traditional field-based student consulting projects as a point of departure, we describe an alternative to traditional field-based consulting projects in the form of micro student consulting projects. Next, we describe the results of a semester's worth of consulting projects that were completed by undergraduate students at a small, public university in the Southeast. We conclude the study with a discussion of the practical uses of micro field-based student consulting projects and possible areas of future research.

SUPPORTING LITERATURE

The literature on entrepreneurship education is still in a developmental stage (Fiet, 2001). This conclusion is startling when one considers just how far entrepreneurial phenomena have come in the last thirty years. Fiet (2001) points out that in 1971 only sixteen colleges and universities taught entrepreneurship in the U.S. "Today, there are over 800 colleges and universities with entrepreneurship classes, programs, and initiatives." (Fiet, 2001, p.102).

Entrepreneurship education has been evaluated from a variety of perspectives including what is taught, why it is taught, how it is taught, and how well it works (see Gorman and Hanlon, 1997; Vesper and Gartner, 1997; Solomon, Winslow, and Tarabishy, 1998).

Solomon, et al. (1998) discuss the results of a twenty-year investigation of teaching entrepreneurial education and small business management in the U.S. Their data is based upon six national surveys. They believe a trend exists toward greater integration of practical applications and technology. They note that new venture creation, small business management, and small business consulting remain the most popular courses in the field.

Shepherd and Douglas (1997) argue that entrepreneurial education falls into four categories. These categories include the Old War Stories approach, the Case Study approach, the Planning approach, and the Generic Action approach. The "*Old War Stories" Approach* provides a series of success stories told by entrepreneurs. The emphasis is upon experience, intuition, and judgment. The leader's innate qualities are emphasized without any recognition of the contribution of the organization or the environment. This approach uses very little theory and emphasizes anecdotal evidence. The "*Case Study" Approach* assumes that entrepreneurship is "a process that is a controlled and is a conscious thought process" (Shepherd, et al., 1997, p. 4 of 10). Mintzberg (1990) argues that this perspective assumes that formulation can be separated from acting, as if the world stands still while the planning occurs. The "*Planning" Approach* breaks a controlled, conscious process into a series of steps that lead to a full-blown strategy, often in the form of a business plan. Meyer (2001) argues that the use of business plans may be problematic. He questions whether we have validated the hypothesized positive relationship between business plans and firm performance. Shepherd, et. al. (1997) also question its usefulness because the very nature of planning is designed

to extrapolate known trends. Thus, the planning process is too inflexible to accommodate the entrepreneurial spirit. The "*Generic Action" Approach* is linked to the competitive markets model. It assumes that market forces, such as bluffing, price deterrence, and the timing of entry, dictate action. "Once formulated, there is no need for initiative, 'only' implementation" (Shepherd, et al. 1999, p. 5 of 10). This approach argues that after scanning the environment, the entrepreneur will be able to draw appropriate conclusions necessary to move in the right direction. Shepherd, et al., are critical of this approach, arguing that this form of entrepreneurship education emphasizes the science of entrepreneurship while ignoring the art of entrepreneurship. Shepherd, et. al. emphasize the importance of creative thinking and learning throughout entrepreneurship education. They believe entrepreneurship should be taught so that the direction is deliberate but the details are emergent.

Vesper and Gartner (1997) present the survey results of ranked university entrepreneurship programs. The top seven criteria for ranking these programs were courses offered, faculty publications, impact on community, alumni exploits, innovations, alumni start-ups, and outreach to scholars. A U.S. university may wish to focus on these criteria as it develops a new entrepreneurship program. It remains to be seen if these criteria are meaningful or affordable for universities in other countries, particularly developing nations.

Pedagogical issues are among the most debated in the entrepreneurship education literature. A variety of techniques are used in entrepreneurship and small business management courses. These techniques include, but are not limited to, case studies, lectures, experiential exercises, business plans, consulting projects, and guest speakers. Just as entrepreneurship itself is often associated with creativity and innovation (see, e.g., Kuratko and Hodgetts, 2001), teaching entrepreneurship has similar associations. The faculty should feel free to use any technique they believe will enhance the learning environment. As Schaper (2001) argues, numerous techniques are a wiser choice than only one or two regular techniques.

Schaper's (2001) comments are also particularly appropriate for the current research. He states that cultural issues impact entrepreneurial education because perspectives on risk-taking, individual initiative and personal achievement are different in different cultures. He concludes that a variety of techniques and methods should be used to teach entrepreneurship.

Field-Based Consulting Projects

The literature on entrepreneurship education and field-based consulting is dominated by descriptions of the Small Business Institute®. The Small Business Institute® (SBI) was formerly a federal outreach program created and directed by the U.S. Small Business Administration on a contractual basis with over 500 colleges and universities. Participating colleges and universities were paid a small fee to complete consulting projects on behalf of small businesses. Faculty members were responsible for recruiting clients and assigning teams of undergraduate and graduate

students to complete the project during the fall or spring semester (Small Business Institute, 2006). However, federal funding for this program was eliminated in 1996, so a group of SBI Directors used their existing advisory organization, the Small Business Institute Director's Association (SBIDA), as a means to continue this program on an independent basis. SBIDA trademarked the mark Small Business Institute® and continues to operate SBI programs on a limited basis through their members.

Several studies discuss the Small Business Institute program (See Brennan, 1995; Dietert, Halatim, and Scow, 1994; Hatton, and Ruhland, 1994; and Watts and Jackson, 1994). Most of the studies focus on the ability of the SBI program to provide clients with a viable consulting job or with the program's student-educational benefits. For many schools, a primary impetus for starting an SBI program was the potential benefits for students' learning experiences. The literature (Hedberg and Brennan, 1996, and Brennan, 1995) provides considerable evidence that SBI programs are of educational value to students. In addition, recent evaluations of business schools have called for "a stronger practicum and projection emphasis in both curriculum and coursework" (Lyman, 1997). The SBI program represents just such a practical approach to learning and applying business concepts.

Many of these publications study the benefits of SBI programs to either the student (Brennan, 1995) or the client (Madison, et. al. 1998), or they study the impact of losing federal funds (Hoffman, et. al. 1996). However, none of these studies investigated the issues associated with starting an entirely new SBI program without federal funding.

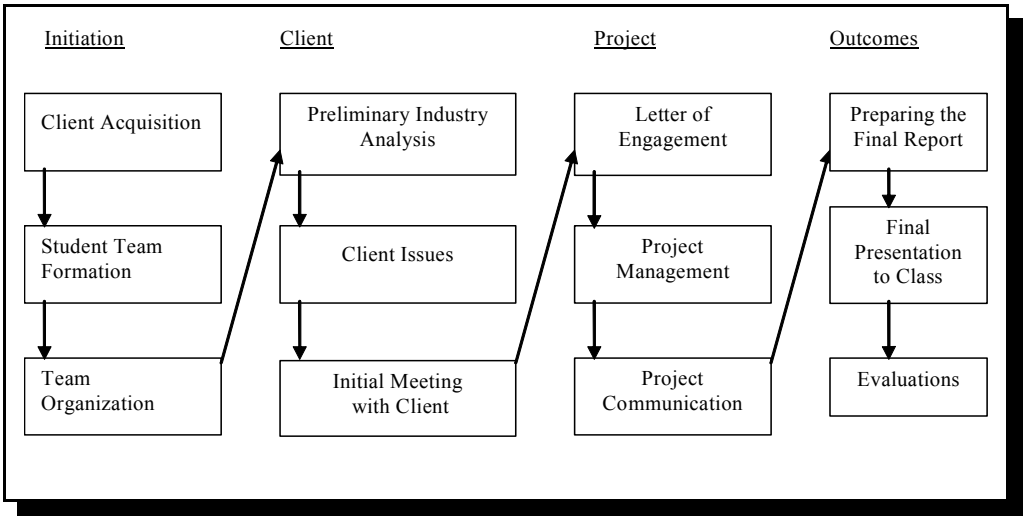
According to Cook and Bellieveau (2006), field-based student consulting offers students an opportunity to integrate their academic and work experiences in the creation of a consulting solution for a client's real world problem. The consulting course provides students with experiential learning in small group dynamics, problem definition, research methodology and application, project management, and in making presentations. They contend that consulting fieldwork is an excellent mechanism to improve research abilities and critical thinking skills.

Figure 1 shows the process that is used in part or in its entirety to manage a student, field-based consulting project. The process is fairly systematic, although there are allowances made for modifying the project parameters. As Cook notes, since fieldwork involves an actual client and a real-life experience, the situation will be fluid and information may change over the course of the consulting assignment. As a result, the consulting process can be somewhat unsettling, as many issues do not have a clear-cut solution. Nonetheless, the typical field-based consulting project is initiated by the instructor rather than by the student. The student is assigned to the project after the client has agreed to participate. In addition, as Figure 1 demonstrates, the student is fairly well-supervised throughout the entire semester.

Cook and Belleview (2006) point out that field-based consulting programs have a variety of benefits. In addition, they also address the fact that this pedagogy has a major weakness – field-based consulting requires a number of critical resources, especially time on the part of the instructor

to seek out clients, supervise students, coordinate multiple sections, and teach other assigned courses. Thus, Cook and Bellevieu (2006) suggest that the instructor may need to limit the number of cases supervised in order to provide a quality experience. In addition, they point out that the instructor may need the support of the school in order to teach a small class, perhaps smaller than they would otherwise have in their normal teaching load.

Figure 1: A Typical Field-Based Consulting Project Process



Source: Ronald G. Cook and Paul Belliveau. (2006). *The Experiential Student Team Consulting Process* (2nd edition). Mason, OH: Thomson Custom Solutions, Thomson Publishing.

Unfortunately, the time constraint described by Cook and Belliveau (2006) is a major issue. In fact, Heriot and Campbell (2002) describe client recruiting and case supervision as major challenges of creating and sustaining a field-based consulting program. While the literature does not explicitly distinguish types of student consulting, it stands to reason that one way of doing so is to measure the degree to which the faculty member is actively involved with the consulting process from start to finish (See Figure 2).

The micro consulting project is suggested as a means of responding to the time constraints identified by Cook and Bellevieu (2006). The micro field-based student consulting project transfers responsibility for developing the project from the faculty member to the student. This single move changes the dynamic of the project considerably. Figure 3 shows the modified process as contrasted to the process described by Cook and Belliveau.

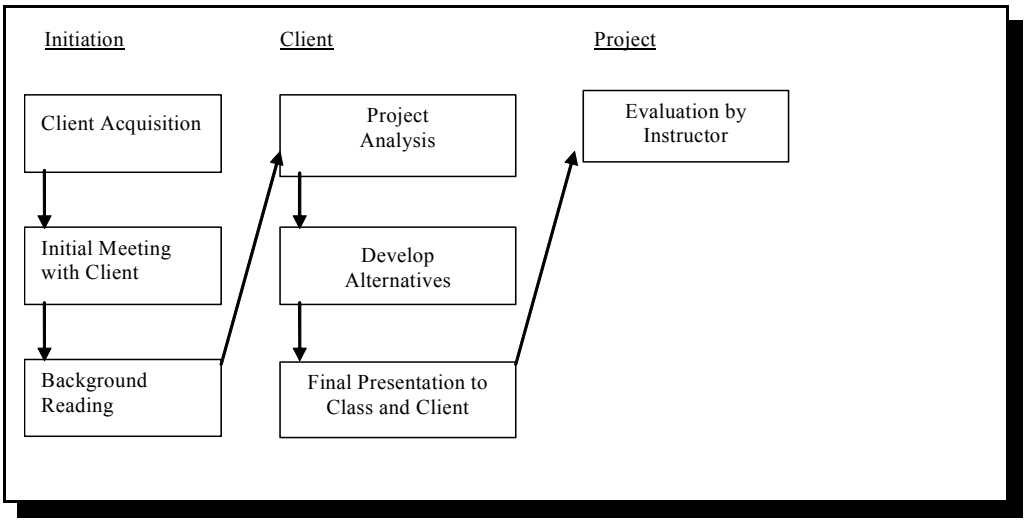
Figure 2 – A Continuum of Field-Based Student Consulting Projects

Micro Project — Traditional Project

←----------→

Limited Supervision — Extensive Supervision

Figure 3: The Micro Field-Based Student Consulting Project



RESEARCH METHOD

The challenge of conducting research about entrepreneurship education is that no generally accepted pedagogical model has been adopted in the U.S. or Europe (Solomon, et. al. 1998). This assertion suggests that entrepreneurship education is still in the exploratory stage (Gorman and Hanlon, 1997). Thus, our choice of a research design was influenced by the limited theoretical knowledge researchers have of entrepreneurial education (Fiet, 2001). In such a situation, it is appropriate to use a qualitative research method in order to gather the necessary information (Eisenhardt, 1989; Yin, 1994). The current research necessitated that we observe the process of using micro field-based student consulting projects to help students learn more about managing a small business. Thus, we adopted a qualitative research method described by Audet and d'Amboise (1998) which was broad-minded and flexible. Like their study, our aim was "to combine rigor, flexibility and structure without unduly restricting our research endeavor" (Audet and 'Amboise, 1998, p. 11 of 24). We start by describing background information that provides a context for using

the micro consulting projects. Then, we describe the way the projects were handled as well as some of the projects that were completed by students during the Fall Semester 2006.

Background

One of the authors was hired to become the first Endowed Chair in Entrepreneurship at a public university in the southeast. Prior to joining the university, he served as the Director of a Small Business Institute program at one large research university and two small regional universities. During this time he supervised over 150 student consulting projects with businesses in the areas served by these universities. In addition, he gained prominence as an officer in two academic organizations devoted to the study of entrepreneurship and small businesses. As parti of his duties, the instructor was charged with teaching courses in the area. This charge was the first major attempt by the university to make entrepreneurship a specific focal area in the curriculum in the College of Business.

The University and Region

The university was a comprehensive university with a student body of approximately 7,700 students at the time the individual was hired. The university has programs of study in Education, Science, Arts, Letters, & Humanities, and Business. The university also owns a community college that permits students to transfer to the four-year institution. The university has 88 academic majors and 57 academic minors. In addition, it offers several masters degrees including the Master of Arts, Master of Education, and the Master of Business Administration. Table 1 shows a profile of the university and the region in which it is located.

Their College of Business is accredited by AACSB. The university recently completed a five-year capital campaign that generated $100 million. Among the gifts was the creation of an endowed chair in entrepreneurship that was charged with teaching courses in entrepreneurship with an emphasis in starting and operating small businesses. Prior to the 2006-2007 academic year, the university had very little experience with entrepreneurship education. None of the incumbent faculty had taught courses in this area. Thus, not only were new courses being offered, but a new pedagogy was being introduced to the students.

Sixty-two students were enrolled in two sections of Small Business Management, a three-credit-hour elective offered to business students. The university notes that the average SAT for entering freshmen at the university in 2004 was approximately 1,060 on the former 1,600 point scale. Thirty students were enrolled in a morning section of the course. The remaining students were enrolled in an evening section of the course. Most of the students in the class worked part-time or full-time while enrolled as full-time students (12 or more credit hours per semester).

Table 1: Profile of University and Region		
Item	Description	Comments
Region	Southeast U.S.	Small Metropolitan City in a largely rural region.
Environment	Suburban/urban area	Major service area was county in which the city and university are located (pop. 275,000) and some neighboring counties. Also went into counties in neighboring state.
City/town	City and County have shared governance.	City and County have large retail and service ventures., the headquarters of numerous banks, information technology firms, and large manufacturing firms. A large U.S. military base is nearby.
University	State University	Public university with ~8,000 students. Business college is accredited by AACSB. College is less than 50 years old.
Program	Micro Field-Based Consulting Projects	Projects were completed as requirement for Small Business Management. The project counted 20% of the student's final average.

The syllabus for the course provided written instruction to each student at the beginning of the fall semester 2006. Appendix A shows this information. In addition to verbal and written instructions, time was spent during several class periods explaining what to do and answering students' questions. Lastly, several students met the instructor after class or contacted the faculty member via e-mail or telephone to discuss their projects.

Students were regularly reminded of the project and required to advise the instructor of the nature of their project and their progress on the project. Unlike traditional field-based student consulting projects (See e.g., Heriot and Campbell, 2002; Cook and Bellevieu, 2006), the student projects were not managed by the instructor. A total of 62 students were enrolled in two sections of Small Business Management, a course that marketing and management students took as either a Management Elective or a Business Elective. Thirty-two projects were completed by the 62 students with most of the projects being done by two-student teams and only a few projects being done by one student.

LIMITATIONS

This study is limited by the nature of case studies (Yin, 1994). The findings of case studies cannot always be generalized to other situations. However, given the lack of a universal model for entrepreneurship education, it was both practically and theoretically appropriate to use a case study. While the results of this research may not specifically be extended to other American universities,

the faculty and administration at other universities may certainly use the current study as the basis for their own efforts to use consulting as a means.

DISCUSSION

It is premature at this juncture to argue either for or against the success of micro consulting projects in this study. The variety of techniques used to teach entrepreneurship and small business management courses are probably only limited by the imagination of the instructor, the abilities and motivations of the students, and the resources available to the school. Clearly, pedagogical issues are among the most debated in the entrepreneurship education literature. We believe instructors should feel free to use any technique they believe will enhance the learning environment. Table 2 highlights the critical differences between traditional field-based student consulting projects and the Micro field-based consulting projects completed during the Fall Semester 2006, using four primary issues as the basis for comparison.

Table 2 highlights differences on the following four issues: Project identification, project supervision, project topic, and project completion. These four issues best capture the differences between the two forms of field-based student consulting. Project identification refers to the way that projects are typically chosen. In the traditional consulting project, the instructor meets with the client prior to the semester/quarter to determine what they need and whether they will be a good fit for the course and students. Students must take the initiative to find a small business owner that has a compelling issue to be resolved and is willing to cooperate with the student.

Project supervision is the extent to which the instructor is actually involved with the on-going consulting project. In the traditional approach to field-based, student consulting, the instructor requires regular deliverables (completed items) to be turned in for review throughout the semester or quarter. In the micro approach, students are given limited instruction. This lack of instruction is intentional. The students must learn to take responsibility for their topic, their progress, and their final recommendation. The lack of information creates ambiguity which is frustrating to many students, but helpful to them as they learn that life in a small business has few certainties. Life does not throw problems at you that can be easily categorized and solved.

Project topic refers to the specific consulting work that is to be done. The traditional consulting project is appropriate for either a comprehensive consulting assignment or a specialized consulting assignment in a single functional area or process within the firm, such as developing a marketing plan or a bookkeeping system. In the micro approach, projects are very narrowly focused. The emphasis in micro student consulting is on identifying a need quickly and providing feedback on that need. For example, a student would probably not attempt to undertake a complete marketing plan, but rather a narrower task within the larger framework of marketing, or finance or operations. The micro student consulting process is much more tactical than is traditional field-based student

consulting. It is limited to a specialized topic as the students complete the project on their own or with a single partner.

Table 2: Comparison of Traditional Versus Micro Field-Based Consulting Projects

Issue	Traditional	Micro	Rationale
1. Project Identification	The client usually discusses the nature of the project before the semester begins.	Students must identify a business and meet with the owner or manager.	The onus is placed upon the student to take initiative in finding a project.
2. Project Supervision	Highly structured with regular deliverables (completed items) to be turned in for review.	Students are given very limited direction.	The lack of instruction is intentional. The students must learn to be responsible for their own project. This ambiguity can become very frustrating to the students.
3. Project Topic	Some traditional projects are comprehensive, while some are specialized. The unit of analysis is usually strategic.	Specialized projects with an emphasis on making an immediate impact. The unit of analysis is tactical.	A comprehensive project requires a great deal of supervision (Cook and Bellvieu, 2006; Heriot and Campbell, 2002)..
4. Project Completion	Traditional field-based consulting projects include a written analysis and a final presentation. SBI projects may be submitted to the Small Business Institute for awards.	Microsoft PowerPoint Presentations with copies of slides. Email and course website were used for communication.	The students were forced to truly think about what they did, why they did it, how they did it, and whether it helped the client, as they only had 6 minutes to present their results.

Project completion describes how and when a project is considered finished. The traditional approach includes a formal written paper and a final oral presentation to both the client and to the instructor (SBI website, 2006). Field-based consulting projects may be submitted to the Small Business Institute® for annual awards in their Case of the Year program. The micro approach described in this study is limited to a very short presentation using MS PowerPoint. The final presentation is limited to six (6) minutes. Students do not submit a formal written paper. The oral presentation forces the students to truly think about what they have done, why they did it, how they did it, and whether it helped the client.

This research does not propose that the micro consulting project is suited for all instructors. We concur with Schaper (2001), that using numerous techniques are a wiser choice than only one or two regular techniques. Rather, this research was completed to describe an alternative to the

traditional field-based student consulting project, especially those projects described in the literature on Small Business Institute® projects (Cook, 2000). In particular, we argue that micro consulting projects are an alternative pedagogy to consider when teaching entrepreneurship or small business management, especially if course load, class size, and time for identifying and recruiting clients and/or supervising projects is limited.

Future research should attempt to follow-up on the use of micro student consulting projects. A number of issues remain uncertain as the literature does not explicitly address this alternative form of field-based consulting. For example, do other instructors use a similar approach? Is this approach appropriate in other courses, such as accounting or operations management, to name a few? Is the use of micro student consulting projects a skill that can be taught to faculty without prior experience with student consulting projects?

This research provides early evidence of the viability of employing unsupervised student consulting. Is it easy? No, but not too many worthwhile endeavors are easy to start. Using students as consultants requires a great deal of time and effort in the traditional field-based approach (Heriot and Campbell, 2002; Cook and Bellevieu, 2006). However, traditional student consulting projects are a proven method. Thus, modifying this approach was a reasonable alternative. While student consulting is not the only practical approach available to instructors, it can be distinguished from other options because it requires interaction between the student and a small business owner. The challenge of using the proposed micro approach to student consulting may be three-fold: 1) The faculty member must be sold on consulting as a pedagogy; 2) the faculty member must be sure to match the program to their particular circumstances, and 3) the faculty member must be comfortable with letting the students take control of the process. The lack of time or resources suggest that a traditional student consulting program (Cook, 2000) may not always be possible. Thus, the micro approach proposed in this research offers an alternative to the traditional approach that shifts the burden of learning even further on the students.

The lessons learned from this study are particularly germane to small colleges and universities seeking to become involved in their local/regional communities, or seeking to increase the relevance of their business curriculum for their students. The school in this study is a small university with total enrollment of 7,700 students. Thus, resources are very scarce. This case study demonstrates not only the efficacy of such a program, but the impact that it can have. This program influenced at least 62 in its first semester students as they actively participated in consulting projects. Over thirty small businesses participated in the program.

The implications of introducing micro student consulting are easily stated. At a time when critics, both old (Porter and McKibben, 1988) and more recent (Bettis and O'Toole, 2005) complain about the lack of relevance in business education, we demonstrate the impact that micro consulting projects can have, especially on students. For a small university, micro student consulting projects can provide an effective pedagogy for business students and a valuable form of outreach to the local or regional business community.

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APPENDIX

Communication to Students

Original Assignment:

Student Small Business Project

Each student must select one partner with whom to complete a project. The purpose of this assignment is to have you investigate some aspect of Small Business Management in the real world of manufacturing, retail, and/or services. You must analyze an issue in a small business and report your recommendations and findings in a professional manner.

Suggestions for selecting and conducting a successful project.

A. Get started early and identify a good candidate for this type project.
B. Do some "homework" prior to your interview. Know something about the company and try to have some basic questions about the area you are investigating.
C. Keep your area of investigation narrow and try to get examples of actual forms, procedures, and methods used by the company.
D. Analyze your findings in terms of the theory presented in class; i.e., are the methods the organization uses good, bad, like the ones we learned, different, etc.?
E. You must make a recommendation to them or conduct an experiment that helps them in a tangible way. You must help the company or organization improve some element of small business management. Do not simply present a descriptive report. I want you to apply what you have learned in this class. Focus on proposing new procedures based on improving effectiveness, customer service, competitiveness, and productivity.

Suggestions for a successful oral presentation:

A. Use visual aids such as overheads.
B. Keep in mind you only have 6 minutes. Time is critical so practice your presentation so that it lasts only six minutes.
C. Present the most important aspects of your project rather than getting too involved in detail. You may provide me with additional written information that supports your analysis and demonstrates your efforts. You must attend class each day that student projects are to be presented! No excuses will be accepted!

Working With a Partner.

You may choose to complete this assignment by yourself if you prefer to do so. You may also fire a partner if you choose to do so. However, you must inform the student and the instructor via e-mail NLT than October 11, 2006 of your decision. Once you fire a partner, you may not select a new partner.

Update:

Please provide me with the name of your proposed client and the nature of the project you have considered. If you have not determined what you will do, then please let me know that so we can meet.

Reminder 1:

Please update me on your progress on your project for a small business (one typed page).

1. Remind me of the name and type of business.
2. What do you plan to do?
3. How do you expect it to help your "client"?

Reminder 2:

Please meet with me if you have any questions about what you are doing or how you are doing it. Do so before the Fall Break (Verbal Reminder about a week before Fall Break).

Reminder 3:

Presentations will be done during the final exam period for the course. Please remember to print out a copy of your MS PowerPoint slides for me to use as a reference during your presentation (Verbal Reminder the last week of class).

THE FUTURE IS NOW: PREPARING K-12 TEACHERS AND STUDENTS FOR AN ENTREPRENEURIAL SOCIETY

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ABSTRACT

The state of Indiana is experiencing massive structural changes in the manufacturing environment. This same trend has been seen nationwide as high wage manufacturing moves offshore and communities are left to struggle with the impact on their economic base. Indiana, in fact, has indicated that entrepreneurship and entrepreneurship education is now one of the top 10 priorities in the state (Indiana Office of Community and Rural Affairs). As a result, many states are focusing on entrepreneurship education in their K-12 classroom and have now included entrepreneurship in their content standards. But many K-12 teachers are underprepared for this new challenge.

To better prepare Indiana teachers, a new entrepreneurship course was offered in spring 2007. Results show that our KACE Model, which connects teacher knowledge, comfort and applications, does enhance teachers' efficacy in K-12 student understanding of entrepreneurship. Our KACE Model, the structure of the course and its outcomes are described in this paper.

INTRODUCTION

The state of Indiana is experiencing massive structural changes in the manufacturing environment. This same trend has been seen nationwide as high wage manufacturing moves offshore and communities are left to struggle with the impact on their economic base. Indiana, in fact, has indicated that entrepreneurship and entrepreneurship education is now one of the top 10 priorities in the state (Indiana Office of Community and Rural Affairs). As a result, many states are focusing on entrepreneurship education in their K-12 classroom and have now included entrepreneurship in their content standards. But many K-12 teachers are underprepared for this new challenge.

Indiana University Kokomo has an accredited Center for Economic Education that is affiliated with the National Council for Economic Education (NCEE) and the Indiana Council for Economic Education (ICEE). As a result of this partnership, the Center offers economic education courses, workshops, and economic education research. Both nationwide, and in Indiana, Centers for Economic Education have found themselves in the midst of a new push for entrepreneurship

education in addition to their mission in economic education. This holds true for our Center at IU Kokomo.

We have developed a successful model, the KACE Model (see Diagram 1 in the Appendix), which enhances the economic efficiency of teachers in K-12 classrooms. This model focuses on the three dimensions of teacher effectiveness: the economic knowledge (K); their comfort in teaching economics to K-12 students (C); and their effectiveness (E) in K-12 classrooms as measured by their applications (A). These three elements, essential for teacher competency and K-12 student learning outcomes, are central to INTASC (Interstate New Teachers Assessment and Support Consortium) Principles which guide teacher education accreditation processes.

This model has lead to successful graduate courses. Our first course was a survey of micro and macroeconomics; the second course was a research course in which teachers with background knowledge in economics were given the assessment tools to design action research studies. The focus of this paper is our newly developed third course for classroom teachers – a course in entrepreneurship. Given the economic situation of many states and the pressure to teach entrepreneurship standards, teachers have to be literate in entrepreneurship concepts, comfortable with the entrepreneurship content and standards, and capable of developing applications in entrepreneurship for their K-12 students.

All of our courses have been team-taught by faculty members in economics and education and are praxis-based. This means that content is presented, followed by applications. These applications are interactive opportunities for teachers to apply their knowledge through content simulations, role-plays, collaborative design of products, and simulations of classroom elements. These applications have resulted in strong teacher testimonials.

ENTREPRENEURSHIP MODELS

Entrepreneurship as a content discipline is a fast growing field. There are a number of entrepreneurship models discussing the characteristics, skills, and knowledge needed for entrepreneurial activities as well as the personal characteristics of the entrepreneur. For example, Powell and Bimmerle (1980) noted the three sets of entrepreneurial attributes; entrepreneurial descriptors including knowledge and skills; precipitating factors such as dissatisfaction with current job or recognition of opportunities; and venture specific factors that would include valuations of the ideas and valuation of the resources. Hornsby, Naffziger, Kuratko, and Montagno (1993) highlight the need for an outside event that launches the entrepreneurial activity. Covin and Slevin (1991) examine sets of variables, including external, strategic and internal. They also examine the entrepreneurial firm from the inside.

These models, however interesting, are primarily from either the firm's perspective or from an outside evaluation of how well the entrepreneurial firm is operating. They do not speak to the development of the entrepreneurial spirit in K-12 students. For teachers to successfully inculcate

and develop the entrepreneurial spirit, they need to be trained in entrepreneurship content and given the teaching skills needed to effectively teach that content to their K-12 students.

This need for entrepreneurship education for K-12 students has been recognized by many universities and nonprofits. There are a number of K-12 classroom resources available that offer teachers preset programs, curriculums, worksheets and lesson plans as Brown (2000) noted in her review of K-12 entrepreneurship curriculum materials available. She included *The New Youth Entrepreneur*; the *National Foundation for Teaching of Entrepreneurship* (NFTE); the Kaufman Foundation; the *Program for Acquiring Competence in Entrepreneurship* (PACE); *Own the Place*; *Open for Business*, and so on. These curriculum resources, while impressive, are helpful in establishing the baseline for teachers in content and instructional strategies. However, the reality for most teachers is the need to develop curriculums appropriate for their own classrooms. In fact, our goal was to turn teachers into entrepreneurs in their own classrooms. Our KACE model, while successful in economic education, is a generic model and was able to be successfully adapted to this new course and our development of these teacher entrepreneurs. The KACE model is shown in Diagram 1.

COURSE STRUCTURE: INTEGRATING KNOWLEDGE, COMFORT, AND APPLICATIONS

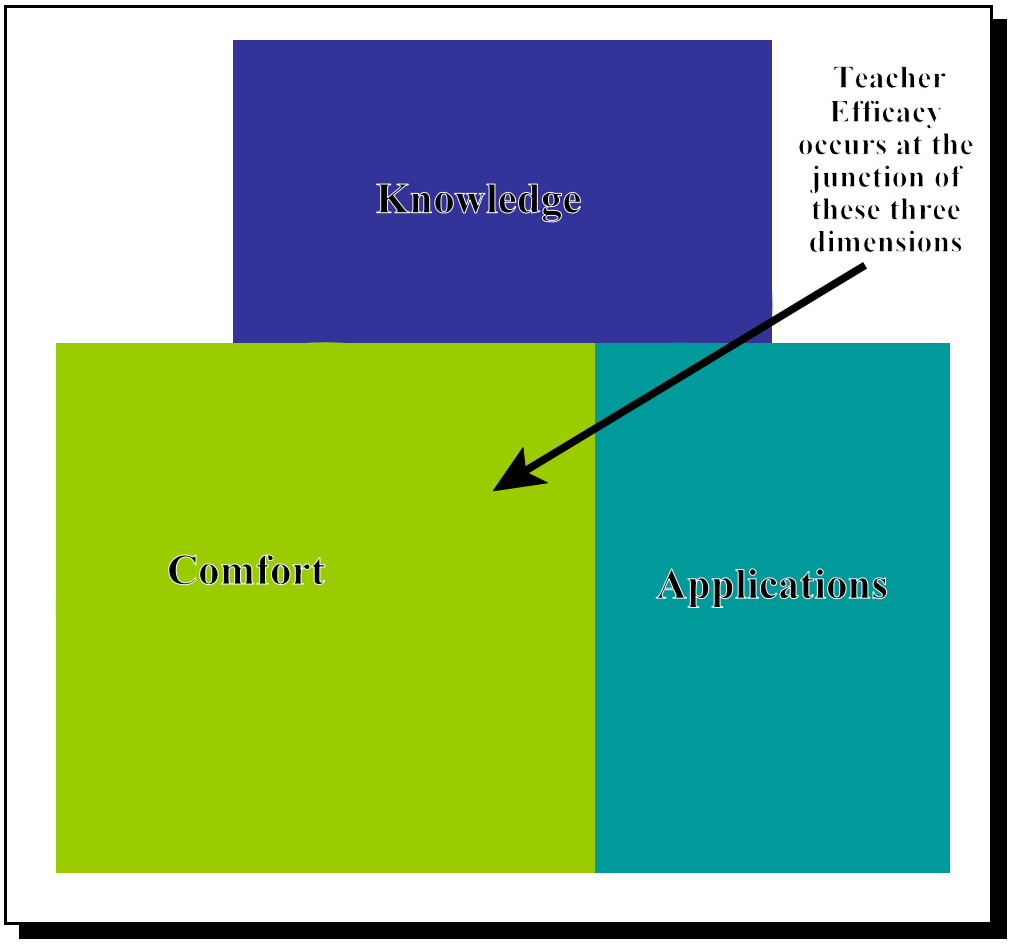
This new course contains our traditional elements in that it was intensively taught on campus, had a field application, faculty served as mentors, and teachers formed a cohort of educators to dialogue and enhance their efficiency. The overall entrepreneurship content came out of a textbook that focused on entrepreneurship as a process, rather than focusing on the singular event of founding a firm. As the authors note, "We believe that recently the field has come to view entrepreneurship as an ongoing process rather than as a single event . . . We reflect this growing consensus by focusing on the entrepreneurial process as it unfolds through several distinct phases." (Baron & Shane, 2005).

In this new course, some of the entrepreneurship content was delivered online. The online content modules were in the areas of accounting, legal forms of business ownership, human resource management, marketing, intellectual property, financing the new operation, and strategic planning. The entrepreneurship content was front loaded so that teachers had the maximum application development time. The online content was followed several weeks later by on-campus applications.

The course was divided into two major parts. The first part was to develop baseline knowledge in entrepreneurship (including both in-class and on-line sessions) so that the teachers would become literate in entrepreneurship before beginning their curriculum development. We moved quickly through the entire textbook (Baron & Shane, 2005) in the early portion of the semester. This knowledge was tested in an online midterm exam. After the first four weeks of in-class meetings and direct praxis applications, the course shifted to the on-line modules in

entrepreneurship. After the entrepreneurship content portion of the semester, the course focused on educational best practices. As these are practicing teachers, they were assumed to have a good working knowledge of best practice scholarship, so this online pedagogical portion required them to apply these practices to their curriculum.

Diagram 1
KACE Model of Teacher Efficacy



The teachers in this course taught a wide variety of K-12 classrooms, ranging from kindergarten special education to high school economics. This provided an additional level of challenge for the faculty members to make sure the entrepreneurship content modules would be applicable to each and every classroom. One additional challenge was to guide these teachers into

taking these generic entrepreneurship and pedagogical modules and refine them into developmentally-appropriate classroom curriculums.

Table 1: The KACE Model in Entrepreneurship

Knowledge	Applications	Comfort
PowerPoint Presentations	Center Library Resources from NCEE, and ICEE but there are limited entrepreneurship resources	Design of campus classroom climate-hands-on interactive activities for **6** sessions
On-line Exams/Quizzes	Praxis-applications following campus content presentations only	Direct and immediate campus applications of content for 6 sessions
Textbook Readings	Textbook Readings supplement on-line content modules (6/semester)	Seminar format and 8 meetings on campus
Community Guest Speakers	Applications done on-line with prompts	Regular update of curriculum development progress mainly online
Content and Pedagogical Modules & Analyses	Off campus-based applications	Socialization via email pre/post off campus sessions
Curriculum Presentations that demonstrate literacy	Teachers present their curriculum to their colleagues	Group interactions within a learning community

DATA AND ANALYSIS

Knowledge

Classroom knowledge was developed through the use of the textbook, guest speakers, in-class simulations, and outside readings. The course learning outcomes included developing knowledge of the personal attributes of entrepreneurs, analyzing scenarios of various entrepreneurship projects and their likelihood of success, and examining the institutional structures that help or hinder entrepreneurial success. As part of the course, teachers linked the content to their specific grade level standards in entrepreneurship. The online modules supplemented these topics so that teachers developed baseline knowledge in entrepreneurship for curriculum development, implementation, and assessment.

The online setting included faculty developed PowerPoint slides that supplemented and complemented the textbook readings. After reading the online entrepreneurship content slides, teachers were asked to answer four prompts for each module. The first content prompt asked the teachers to reflect on the implications of this content for their developing curriculum in

entrepreneurship. The second prompt asked them to reflect on the content in terms of any organizational or structural changes that they might make in their classrooms. The third prompt asked the teachers to tie the entrepreneurship content back to different standards, in come cases to language arts, and others to mathematics, or social studies, or sciences. The last prompt asked the teachers to reflect on what three questions this content raised for them in terms of developmental appropriateness and how this applies to their existing curriculum. The teachers' grade levels or content specialization seemed to influence the degree of difficulty that teachers encountered with the material, as discussed in below.

The first content module was Human Resources, including the common theories of motivation. Teachers were able to make very clear connections back into their curriculums and into their classroom management structures. For example, teachers used the theories of motivation to look at how they motivate their students. Structurally, teachers explored the ideas of using students as employees including the ideas of students taking ownership for their own learning and organizing the class via a business model. The questions they reflected on dealt with how to integrate entrepreneurship content into their curriculum, the importance of motivating students via strategies that create student-ownership of the learning experience, and how to structure activities where students were managers and employees.

The second content module dealt with the Legal and Financial issues in a new business. This was the most challenging module for teachers, in that it was the most specific content in terms of business and some teachers did not see the relevance as clearly at first. They commented that content seemed too specific for their classrooms. However, one teacher expressed that he could indirectly incorporate this content into his classroom through the lens of legal and regulatory environments. Using the legal framework in their classrooms struck many teachers as appropriate and as a way to make students more accountable. Another teacher saw this content as an "important piece of growing up, becoming an adult and becoming more responsible." One teacher was able to see the connection between cheating in his school and the need for intellectual property rights. While teachers found this module difficult to incorporate into their classrooms, their reflection lead to the realization that this content was basic to their students being successful adults.

The third content module was on Managing Your Property and Strategic Planning. Teachers quickly focused in on the importance of mission statements for their businesses and for education in general. They could easily relate this back to the skills that students need for the grades ahead and adult life. Some commented that instead of telling students what they will be learning, the teacher would abdicate some authority and let students assume the roles of manager of knowledge. The teachers' grade levels or content specialization seemed to influence the degree of difficulty that teachers encountered with the material.

The fourth content module was on Marketing. Since K-12 students are avid consumers of goods and services and are exposed to many marketing messages each day, this module was one of the easiest for teachers to teach. They had many creative ideas for teaching marketing principles

such as advertising and creation of commercials, sales of classroom produced products, and helping students to become wiser consumers in terms of their analysis of marketing materials. There was still some backlash against the content as some teachers could not believe that their third grade students could handle the content, while other third grader teachers could easily see the relevance to their classrooms.

The online pedagogical content modules also supplemented the campus sessions by dealing with the major research findings on teacher efficacy. The fifth module dealt with the key Best Practices Principles of Teaching and Learning. The sixth module dealt with research-based Best Practices in Social Studies. The final module focused on Authentic Assessment, which aims at performance-based outcomes in K-12 student learning. Each of these modules had individual prompts and assignments specific, to the module. For example, in the Best Practice Module, the teacher had to develop a matrix analyzing their curriculum lessons for alignment with these best practices. For the sixth module, teachers had to analyze their lessons in light of the best practices in social studies education. In the final module, teachers had to describe three authentic assessment measures in their emergent curriculum.

Comfort

For many of these teachers, entrepreneurship content was outside of their comfort zone at the beginning of the course. They may have been attracted to the class by the time slot, tuition stipends, or the need to fulfill a course for licensure. Therefore, it was gratifying to see the incorporation of entrepreneurship content into mathematics, science, language arts, and other areas of the K-12 curriculum as these teachers learned and applied the subject material. Part of the online module requirements was that teachers apply the specific knowledge to their classroom and their lessons. Many teachers commented that this stretching process made them think and grow as an instructor. One noted, "Having taken this class, I will also be able to incorporate more of a business sense in that I have a better grasp of the business world."

One team of third grade teachers showed the greatest changes in their dispositions over the course of the project. These teachers began the class with the attitudes that standards were "stupid" which changed to wishing that the project could continue for a longer period of time. While they found that profits were a stretch academically for their students, these teachers were impressed with the gains that their students had made and are planning on doing the project again next year.

Applications

Teachers designed a wide variety of applications appropriate to their grade levels and grade level standards. These included both original and adapted existing lesson plans to infuse entrepreneurship. In addition they assessed entrepreneurship learning throughout their curriculums.

Periodic campus meetings, online postings, and final presentation sessions created a learning community among these teachers to enhance their efficacy. One teacher commented, "I believe application is the highest level of learning, and then we as educators can celebrate that our students understand what we have taught." Several examples of the developed curriculums are listed below.

One teacher designed a curriculum for special education students. Prior to this course her instructional methodologies either individualized the instruction or grouped students according to areas of exceptionality, such as emotionally handicapped, autistic, etc. As a result of this course, for the first time her classroom was, "unified around a curriculum project with all the children engaged in a series of entrepreneurship activities around ice cream." She noted that she would no longer underestimate the ability of her students to learn abstract concepts and she commented, "One thing I know for sure is that my students are having a great time learning the concepts. They think they're brilliant because they're able to identify a good and a service without any help." Entrepreneurship gave her a lens to view her classroom in a new way.

A fourth grade teacher designed an entrepreneurship activity with jewelry making as its focus. Some teams concentrated on mass production, while others developed unique styles and products. One group custom designed items by recognizing that some of their customers (a group of kindergarten girls) were asking for specific items. Profits and costs became an important part of the curriculum. This was challenged when students had to decide whether or not they should offer a refund when a customer complained. They decided that long term customer good will was worth the short term loss in profits.

A fifth and six grade team of teachers approached entrepreneurship through science/mathematics and bridge building projects. These students learned that there were absolute minimums required for their final projects due to safety considerations. They also learned the multitude of skills needed to successfully design, purchase, hire the appropriate workers, build, and test their bridge. One teacher noted, "The students will walk away knowing more about the responsibilities of running a corporation and achieving the goals that they have set for their company."

Overall Measures - Survey

A pre and post survey was designed and administered to determine the overall impact of the entrepreneurship course on teachers' knowledge of entrepreneurship, pedagogy (how to teach entrepreneurship) and higher level thinking about classroom applications. This survey identified 26 elements of teacher efficacy. The most important results are show below in Table 2. (See Table 3 for a copy of the complete survey instrument).

The survey was designed prior to the start of class to meet campus human subject review processes, and therefore like many survey instruments, could have been better designed. The difference in means tests showed that several important attributes were significant at the 99% level.

These include the importance of the knowledge of economic and entrepreneurship content, the knowledge of instructional strategies for teaching economic/entrepreneurship content, and the applications of the knowledge in the classroom. This was the KACE Model in action. Other items were interesting but not statistically significant. The scores were high on these items to begin with and the course did not significantly increase the scores.

Table 2: Results of the Pre/Post Survey

Question	Pre-Average	Post-Average
1	2	4.125**
7	3.75	3.63
9	3.5	3.88
10	1.88	4**
11	2.5	4**
12	2.63	4.25**
14	2.88	3.88
17	1.63	3.88**
18	3	4
20	3.75	4.43
23	2.5	4**
24	2	4.14**
26	3.13	4

** Difference in means is statistically significant at the 99% level

CONCLUSIONS AND FUTURE PLANS

The KACE Model of teacher instruction was found to enhance teachers' efficacy in entrepreneurship. Teachers showed their entrepreneurship knowledge through their exams, and the module postings, as well as their self-reported data on the survey. Their comfort levels were increased as shown by the fact all the teachers involved in this project plan on redoing this curriculum next year. One teacher summed up this consensus, "this was a unique experience; I would do it again and revise it." The quality of their curriculum projects showed that the teachers had learned to apply entrepreneurship content into their K-12 classrooms.

Overall, this was a very successful class. Entrepreneurship is not a subject area that teachers are comfortable teaching due to their lack of experience and training. But the Indiana standards clearly require instruction in entrepreneurship and this leads to teacher anxiety. This class gave teachers the tools that they need to understand the material, develop grade appropriate curriculum

and assess their students' learning. One teacher may have put it best, "The curriculum we have written is an in-depth study of entrepreneurship where the students are fully engaged." These are important skills to develop as Indiana continues the move from manufacturing to a more entrepreneurial environment.

We believe this type of pedagogical model of developing teachers' efficacy in teaching entrepreneurship was successful. We will be offering a revised version of this course in spring 2008 using the same format of textbook knowledge, on-line modules, increasing teacher comfort and entrepreneurship activities. A new component of the spring 2008 course will be beta testing of new entrepreneurship content tests for K-2, 3-6, 7-8, and high school grades, in conjunction with ICEE and NCEE. This additional component will enable us to determine the impact of these teacher developed projects on their K-12 students' knowledge, skills and attitudes in entrepreneurship. In doing so, we will be able to assess the entrepreneurial spirit in K-12 students who are the entrepreneurs of the future.

Table 3: Please rate yourself on the following statements (1 low to 5 high)

	Statements	Rating
1.	Knowledge of economic/entrepreneurship concepts.	
2.	View the important goal of education as development of subject matter knowledge.	
3.	Importance of understanding economic/entrepreneurship concepts.	
4.	Importance of understanding economic/entrepreneurship facts.	
5.	Importance of understanding economic/entrepreneurship theories.	
6.	Importance of understanding beliefs held by people in the field of economics/entrepreneurship.	
7.	Knowing what your students' ideas are about economic/entrepreneurship.	
8.	Know how to anticipate and interpret what your students think about or do in an activity.	
9.	Have economic/entrepreneurship objectives to meet economic mandate.	
10.	Knowledge of instructional strategies to teach economics/entrepreneurship.	
11.	Ability to apply your knowledge about economics/entrepreneurship in the classroom.	
12.	Ability to teach economic/entrepreneurship content.	
13.	Importance of changing your practice.	
14.	Ability to develop authentic activities in economics/entrepreneurship.	
15.	Use personal resources embedded in curriculum materials to teach economics/entrepreneurship.	
16.	Engage students in the use of data.	

Table 3: Please rate yourself on the following statements (1 low to 5 high)		
	Statements	Rating
17.	Have material in economics/entrepreneurship that are of high quality content and pedagogy.	
18.	View yourself as a reflective practitioner.	
19.	Importance of understanding structures in economics/entrepreneurship.	
20.	Importance of opportunity to discuss teaching.	
21.	Importance of being in a culture where a range of teaching practices is available.	
22.	View teaching as a way to promote your own learning.	
23.	Your ability to think like an economist/entrepreneur.	
24.	Know how the discipline of economics/entrepreneurship works.	
25.	Use rationales for the approaches you take in the classroom.	
26.	Integrate knowledge and theory (Praxis).	

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ENTREPRENEURIAL INTENTIONS RESEARCH: IMPLICATIONS FOR ENTREPRENEURSHIP EDUCATION

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ABSTRACT

If entrepreneurial intentions precede entrepreneurial behavior, then entrepreneurship educators should benefit from intentions-based research in entrepreneurship. This paper reviews the intentions research related to entrepreneurship, focusing on Ajzen's (1991) Theory of Planned Behavior and Shapero and Sokol's (1982) Entrepreneurial Event Model. The author then proposes that three variables from the two models are key to entrepreneurial intentions – perceptions of desirability and feasibility and propensity to act. Additional antecedent variables (social connections, work-related experience, and self-efficacy) that had demonstrated influence on intentions were discussed as well. Finally, learning activities were identified and discussed that were believed most likely to influence entrepreneurial intentions of students. The paper concludes with a discussion of the questions that remain to be answered in this literature as to the impact of specific educational activities on intentions and entrepreneuring.

INTRODUCTION

Intentions to act are believed central to understanding the behaviors in which people engage. While actual behavior may differ from intended behavior, it has been established that one's intention to act toward something in a certain manner is the most consistent predictor of actual behavior, particularly planned behavior (Krueger, Reilly and Carsrud, 2000).

Intentions-based models then are particularly suited to entrepreneurship as the entrepreneurial process is a planned one. The considerable literature that has developed around these models offers the opportunity for educators to better construct learning experiences that can lead to more 'entrepreneurial events' (Shapero and Sokol, 1982). Why is this research important to educators?

Three reasons are given here for the importance of this discussion: (1) the proliferation of entrepreneurship courses in the past twenty years indicates the interest in, and the importance of, the subject, (2) evidence suggests that entrepreneurial training can add real value by increasing the success probabilities of new ventures (See Katz (2007) for a recent discussion of these two points; also, Peterman & Kennedy (2003)), and (3) the literature suggests that educational institutions can

have wide-ranging impact on the choices students make, some specifically suggesting that universities can act as important triggering environments for entrepreneurship (Shapero and Sokol, 1982). This latter point merits further discussion.

Shapero and Sokol (1982) presented a process model of new venture formation which included what they called a displacement event. They argued that inertia guided human action and as a result there needed to be a displacing event to push or pull an individual to change course, and in this case to found a business. This displacement has also been called the 'trigger' or 'precipitating' event. For Shapero and Sokol, transition stages were occasions for this displacement. For our purposes, they specifically noted that getting 'out of school' as such a transition event whereby the person is open to differing life paths and career options. Another displacement condition would be the urging of a mentor, and presumably by implication, an instructor or respected 'other' in the university context who could act as such a trigger. Educators are generally recognized as important molders of the attitudes and beliefs students hold and that would be no less true when it comes to entrepreneurship as a career choice or lifestyle. Evidence indicates that young people have a strong positive predisposition toward entrepreneurship and running their own businesses (BusinessWeek Online, 2006; Gallup, 1994). How can we translate this early interest into increased numbers of young people starting new businesses?

This paper will summarize the two most common intentions-based explanations of entrepreneurial behavior, review research to date on the key variables examined in this literature, and discuss the implications for educators interested in enhancing learner interest, preparedness and willingness to entrepreneur. The review will focus on selected variables from intentions-based research that seem to have significant pedagogical implications, which will then be discussed.

REVIEW OF LITERATURE

If actions are the fruit of intentions to act, then a better understanding of the factors that guide the development and enhancement of intentions becomes central to our pedagogical approach. Within the entrepreneurial intentions literature, there have been two models that have received the most research attention: Ajzen's (1991) Theory of Planned Behavior (Figure 1) and Shapero and Sokol's (1982) Entrepreneurial Event Model (Figure 2). A brief overview of these two models will be given, followed by a more careful summary of research findings of key variables from these models.

Theory of Planned Behavior

Ajzen (1991) argued that considered actions are preceded by conscious decisions to act in a certain way. He further theorized that these intentions were the result of attitudes formulated

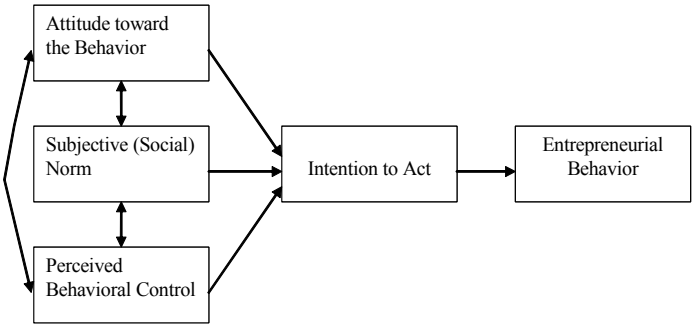
through life experiences, personal characteristics and perceptions drawn from these prior experiences. He proposed that the three determinants of intention were as follows:

Attitude toward the behavior as being "the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question." Attitude is a composite variable comprised of both cognitive and affective elements that support this mindset toward entrepreneurship as a lifestyle or career or activity, whether positive or negative. As an attitude is a conclusion or predisposition toward an action, it too is formed through experience and perceptions formed over the life of the person.

Subjective norm refers to "the perceived social pressure to perform or not perform the behavior." This variable would be influenced not only by broad cultural attitudes toward entrepreneurship, but also the attitudes of particular individuals, groups and networks the person is most influenced by, such as family, friends, peers and significant 'others'.

Perceived behavioral control "refers to the perceived ease or difficulty of performing the behavior and it is assumed to reflect past experience, as well as anticipated impediments and obstacles." This variable is recognized as most impacted by and closely related to Bandura's (1986) perceived self-efficacy, a person's belief they can execute a particular action (ie. start a new venture).

Figure 1. Theory of Planned Behavior



(Ajzen, 1991)

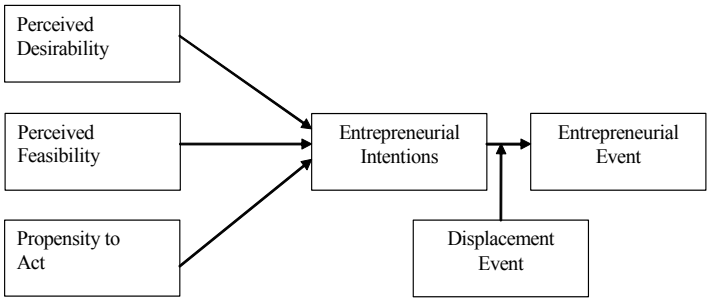
As indicated by the model, it was not only proposed that intentional behavior was predicted by these three mediating variables, but that these variables would share variance as well, largely due to the impact of the broader social experience on the person. In general, support for the predicted relationships in the model has been established in many tests across several domains. In sum, intentions of subjects have commonly predicted actual behavior in the 60% range in a number of samples to as high as 82% in one study reviewed.

Model of the Entrepreneurial Event

While Shapero and Sokol (1982) did not propose their model as an intentions-based model, it was quickly seen as precisely that by many and has since been so utilized in entrepreneurship literature. They sought to identify key social factors that led to what they called 'entrepreneurial events', or the act of starting a business (See Figure 2). Central to their model were the perceptions by the individual of the desirability and feasibility of launching a new venture combined with some propensity to act on opportunities, and then triggered by a displacement event. While many variables would be expected to influence an individual's intentions to act in a certain way, research supports the mediating effect for the three variables outlined in the model, namely perceived desirability, perceived feasibility and propensity to act (Krueger, 1993).

As a process model, Shapero and Sokol (1982) argued that the displacement made one open to consideration of different paths that he/she could choose. He proposed that any path being considered had to be perceived as not only desirable but feasible, and that there had to be some general propensity to act on an alternative. In their view, an individual's conclusion that an alternative was attractive and doable was an insufficient condition to action; hence, their belief that there must be some predisposition to act on opportunities for a new venture startup to actually take place. An additional contextual condition, as indicated earlier, was the displacement event, which precipitated the cognitive process outlined in the model in Figure 2.

Figure 2. Modified Entrepreneurial Event Model



(Krueger et al, 2000)

Displacement events were conceptualized as situations, positive, such as an opportunity is presented to get into business for oneself, or negative, such as being laid off from a job, or more neutral as in life-transition situations, such as graduating from college. To Shapero and Sokol, these were necessary to break people out of the 'ruts' they develop over time.

Perceived desirability reflected the personal attractiveness of starting a business and very closely relates to Ajzen's attitude and subjective norm variables (Krueger et al, 2000). This is

impacted by social background, which is comprised of broader cultural influences, as well as family, friends, and personal exposure to entrepreneurship. This history results in a pre-loaded perspective about this path or choice, positive or negative.

Perceived feasibility reflects the level or degree of personal competence to start a business as felt by the person. This perception is viewed as related to Ajzen's behavioral control variable in that both of these focus on a person's assessment of his/her ability to manage the business start up process successfully. It is a measure of uncertainty, and uncertainty is the perception of controllability of a situation. While previous experience and a general sense of self-confidence in one's skills and abilities to successfully execute tasks have been found to relate to this belief, it is self-efficacy that has repeatedly been identified as the critical antecedent variable to subjects' feasibility perceptions (Krueger and Brazeal, 1994; Chen, Greene, and Crick, 1998; Krueger et al, 2000).

Propensity to act reflects a person's predisposition to act on a decision. Shapero and Sokol's (1982) model presupposes an individual's willingness to act on choices, but is explicitly developed by subsequent authors testing their model (ie. Krueger, 1993). This variable has been argued elsewhere to be similar to risk-taking propensity and tolerance of ambiguity, defined as a person's willingness to take action when outcomes are not known (Shane, 2003). As far as measures of this variable, some have favored internal locus of control as an orientation to control life events, as has 'learned optimism' (Krueger et al, 2000). The variable itself, however, is argued to be a complex one, having both indirect and direct impact on intentions; that is, acting directly on intentions, mediating through desirability and feasibility variables and as a moderating influence on these variables on intentions. Indeed results have supported the variable's direct impact on perceived desirability, feasibility and intentions (Krueger, 1993). This latter study specifically examined the impact of prior entrepreneurial experience on these three variables, finding support as predicted; that being the effect of entrepreneurial experience being fully mediated through the three variables defined in the Shapero-Sokol model.

In the only direct comparison of the Ajzen and Shapero-Sokol models (Krueger et al, 2000), both models did reasonably well with the Shapero-Sokol model explaining slightly more variance in intentions than the Ajzen model, adjusted R-squares of .35 and .41, respectively. Further, the direct effect for Ajzen's subjective norm was not found in this particular study, although the other hypothesized relationships were significant.

While the results suggest both models would be useful, a more parsimonious set of variables seems probable, comprised of perceived feasibility-behavioral control, perceived desirability-attitude toward act, and propensity to act. Each demonstrated significant predictive ability on intentions to start a business, feasibility being the strongest and propensity to act the weakest.

To summarize:

Perceptions of desirability are influenced by this broader stream of cultural/social elements that help form our opinions and attitudes toward any particular action. For example, if a society emphasizes getting a good education for the purpose of getting good jobs, then entrepreneuring is viewed as less desirable (and salient) as a career choice. If parents are self-employed in their own businesses, this makes entrepreneurship more salient and potentially more attractive.

Perceptions of feasibility are also influenced by the individual's prior experiences, but it is self-efficacy beliefs, those beliefs that are most task specific, that have been most potent as an antecedent of feasibility perceptions. An extensive body of research exists that supports the significance of self-efficacy as a performance enhancing variable (Bandura, 1986). This variable will be discussed in more detail later in this paper.

Propensity to act explains additional unique variance in intentions and is a malleable construct, one that is molded by the experiences of the individual and the decisions made for the future. Krueger et al (2000) have suggested that as propensity impacts intentions, so too do intentions affect these future predispositions to act. Further, Krueger (1993) found that propensity to act was partially mediated through both desirability and feasibility perceptions, while also having a direct effect on entrepreneurial intentions. It is therefore expected that the forces affecting these perceptions, including efficacy beliefs, will affect this predisposition to act on intentions and in the same direction.

With these findings to date, we turn our attention to a discussion of the implications for pedagogy and the opportunities as educators to impact future entrepreneurial events. The remainder of this paper will focus on the three factors summarized in the preceding section, reviewing what theory and research suggest impacts these factors, and leading us to a discussion of the kinds of initiatives/activities that would seem most fruitful in developing intentional entrepreneurial behavior among our students.

ANTECEDENT VARIABLES, INTENTIONS RESEARCH AND IMPLICATIONS ON PEDAGOGY

Central to the intentions-based models is the belief that an individual's attitude toward entrepreneurship is a result of prior experiences leading up to the moment of decision. Intentions reflect the current attitude a person holds toward starting a business. Shapero and Sokol (1982) suggest that the number of social elements that make up our experiences is considerable ranging

from broad cultural attitudes toward "entrepreneuring" to more localized social influences of family, peers, colleagues, mentors, and presumably any significant others in the social context of the individual.

Research to date generally supports the mediation model discussed above. That is, background factors of the individual have been shown to impact intentions largely through desirability and feasibility perceptions. However, there are variables that have yet to be examined in these models but have been found to impact entrepreneurial behavior.

Shane (2003) reviewed the literature on several individual social and psychological factors that have been shown to influence a person's likelihood of exploiting an opportunity, three that seem particularly relevant to the focus of this paper: social connections, past work-related experiences and the psychological factor of self-efficacy. Table 1 summarizes those factors that educators can incorporate into student experience that are believed to influence intentions.

Social Connections

Shane noted that social connections were found to be important predictors of entrepreneurial activity. Better access to resources and information are important outcomes of social networks. It is the practical aspect of the saying, 'who you know is as important as what you know'. Not only does research support these connections as being a significant influence on intentions toward launching a business, it also reveals that individuals with stronger social ties will have stronger performing ventures.

This suggests that the interface between entrepreneurs and students is important beyond the imprint these social contexts make on the desirability and feasibility perceptions of students. A systematic development of networks of entrepreneurs and the resources and skills needed to launch businesses has practical importance as well. University programs that seek to have a lasting impact on their students will want to pull together networks of information and other resources that can be accessed by aspiring entrepreneurs, student and alum, and can be a source of encouragement long after the student leaves the university. Katz (2007) affirmed the importance of such networks in his discussion of the key components of entrepreneurship education today.

Work-related Experience

Referring again to Shane's (2003) review of individual factors positively influencing entrepreneurial behavior, he noted the impact of past experience on entrepreneuring. Specifically, he found that general business, functional, industry and start-up experiences all individually predicted self-employment. Bandura (1986) recognized that direct experience, what he called mastery experience, was a powerful learning method. That is, if we've done something before, our confidence in our ability to do it in the future increases – self-efficacy is increased.

This suggests that students possessing any experience in organizations are more likely than those without such experiences to seek self-employment opportunities. This points us to the importance of direct experience scenarios for our students, with those most related to self-employment being most potent. Internships in entrepreneurial companies and encouraging involvement in student-run businesses would be important in this regard. Additionally, Katz (2007) suggested that students should be encouraged to engage in student-team consulting projects to small businesses as part of their learning experience. All these activities reflect the direct learning experiences that are so powerful in forming our future beliefs.

Self-efficacy

Much has been said already regarding the impact of self-efficacy on intentions to entrepreneur. While the impact on intentions is most centered on feasibility perceptions, research has also supported the general effect of efficacy on attractiveness perceptions. Shane (2003) observed that individuals exposed to entrepreneurship and entrepreneurs are more likely to start businesses themselves. Specifically, he found that when parents were self-employed it was more likely that their children would be as well. Further, he found that some research showed that contact with entrepreneurs greatly increased students' intentions of becoming entrepreneurs themselves and improved self-efficacy beliefs toward entrepreneurial tasks.

Self-efficacy is an important concept in Bandura's (1986) Social Cognitive Theory. The central notion of the model is that people not only learn from direct experience (doing something themselves), but also from vicarious experiences (observing someone else do something). In fact, he proposed that observational learning is how we learn most of our repertoire of behaviors. For our purposes then, students learn behaviors and attitudes from credible models and observe the consequences received by them – positive or negative. This learning is crucial to self-efficacy beliefs toward entrepreneuring. It is important then for educators to select models carefully.

Bandura specified four necessary components in the learning process before a model would be imitated: attention, retention, reproduction and motivation. A brief summary of these follows, along with the implications for entrepreneurial learning:

1. *Attention* refers to the fact that if the model doesn't have the full attention of the observer, then his/her impact will be diminished accordingly. A host of factors affect quality of attention and would include the presence of other distractions, physiological or mental factors such as fatigue or illness, or observer doesn't identify with the model are only a few examples.

This suggests that the selection of entrepreneurs as models and the setting and manner in which students encounter them is critical to this form of learning. While direct contact can be immensely positive, it can be likewise immensely negative, depending on the model selected. This would seem particularly true for early encounters between students and entrepreneurs. Videos and

case studies, while less rich in this sense of encounter, have nonetheless been found to have strong impacts on efficacy beliefs.

2. *Retention* refers to the individual's need to recall what was attended to in the model. This involves cognitive faculties of symbolic coding, mental imaging, organization, mental and physical rehearsal (mimicking) of model behavior and attitudes.

Table 1: Summary of Learning Activities and Impacts on Entrepreneurship Intentions	
Learning Activity	Affecting Perceived Desirability
	Exposure to entrepreneurs & their businesses
	Successful direct experience in starting, working in, and operated own business
	Positive entrepreneurship attitudes of peers, friends, faculty mentors, etc.
Learning Activity	Affecting Perceived Feasibility (indirectly Desirability and Propensity to Act)
	Effective modeling of entrepreneurship
	Meaningful interactions with entrepreneurs
	Direct experiences in starting new business
	Consulting in entrepreneurial organizations
	Internships in entrepreneurial organizations
	Courses incorporating essential knowledge and skills (ie. business plans)
	Successful experiences in student entrepreneurship
	Exposure to relevant entrepreneurship networks

This suggests that reviewing key model behaviors and attitudes and discussing what these mean during a class or meeting would be important in drawing attention to important aspects of the model and assist students in interpreting what happened. Further, students will be challenged to use these behaviors when they have opportunity.

3. *Reproduction* refers to actually doing what the model did or exhibiting the attitudes the model exhibited in the appropriate context. Up to this point the activity has been mental, whereas successful reproduction of the desired behaviors is now required.

This suggests that the importance of directing the student to key behaviors early in the process. For example, when an entrepreneur suggests that the first thing he does each day is review his list of goals for the day, and this in response to the general question to what you do in a given day, then it is important to affirm the behaviors of interest in an encounter with the model. Or perhaps it is her attitude toward a failure she described earlier. Another example is to refer to the model's emphasis on business planning as a call for students to conduct a market assessment for a new venture. Katz (2007) pointed out that the business plan was the key modeling exercise and

entry tool used in entrepreneurship education, requiring the student to practice concepts and techniques on a proposed business venture.

4. *Motivation* refers to the willingness of the learner to incorporate the learning experience into his/her life; that is, linking the student's imitation of the model to real, expected, or vicariously observed outcomes. Seeing and practicing an action is not the same as doing it in life. The person must connect the model's actions with his/her own future actions of choice. The use of internships and student consulting projects seem pertinent to testing this transfer of learning to applications in real situations, as well as student application in student-run enterprises.

In sum, it is not only important to introduce students to what is to be done to start a business, but they need to see it being done in the business context and have the opportunity to do it in a business context.

DISCUSSION

As can be seen from this discussion, intentions-based research suggests a number of opportunities for educators to increase the likelihood of lasting entrepreneurial events by their students and graduates. This paper reviewed research on several factors that impact intentions to start a business and discussed those activities that would seem to have the greatest impact on the entrepreneurial behavior of students.

As noted earlier in this paper, the proliferation of courses in entrepreneurship on college campuses suggests that there is ample interest in at least offering students the opportunity to engage entrepreneurship. This has been an encouraging trend. Yet, many programs use the entrepreneurship/small business course as the central, if not the solitary, component of its entrepreneurial agenda. Further, Katz (2007) concluded that most programs emphasize the technical aspects of starting a business, and while this is important, it is only part of the need. As we have discussed, there is opportunity to make a much larger and lasting impact on student entrepreneurial behavior through the direct influence on the career goals students consider and set for themselves.

IMPLICATIONS FOR RESEARCH AND PEDAGOGY

From this review, it seems clear that there are a number of practical ways for educators to influence student attitudes and intentions toward entrepreneurship, most of which are relatively easily accomplished in a college/university setting. Several questions remain, however, as to impacts of these experiences on intentions and actual new business start ups and the degree that the pedagogical approaches discussed here can impact these outcomes.

First, the number of possible experiences or initiatives listed that are argued to influence perceptions of desirability and feasibility have yet to be tested as to their relative and combined influence on intentions to entrepreneur. It would be expected that more experiences, and different

types of experiences, and intensity of these experiences would have a stronger impact on intentions than their opposites. That is, longer exposure to different types of experiences that are high impact as to cognitive effect would be expected to create stronger intentions to go in this career direction.

Second, it is also unknown how long these intentions will last and how strong these intentions will be as time increases between the learning experiences and actual opportunities to act. Focusing on intentions in brief, intense settings does not insure that these predispositions remain as time passes and in competition with other opportunities. It would be expected that students from entrepreneurship 'friendly' backgrounds will have their intentions strengthened and reinforced, while those not from such backgrounds would find these intentions may weaken as time goes on. This suggests that post-graduation support may be important to keeping earlier interests in entrepreneurship alive.

Third, there is a lack of longitudinal research evidence that would indicate the long-term effects of temporally created intentions on actual entrepreneurial behavior, at least beyond the general background factors already examined.

Finally, as alluded to earlier, entrepreneurship research has largely been conducted measuring singular intentions. That is, subjects have been asked to rate their intentions toward a single option – starting a new venture. However, most people have multiple competing opportunities and choices to make and a prioritization among intentions is likely. This suggests that much more needs to be understood in this regard as it pertains to entrepreneurial behaviors.

CONCLUSION

To this author, the dominant script for people coming to college is that they get a good education so they can get a good job. Thus, individuals come into universities with this intention in mind – the scenario that is most desirable and feasible to them. By extension, do universities reinforce this orientation? Shapero and Sokol (1982) similarly ask, "Does it [business school education] convey the idea that small business is not desirable or doomed to failure?" and "Is there a general cultural bias in favor of the professions?" (p. 87). While intentions research suggests that these predispositions can be positively influenced toward entrepreneurship as an activity or career path by the college/university experience, it is by no means a certainty. This is particularly true if there is a general bias across university campuses in favor of job seeking as opposed to self-employment. Yet, if we believe that more and more of our students should consider entrepreneurship as a career path, intentions research suggests that we can do more to make this path more salient, desirable and feasible.

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TEACHING INTERNATIONAL ENTREPRENEURSHIP THROUGH STUDENT EXCHANGE: OBSERVATIONS, OBSTACLES AND RECOMMENDATIONS

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ABSTRACT

While most scholars and researchers recognize that entrepreneurship occurs differently in other countries, there are relatively few undergraduate courses that focus on International Entrepreneurship. Further, of those with an International focus, few provide students with an opportunity to interact with aspiring entrepreneurs from other countries. The following summarizes the results of six collaborations intended to test several models for international student exchange. Each of the collaborations included either one or two-way travel among participants, hosting responsibilities, and cultural activities. The authors present a number of observations and obstacles that will assist facilitators interested in providing similar course offerings. The article concludes with recommendations for future course offerings including a sample itinerary.

Keywords

International Entrepreneurship, Student Exchange, Cross-cultural education

INTRODUCTION

Entrepreneurship education was initially introduced in the United States in the late 1940s (Katz, 2003). Since then, the field has witnessed phenomenal growth with over 300 endowed positions, 100 centers and over 550 schools in the U.S. offering entrepreneurship courses both within and outside business schools (Katz, 2003; Kuratko, 2005; 2006). This growth caters to an increasing interest in entrepreneurship courses among students. USA Today (2006) reports Gallop Poll results

indicating 69% of high school students are interested in starting their own companies. In addition, some of the leading business schools in the nation (Northwestern University's Kellogg School of Business, Stanford University, and the Harvard MBA program) report growing interest among their students in studying entrepreneurship and/or becoming entrepreneurs (Fiet, 2001a).

More recently, scholars have recognized the importance of the international dimensions of entrepreneurship. International entrepreneurship is defined as "the discovery, enactment, evaluation and exploitation of opportunities - across national borders - to create future goods and services" (McDougall & Oviatt, 2003, p.7). Jones and Oberst (2003) believe that entrepreneurship "must be taught within the global context; lacking that, graduates will be ill prepared to be internationally competitive" (p. 2). While the authors focus on the importance of teaching international entrepreneurship to engineering students, such a focus is relevant for students in other disciplines as well. This is consistent with Bell, Callaghan, Demick and Scharf (2004) who argue that "academic formation …of international entrepreneurs…is particularly crucial in light of the emergence of small entrepreneurial 'born global' firms that have been able to take advantage of technological advances to internationalize rapidly" (p. 109). Born global firms are those companies formed expressly with the international market in mind (Oviatt & McDougall, 1994)

Despite an increasing attention from public authorities and researchers (Dana, 2004), the importance of the international dimension of entrepreneurship has had few repercussions on its teaching. A recent web search identified only a handful of American business schools which offer International Entrepreneurship courses (Appendix A). Bell, Callaghan, Demick and Scharf (2004) note that despite the growth in the number of entrepreneurship programs offered at American academic institutions, "their primary focus tends to be on the study of entrepreneurship in a domestic market setting" (p. 110). This observation may be attributed to several factors. First, the majority of the teaching developments in the field of entrepreneurship come from the United States, a country whose domestic market is often self-sufficing for firms. Second, research on international entrepreneurship, which should support education programs, is still in its infancy and has only recently identified the competitive advantages of firms that are born global (Wijewardena & Tibbits, 1990). Third, textbooks and other teaching materials on International Entrepreneurship are rare (for an exception, see Kuemmerle, 2004).

The globalization and internationalization of the business world, however, demands that entrepreneurship educators give more attention to teaching international entrepreneurship. As the 2007 report of the A.T. Kearney / Foreign Policy Globalization Index indicates, U.S. foreign trade grew 12% from the last year, currently estimated to represent 26.2% of the nation's GDP. The Globalization Index Report ranks 72 countries (accounting for 97% of the world's gross domestic product and 88% of the world's population) on 12 variables covering economic integration, personal contact, technological connectivity, and political engagement (Anonymous, 2007). While the U.S.'s ranking as seventh in the world is based mostly on the non-economic measures, the report emphasizes the growing importance of international business to the national economy. Therefore,

it is increasingly important for entrepreneurship education to be extended to addressing issues in International Entrepreneurship.

This article expands the knowledge base of international entrepreneurship education and provides a framework for other institutions planning or engaged in similar activities by summarizing the efforts of a consortium developed to offer curriculum in the area of International Entrepreneurship. The participating universities were supported by the Consortium for Small and Medium Sized Enterprises and Entrepreneurship Education (SMEEE), a project funded by the Department of Education's Fund for the Improvement of Post-secondary Education (FIPSE) and the European Commission's Directorate General Education and Culture as an EU/US program for Cooperation in Higher Education and Vocational Education and Training.. The consortium featured three U.S. universities (Appalachian State University in Boone, NC; Clemson University in Clemson, SC; and the University of North Florida in Jacksonville, FL) and three European universities (University of Alicante - Spain, Université Catholique de Louvain - Belgium and Otto-Friedrich-University in Bamberg, Germany).

The following sections summarize the experiences of the exchange facilitators. University teachers may learn from these experiences and design syllabi that maximize the learning outcomes for students. A more widespread offering of International Entrepreneurship classes in the future will help entrepreneurial students to carefully consider the opportunities and threats of start-up projects in a globalized world.

OBJECTIVES AND LITERATURE REVIEW

A primary objective of the consortium was to develop and implement a variety of collaborative models for teaching International Entrepreneurship. A total of six partnerships were developed and completed. A goal of the consortium was to consider the various "types" of classes that could be combined to create exchange opportunities. Some of the collaborations involved students enrolled in special topic seminars while others involved semester long classes. Each of the collaborations described herein were taught in English.

Each course created by the partnering institutions met several criteria deemed critical for the student experience. First, the consortium members felt it important to establish a common definition of the term international entrepreneurship. As noted by Giamartino, McDougall and Bird (1993), one problem facing international entrepreneurship instructors is the complex definition of the construct. The consortium defined international entrepreneurship as ventures that become international under the founder's tenure and this description guided the development of the various projects used for student assessment.

Each collaboration included an international travel component. A wealth of research indicates that entrepreneurial opportunities may be recognized through "rich and varied life experience" (Baron, 2006, p. 105). Jones and Oberst (2003) believe that cultural understandings and

communication strategies are important competencies for every entrepreneurially minded student. They suggest that "institutional and individual partnerships must be created to promote international collaborations, including design projects, international internships, exposure to successful entrepreneurs from other parts of the world including developing countries, etc." (p. 2). Bell et al. (2004) add that "ideally, programs should involve immersion in a foreign market" (p. 119). Research suggests that global literacy, cross-cultural knowledge, and inter-cultural competence can be developed through student exchanges and study abroad experiences (Carlsson-Paige & Lantiere, 2005; Emert & Pearson, 2007). Inter-cultural competence is defined as "the ability to communicate effectively and appropriately in intercultural situations based on one's intercultural knowledge, skills, and attitudes" (Deardorff, 2006, p. 247). As posited by Arpan, Folks and Kwok (1993) among others, creating an awareness, appreciation and understanding of international and cross-cultural issues may help to moderate negative perceptions of risk and build confidence in students considering such ventures (Bell et. al., 2004). Further, successful entrepreneurs often identify areas of opportunity through personal contacts and interpersonal interactions as opposed to public information such as publications or the media (de Clercq & Arenius, 2006).

Consistent with these insights, during each of the week long travel itineraries, students were exposed to a variety of cultural activities reflecting the unique characteristics of the area. This included visiting local companies, historic and or cultural sites, and interactions with students in the host country.

In principle, courses aim at helping students to understand the theoretical bases and specificities of international entrepreneurship, to acquire intercultural skills and, frequently, to develop international projects. At the theoretical level, the collaborations allow students to apprehend the common denominator between entrepreneurship and internationalization (for overviews, see Zahra & George, 2002; McDougall & Oviatt, 2003; Young, Dimitratos, & Dana, 2003), the process of creation and the strategies of an international organization, the cultural norms which result into distinct business practices, the opportunities and threats which such firms have to face, or the legal or social aspects to consider (see Hodgetts, Luthans, & Doh, 2005).

These aspects will be better apprehended by the students if, after teaching the theoretical concepts, the courses are organized around concrete projects. Such international projects can be developed in collaboration with a foreign university in order to make it possible for the students to immerse themselves in other cultures and markets, through regular contacts with their foreign counterparts. Certain programs, for example, require the students to work on a product or a service whose market would be "naturally" international and to develop a business plan around this product or service in collaboration with peers from a foreign institution. That type of course makes it possible to gather students from various universities within an integrated course. These "live" projects are more stimulating for the students and pedagogically richer than case studies, for example (Bell et. al., 2004). A stay abroad, intended to confront them with the cultural differences of entrepreneurial realities, supplements this type of teaching device usefully. One could think of

the influence of these differences on the suppliers' or consumers' behaviors on businesses practices, on commercial law, on corporate social responsibility or on business ethics. This stay will make it possible for the students to attend classes, to visit companies or to interact with local entrepreneurs.

Yamazaki and Kayes (2004) have gathered evidence showing that, particularly in a cross-cultural context, learning entails more than just analytic skills developed through theorizing and applying quantitative techniques as well as proper technologies. Learning is also about developing action skills through experimentation, interpersonal skills through experiences in team settings, and information skills through what they call "reflective observation." Courses in International Entrepreneurship may meet these challenges in an ideal way.

COURSE STRUCTURE AND TRAVEL PLANNING

The structure of each course participating in the exchange and credit earned by participating students varied across each institution. Several of the collaborations involved enrollees in a "special topics seminar on International Entrepreneurship" where the travel, hosting and project work represented the entirety of the experience. For others (typically the U.S. institutions) the collaboration represented a component of a semester long, 3-credit hour course. In these contexts, while the collaborative project, travel and hosting responsibilities represented a sizable portion of the curriculum, the course also included a number of other topics and assignments.

The collaborations completed through this consortium involved both one-way and two-way travel. As noted in Table 1, the Université Catholique de Louvain and University of North Florida exchange involved students from the former traveling to the latter. Similarly, Appalachian State University students traveled to the University of Alicante to fulfill the travel requirement of the collaboration. Other classes involved two-way travel where each group of students assumed the role of both host and guest. Each travel experience was approximately one week in duration.

Table 1: Summary of Collaborations

Term(s)	Partner (class structure)	Partner (class structure)	Travel
Spring 2005	UCL (semester)	UNF (semester)	one-way (UCL to UNF)
Summer 2005 &2006	Alicante (seminar)	ASU (seminar)	one-way (ASU to Alicante)
Fall 2005	Bamberg (seminar)	ASU (seminar)	two-way
Fall 2006 & 07	Bamberg (seminar)	Clemson (semester)	two-way

With the diversity of academic calendars and schedules, including international travel in such a course presents a number of scheduling dilemmas dictated by the various start and end dates for

academic terms and university holidays. In general, the European partners start their academic terms later than the U.S. institutions. Consequently, it was typically convenient for European partners to travel to the U.S. once the U.S. partners were in session. U.S. student travel to Europe was typically scheduled during semester breaks. For example, Clemson students enrolled in the Fall 2006 course traveled to Bamberg, Germany during the week which included a scheduled fall break while students enrolled in the Fall 2007 course traveled during finals week. Since both travel itineraries require students to miss other course work, emphasis must be placed on informing other instructors of the unique demands of the class at the outset of the term. Students and faculty impacted by the travel dates must make arrangements to re-schedule exams and other due dates.

STUDENT RECRUITMENT

While the majority of students participating in the various collaborations were studying in business disciplines (i.e. marketing, management and entrepreneurship), the collaborations also consisted of students from a variety of other disciplines based on the policies of the participating universities.

Students were informed of the courses through a variety of promotional mediums. Most facilitators used email announcements, flyers and postings on student websites to advertise the opportunity. Additionally, academic advisors were invited to attend meetings which served to organize the collaborations. In this manner, the advisors became familiar with the objectives of the consortium and were able to identify students which may benefit from such opportunities. Further, other instructors on each campus were informed of the exchanges and asked to promote the opportunity among their students.

Enrollment required students to submit a resume and a cover letter explaining their interest in the course. Students were selected based on criteria including G.P.A., accomplishments, service activities, and expressed interest in the international experience.

Perhaps the most important part of the student recruitment was establishing expectations for hosting responsibilities. Most students accepted the responsibility of hosting at least one guest from the partner university for a one week interval (with the exception of those courses with only one-way travel). As explained by one facilitator, hosting meant to “treat your guest as though they are family.” Finally, students were asked to make every effort to free their schedule during the host period in order to attend all functions. Students were provided a letter which could be used to inform other instructors of the unique demands imposed by the course.

The nature of the course and the considerable time commitment does restrict access to various qualified students. More specifically, the course structure may exclude students with other time commitments (i.e. work or other leadership responsibilities). The additional fees and costs associated with international travel also eliminate students with financial constraints. Additionally, as described in the preceding section, some students are unable to participate due to requirements

in other classes in which they are enrolled. For example, some students may be unable to reschedule a final exam for a course they were required to complete in order to graduate on schedule. Lastly, some qualified students may be excluded based on limited hosting resources. For example, some students may not have the accommodations required to fulfill the role of host while others were not able to gain the approval of roommates.

Collaborations involving students enrolled in special topic seminars benefit from greater student participation. When possible, the seminars were held outside of the traditional academic calendar thereby freeing students to participate in a week long itinerary of events. Student involvement is a greater challenge for those enrolled in semester long courses – particularly while hosting. Since such students are typically enrolled in numerous other courses, scheduling conflicts should be anticipated. Such contexts require students to proactively engage other instructors and may require the student to volunteer to complete assignments and/ or take scheduled exams early. It was the experience of this consortium that a letter from the course facilitator explaining the unique expectations of the course assisted in this process.

FINANCIAL SUPPORT

The costs associated with the exchange were covered by a number of sources. A significant portion of the costs associated with these collaborations were covered by the aforementioned SMEEE grant. Further, depending on the university and the nature of the course, most students were required to pay an additional fee at the time of enrollment (the average was around $300.00). The consortium was also partially subsidized by corporate entities; particularly those that have subsidiaries in the areas of two partner universities (i.e. Bosch, B.M.W.). Other collaborations received support from Small Business Development organizations and/or Entrepreneurship Centers. These sources were particularly helpful for covering costs associated with the hosting itinerary. For example, providing support for van rentals from a university motor pool and/ or catered lunches.

Additionally, encouraging students to seek sponsorship for the exchange provides a practical exercise in entrepreneurial activities. For example, participants at Clemson University created a "club" motivated by the collaboration which allowed the group to apply for financial assistance through student government. For each of the collaborations students were responsible for covering daily expenses such as meals.

THE HOSTING EXPERIENCE

As noted by Giamartino, McDougall and Bird (1993), the availability of resources for the study of international entrepreneurship represents a substantial obstacle. The consortium overcame this challenge by having students host each other. This eliminated the costs associated with hotels as well as logistical and cost concerns associated with local transportation when hosts assumed the

responsibility for transporting their guests for exchange related functions. Finally, and most critically, hosting represents a significant learning opportunity for cultural exchange when students reside with each other, serving to strengthen cross-cultural education. Indeed, many of the students listed the hosting experience as the greatest learning component of the course.

Hosting, however, creates an opportunity for conflict due to personality differences, sleeping arrangements or other environmental conditions (i.e., smoking, roommates, Internet access). While there were isolated incidents of conflict due to the hosting component, the obstacles were best attributed to personality differences as opposed to cultural. Furthermore, adapting and working through such conflict represents a valuable learning opportunity for individuals as well as the groups. Of course, teachers can play a major role in channeling conflicts and helping the students to reflect on their experiences.

Student feedback suggested in-group team building as a way to create a successful hosting experience so as to allow the hosting group to feel comfortable with one another before the arrival of their counterparts. Such in-group team building was found to foster a perception that it is not the responsibility of one student to host another student but the responsibility of the entire group. This has important implications for the overall experience when - as a result of in-group team building - students are more likely to volunteer to assist one another with hosting responsibilities. Finally, the team spirit served to encourage additional activities outside the scheduled itinerary (e.g. group movie nights, meals, etc.).

Team building can be accomplished through classroom activities or by scheduling opportunities for the students to interact in a social setting such as a pre-exchange dinner where students can get to know each other outside of the classroom environment (appropriate for semester-long programs). For those students enrolled in a seminar which does not meet on a regular basis prior to the exchange, such in-group team building may require greater coordination. For example, participants from Otto-Friedrich-University Bamberg met in Washington, D.C. for several days before traveling to Clemson University. This provided the students the opportunity to get to know each other prior to the start of the collaboration.

CULTURAL EXPERIENCE

One of the most important components of the learning experience associated with the various collaborations offered through this consortium is the opportunity for students to gain a cross-cultural experience. While most universities provide student exchange opportunities, such experiences typically demand substantial time commitments (usually one semester at a minimum). Further, such experiences require significant costs and substantial planning in order for a student to maintain progress toward the completion of degree requirements.

The exchange opportunities offered through this collaboration provided students with a brief but highly engaging learning opportunity. The cultural experiences offered through the course

described here varied widely. Most included several dining opportunities where students were able to interact in a social atmosphere. Other opportunities included attending sporting events (American football games and soccer matches in Europe), tours of various cities, and various team building exercises (a day spent white water rafting, team rope courses, etc.). One risk of such team building activities is that some student participants may be uncomfortable with those experiences involving physical activity. However, student feedback suggests these cultural experiences are critical for both team building and as an educational tool.

PRACTITIONER INTERACTION

Facilitators adopted a synergistic approach to the exchange program by allowing students to interact with a variety of entrepreneurs or companies that engage in entrepreneurial activities (Collins, Smith, & Hannon, 2006). Consistent with the observations of other scholars (Bell, et. al. 2004), while the collaborations included lectures from scholars and facilitators, the opportunity to interact with practitioners was considered a vital component. Such direct interactions included presentations by entrepreneurs in a classroom setting, specially organized for the exchange program, as well as during visits to business incubators in the regions visited. For example, during the visit to Alicante, Spain, students visited the European Center for Entrepreneurship and Innovation in Alcoi (http://www.redceei.com/ceei-alcoy/ceei.aspx). During this visit, students could observe first hand how newly established small businesses can benefit from the services offered by the center, and speak directly with the entrepreneurs, ask questions and interact with them. European students had the opportunity to visit Small Business Development Centers at Clemson University, the University of North Florida, and at Appalachian State University. In addition, visits with established companies known for fostering an entrepreneurial culture (e.g. BMW both in the U.S. and in Germany) and small and/or start up entrepreneurial companies in both Europe and the US allowed for further learning and discussion.

PROJECT/COLLABORATIVE WORK

Fiet (2001a; 2001b) believes that entrepreneurship education should be theory driven as opposed to descriptive. He does not feel that exposing students to experienced visitors who inspire through personal stories and advice is an effective, stand alone approach to entrepreneurship education. Focusing on theory strengthens students' ability to predict entrepreneurial outcomes, contributing more to their future success than merely learning about a variety of experiences of other entrepreneurs. Fiet (2001b) adds that, for best results, theory should be combined with practical application, which allows students to apply theory to real events. Thus, "offering student's opportunities to 'experience' entrepreneurship and small business management" is a popular component of entrepreneurship programs (Solomon, Duffy, & Tarabishy, 2002, p. 7).

In each of the collaborations students were given the responsibility of developing a business plan for a new venture. Some of the collaborations asked students to focus on a venture with potential in both countries while others required a comparison of the respective markets and a recommendation as to which country appeared to be the best market for entry. Students formed small groups (typically 3-4 members) with the caveat that each group consist of at least one member of each partnering institution.

Student Work Groups

The formation of the groups and means by which each group selected the venture on which they would work varied across collaborations. The experience of the consortium suggests the best approach to group formation and idea selection is to have each student determine several potential ideas for a new venture prior to the start of the collaboration. The initial days of the hosting week (or, for one-way travel, the period prior to the physical meeting) are then allocated to allow students to communicate their ideas. For two-way travel, ideally this communication may occur in both a formal setting (i.e. presentation to the group on the first day) and casual setting (hosted dinner where students mingle and discuss their ideas).

This approach to group formation and idea generation was found to have two important benefits. First, group formation occurs more organically and is driven by interest areas and personality matches. This is viewed as a preferred approach to the facilitator assigning students to a group. Second, the group is encouraged in the initial days of the collaboration to explore several of the ideas offered by each member. Such an approach encourages organized "brain-storming" sessions among the group members which, in turn, fosters team building and involvement among all participants. This approach is preferred to having each participant determine a specific venture on which they would like to work prior to the collaboration which forces some participants to sacrifice their own ideas in order to fulfill the group requirement, creates a group with members of varying levels of interest and involvement, and removes the educational opportunity presented by collective idea generation and selection.

Work Group Interaction

The nature of the exchange dictates a variety of schedules for the interaction and completion of the project. For those collaborations utilizing one-way travel, emphasis is placed on fostering these interactions prior to the travel dates. More specifically, the student groups used a variety of mediums (i.e. tele- and video-conferencing, Skype™, email, My Space ™, Facebook ™) to determine the nature of the project and content prior to meeting in person and such communications may be viewed as an important and integral part of the educational experience (Gavidia, Mogollón, & Hernández, 2004).

For those collaborations involving two-way travel, the first meetings were used to develop the idea and interactions between physical meetings were used to update group members on the progress of the project. Encouraging a formal plan for continuing the work on the project between physical meetings is an important component of the two-way exchange. This is of particular importance for the group traveling for the second portion of the exchange. If work on the project does not progress during the period between visits, the final week is accompanied by the stress associated with preparing the final project and presentation. Groups that wait to complete the project for the final week limit the cultural and social opportunities sought by those students serving as guests.

In all but one of the collaborations, the final projects were presented in a classroom setting with all participants in attendance. The lone exception involved the presentation of the final projects via videoconferencing. The requirements for the final project consisted of both a formal presentation and either a written Business Plan or some variation such as a Feasibility Project.

Student feedback revealed different approaches to group work. These differences may be best attributed to individual/ personality differences – not systematic cultural differences. Perhaps the greatest issue across the various courses is the age difference between many of the U.S. and European students. U.S. students participating in the exchanges tend to be younger. This, in some instances, may lead to differences in maturity and commitment to work.

Possibly the most encouraging aspect of the exchange, and one that all facilitators universally agreed on, was that the projects resulting from the various collaborations exceeded expectations. This is particularly encouraging given the tremendous time constraints placed on the students and the cultural barriers. In spite of the previously mentioned challenges, cross-cultural student groups were capable of producing high quality output. Further, the presence of such challenges may be representative of realistic work place conditions. More specifically, the workplace is often characterized by group work with members of different cultures, different motives for participating and ambiguous group objectives. In this regard, the structure of this exchange represented a valuable learning opportunity.

PROJECT ADMINISTRATION

Faculty Compensation

Faculty compensation for the time and effort involved with course design, preparation, instruction and actual exchanges varied across participating institutions. Expenses incurred during the exchange were partially covered by the SMEEE grant and partially by student fees so that faculty did not incur any out-of-pocket expenses during the international travel component of the programs. Compensation, however, varied significantly across institutions. Some faculty received no additional compensation beyond what is normally provided per credit hour (as was the case for the

participating faculty members of the European Universities and Clemson University) while others were financially compensated. For example, at Appalachian State University, courses taught 'in-load' during the semester, entitled the faculty member to an additional $1000. Courses taught as part of summer exchange programs were compensated at 8% of the faculty member's annual pay for a 3-credit exchange.

Student Grading

Students were graded based on the quality and international reach of their final project which consisted of both a formal presentation and either a written Business Plan or some variation such as a Feasibility Project. A second component of the grade was based on students' participation in group activities, requiring students to not only be 'physically' present during class and other activities, but also be engaged and attentive. Finally, some exchanges included a third component, requiring students to produce a personal journal in which they reflect on their international experience, addressing for example, an analytical discussion of the differences between their home country's business culture and the business culture of the country visited.

SUGGESTIONS FOR FUTURE PROJECTS AND CONCLUDING REMARKS

As presented in the Sample Itinerary provided below (Appendix B), it is recommended to start with an introductory session the very first day where students can give "informal" presentations of their ideas for a business concept. Another approach would be for students to present the ideas of a peer. That might take the "ownership" of the idea away from the individual and give it to the group. Further, it may be of value to go immediately into a social setting after the students present some of the general ideas they would consider pursuing. Such a setting may encourage the students to begin forming informal groups around interest areas in a casual setting. Given the success of the dinner events in prior exchanges, it seems feasible to go through an afternoon of presentations early in the week and then move straight to a neighboring restaurant or home for more casual group time and dinner.

Alternatives may also include an agreement among the instructors on three or four general topic areas, and to then ask the students to brainstorm within these limited areas, exercise their creativity skills, and develop proposals together early in the exchange. That way, the resulting proposals are the property of the groups from the beginning. The advantage of this approach is that students are forced to be creative and open-minded while learning about each other. The disadvantage is that the ideas might take a while to emerge. Facilitators would have to be very active at this step to help students focus their thoughts and direction.

Other suggestions for future itineraries may include specific training on group collaborations. This is perhaps most important in the early stages of the collaboration. Such training may include

lectures on the topic of team building and/or greater moderation by instructors and other facilitators at various intervals in the process. It may also be of value to include in the early stages of the course training on the various mediums which may be used to maintain communication between group members (such as Skype™).

Based on experiences gained through these exchanges, it is of value to avoid scheduling the presentation of the business concepts on the final day of the visitation. Ideally, the schedule allows the instructors to prepare formal feedback on each project and to then share this feedback in person with the entire group. By the end of the collaboration, each student is familiar with the projects of their peers. Consequently, it is of considerable educational value to organize a constructive feedback session where all participants may contribute their thoughts.

Given the importance of the hosting experience as part of such an exchange, it is critical for the instructor to set very clear expectations for those serving as host. These expectations could be established through discussions regarding sleeping arrangements, meals, access and availability of transportation, access to Internet, and introduction of roommates. Additionally, it would be of value to provide those students with hosting responsibilities the chance to interact with their guests prior to arrival. This may be accomplished through any of the aforementioned communication mediums. Clearly, this type of course is quite time-consuming for the facilitators as it requires substantial coordination. The courses require coordination in order to guarantee the quality and the homogeneity of the project work, the organizing of logistics and the scheduling of a week-long hosting itinerary. Further, instructors must seek to harmonize grading methods. For logistic, instructional and/or financial reasons, these courses are a challenge to organize. From the student's perspective, these collaborative exchanges place unique demands on both their time and financial resources.

The teaching and entrepreneurial contributions of this type of course largely compensate for the specific difficulties which they generate. At the end of such a course, students will have gained additional skills that will potentially turn them into better international entrepreneurs. These skills include improved intercultural communication, potential for improved fluency in another language, a knowledge of the cultural aspects of entrepreneurship specific to other countries and the ability to form a reflexive view on the business practices particular to his/her own culture.

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Appendix A
Results of Internet Search for International Entrepreneurship Curriculum (July 2007)

- Harvard Business School
  MBA Program
  Course Number 1640 International Entrepreneurship
  http://www.hbs.edu/mba/academics/coursecatalog/1640.html

- Cornell University
  NBA 593 International Entrepreneurship
  http://eship.cornell.edu/esh_composer.php?aud=st&col=all&cmd=6&ent=19316

- University of Colorado at Denver
  Bard Center for Entrepreneurship
  International Entrepreneurship
  http://thunder1.cudenver.edu/bard/courses.htm

- Georgia State University
  International Center for Entrepreneurship
  IB 8100: International Entrepreneurship
  http://rcbweb.gsu.edu/rec/mbaconcentration_intl.htm

- Iowa State University, Pappajohn Center for Entrepreneurship
  Mgmt 567 - International Entrepreneurship (Graduate course)
  http://www.isupjcenter.org/education/graduate/

- University of Maryland, Dingman Center for Entrepreneurship
  BUMO 758: Special Topics in Mgt: International Entrepreneurship (Grad course)
  http://www.rhsmith.umd.edu/dingman/education/grad.html

- University of Nebraska: Lincoln
  University Honors Freshman Seminar 189H
  (Comparative International Entrepreneurship) (Undergrad course)
  http://www.cba.unl.edu/outreach/ent/eclasses.html

- Florida International University
  Global Entrepreneurship Center
  Entrepreneurship: An International Phenomena
  http://www.entrepreneurship.fiu.edu/downloads/publications/external_presentations/Entre
  preneurship-MIB-Abo2004.ppt

- Penn State
  ENGR 497B International Entrepreneurship and Organizational Leadership
  http://www.eldm.psu.edu/core.htm

Appendix B: Suggested Itinerary for Two-Way Exchange		
Day	**Goal**	**Content**
1	Interaction and establishment of expectations	Arrival, settling in Afternoon presentations of new venture ideas. Social activity/ Dinner
2	Formation of Groups	Lecture on cross-cultural teams Lecture on Brainstorming and Creativity
3	Practitioner Interaction	
4	Group Work	Research Time Special Topic Lectures Moderated teamwork sessions
5	Team Building/Recreation	Ropes course, White water rafting, Cultural activity
6	Group Work	Research Time Training on various virtual, audio-video conferencing
7	Establish continuing expectations	Presentation of business ideas Evaluation of the week and the teamwork Social gathering
Day	**Goal**	**Content**
1	Interaction and reaffirmation of expectations	Arrival, settling in. Updating progress of the project and plan for completion. Social activity/Dinner
2	Group Work	Research Time Special Topics Lectures
3	Practitioner Interaction	
4	Enhance team learning	International Entrepreneurship Group Work Moderated teamwork sessions
5	Group Work	Wrap-up and Presentation Preparation Final Presentations
6	Team Building/Recreation	Free day or other planned activity
7		Presentation feedback Wrap-up

THE SHORTAGE OF ACADEMICALLY TRAINED ENTREPRENEURSHIP FACULTY: IMPLICATIONS, CHALLENGES, AND OPPORTUNITIES

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ABSTRACT

Over the last several decades, there have been significant advancements in entrepreneurship research and theory development. The number of universities that offers entrepreneurship classes, and which have established formal entrepreneurship programs and centers has also grown rapidly. However, there are few doctoral programs which offer entrepreneurship theory seminars and there remains a shortage of academically-qualified entrepreneurship scholars for both junior and senior level faculty positions. The opportunities for entrepreneurship faculty members and the statistics, issues, and implications for entrepreneurship education and theory development, as well as business curricula more broadly, are discussed in this paper.

INTRODUCTION

Entrepreneurs are instrumental in moving societies and economies forward. They create competition which lowers prices for customers and are responsible for bringing new technological advances and products to the marketplace (Schumpeter, 1934; Tushman & Anderson, 1986). Based on U.S. Census Bureau data, hundreds of thousands of new businesses are founded each year. From 1980 to 2000 the number of non-farm proprietorships in the United States grew from 8,932,000 to 17,905,000; partnerships grew from 1,380,000 to 2,058,000; and corporations grew from 2,711,000 to 5,045,000. In total, these business entities produced combined sales of $6.9 trillion in 1980 which exploded to almost $23 trillion in 2000 (Evans, Kassinger & Cooper, 2004). Research has also shown that small businesses owned and operated by entrepreneurs are responsible for creating most net new jobs in the U.S. economy (Birch, 1987; Kirchhoff & Phillips, 1988). The U.S. Small Business Administration estimates that small firms are responsible for creating three quarters of the nation's net new jobs (Scarborough & Zimmerer, 2006). These figures clearly illustrate the vital role entrepreneurship plays within the U.S. economy.

The importance of entrepreneurship is not just being felt in the U.S., entrepreneurs and small business owners are being recognized as the drivers of economic stability and growth throughout the world. In Canada, small firms employ almost 60 percent of the work force and create approximately two thirds of that nation's new jobs (Ibrahim & Ellis, 2002). Firms with fewer than

50 employees account for 99 percent of all European Union (EU) enterprises and two thirds of all jobs (Henderson & Robertson, 1999). From 1980 to 2002, China's GDP grew by an average of 8-10 percent. Three quarters of this astounding, consistent growth has been driven by entrepreneurs operating small and medium-sized businesses which make up over 99 percent of all Chinese firms (Li, Zhang & Matlay, 2003). Entrepreneurs are improving and even radically altering countries across the globe whether it be in the established capitalist economies of the U.S. and throughout Western Europe, or in emerging capitalist systems throughout Eastern Europe (Matlay, 2001) and formerly Third World nations throughout the Far East (Dana, 2001). As a result of the growing number of small businesses in the United States and blossoming capitalist systems around the world, there has been increasing interest in studying and understanding successful entrepreneurial processes and practices.

The recognition of the fundamental role entrepreneurship plays in developing, improving, and sustaining local, regional, national, and international economies has also led to the growing need and desire for entrepreneurship education (Best, 2001; Child & McGrath, 2001). In recent years there has been increased scrutiny of the relevance and content of entrepreneurship education (e.g., Block & Stumpf, 1992; Fiet, 2001a; 2001b; Gorman, Hanlon & King, 1997; Kourilsky & Carlson, 1997; Young, 1997); however, there remains relatively little research on entrepreneurship education which has resulted in a lack of accepted pedagogical paradigms or theories of entrepreneurship education and training (Fiet, 2001a; 2001b; Hills, 1988; Norton, Kaplan & Hofer, 1999). It is argued here that there is an even more fundamental problem to pedagogical progress as well as theory development in the field – the dearth of academically-trained faculty, in terms of doctoral degree holders, to fill the growing number of entrepreneurship positions at academic institutions. This paper discusses the scope of the issue and significant challenges that result from this intellectual capital shortage. Implications and suggestions for how to address the issue are offered.

GROWTH AND STATUS OF FORMAL ENTREPRENEURSHIP EDUCATION

Beyers, Johnson, and Stanahan (1979) argue that education is a key factor in economic development and that the quality and quantity of education influences how many entrepreneurs and would-be entrepreneurs there are within a given population. Today, in an ever growing number of countries, an individual with little more than a business idea and a willingness to work hard can successfully found a firm and perhaps achieve entrepreneurial success. This new reality has also spurred the rapid rise in the number of universities that offer entrepreneurship classes and which have established entrepreneurship programs at both the undergraduate and graduate levels. Katz (2002) has summarized the chronology of entrepreneurship education in the United States. He points out that over a 55-year period, beginning with a single entrepreneurship class in 1947, entrepreneurship education has grown to more than 2,200 courses at over 1,600 schools. In addition, over 100 universities have established entrepreneurship centers on their campuses (Katz, 2002).

While the numbers of programs and classes offered in the U.S. has grown, the key questions for would-be entrepreneurs, academic researchers, policy makers, government officials, and other stakeholders with interests in improving economies is, *Can entrepreneurship be taught?* and if so, *What should be taught and what is the best way to teach it?* The answers to these questions are critical because of the power of entrepreneurs to unlock economic doors and transform economies by reducing poverty, cutting unemployment, improving tax bases, and generally raising standards of living.

Just as the field itself lacks consensus about its boundaries (e.g., Bruyat & Julien, 2001; Shane & Venkataraman, 2000), there is little agreement about what constitutes best practices and requisite knowledge among entrepreneurship educators. Reporting the results of an analysis of 18 syllabi provided by entrepreneurship scholars, Fiet (2001a) found that 116 different topics were covered and only one third of the topics overlapped across the syllabi. Few used textbooks (17 percent) and there was no universal agreement about a recommended textbook. The convenience sample, while certainly limited, provides evidence that there is wide disagreement about what to teach even among entrepreneurship faculty. It is not surprising that there is a lack of consensus about what to teach given the multi-disciplinary nature of entrepreneurship and that much of the entrepreneurship literature has come from a wide range of disciplines (e.g., strategy, marketing, finance, etc.). Fiet (2001a) criticized the state of entrepreneurship education as being atheoretical and relying too heavily on such things as "war stories" and entrepreneurial profiles. He makes an appeal for theory to drive education, and argues that "theory is the most practical thing that we can teach to students" (Fiet, 2001: 1).

For more effective entrepreneurship education programs to develop – those that increase the numbers of successful entrepreneurs who can contribute to local, regional, national and even international economies – core concepts and empirically-supported theory must be established and teaching methods must be experimented with. Entrepreneurship scholars must test various pedagogical techniques and determine what common curricula across the field is best and should be used to train successful entrepreneurs. This requires significant intellectual capital, but as discussed in the following sections, there are significant issues that universities seeking to fill entrepreneurship job openings must overcome.

SHORTAGE OF TENURE TRACK ENTREPRENEURSHIP CANDIDATES

There is research which shows that many disciplines may be facing a glut of Ph.D. scholars who cannot find academic positions (Hartle & Galloway, 1996; Hodges, 2000; Lapidus, 1997; Pfannestial, 1998). This is not the case with respect to entrepreneurship. The fact is the number of academically-trained entrepreneurship candidates to fill faculty positions lags the numbers of candidates in other fields. During the 2000 Academy of Management Meeting there were 94 faculty position openings that listed entrepreneurship as at least one of three preferred teaching criteria by

hiring institutions; however, there were only 64 candidates that listed entrepreneurship as one of their three teaching preferences/skill sets (Singh & Magee, 2001). The 94 position openings represented a 50 percent increase from just two years earlier when this author went through the academic job search process after earning a Ph.D. degree. Using data collected from the Academy of Management's placement website over the last several years, the results in Table 1 show the number of job postings for the top seven disciplines in terms of total position openings listed over the last six years (2002-2007).

Table 1: Position Openings by Specialty Areas Listed on Academy of Management Website (2002-2007)

Discipline	2002	2003	2004	2005	2006	2007	Total
Business Policy and Strategy	125	280	203	144	158	177	1087
Entrepreneurship, Small Business	52	132	109	91	112	123	613
Human Resources	75	157	106	103	93	87	621
International Management and Business	55	133	98	79	82	85	532
Organizational Behavior	96	219	150	125	135	147	862
Organizational and Management Theory	36	98	36	47	51	61	329
Technology and Innovation Management	25	60	37	33	28	61	244

Table 1 shows that there were over 600 entrepreneurship position openings advertised over the last five years, which was the fourth ranked discipline in terms of total number of job openings listed. However, the number of entrepreneurship candidates who posted their credentials to the Academy website per advertised position opening lagged all other disciplines each year. Table 2 shows that over the last six years, there were fewer than 1.3 job candidates per position in the Academy database.

Table 2: Applicants per Position Opening by Specialty Areas Listed on Academy of Management Website (2002-2007)

Discipline	2002	2003	2004	2005	2006	2007	Total
Business Policy and Strategy	1.39	1.38	1.25	1.56	1.91	1.67	1.51
Entrepreneurship, Small Business	1.29	1.34	1.07	1.20	1.38	1.39	1.28
Human Resources	1.64	1.76	1.22	1.54	1.86	2.13	1.68
International Management and Business	1.78	1.50	1.33	1.58	2.01	2.11	1.68
Organizational Behavior	1.94	1.99	1.69	2.00	2.16	2.14	1.99
Organizational and Management Theory	2.42	2.04	3.81	2.72	2.78	2.48	2.57
Technology and Innovation Management	2.16	2.17	2.57	2.88	4.64	1.90	2.54

The data presents both an opportunity and a threat to the field. For entrepreneurship candidates, the data clearly shows that competition for position openings is not nearly as strong as with other disciplines. While organizational behavior, organizational and management theory, and technology and innovation management have two or more candidates per position, entrepreneurship remains under 1.3 candidates per position. This is encouraging for Ph.D. students considering academic careers in entrepreneurship. For those of us in the field, it points to the opportunity to encourage doctoral candidates to pursue entrepreneurship as a course of study, and to propose offering seminars in entrepreneurship theory. However, on the other side of this equation, universities do not have as many candidates to choose from. The greater competition for jobs in the other fields likely places greater demands on these candidates because of the increased competition for tenure track position openings. This may result in higher quality candidates in those fields. At a higher level, these statistics also point to a possible fundamental drag on future advances in the classroom as well as in the field in general. Without high-quality Ph.D. graduates to fill these positions, the field may be diluted.

The faculty shortage is not just limited to the assistant professor level. The shortage of entrepreneurship faculty at every academic rank (Kuratko, 2005) is likely due to the fact that the field is still emerging as a discipline (Shane & Venkataraman, 2000). As such, there are only a handful of universities that offer Ph.D. degrees in entrepreneurship, or even elective seminar courses in entrepreneurship theory (see Katz, 2002). Entrepreneurship is considered an interdisciplinary field and quite often faculty positions are being filled by candidates with academic backgrounds in a wide range of disciplines (strategy, marketing, HR, etc.) who demonstrate some interest in entrepreneurship and small businesses. While this may be necessary to fill tenure track openings and certainly helps to establish the community of entrepreneurship faculty as multi-disciplinary, this hiring practice may not be the best way to advance the field itself – both from a pedagogical standpoint or a research/theory development perspective.

In addition, many universities are using adjunct faculty to fill their entrepreneurship staffing needs (Chafkin, 2005). This can have a negative impact on an entrepreneurship program, as the quality of adjunct faculty may vary. Research has shown that many adjunct lecturers do not have Ph.D.'s, are given lower academic ranks and have little power to affect change at a university that can lead to feelings of isolation (Mangan, 1997). Thus, students may not be receiving the quality theoretical and practical background they need because they are being taught by a professor who may not be well versed in entrepreneurship theory.

UNFILLED ENDOWED CHAIRS

There is also strong evidence that the faculty shortage is carrying over to more senior positions. That is, the problem is not limited to the shortage of qualified candidates who are ready to begin their careers in tenure track positions. Professor Jerry Katz maintains the most complete

listing of endowed chair positions on the eWeb website at St. Louis University (see http://eweb.slu.edu/chair.htm). The website reports that the number of endowed chair positions in the U.S. has grown from 97 in 1991 to 237 by the end of 1999, to 406 in late 2003. To put this growth into perspective, a new endowed chair was essentially funded about every three weeks throughout the 1990s. However, the pace has increased considerably as a new chair is now being created about once a week. Normally, this would be an exciting development, but 71 positions (17.5 percent of total) were open at the time the data were reported at the end of 2003 (Chafkin, 2005). These findings further illustrate the gap in the field and do not bode well for substantial pedagogical advancement or theory-based growth of the field, commensurate with the number of endowed chair positions.

The relatively small number of academically-qualified entrepreneurship faculty with earned doctoral degrees appears to be having an impact on university recruiting to fill chair openings. But, as the number of endowed chairs continues to grow, this problem will only worsen. Top universities with large endowments and strong reputations may be able to attract top entrepreneurship faculty with little difficulty; however, lesser known programs, particularly those with limited programs but with serious ambitions to grow their entrepreneurship offerings face a challenging situation. Although anecdotal, this author has first hand experience with the difficulty of recruiting senior entrepreneurship faculty to fill a chair position at a small, liberal arts college with an established business school. The salary was competitive, the school's facilities and geographic location were attractive, and the endowment was about twice as large as the national average of $900,000. Yet, it still took three full years of active recruiting to fill the position and the candidate who was ultimately hired was not an entrepreneurship scholar. Rather, the new hire was an expert on international marketing. As a smaller school it was difficult to compete for top candidates against other universities with larger endowments, better reputations, and more established programs and entrepreneurship centers.

FACULTY MOVEMENT TO OTHER UNIVERSITIES

Even universities with very strong reputations are advertising multiple entrepreneurship position openings (Chafkin, 2005). In the rush to build up programs, many universities are recognizing the fact that the pool of qualified faculty is limited, and the data supports the idea of a strong candidates' market. A balanced mix of publications, teaching ratings, and outreach activities for an entrepreneurship faculty member can make him/her into a very attractive candidate. The end result is that the strong market for entrepreneurship scholars makes it more difficult for universities to establish stability and build their entrepreneurship programs.

With student demand for entrepreneurship classes rising across the country, smaller schools in rural areas are likely to be most impacted. Small school programs that are experiencing difficulties in filling teaching positions will have to hire faculty from the local community, because

of the movement of faculty to larger, more established programs in more attractive locations. While local business leaders turned part-time professors may provide a wealth of personal experience, they lack the background to provide a theoretical approach to the academic discipline of entrepreneurship. Ultimately this problem serves neither the students' best interests nor the field of entrepreneurship as a whole. There can be significant impacts beyond the confines of rural colleges and universities as these institutions often play a vital and significant role in local economies. The recruiting and hiring challenges smaller, rural universities face may lead to difficulties in producing an adequate number of successful local entrepreneurs to move the surrounding economies forward.

ONGOING AND GROWING NEED

During the 1980s and early 1990s, corporate America responded to the influx of high-quality, low cost foreign imports by downsizing and moving to off-shore manufacturing (Cascio, 1993). The early 1990s also saw a major increase in the numbers of layoffs within middle management, white-collar ranks (Cameron, 1994). It was at this same time that entrepreneurship gained popularity as corporate castoffs (Dollinger, 2003) started new ventures out of a need for employment, small business owners needed to learn how to grow their companies during trying economic times, and new college graduates began to view entrepreneurship as an exciting and financially rewarding career choice (Bardach, 1997), particularly as the technology boom took off.

In addition, there is now a clear need for existing firms to develop entrepreneurial processes (intrapreneurship) to survive the transformational global shifts in the economic landscape (Dollinger, 2003; Hisrich & Peters, 2002). This has arisen as an outgrowth of downsizing, off-shoring, decentralization, and cost reduction, coupled with an ever increasing demand to improve the bottom line and increase shareholder value (see Ghoshal, 2005). Companies that fail to recognize the perils of not changing struggle against their competition (Christensen, 2003; Hammer & Champy, 1993). The needs of large businesses and their acceptance of entrepreneurial studies should not be discounted. It is likely that it is also serving as a significant driver of entrepreneurship education. Firms are beginning to recognize that graduating entrepreneurship majors have the ability to think cross-functionally across departments (Giges, 2000), which can help to break down structural inertia (Hannan & Freeman, 1977). Just 10 to 20 years ago, it was unlikely that a large established firm would advertise for entrepreneurship graduates to fill openings. In the past, such candidates were more likely to be viewed as short term employees who would gain experience and then leave to found their own ventures. Today, many large organizations are seeking people who think and act like entrepreneurs to address global competition and technological change (Giges, 2000).

Given the rising interest, the growth in the numbers of founding entrepreneurs, the complexity of business in today's highly competitive global marketplace, and the interest of larger firms to improve operations by integrating entrepreneurial processes and philosophies within

infrastructures, it is unlikely that we will see a significant reduction or even a slowdown in the demand for entrepreneurship classes and degree programs. This, in turn, will put more pressure on universities to grow programs at a time when there are a limited number of qualified Ph.D.'s who can teach entrepreneurial processes.

DISCUSSION

The significant human capital issue discussed in this paper must be addressed by universities and entrepreneurship faculty in order to ensure that students receive high quality education and training in entrepreneurship, as well as to further the development of the field. The growth statistics of new ventures and academic programs across the country over the last several decades, as well as the trends in industry that support the growing and continuing need for both entrepreneurship and intrapreneurship, suggest that the need for more entrepreneurship scholars will not diminish anytime soon. However, it appears that the rapid growth in entrepreneurship and academic programs over the last several decades has not been supported by a commensurate increase in academic training for entrepreneurship scholars. Without active entrepreneurship scholars well versed and knowledgeable of entrepreneurship theory, and who conduct quality research, student learning and the field as a whole will have difficulty advancing.

For universities accredited by the Association to Advance Collegiate Schools of Business (AACSB) International there is also the practical issue of meeting accreditation requirements for faculty qualifications. According to the latest accreditation standards (adopted April 2003, revised January 2005), Standard 9 states that:

> *The school maintains a faculty sufficient to provide stability and ongoing quality improvement for the instructional programs offered. The deployment of faculty resources reflects the missions and programs. Students in all programs, majors, areas of emphasis, and locations have the opportunity to receive instruction from appropriately qualified faculty.*

This standard explicitly requires AACSB schools maintain academically-qualified faculty for all programs, but based on the discussion throughout this paper, and depending on how a university defines "appropriately qualified faculty," meeting Standard 9 may increasingly become a challenge for universities.

For their part, universities will have to find a way to recruit high quality candidates. With limited competition for positions relative to other disciplines and the significant number of open endowed chairs, it is likely that universities will have to be prepared to offer attractive compensation packages and may be required to find innovative ways to attract candidates. In the short term, recruiting practitioners who hold doctorates may be one new source of candidates. While this does

not necessarily address the issue of hiring faculty well-versed in entrepreneurship theory, it may be a step up from candidates who do not hold doctoral degrees. By promoting the flexibility, intellectual freedom, and rewards and challenges of academic life, universities may be able to attract these candidates. However, for the vast majority of viable candidates who are currently completing Ph.D. programs or who are already in academia, universities may be required to take steps that they are not usually familiar with. For example, encouraging faculty members to pursue consulting arrangements, offering generous summer grants for research, and perhaps time releases to develop courses and/or pursue outreach or research activities may be required to recruit top candidates. Obviously, departments must compete for scarce resources, but recognizing that entrepreneurship programs are growth areas within business schools, it would seem logical that additional resources should be applied to grow these programs.

In the longer term, more doctoral degree programs that offer seminars in entrepreneurship theory and/or focus on entrepreneurship as a course of study are needed. The body of literature has expanded to the point where doctoral seminars that examine "classic" entrepreneurship literature articles can be offered without concern for being "soft" on theory. With an appropriate base of academic literature supporting the theoretical underpinnings needed for a legitimate doctoral seminar/program in entrepreneurship, the strong market for newly trained entrepreneurship graduates, and the ongoing economic conditions which support continued interest in entrepreneurship, there would appear to be little risk to doctoral-granting universities considering new entrepreneurship seminar offerings. Given the relatively small number of academic programs currently available, a university that offers a new doctoral program in entrepreneurship may be able to establish a distinctive competitive advantage which could help it attract higher quality Ph.D. candidates.

Some may argue that the field has not developed the academic legitimacy of other more well-established business disciplines (see Shane & Venkataraman, 2000). As tempting as it may seem to dismiss the field by arguing that entrepreneurship lacks academic rigor, it is certainly not devoid of theory. The establishment, longevity, and continuous improvement of journals such as *Entrepreneurship Theory and Practice* (now up to Volume 31) the *Journal of Business Venturing* (now up to Volume 23), and *Journal of Small Business Management* (now up to Volume 45), as well the improved quality, in terms of research methodologies and theoretical underpinnings, of entrepreneurship papers at conferences such as the *Academy of Management Annual Meeting*, the annual *Babson College-Kauffman Foundation Entrepreneurship Research Conference*, the *U.S. Association for Small Business and Entrepreneurship Annual Meeting*, and the *UIC Research Symposia on Marketing and Entrepreneurship* is creating further legitimacy for the field.

For those who are still not convinced of the theoretical rigor of entrepreneurship, three of the editors of the *Academy of Management Journal* recently presented data and discussed the results of their analysis which showed that not only has there been a significant number of entrepreneurship articles that have appeared in *AMJ*, but the numbers are rapidly escalating (Ireland, Reutzel & Webb,

2005). Since 2000, AMJ has published 50 entrepreneurship articles which the editors report is more articles than in the 47 prior years combined, to which the editors concluded that "*entrepreneurship research is alive and well in AMJ!*" (Ireland, et al., 2005: 562). These developments are certainly encouraging for entrepreneurship scholars. They point to the growing recognition, legitimacy, and acceptance of entrepreneurship research and help reduce the risk for those who choose entrepreneurship as a career track, by reducing the historical stigma of entrepreneurship simply being a non-theoretical interdisciplinary field.

While the risk of trying to establish an academic career in entrepreneurship may be diminishing, there is still much work that needs to be done to educate peer faculty and administrations about the growth of the field of entrepreneurship. It is incumbent on current entrepreneurship faculty to promote and encourage entrepreneurship education and research through talks, seminars, courses, and even lobbying for resources. Through formal talks and informal discussions with non-entrepreneurship faculty the stage can be set for better understanding of progress in the field. In addition, by improving communications and maintaining collegiality with peer faculty, there may be opportunities to develop cooperative collaborative research papers because the field remains interdisciplinary. These efforts will help spread the knowledge of entrepreneurship theories and further legitimate the field.

For administrators, the opportunities to develop relationships with potentially large financial donors can also be explored. Alumni who have achieved entrepreneurial success are a natural source for scholarships and grants. Aside from the growth in endowed chairs that was discussed earlier, there is evidence that many business owners and individuals who have capital to invest are seeking out universities that offer entrepreneurship programs (Evanson & Beroff, 1998).

One potentially thorny issue is the growing numbers of faculty members who work with former, and even some cases, current students in exchange for equity (*Inc*. 2000). Not only are there potential conflict-of-interest (COI) issues, but often times, outside consulting is looked down upon by peer faculty members. With respect to the latter, "real-world" expertise translates well to the classroom and given the inherently "hands on" nature of entrepreneurship it is important for developing credibility with students. In addition, times are changing and outside consulting offers the opportunity to supplement the lagging salaries many professors receive when compared to industry counterparts. The solution to the COI issue is less clear and must be addressed on a university by university basis. Harvard Business School became the first university to bar its faculty from developing exchange relationships with student run businesses (Auster, et al., 1999). This may be required to maintain academic integrity; however, it may also limit student learning and the development of student businesses. The debate on the potential COI issues will certainly continue as more student businesses are founded on campus. However, in order to create the greatest win-win opportunities, fair partnerships which benefit both industry and academe must overcome the potential conflicts (Campbell & Slaughter, 1999). This may require entrepreneurship faculty and

university administrators to clarify COI rules, and perhaps establish new rules and/or unique partnership agreements that have not yet been developed and used in the past.

Finally, there are many research opportunities to empirically test and better understand the effects the shortage of intellectual capital has on pedagogy and training of successful entrepreneurs. Through research there should be the potential for improving course offerings and content. The findings of Pfeffer and Fong (2002) raised a "red flag" about the current value of MBA curricula, and a recently published article shows that MBA applications have fallen by 30 percent since 1998 at the nation's top-ranked business schools (Merritt, 2005). There has also been discussion about a new "professional services model" for business students in order to better serve their needs (see Ferris, 2002; 2003; Armstrong, 2003). Clearly, administrators and academics must engage in an open, candid, and critical dialogue about core business curricula and academic programs. Entrepreneurship programs and classes have grown as a result of market demands. Further enhancements of these programs may improve MBA enrollments, as well as increase applications by undergraduate and Ph.D. students.

CONCLUSIONS

This paper has sought to bring attention to an issue that could serve as a drag on the quality of university entrepreneurship education in both the near and longer terms. There is a unique contradiction that exists within the field. The numbers suggest that there is a shortage of scholars who are academically qualified to teach entrepreneurship theory, particularly within doctoral programs. At the same time, the growth in the numbers of academic entrepreneurship programs point to greater needs for intellectual capital and increasing legitimacy for entrepreneurship. Without a strong "pipeline" of trained Ph.D.s in entrepreneurship, and due to the commonly used stop-gap measure of filling entrepreneurship teaching positions with adjunct faculty, there is a danger of stagnation in the field. As a result, there is the distinct possibility that entrepreneurship theory will not advance as it should and student learning may be negatively impacted.

Perhaps expressing entrepreneurial optimism, this author views the current situation as an incredible opportunity for faculty members who may be just starting their careers or who may already be established in the field. The current statistics reveal a "market gap" that can lead to opportunities for entrepreneurship faculty members to establish their careers. Based on the figures cited in this paper and the projected future trends, those scholars who choose entrepreneurship as a career path should enjoy upward mobility opportunities throughout their careers.

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