

An Integrative Approach to Teaching Entrepreneurship to Non-Business Majors

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Introduction

Entrepreneurship education at institutions of higher education is becoming increasingly popular. Overcoming the old notion that entrepreneurs were born, not made, a survey of United States professors found that 93% felt that entrepreneurship could be taught¹. Indeed, it is estimated that today there over 2200 courses in entrepreneurship being taught at over 1600 universities throughout the United States². Karl Vesper, a leading entrepreneurship educator at the University of Washington suggests:

“The radical rise in the number of schools that offer courses and programs in entrepreneurship is part of a much broader fabric not only in society, but the world over. As it turns out, you can see big organizations breaking themselves down into small units, unions are crumbling to smaller sizes, the Catholic Church is shrinking, and even countries like the Soviet Union have broken up.”³

While business schools tend to be the primary domain for these courses, sociology, engineering, home economics, and vocational education departments are also offering education in this domain¹. In the case of engineering students, some schools are seeing the need to incorporate the elements of entrepreneurship education as a response to the changing nature of placement opportunities for their graduates as increasing emphasis is being placed on the skills of advocacy, idea development, and lateral thinking.⁴ Many universities offer a single course in entrepreneurship or even minors or majors in the topic. Indeed, reputations of schools have been built based on their emphasis of an entrepreneurial focused education. Yet, despite this increased attention on a topic whose vary nature promotes innovation and creativity, there seems to be little variation in the approach to entrepreneurship education taken at the university level.^{5,6}

The purpose of this paper is present a case study that examines over a three year period

an innovative approach to teaching the business core disciplines as an adventure in entrepreneurship. The approach involved using subject matter experts from the core disciplines in a team teaching environment to deliver an 18 credit, two semester course entitled *Adventures in Entrepreneurship*. This paper describes the opportunities and challenges encountered by the faculty, students, and university in offering the course and suggests ways to measure its impact on the three stakeholders.

Traditional approach to entrepreneurship education

Entrepreneurship education in higher education is traditionally taught by a single instructor whose course emphasizes the development of a business plan.⁷ The development of a business plan, however, requires some skills in the core disciplines of management, marketing, finance, accounting, and given the increasing importance of global business, international business. Standard textbooks typically include a couple of chapters on each of these topics and it is assumed that the instructor has the requisite background in each as it applies to the entrepreneurship context to facilitate the course.

In schools where entrepreneurship education consists of more than a single course, additional coursework is usually offered in entrepreneurial finance, business law, and depending upon the school specialty topics such as family business, franchising, etc. The traditional approach is that faculty from these disciplines deliver the course emphasizing the entrepreneurial aspects of the topic, but do not do so from an integrative or holistic approach as in the business plan course.

Thus, under the traditional model of entrepreneurship education, one approach is the single survey course which emphasizes an integrative, but limited and single instructor led experience. This type of course could be classified as wide in breadth but narrow in depth. The other approach is to offer a series of courses that contain substantive but singular focused subject matter experts and content. This approach could be classified as narrow in breadth but deep in content. Our contention is not that there is an inherent flaw in this traditional approach. Rather we draw from both approaches in an attempt to build a course that has both depth and breadth and is done using subject matter experts in an integrative manner.

Traditional approach to teaching business core courses

Business schools have traditionally delivered core concepts through stand-alone courses. Critics suggest that this leaves students with little understanding of the interrelationships between business disciplines.^{8,9} In addition, students have difficulty applying tools learned in one field to issues arising in other fields. For example accounting, finance, marketing and management all consider break-even analysis an important skill. However, students often see this singular tool as four different skills instead of one tool applicable to many different situations.¹⁰ These concerns are not new. For example, Porter and McKibbin call for cross-functional integration of the business curriculum.¹¹ As noted earlier, the AACSB has also recognized the need to integrate business disciplines. More recently, others agree that integration of core business concepts will be vital to students entering 21st century organizations.^{12,13} Barker, et al. suggests that business executives believe that students need greater team-oriented skills, and an improved

cross/functional, interdisciplinary perspective.¹⁴ In response to these criticisms, some schools have begun to integrate their core curricula. For example, Aurand et al.¹⁵ Barber, et al.¹⁶ describe various approaches to implementing an integrated business core curriculum. However, none seem to be as focused on entrepreneurially oriented, active learning elements as *Adventures in Entrepreneurship*.

Why Entrepreneurship?

Interestingly, entrepreneurship was not originally considered as a major component of *Adventures in Entrepreneurship*. Nevertheless, introductory entrepreneurship classes emphasize the application of skills from most if not all of the core disciplines to the development of a business plan. Hence, the standard pedagogical model in entrepreneurship is built on an integrated, cross-functional platform. An understanding of this model led the faculty team to embrace entrepreneurship as the primary course theme. The faculty team also embraced the development of the business plan as a unique active learning element. More importantly, the team decided to organize and introduce topic areas in conjunction with students' development of their business plans. As the program evolved, the design team further extended the active learning components by requiring the class to implement and run one of the student business plans. In effect, business planning and implementation became the primary organizational vehicles around which the program was built and core business concepts were introduced.

Exhibit 1 presents our representation of the typical entrepreneurship course or major at most universities today. The two dimensions are subject depth and integration. In other words, how deeply the subject is addressed is the depth dimension while how well the topics are integrated into a cohesive whole is the breadth dimension. The typical single entrepreneurship course is a survey course, typically in business planning. This course covers the base topics of marketing, finance, management, and to some degree, accounting and law. Because of the limits of time and instructor expertise, the depth to which these topics are addressed is bounded. On the other hand, when a school offers a major or concentration in entrepreneurship, the topics are delivered in a multiple course environment, increasing the amount of time and subject matter expertise that can be devoted to each topic. In Exhibit 1, we identify a couple of the typical core courses (marketing, finance) and a common special topic, franchising, that would be covered in a major study of the field. While the depth is increased, the integrative element is suspect as each course is usually taught by a single instructor and at most schools, the emphasis on integration or even coordination between courses is lacking.

Exhibit 2 represents our *Adventures in Entrepreneurship* program on a subject depth versus integration dimensions. We suggest that *Adventures in Entrepreneurship* is strong on integration as the instructors operate in a team environment that will be described in more detail later in the paper and are capable of retaining much of the subject matter depth associated with traditional entrepreneurship courses because of their subject matter expertise in their base disciplines. Because the course must also deliver some of the topics associated with the introductory course in that subject area, e.g. the finance section must address issues related to international money markets that have limited applicability to the entrepreneurial context; it does not have the same depth as the single courses in an entrepreneurship major.

Exhibit 1
Subject Matter Depth vs. Integration

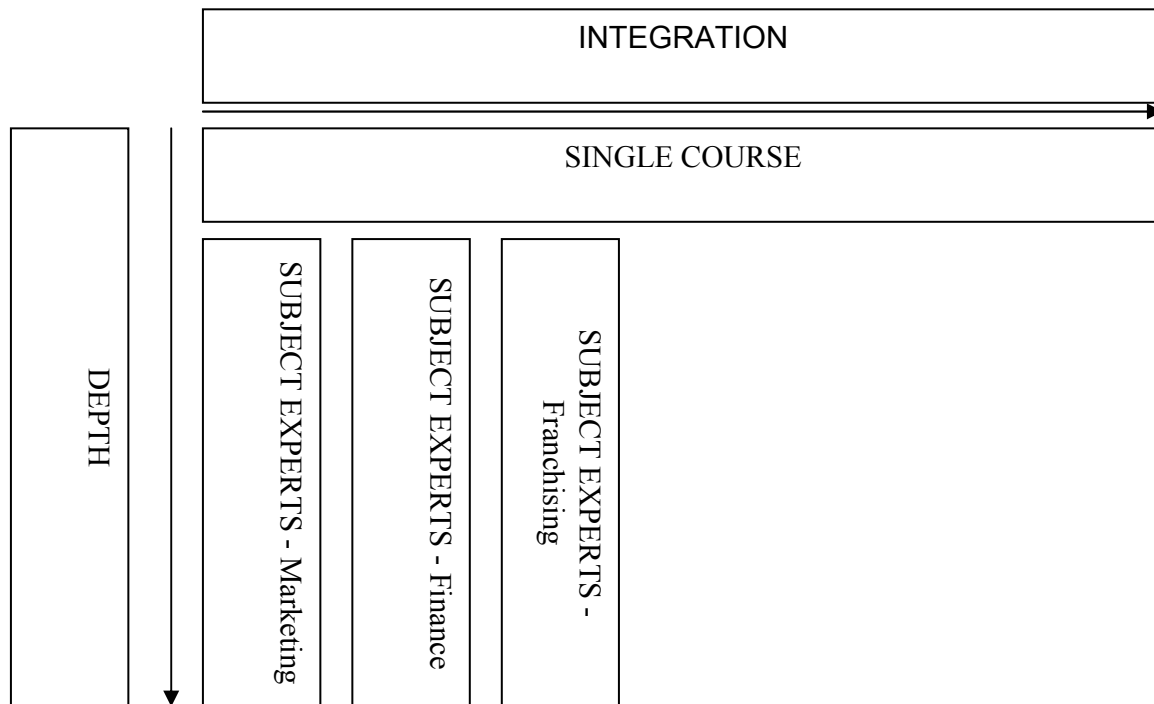
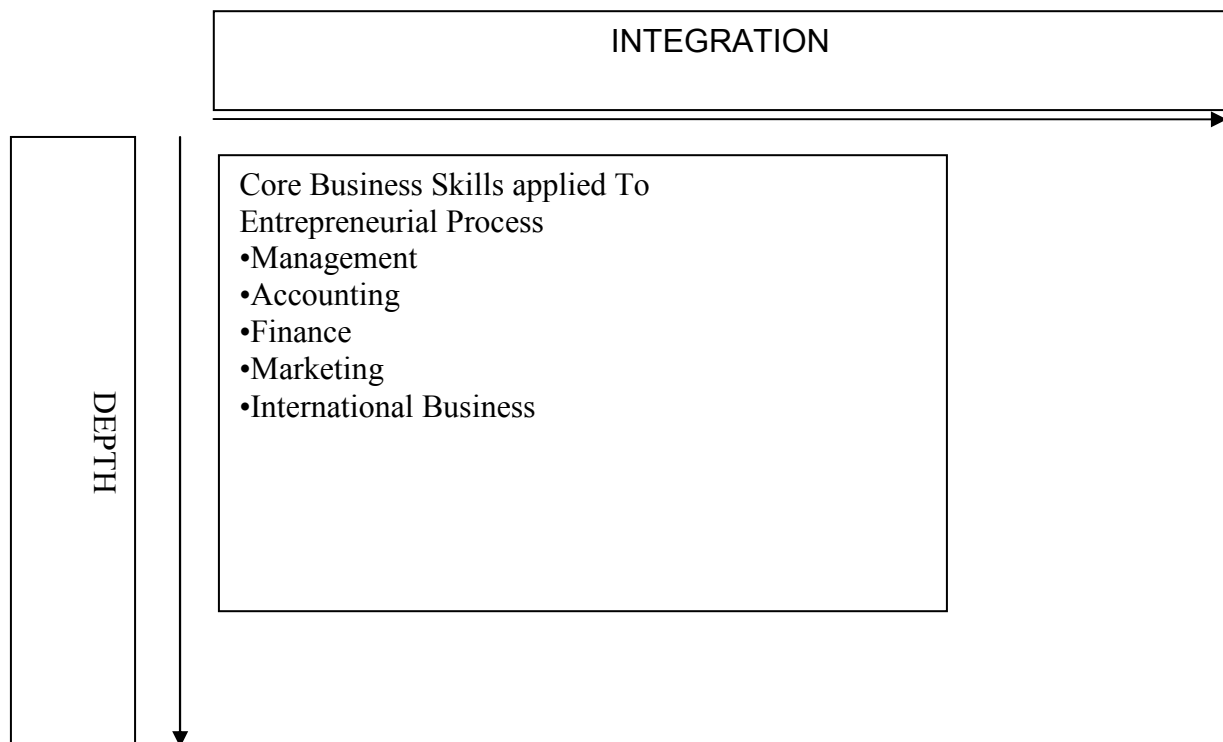


Exhibit 2
Subject Matter Depth vs. Integration



Contextual background

The school of business that implemented this new approach to entrepreneurship education is accredited by the Association to Advance Collegiate Schools of Business (AACSB) and has an enrollment of about 1,000 undergraduate students, 200 graduate students and a full time faculty of approximately 55. The entire university has an enrollment of about 4,500 undergraduate and 1,000 graduate students. Its primary focus is on the traditional age college student (18-22 year old) and almost 75% of the students live on campus. The business school offers Bachelor of Science degrees in accounting, advertising, computer information systems, entrepreneurship and small business management, finance, international business, management, and marketing and masters in business administration.

The faculty of the school were searching for a vehicle to provide an integrative theme to teaching the core business subjects of accounting, finance, international business, management and marketing. Their goal was to design a single, multi-credit course that would in a team taught delivery method, integrate the topics in such a fashion as to:

- Improve learning outcomes for these core courses
- Enhance student understanding of how these functional areas work together
- Streamline the topics taught in the core courses by eliminating redundancies
- Perfect a model that could replace the existing six stand alone core classes with a single, integrative course

The drivers for this faculty initiative include reaction to the general criticism that business schools have traditionally produced graduates who are too specialized. The concern that students lack the knowledge, methods and skills to make complex business decisions has motivated colleges and universities to integrate their curriculum (Behrman and Levin 1984). Additionally, AACSB's commitment to curriculum and pedagogical innovation has led colleges and universities to reexamine their curricula, often resulting in the development of integrated classroom experiences.

Case study data collection

The faculty who participated in the project were surveyed using structured interview questions to assess their experience in the delivery of this course. In addition, notes from faculty meetings conducted at the end of each semester were used to supplement this data. Student evaluations conducted at the end of each semester, as well as notes from student interviews conducted at the end of each semester by a faculty member not associated with the course were used to assess student reactions to the course.

Description of Course

Adventures in Entrepreneurship, is an integrated, entrepreneurially-focused, two semester 18 credit course designed to teach the fundamental skills of business and apply them to the entrepreneurial process. This sophomore level course is taught by a cross-disciplinary team of five faculty members drawn from each of the following base disciplines: accounting, finance,

international business, management, and marketing. The course meets for two consecutive 50 minute class sessions each Monday, Wednesday and Friday. This program currently serves as an alternative to the business core and therefore includes the required disciplines of accounting, management, finance, international business and marketing.

Students apply for the program in the spring semester of their freshman year. The faculty team selects students for the program based on a variety of factors including a one-paragraph statement of interest (what will you contribute to the program, what the program will contribute to your education), a faculty recommendation, fall semester GPA, and SAT scores. Faculty also try to select a diverse group of majors for the program. This is an honors program and is therefore limited to 30 students.

To help solidify their foundational skills and knowledge, students work in teams to prepare a comprehensive business plan for a campus based business. The business plan is completed in the fall semester. Students have the opportunity to launch and run their business through a spring semester practicum. Students are evaluated on the core concepts from the functional areas, their business plans, and in the spring semester, the success of their entrepreneurship project. Classroom instruction comprises lectures, speakers, discussions, workshops, and problem sessions. Students are evaluated on both individual and group/team assignments. A field trip to an entrepreneurial company is also part of the course.

The business plans must include an implementation plan that defines each individual or team's deliverables including time tables. The plan must show exactly how, when, and what will be done to bring the business to life. In the spring semester, a practicum is conducted that allows students to take responsibility for implementing a business plan. In doing so, students draw upon ideas and concepts they have learned in the classroom or from other life experiences. To be successful in the practicum, students need to create an organizational plan with clearly defined responsibilities and appropriate reporting mechanisms. The organization plan must address appropriate management, operational, marketing, finance, accounting, and international business concerns and include an assessment plan. The assessment plan must include individual and team criteria.

A post mortem assessment allows each student and student team to reflect on the successes and failures of the practicum. There are two key components of the post mortem. First, students must complete their portion of the individual and team assessments as defined in the organizational plan. The assessment is expected to be an honest evaluation of how well the student and/or his/her team fulfilled the responsibilities, timetables, and quality standards established in the organizational and implementation plans. It answers the question, to what degree did you fail to meet, meet, or exceed your duties and responsibilities. The second component of the post mortem is a written assessment of what the student would do differently if they had to repeat the practicum.

Exhibit 3 presents a team evaluation form. Essentially, the form allows each student to award points to their teammates based on meeting attendance, participation, completed work assignments, timeliness of work assignments, and enthusiasm. Points awarded by teammates become part of a students' practicum grade. This gives teams a tool to deal with free riders.

Exhibit 3 Team Evaluation Form

(type in your name)

	Evaluatee #1	Evaluatee #2	Evaluatee #3	Evaluatee #4	Evaluatee #5	YOURSELF
Evaluation item	Type in team member name	Type in team member name	Type in team member name	Type in team member name	Type in team member name	Type in your name
Prompt in attendance at team meetings.						
Delivered agreed-upon parts of project in a complete fashion						
Met deadlines.						
Volunteered appropriately during team meetings when tasks need to be accomplished.						
Pulled fair share with regard to overall workload.						
Showed enthusiastic and positive attitude about team activities and fellow team members						
Based on the points available for the team, I would "pay" this person _____ for his/her share of the team points. *See note below						

The last row asks you to "pay" your team members by distributing a set number of points among team members. For example, a 4-member team has 400 points and a 5-member team has 500 points. Include the points awarded to yourself in the bottom right cell.

The faculty team acts much like a board of directors. They are available for guidance and mentoring. They approve the organizational and implementation plans and assess how well the organization functioned over the semester. The learning outcomes for the program are summarized as follows:

1. Develop mastery of core concepts from each discipline
2. Develop an understanding and appreciation of how the functional areas work together
3. Develop an ability to work effectively in teams
4. Develop a business plan
5. Launch a campus-based, entrepreneurial venture (spring semester)
6. Personal development in the areas of creativity, critical thinking, planning, and implementation.

Faculty Selection

Each year the instructional team has been made up of full time faculty members from each of the five business disciplines. Faculty are asked to make a three year commitment to the course. However, in any given year, no more than three of the five faculty members have previously taught in the course. Although the faculty team, as a whole, has been committed to the integrated education, only one of its members actually self selected to teach in the course. Rather, faculty members have been asked by their respective department chairs to represent their departments.

Course Evolution

A key problem in the first year of the course was underestimating the complexity, time, and skill sets required to complete a business plan. As shown in Table 1, only two of the five instructors devoted a significant amount of class time to business plan issues. Nor did the faculty team provide a common template for the students to use in completing their business plans. As a result, students were frustrated with the gap between the amount class time devoted to and faculty expectations for the business plan. The problem was exacerbated by student confusion over whether to bring business plan questions to the classroom instructor or the subject matter expert.

In an attempt to address this issue, the following changes were made prior to the start of the second year of the course. First, all five student business plan teams were assigned a faculty mentor to assist them in completing their business plan. Second, more class time was devoted to the proper development of a business plan. Also, a common business plan template was provided along with a grading rubric for each element of the plan. Finally, the entire class and the faculty used the second class period on every other Friday to meet to discuss common issues and concerns about the business plans.

As a result of these changes, the quality of the student business plans improved in the second year. Despite improvement, several problems with the plans remained. First and foremost, the business plan ideas tended to be rather unrealistic. For example, one team proposed that their company would create a personal parachute for use in high rise evacuations but they proposed marketing it to small businesses in areas without buildings of the requisite height. Competitor analysis was weak, their ability to specify operational plans limited, and their financial projections overly optimistic. Their limited understanding of cost accounting was evidenced in one plan by the inclusion of oxygen as a production cost for an apparel product. This was attributed to the fact that oxygen was indeed a product cost in one of the finance cases. This observation by one of the faculty offers a good summation of the issues:

"I've had a chance to read the business plans, and it is obvious that the students put a lot of effort into the plans. While the teams made incredible strides from last fall, to me, the ending results do not really read like business plans. The problems range from writing skills to content and organization. Since I would ultimately like to have outside experts review the plans and provide feedback, I am reflecting on ways we can improve the finalized business plans."

To make the plans more relevant and tangible to the students, the following changes were made after year two. The development of the student business plan was accelerated. Instead of having the entire year to complete the plan, students were required to complete the plan by the end of the first semester. With the business plan completed in semester one, a three credit practicum was added to semester two. The key constraint on the business plans was that they had to have a realistic chance of being implemented during the practicum. This provided a grounding to student thinking and resulted in much more realistic and implementable business plans.

Actually implementing one of the business plans seemed pretty daunting to the faculty team. One of the faculty members expressed the general concern with the following:

How the heck are we going to limit the time and effort, let alone money, the students spend on this so called "business."

In an effort to address this concern and help ensure a successful experience the following boundary conditions were placed on the student plans. First, the business had to involve some aspect of the spring break experience. Moreover, the business being considered had to be closed by the conclusion of spring break (which occurred approximately half-way through the spring semester). Initial start-up capital was limited to \$750 and had to be repaid with interest by the end of operations. The concept had to be simple enough for students had to present detailed strategic and operations plan at the beginning of the second semester. Finally, the organizational hierarchy had to accommodate a peer evaluation system.

Although the faculty and students agree that the actual launch of the student business was extremely rewarding and successful, there were many problems. First, the university wasn't ready for this experience. The support structures on campus, from physical plant to accounting, did not treat the students as business people. On the first evening of business operations, one of the faculty received a frantic phone call from the student business CEO:

"Help! The grad student from the university accounting department has removed the cash card machine because he wants to go home and study for an exam. We now have no way to make non-cash sales."

One student summed it up well when she stated:

"no one ever seemed to figure out if we were a student club, a class, or a real business. We knew we wanted to be treated as a real business so it got extremely frustrating when we were treated as students."

Despite these problems, the implementation of the business had many positive outcomes. There was an obvious change in the students' behavior in terms of the way they dealt with each other and situations. They appeared to gain more independence and confidence. It was clear that students' understanding of business problems extended well beyond what was presented in lectures or textbooks. At the post-mortem for the business students continually referenced what

they could have and should have done to avoid some of the challenges they faced while operating the business. Two of the positive items consistently reported by the students were how well the functional teams worked together and the overall “bonding” they experienced. They repeatedly commented that although the program was demanding they felt that they benefited more than their counterparts in the traditional stand-alone courses. They felt they were seeing the “whole picture” and developing a better appreciation for the interrelationships among business disciplines. Students also developed independent problem-solving, human relations, and negotiating skills. One student commented that:

“I got to see how it all works together.”

In effect, the “learning by doing” format helped students translate tacit knowledge into explicit knowledge.

In each and every year of the course, students participate in a feedback session conducted by a faculty person not associated with the course. In each of these sessions, students overwhelmingly express positive views about their experiences in the course. The majority of students answered positively to the question “would you repeat this course” and recommend that other students take this class. There have even been two instances of younger siblings taking the course upon the recommendation of their older sibling!

Ongoing Student and Faculty Issues

Over the three years, faculty have noted several key problems and concerns. Most importantly, there has been an ongoing conflict between delivery of the entrepreneurial skills necessary to plan, create and launch the business and the requisite teaching of core discipline skills. This problem has been exacerbated by a concurrent push within the business school to adopt common examinations in all sections of core courses. Moreover, the pressure to “teach to the test” has varied by functional area, department and rank of the professor. For example, since the accounting and management instructors in year one were department heads, they avoided compliance without serious consequences. In comparison, the international business and marketing professors, both untenured, felt compelled to comply and thus put more emphasis on testable skills than on entrepreneurial skills. The issue has not been completely resolved.

Another problem is that students sometimes fail to connect elements of their business plans to certain discipline specific topics. Indeed, since most of the student plans are domestically oriented, the international business instructor has found it difficult to fully integrate her material into the business plan. In one year, all plans had their international business components as an appendix. No attempt was made to integrate these vital dimensions into the marketing, strategy or financial projections of their proposed companies.

The skill set emphasis required for the unique plans developed by these student entrepreneurs does not necessarily fit with a rigid set of pre-determined lecture notes. In one year, all of the student business plans were business to business enterprises. Nevertheless, the marketing professor emphasized business to consumer marketing in his business planning sessions.

This problem is partly the result of inadequate teaching materials. Discipline specific texts cover subject matter from a principles perspective, without connections to entrepreneurship or business plan development. Introductory entrepreneurship texts cover the relationship of management, finance, accounting, marketing and international business to entrepreneurship, but fail to cover enough of the discipline specific topics. The compromise reached for this course is to utilize field specific principles textbooks supplemented by a business planning book. This requires each faculty member to individually create the necessary bridges from their discipline to entrepreneurship. Ultimately, what appears to be needed is a new orientation to standard principles texts, one that reflects the entrepreneurial process. These texts should provide the ability to "drill deep" into a topic relevant to entrepreneurship and thus provide the student with more than a cursory knowledge of the field. Such text might use the excitement of entrepreneurship to engage students in what are typically considered to be arcane topics. For example, discounted cash flow may be more meaningful when you are actually paying back a loan.

A concern in many entrepreneurship classes is the difficulty a single faculty member faces in helping students transition from one component of the business plan to another. In our school, entrepreneurship faculty are experts in management, marketing, or strategy. None are experts in finance or accounting. Like many students, they tend to enjoy the early stages of business plan development. As a whole, they acknowledge at least some difficulty in helping students develop financial and accounting projections. Originally, the faculty team hoped to mitigate this problem by using subject matter experts to teach the finance and accounting portions of the business plan. However, this approach has not always been successful. In several cases, students have identified interesting and viable business opportunities. Their preliminary feasibility studies received high grades. Yet, even with opportunities for faculty help from subject matter experts, their final plans had inadequate financial and accounting projections. This has, at times, led to high levels of student frustration.

A final concern is that students perceive as unimportant those topics that are not directly related to either the business plan or the practicum. From the student's perspective, the business plan and its implementation are the most important feature of the course. Some topics, although not directly related to the business plan, are strongly emphasized by the faculty and receive corresponding weight in final grading. Nevertheless, students become extremely critical of course content they feel is irrelevant to their business plans. One student made the following comment:

"I don't understand why we are spending so much time going over human resource management. I don't see where that applies to the business plan my team is writing and it's a waste of time!"

Although the syllabus clearly notes that a relatively large amount of time and emphasis will be placed on learning time value of money techniques, another student made the following remarks about their finance instructor:

"I don't understand why he spends so much time on discounting when the business plan

only requires me to do a monthly cash budget.”

Student reactions

An additional concern for students is their ability to remain committed to and ultimately thrive in such a course. The very nature of a team taught, integrative, experiential intensive learning environment can and should present a challenge to students. The workload and performance expectations need to be clearly articulated and the selection process employed needs to be capable of distinguishing between those students who are interested because it would be "cool to run my own business" and those who understand and are willing to commit themselves to this demanding yet rewarding course.

Ongoing University Issues

Another continuing issue is the need for resources to support this type of initiative. Schools need to provide faculty with appropriate incentives in terms of financial and professional development to participate in this type of course. Subject matter experts may lack an entrepreneurship perspective. Schools need to assist them in acquiring this new skill set. Schools also need to recognize the challenge of team teaching and provide the appropriate course reductions. Finally, the university environment, both internal and external, needs to be supportive of student learning needs especially as it relates to the actual running of student businesses. Recognition of their business status and the appropriate expectations need to be present throughout the environment and not just with the teaching faculty.

Conclusion

This paper presents a case study of the key issues in implementing an innovative approach to entrepreneurship education. We differentiate between this course and traditional entrepreneurship education as well as typical approaches to teaching business fundamentals. We describe in detail the evolution of the course over a three year period, highlighting major changes implemented for the second and third years. Moreover, we identify through interviews of students and faculty, the key challenges and opportunities that remain. From the student and faculty feedback it appears obvious that while certain improvements need to be made and institutional resources increased, the course offers a unique educational experience.

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